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EFFECTIVENESS OF THE METRO AGRI-FOOD LIVING LAB FOR GENDER INCLUSIVE YOUTH ENTREPRENEURSHIP DEVELOPMENT IN KENYA

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Acronyms

ACIAR	Australian Center for International Agricultural Research
AMWIK	Association of Media Female in Kenya
COVID-19	Corona Virus Disease – 19
CULTIAF I	Cultivate Africa's Future Phase One
CULTIAF II	Cultivate Africa's Future Phase Two
FAO	Food and Agricultural Organization
FCI	Farm Concern International
GAME	Global Agribusiness Management & Entrepreneurship
ICIPE	International Centre of Insect Physiology and Ecology
IDRC	International Development Research Centre
ILO	International Labour Organization
IRB	Institute of Review Ethics
KCB	Kenya Commercial Bank
KEBS	Kenya Bureau of Standards
KNBS	Kenya National Bureau of Statistics
MALL	Metro Agri-Food Living Lab
MCA	Member of County Assembly
MOU	Memorandum of Understanding
NACOSTI	National Commission for Science Technology and Innovation
SACCO	Savings and Credit Cooperative
USIU-A	United States International University – Africa

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1. Executive Summary

USIU GAME Center sought to address the problem of youth unemployment applying its "Metro AgriFood Living Lab" (MALL) model which empowers the youth through knowledge transfer, financial access de-risking and impact assessment of interventions. The project scaled up Cultivate Africa's Future Phase I (CultiAF1) pilot project where training and business counselling significantly enhanced youth participation and investment in agribusiness. The scale up phase engaged 1,200 youth, in 9 County Governments in Kenya to participate in a rigorous evaluation that sought to understand the impact of entrepreneurial training, mentorship and linkage to finance in gender inclusive youth entrepreneurship development. The study set up randomized control trials testing effects of training, mentorship, and linkage to financing; the combined effect of interventions; and key business performance indicators. The research generated four key results as follows:

First, the project increased youth Agripreneur sales, employment and entrepreneurial resilience: Results showed that combining multiple interventions of training and mentorship over 18-month is more effective in increasing sales, employment and entrepreneurial resilience. For example, combining training and mentorship increased monthly sales by KES. 10,242 (CAD$ 117.787 or AUD$ 127.239) which could have been higher without COVID 19. Hence, an intervention with 1,000 youth will create KES. 10.2 million (CAD$ 117,304.08 or AUD$ 126,717.66) in sales. Secondly, combined training and mentorship increased the number of employees by 1 per youth entrepreneur, thus an intervention with 1000 youth will create 1,000 new jobs in the county. Thirdly entrepreneurial training led to improved business practices. For example, 25.7% of the youth registered their businesses; 28% of those trained acquired income tax Personal Identification Numbers - PIN (12% control); 9% registered their business name (6% control); and 9% obtained County Government licenses (5% control). Finally, combined training, mentorship and technology applications enhance resilience against catastrophic incidences including pandemics, destructive floods, and invasion by locusts. With COVID 19, 90% of entrepreneurs were not prepared, the customer base for project participants reduced to 69%, the average monthly sales for female significantly dropped by KES 34,360 (CAD$ 392.910/AUD$ 424.291) per month. However, the average monthly sales for male entrepreneurs increased by KES 55,937 (CAD$ 639.645/AUD$ 690.732). For example, when Ronald Keter, a poultry entrepreneur in Kericho was faced with competition from returning urbanites, he turned this into an opportunity by supplying them with one day old chicks as a new market niche for him. He also supplied them with traditional vegetables since returning urbanites preferred healthy diets. So instead of his business declining, it grew during the pandemic.

Secondly, the project enhanced Agribusiness resource mobilization among the male and female youth Agripreneurs: Most Agripreneurs were able to consider and access different available resources after taking the training modules on opportunity-based Agri-preneurial mind-set; resource mobilization and agribusiness finance; and agribusiness growth plan along with the development of their own business plans. For example, at both baseline and midline, most Agripreneurs used mobile money 85.7% at baseline and 91.5% at midline; followed by Bank Loans at 70.4% baseline and 81.3 at midline; SACCOs at 61.1% at baseline and 76.4 and midline and government grants at 48.4 at baseline and 59.2 at midline. Thus, capacity building did not only de-risk the Agripreneurs, but also pursuit of other resources made them attractive for linkages to financiers. This too influenced Nyandarua County's decision to give priority to their GAME Center Youth Agripreneurs in their Equity bank program. Finally, several Agripreneurs relied on non-financial assets such as land from parents; internet credit from GAME Center; equipment from county government (Milka Anyango

Abidha in Siaya received in-kind irrigation system -generator, pump, tanks and pipes); Samuel Irungu relied on a potato processing equipment set up by Nairobi County; and Ronald Keter in Kericho used a grant to expand into bamboo seedlings for enhancing riparian lands. Thus, by emphasizing resource mobilization instead of funding, the youth were more open to take advantage of available resources rather than only focusing on financing.

Thirdly, mainstreaming gender, from project design (recruitment ratios informed by phase 1, input from a team gender expert, and a rapid survey to inform on training materials, venues and mentorship mode), implementation (childcare support and facilities, and adequate female trainers and mentors for role modeling), and assessment (gender representation among respondents and in case studies), enhanced female participation, retention and improved agribusiness performance. In CultiAF 1, the affirmative action strategies resulted in 90% of entrepreneurs launching their agribusiness concepts with 60% launches being female. The enhancement of gender mainstreaming in this CultiAF 2 project improved female performance with female sales in treatment recording KES 16,491 (CAD 189.196/AUD 204.497) compared to KES 11,785 (CAD135.206/AUD146.140) for females in control group. Secondly, females in treatment group were more familiar with some of the resource mobilization strategies than males in the control group. This was in direct contrast to the baseline where females never used almost all resource mobilization strategies, suggesting that female mentees gained comparatively more from this intervention. Finally, females more regularly used forecasting at both baseline and midline than males. Therefore, purposefully mainstreaming gender by identifying needs of female Agripreneurs, applying affirmative action and including female trainers and mentors as role models enhances female participation and performance.

Finally, engaging policy makers enhanced scaling impact. Engaging policy makers and stakeholders is critical for project impact, scaling, and sustainability. First, we learned that engaging county governments and local stakeholders from inception to closure increases the level of scaling up and out. In Siaya county where the county officers were integral as part of their job deliverables, the county scaled to apply the MALL concept in their GIZ youth project. In Nyandarua County where agriculture officers intimately participated in the project, the county is now replicating the model with 10000 youth, prioritizing MALL Agripreneurs and invited GAME Center to help scale up. Also, three out of nine participating counties (33%) are seeking for support to scale up, and three organizations which participated in the project stakeholder workshop have approached GAME Center for scale up partnership. For example, the government's UWEZO Fund approached GAME Center to help replicate the de-risking strategy in their funding program; the Association of Media Female in Kenya (AMWIK) was interested in the gender mainstreaming model; and Signifide International was interested in scaling their matching platform. Engaging the youth in agribusiness builds a business case for their active participation in agricultural where the average age is 60 years. The Case study of Ronald Keter who quit his teaching job that paid him KES 54,000 in 2015 for Agribusiness with sales of KES 200,000 in 2017 is exemplary. Hence, engaging policy makers from design to completion increases chances of sustainability. Additionally, engaging the youth in Agribusiness improves their appreciation, productivity and resilience.

A key lesson learned was that Agripreneurs' foundational knowledge was a better predictor of knowledge transfer than the Agripreneurs' intentions. Based on the case studies, it was found that while most youth had the intention of applying their knowledge to value addition, the majority implemented new knowledge in record keeping and use of mobile technology. This was because

since most Agripreneurs already had foundational knowledge in record keeping and use of mobile technology, it was more natural for them to advance towards implementation of related learned features despite indicating their intentions towards value addition. The implication is that there is need to be aware of the stage and prior knowledge of participating entrepreneurs to help place them in the right level of training or cohort so they can build on their existing knowledge such as grouping them into beginning, middle or advanced level.

Overall, the critical MALL success intervention features are co-creation of training and mentorship materials with stakeholders; offering local context decentralized training with local trainers and mentors; continuous involvement of County and National Government; mainstreaming gender through affirmative action; swift adaptation to COVID-19 impacts; and entrepreneurs support to access and use technology.

2. Research Problem

The 2019 census revealed that out of the 13.7m youth, 5.3m (38.9%) are jobless. The ILO report on Global Employment trends for youth 2020 (International Labour Organization, 2021), indicates that only a minority of the youth continue to tertiary education (university, technical or vocational). But those who are ready to transition to work face extreme hardships finding meaningful employment. Hence, the youth in Africa are three times more likely to be unemployed than older adults, with the problem being worse amongst females. In 2005/06, youth unemployment (ages 15-19 at 25% and 20-24 at 24%) was higher than the overall unemployment (Brookings Institute, 2014). However, the 2009 unemployment rates among Kenya urban youths (20 – 24 years) were comparable for male and female at 13.6% and 12.6% respectively (Munga and Onsomu, 2014). Hence, for the National Economic and Social Council, unemployment in Kenya is an age group phenomenon. For example, between 2013-2017, employment for youth declined (Kenya Bureau of Statistics, 2017), risking turning the youth dividend into youth indigents, a recipe for criminal activities and social unrest.

Yet according to the Global Sustainable Development Goals (SDGs), goal 2 advocates for ending hunger with indicator 13 targeting yield gap, and 2.10 targeting agricultural diversity. Further, goal 5 advocates for gender equality with indicator 42 targeting wages, 5.1 targeting wage gap and 5.3 targeting incomes. Finally, goal 8 advocates for sustainable economic growth with indicator 56 targeting youth employment rate (Sustainable Development Solutions Network [SDSN], 2015). Similarly, Africa Agenda 2063 aspiration 1 calls for "a prosperous Africa" with goal 13 targeting Agriculture. Aspiration 6 calls for "relying on the potential of African people, especially female and youth" with goal 50 targeting female empowerment while goal 54 targeting youth empowerment. With respect to East African Community Vision 2050, goal 2 calls for enhanced agricultural productivity for food security; chapter 9 deals with cross cutting issues where section 9.4 focuses on gender and female empowerment while chapter ten, section 10.2 focuses on human capital development (education and training). Kenya's Vision 2030 economic pillar, section 3.3 focuses on Agriculture while the social pillar section 4.7 focuses on Gender and Youths. These are in line with the 2010 Kenya Constitution whose chapter 5 article 60 relates to land. Chapter 4 article 27 section 3 calls for right to equal opportunities for men and female and article 55 calls for affirmative action for youths. Finally, among "the big four" of the Kenya government is Food Security.

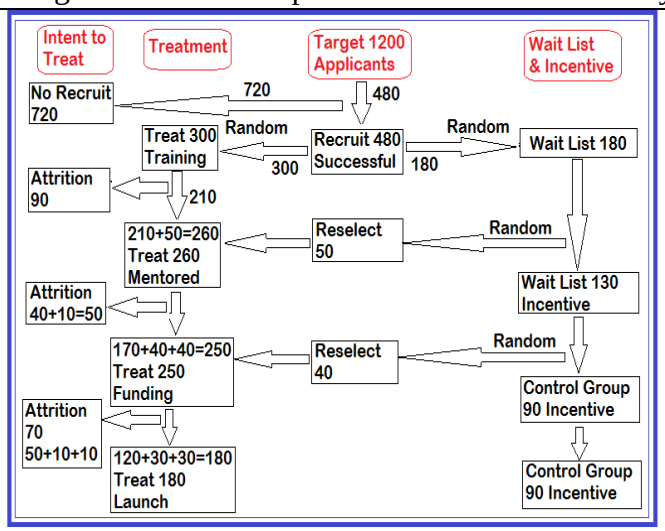
Interestingly, some studies indicate that in sub-Saharan Africa, the majority (60%) of agribusinesses are operated by female (Ben-Ari, 2014). Comparatively, the 2020 KNBS reported that there were 65.3% males in the labor force compared to (48%) females and that COVID 19 had rendered more female jobless compared to men as they work in jobs vulnerable to disruption, especially small businesses, agriculture, service and manufacturing. In addition, Kenya's urban population is soon approaching the level that makes it difficult to feed the massive urban populations in a sustainable way. Since the urban consumer values are widely diverse and selective, there is need for an innovative approach for Agri-Food entrepreneurs to develop a modern Agri-Food system that is sustainable, meets the needs of the diversified urban consumers and spurs business innovation that can address food security and curb unemployment. So where will these Agri-Food entrepreneurs get trained for these new skills and best practices? Or where can they find support for these processes?

The GAME Center at USIU-A's Metro Agri-Food Living Lab (MALL) model applies a field based action research approach where the entrepreneur's site serves as the lab for testing interventions. The model involves a rigorous survey and experimental randomized controlled trial (RCT) research that

aims to test interventions and co-create knowledge among researchers, mentors, entrepreneurs and other stakeholders to determine what works. The current MALL project was conceptualized to address the triplet problem of youth unemployment, food insecurity and gender inequality.

3. Progress towards Milestones

The research objective was to evaluate effectiveness of the Metro Agri-Food Living Lab for gender inclusive entrepreneurship development among the youth. This project constituted three phases of interventions – experiential learning, mentorship and access to finance – with a view to improving the entrepreneurial business sales, productivity and job creation among other indicators. The interventions involved technical business skills along with mentorship by experienced entrepreneurs, coupled with linkages to sources of credit financing. The training and mentorship interventions were expected to improve business knowledge, skills and attitudes so as to increase their sales, profits, diversification, quality, employment opportunities and commercial prowess of young men and female Agri-preneurs. The research applied a Randomized Control Trial (RCT) approach. The RCT compared entrepreneurs that received interventions with those who did not receive any. Given that all entrepreneurs went through a screening process; the programme could not deny access to value adding interventions in pursuit of evaluation accuracy. The RCT design is presented in figure 1.



Recruited 1200 youth (60% female) from 9 counties in Kenya out of which 480 were selected to join the program. Of these (300) were to randomly selected and trained, while 180 remained on the waitlist (control group). Of the cohort trained, 210 were randomly selected to participate in the mentorship program and joined by another 50 randomly selected from wait list. The funding phase targeted 250 applicants (170 trained and mentored, 40 trained without mentorship and 40 mentored but not trained). The formation of treatment and control arms facilitated comparison of the results.

Figure 1: Randomized Control Trial Flow Chart/Diagram Randomized Control Trial Flow Chart/Diagram

To build local capacity, 20 county-based mentors and trainers were trained to support the entrepreneurs, and better support female entrepreneur's engagement and retention in the project; they also worked with local youth officers to deliver eight course modules to the entrepreneurs.

3.1 Milestone 1: Awareness creation and establishment of project management structures: The project was launched on November 7, 2018 at USIU-Africa in Nairobi, Kenya. It was attended by 60 persons representing 16 organizations in the Agri-business space in East Africa (see the inception workshop report and sign-up sheet). The inception meeting was preceded by a 2-day workshop attended by USIU-A GAME Center, Busara Center for Behavioural Economics, Signified Group and IDRC. The output for this milestone was an inception workshop report (appendix 1).

3.2 Milestone 2: Development of tools and implementation plan: A communication strategy (appendix 2) and publication and dissemination strategy (appendix 3) were developed to guide communication of project milestones and technical findings respectively. To enhance monitoring and evaluation, an implementation plan (appendix 4) and project tracking workbook (appendix 5) were developed.

3.3 Milestone 3: Recruitment of youth entrepreneurs, Student Interns, Business Mentors, research officer and Faculty: A simple, friendly and gender considerate call for applications was done and circulated on the USIU-Africa website, social media platforms, and project partners. Sixteen information dissemination and youth recruitment workshops were conducted culminating to the recruitment of 1217 youth (62% male and 38% female) as stated in the recruitment report (appendix 6). After the initial screening, 490 youth entrepreneurs were selected to participate in the project. Twenty-two research interns (2 doctoral, 10 MBA and 10 Undergraduate Seniors), 18 project faculty, 18 mentors (6 female and 12 male), 12 county-based trainers (5 female and 7 male) and a research officer were recruited. A project onboarding and gender mainstreaming workshops were conducted (refer to annex 7; gender report). The project research team database (appendix 10) shows the qualifications, age and gender of the selected project team, partners and student interns.

4 Milestone 4: Design, develop and review training curriculum and materials: An entrepreneur workbook (appendix 11) and trainer reference booklet (appendix 12) were developed and peer reviewed. Manuals consisted of 9 modules: Agribusiness Simulation; Opportunity-based Agri-preneurial Mind-set; Agribusiness Value Chain, Marketing, & Triple Bottom Line; Resource Mobilization & Agribusiness Finance; ICT Application in Business; Business Values and Ethics; Agribusinesses Formalization & Registration; Business Model for Sustainable Agribusiness; and Agribusiness Growth Plan.

3.5 Milestone 5: Ethical Approval of the Research and Research Permit: The proposal was submitted and approved by the USIU-A's Institutional Review Board (IRB), and a research permit granted by the National Commission for Science and Technology (NACOSTI) (annex 8 IRB approval and 9 NACOSTI permit).

3.6 Milestone 6: Engage and train research interns: The 22 research interns were issued with their contracts and trained on data collection techniques, usage of technology in data collection and ethical issues in research amongst other things.

3.7 Milestone 7: Selection and Training of 300 entrepreneurs: Three hundred participants were randomly selected from a pool of 490 successful applicants. Decentralized training was conducted at the county level using experiential learning approaches namely: simulation, case study reviews, audio-visual presentation, learning games and role play. To enhance attendance of young mothers,

daycare centres were established in all the training venues. The training took 15 weeks, with monthly breaks to allow knowledge application and tracking of behaviour changes occasioned by the training as indicated in the training report (appendix 13).

3.8 Milestone 8: Mentorship: Three hundred and forty-six mentees (male and female) were selected to participate in a structured mentorship program (including 49 not trained). The mentees were matched with 18 mentors (6 females and 12 males). The mentors and mentees were provided with mentor and mentee manuals respectively and were assigned faculty supervisors who provided quality control on the process. Due to COVID 19, face to face mentorship was replaced by virtual mentorship. This was informed by a rapid online survey (appendix 24) that documented 100% and 94% approval rates by mentors and mentees respectively. Mentees completed their business growth plans after the mentorship sessions.

3.9 Milestone 9: Connecting entrepreneurs to funders: At inception, 6 potential funders were identified and their requirements for funding youth owned agribusinesses established and their input used to de-risk youth entrepreneurs in training and mentorship treatment groups. However, due to COVID-19 only one potential funder agreed to proceed with the arrangement. The potential funder conducted funding workshops with the youth and encouraged them to source finance. However, some entrepreneurs obtained funds from other sources indicating application of knowledge learnt in the resource mobilization module. For sustainability, the project contacted UWEZO fund (a government youth funding program) to support the youth.

3.10 Milestone 10: Pre-funding mentorship: Two hundred and sixteen (216) entrepreneurs (61% male, 39% female) were linked with the potential funder and taken through a pre-funding business workshop co-facilitated with the funder. At the time of this report, we had not ascertained the number of youth who got funding from this funder.

3.11 Milestone 11: Post financing activities: The linkage with financial institutions and county governments gave results before the end of the project. Equity Bank Kenya Limited, in partnership with Nyandarua County Government and Nyandarua Youth in Agribusiness Forum, launched a financial linkage programme for 10,000 youth Agripreneurs dubbed "Young Africa Works". The programme was to offer unsecured loans to youth in agribusiness while prioritizing those who participated in the MALL program.

3.12. Milestone 12: Knowledge Transfer: The entrepreneurs applied the knowledge that they learnt. The training component alone, had a modest impact while training followed by mentorship had significant impact on sales and employment creation. The knowledge transfer report (Appendix 14) indicate the most applied practice and skill as record keeping and acquisition of legal documents.

3.13. Milestone 13: Information exchange and dissemination: Monthly webinars were conducted to enhance peer to peer learning amongst the entrepreneurs. In addition, a virtual stakeholder roundtable forum was held in January 2021 and had 83 attendees representing 14 County Governments in Kenya. The presentation (Appendix 16) by highlighted the main findings of the research and prompted further programming with the County Government of Nyandarua, Association of Media Female in Kenya and the Signifide Group International. Lastly, a policy brief (Appendix 18) was developed and shared with the policymakers.

3.14. Milestone 14: Document the performance of youth agribusinesses: In partnership with WrenMedia and journalists from three National Media Houses, case studies (Appendix 17) of 9 entrepreneurs were documented. These case studies inform lessons on resilience and agility.

3.15 Milestone 15: Embed the capacity building model within the USIU-Africa degree and GAME Center's short courses curriculums for sustainability: Following the lessons learnt, USIU-Africa has incorporated in its 2021-2026 strategic plan a proposal to start an undergraduate degree program in Agribusiness. Moreover, the training materials developed are currently being used in the training of short executive courses in agribusiness.

3 Synthesis of Research Results to Date

This research strived to not only assess the envisaged business growth, creation of job opportunities, and sustainable Agri-Food Systems, but in light of the COVID 19 pandemic, to assess the resilience of agribusiness entrepreneurs. From a scientific perspective and based on the final research data analysis report (appendix 23), the contribution of this research is that combined multiple interventions are more effective in increasing sales and job creation than separate individual interventions.

Objective 1: Enhance the capacity of male and female youth in Agri-food entrepreneurship through training, business mentorship and mentorship to enable them launch or build sustainable Agri-Food businesses.

Preparatory Activities: The project received 1,217 youth applicants (62% Male and 38% Female) through 16 recruitment drives in 9 counties. While the number of youth recruited exceeded expectations in Nyandarua, Bungoma, Kakamega and Nakuru; Nairobi and Siaya met expectations; Kiambu, Kericho and Kisumu did not meet the expectations. During the baseline and verification exercise, the government launched a new national identification system "Huduma Number" affecting availability of participants, especially females which required an affirmative action-based recruitment to a 55% female and 45% male ratio. Also, a baseline survey revealed most respondents preferred to be trained closer to home, especially females, hence search for venues and other related logistics.
Additionally, the project recruited 18 faculty/researchers, 18 county mentors and 12 county-based trainers. Faculty researchers developed training modules (entrepreneur workbook and trainer manual) including and carried out Kiambu and Nairobi training, and the TOTs for county- based trainers for county level training instead of training in Nairobi. All research personnel were trained on gender mainstreaming (see the gender report).

Training Activities: Out of the 1200 applicants, 490 qualifying applicants based on a set of criteria were selected. Out of the 490 equally qualified participants, a total of 300 were randomly selected by Busara, our research partner to participate in the training treatment. An experiential learning seminar approach was used. Some were trained at the GAME Center (Nairobi and Kiambu) while the rest were trained at respective county-sites. Training sessions were conducted sequentially to ensure consistency, and thus taking about 12 – 15 weeks. Different approaches such as simulation, case study

reviews, audio-visual presentation, learning games, individual and peer learning were used in transferring knowledge to the entrepreneurs for 8 hours per module. After one-month training session breaks, data was collected on knowledge transfer to identify pertinent behavioral changes resulting from training. Because of decentralization, the training phase extended beyond its schedule into November 2019, and therefore the mid line data collection to assess the impact of training done in February/March 2020 and analyzed by Busara, our research partner. More information about training can be accessed through the training report.

Mentorship Activities: Three hundred and forty-six mentees (male and female) inclusive of 49 from the waiting list were randomly selected to participate in the mentorship phase along with those surviving from the training phase. An expert faculty on mentorship was engaged to develop resource materials for mentorship which included mentor and mentee handbooks. Eighteen local county mentors who had more than 2-years' experience in running an agribusiness, successful practicing entrepreneurship, and able to offer a hands-off approach allowing mentees to make their own decisions were recruited. In addition, they had to commit to adherence to ethical standards required by the project, IDRC and USIU-Africa, especially on gender inclusivity.

Due to COVID 19, face to face mentorship was replaced by virtual mentorship. Hence, prior to commencement of the virtual mentorship phase, a rapid online survey was administered through emails, SMS and WhatsApp to mentors and mentees selected for mentorship treatment. The aim was to establish the feasibility of conducting virtual mentorship, considering the COVID 19 restrictions. All (100%) mentors and 94% mentees were open to alternative methods of conducting mentorship. The mentees rating for virtual mentorship channels were: by WhatsApp (87.6%), by Phone calls (80%), by SMS, (72%) and by Emails (64.4%), while mentors preferred by WhatsApp (50%), Phone calls (28%) and by Zoom, Google Class, SMS and Email (5% each). Sixteen percent of the mentees (9 females and 7 males) who were not open to alternative methods cited chances of fraud, technology breakdown or not being able to explain themselves in person. Consent was obtained from them to participate in mentorship through phone calls and SMS from mentors that they could trust.
The mentorship process was standardized. Mentors were paired with field supervisors and the faculty mentorship coach. The outputs for this milestone included a mentorship framework for mentors, a mentees' mentorship workbook, documented mentorship sessions and business growth plans.

Objective 2: Link male and female youth Agri-food entrepreneurs with potential funders to enable them secure funds to grow their businesses.

Unlike the capacity building (training and mentorship) intervention, the financing intervention was heavily affected by the COVID-19 pandemic making the findings inconclusive. At baseline, access to external funding was found to be the greatest challenge to scaling up businesses among the youth followed by market access, and availability of raw materials. Majority relied on their personal savings and funding from relatives, friends, and community welfare groups. Lack of collateral to access borrowed finance was also cited as a major challenge.

Preparatory Activities: The training intervention data revealed that the greatest challenge to scaling up businesses among the youth Agribusiness entrepreneurs was access to external funding followed by market access, and availability of raw materials. With respect to the types and distribution of respective funding sources, the majority relied on their personal savings for business financing and half of the entrepreneurs reported lack of security as a major challenge to raising funds. In addition, when the survey asked about the types of funding entrepreneurs were familiar with, mobile money was the most well-known source of funding compared to bank loans, table banking and Sacco's. Finally, entrepreneurs indicated they relied equally on family, relatives, and friends for resources followed by community welfare groups.

The COVID 19 Interruptions: With COVID 19 constraints having already delayed the project, it was even more challenging reaching out to financial institutions for discussions. Nonetheless, the project was able to hold discussions with Sumac Microfinance, Kenya Commercial Bank, Klientelle Microfinance, Equity Bank, Kenya Commercial Bank (KCB), and UNAITAS to identify a suitable financier. After KCB which had been selected with UNITAS postponed participation due to needed internal adjustments to COVID 19, UNAITAS was selected due to its flexibility to tailor-make their products to fit in with the entrepreneurs needs. The features of a Sacco in addition to our de-risking closely matched with our insights above, as an easier vehicle to ease youth entrepreneurs into the banking world. Registration workshops were held in Nairobi and Kisumu in October kicking off the financing phase. However, due to COVID 19, the field visit verifications were constrained, especially given the short period. It also turned out that due to miscommunication, the entrepreneurs were registering at branches close to them which were not differentiating them from regular customers.

Financier Linking Activities: A key milestone here was the selection of the financier. Based on the above insights (major challenge raising funds, familiarity with mobile money than bank loans, and reliance on family, relatives and friend's resources), and during the mentorship intervention, the research team recruited a faculty expert in finance to lead the search for the appropriate financier. Out of nine financial institutions that were contacted and consistently engaged during the study period, only UNITAS committed to funding the entrepreneurs. UNITAS held orientation workshops with 63 Youth Agripreneurs in Nairobi from Kiambu, Nakuru, Nyandarua and Nairobi Counties, and 161 Youth Agripreneurs in Kisumu from Kericho, Kisumu, Siaya, Kakamega and Bungoma counties. This too influenced Nyandarua County's decision to give priority to their GAME Center Youth Agripreneurs in their funding program through Equity bank. Informed by the resource mobilization module, several youth agripreneurs also sought for non-financial resources such as land from parents; internet/airtime credit from GAME Center; equipment from county government such as Milka Anyango Abidha in Siaya county who received an in-kind irrigation system (generator, pump, tanks and pipes); Samuel Irungu who relied on a potato processing equipment set up by Nairobi County; and Ronald Keter in Kericho who used a grant to expand into bamboo seedlings for enhancing riparian lands. Thus, by emphasizing resource mobilization instead of funding, the youth were more open to take advantage of available resources rather than focusing only on financing

Going Forward: Further efforts were made to link the youth with a government funding agency. The project plans to sort out how many were registered and verify their status to work out the way forward beyond the project. Interestingly, after our stakeholder meeting and presentation of our research, we were approached by UWEZO Fund, a Government of Kenya fund that promotes businesses and enterprises run by female, youth and persons with disability. The research team is now actively engaging them for partnership beyond the project. Key lessons learned from UNAITAS and UWEZO fund engagement were that besides coordination with the main office of the financing institutions, it is important to include branch representatives to enhance project awareness among branch staff, especially in turbulent times. And secondly, that project publicity can also attract attention of other stakeholders who might be looking for what the project is providing.

Objective 3: Conduct rigorous impact evaluation to determine effectiveness of training, mentorship, funding, gender and other select demographic factors respectively on successful business launch, job creation and food security.

Training Intervention Alone: Training led to increased awareness and attainment of business legal documents (11.6% in the trained group compared to 8.9% of the control group). The training on agribusiness **formalization and registration** had instant impact with greater results noted in acquisition of tax registration numbers (28% of those trained compared to 12% in the control group), acquisition of business names (9% of those trained compared to 6% in the control group) and acquisition of County Government licenses (9% of those trained compared to 5% in the control group). Further analysis indicated that men kept more records than female possibly because men were 14% more likely to engaged in multiple businesses. Female in the treatment group kept more records compared to their counterparts in the control group. Training on **Resource Mobilization** increased knowledge and awareness in funding sources amongst the youth entrepreneurs. For example, greater understanding on mobile money increased awareness amongst the trained group from 85.7% to 91.5%, bank loans (70.4% to 81.3%), SACCOs (61.4% to 76.4%) and government grants (48.4% to 50.2%). Comparatively, more females in the treatment group were more familiar with table banking, bank loans, SACCOs, equity and government grants than their male counterparts.

Training on the **entrepreneurial mindset** influenced the number of hours spent working. Males in the treatment group spent more time in their business compared to the control group. However, females in control group appeared to spend less time in the business than females in the control group. The research found that training alone had impact on business formalization and registration, record keeping, and resource mobilization (Figure 2).

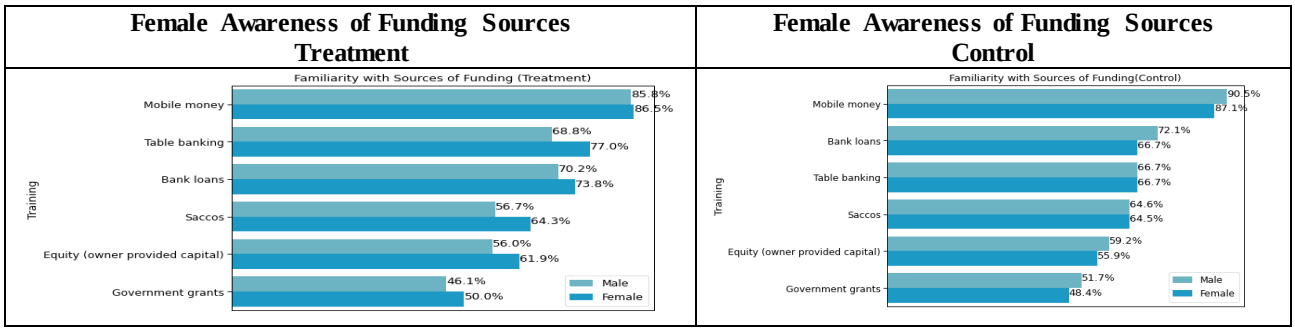


Figure 2: Treatment and Control Groups Female Awareness of Funding Sources

First, Agribusiness formalization and registration increased acquisition of business legal documents. It was found that training made a difference in all indicators, especially with acquisition of KRA PINs (28% treated versus 12% control), Business name (9% vs 6%) and County government license 9% vs 5%). Other forms of registration such as with Kenya Bureau of Standards (KEBS) would still need to be improved, which investors often look for when evaluating which businesses are ready for scaling. Future programmes will make business formalization a class assignment requirement, and/or bringing the registering entity to the entrepreneurship classes.

It is also important to note that training did have an effect on **record keeping,** among female, but the improvements were not comparable to men. The latter could be explained by the fact that men were also 14% more likely to claim to be simultaneously engaged in other businesses, hence requiring close monitoring. However, females in the treatment group kept more records than the females in the control group, but slightly behind men. These two factors suggest an element of learning by doing; either by themselves or learning from other business associates. Future mentorship programmes will therefore re-emphasize and push entrepreneurs, especially female to continually practice record keeping so as to make it an engrained practice.

Finally, training influenced **business sustainability** and the **entrepreneurial mindset** as measured in terms of the ratio of monthly sales used for personal expenses. The ratio for males in the treatment group was 9.5, compared to 16.3 in control group, meaning the control group tends to spend more of their monthly sales on personal expenses than the treatment group. However, there was little difference between females in treatment versus control group at 6.9 vs 6.1 respectively as shown in figure 3 below.

Ratio of monthly sales to personal expense by treatment group)		Ratio of monthly sales to personal expense by control group (KES)	
Male	Female	Male	Female
9.5	6.9	16.3	6.1
Male : t-test = -1.56 p value = 0.12		Female : t test =0.50 p value =0.62	

Table 1: Training Alone Ratio of Monthly Sales to Personal Expense

Impact of Mentorship Intervention Alone

Mentorship use of non-face to face contact was approved by all mentors and 94% of the mentees due to the prevalence of COVID-19. Mentorship led to significant impact on business valuation (68.7% of those mentored compared to 50% in the control group). Female in the treatment group reported a business value twice as much as their male counterparts in the control group. Female in treatment group outperformed men in the control group. While many in control group were familiar with multiple sources of funding, among those only mentored, female were most familiar with table banking, bank loans, and equity financing compared to men who were most familiar with mobile money, government grants and SACCOs. This contrasted with the baseline results where females were least familiar; suggesting that female mentees gained comparatively more from this intervention, and thus a more effective capacity building tool for females. In general, those mentored were less likely to cite common challenges entrepreneurs typically face; most notably in market access, customer acquisition, building business models and general business-related knowledge, implying fewer challenges for those mentored. Also, mentorship had a clear impact in encouraging business registration and record keeping. For the second midline data carried out about 2 months after mentorship, the research tested for the effect of mentorship alone by focusing on performance of entrepreneurs moved from the wait list (training control) to mentorship. The treatment group had more respondents being more familiar with mobile money, equity and bank loans with a large increase in both of these funding sources. For table banking there was a marginal increase between the treatment and control groups. On the overall, except for SACCOs and government grants, the treatment group was more familiar with all the funding sources than the control group as reflected in figure 4. In addition, females were more familiar with mobile money and equity where they surpassed males with a wider margin or bank loans and government grants where females were virtually in a tie with males. This compares to table banking and SACCOs where males surpassed females but with a narrow margin as in figure 4.

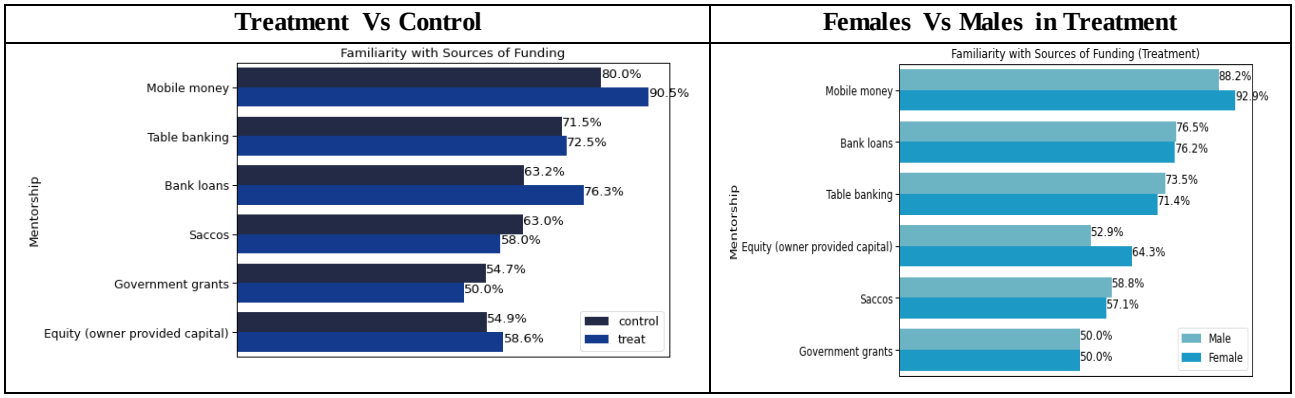


Figure 3: Familiarity with Funding Sources:

We noted that mentorship had an impact in encouraging **business registration.** Thus, except for the KRA PIN, where baseline was at 39.9% vs 28.4% at endline, there were improvements in all other records with County government licenses at 8.6% vs 25.5% at endline, Business name at 8.6% vs 23.1% at endline, public health certificate at 2% vs 12.5% at endline as well as company registration, TLB/NTSA License (Transportation) and NEMA certificate (environment).

For **record keeping**, mentorship intervention had a strong impact on females. For example, while during baseline males surpassed females in 10 categories with a virtual tie in customer names at 43.6% for females and 43.2 for males, during endline, females surpassed males in 7 out of 11 and in some cases with very wide margins such as cost of sales at 26.7 %males vs 52.9% females, customer names at 26.7% males vs 47.1% for females, and stocks on hand at 33.3% males vs 47.1% for females. Unlike the training alone intervention, mentorship alone had an effect on **business sustainability** and the **entrepreneurial mindset** mostly on females as measured in terms of the ratio of monthly sales used for personal expenses. The ratio for females in the treatment group was 51.0 compared to 123.7 in control group as shown in table 4 below, meaning the control group tended to spend more of their monthly sales on personal expenses than the treatment group.

Ratio of monthly sales to personal expense by treatment group)		Ratio of monthly sales to personal expense by control group (KES)	
Male	Female	Male	Female
24.1	51.0	17.7	123.7
Male : t-test = -0.09 p value = 0.93		Female : t test =0.59 p value =0.56	

Table 2: Mentorship Alone Ratio of Monthly Sales to Personal Expense

An interesting observation is that compared to the respective ratios at training and those at mentorship, the amount of income spend on personal expenses at mentorship was higher across the board. This could be explained by the fact that the mentorship period was during COVID 19 when most entrepreneurs were hesitant to reinvest into their businesses since the government had shut down most business activities.

Impact of Combined Training and Mentorship Interventions

When mentorship and training were combined, business valuation was higher for treatment at KES 191,446 (CAD 2,201.71/AUD 2,378.39) compared to control at KES181,903 (CAD 2,091.96/AUD 2,259.84). First, monthly sales for treatment group were higher for treatment group at KES 20,779 (CAD 238.967/AUD 258.144) compared to KES 19,357 (CAD 222.613/ AUD 240.478) for control group. This was more pronounced for female performance in treatment group compared to control.

Table 3: Business Performance

	Business Performance		**Business Formalization**		
	Sales	Work Hours	KRA PINs	Business Name	County License
Treatment	KES 6,491 (CAD 189.196/AUD 204.497)	39	28%	9%	9%
Control	KES 11,785 (CAD135.206/AUD146.140)	33	12%	6%	5%

Secondly, the weekly work hours for females in treatment were higher at 39 compared to 33 for female control group. Finally, the treatment group more regularly forecasted revenue at 58.4% compared to 50% control group. Also, more females in treatment group were more familiar with some of the resource mobilization strategies than even males in the control group. This was in direct contrast to the baseline where females never used almost all resource mobilization strategies, suggesting that female mentees gained comparatively more from this intervention. Finally, females more regularly used forecasting at both baseline and midline than males. Therefore, purposefully mainstreaming gender by identifying their needs,

applying affirmative action and including female trainers and mentors as role models enhances female participation and performance.

Table 4: Resource Mobilization

	Resource Mobilization			**Forecasting**	
	Table Banking	*Bank Loans*	*Equity*	*Baseline*	*End line*
Females	76.2%	67.9%	33.3%	29.7%	25.8%
Males	68.4%	61.9%	31.6%	25.6%	20.7%

The impact of training and mentorship can be seen as more youth became more aware of their human resource deficiency. Further, training and mentorship impacted on female reducing their challenges in lack of technical skills, business-related knowledge and regulatory issues as compared to their male counterparts It was noted that the difference in **business valuation** between treatment and control group was significant. Notable findings were that with respect to gender, the results seem to indicate better performance among males in the treatment than females in the treatment. This could insinuate that training and mentorship could have a positive impact on the values of businesses. Thus, combined training and mentorship had a significant impact on **business valuation** of the treatment group versus those in the control group who didn't receive these interventions. Most notable is that female in the treatment group reported values of their businesses to be twice as much as their counterparts in the control group and this was statistically significant with a p-value of 0.04.

The research also tested for performance impact with respect to **Monthly Sales** arising from a combined training and mentorship. While not significant, the results show that training and mentorship had an impact on sales where the treatment group had more sales than the control group. However, with respect to gender, improvement among females was significant between the females in treatment versus those in control group. With respect to **gender**, while the sales for males in treatment were at KES 27,254 which was almost at par with males in control group at KES 27,595, the females in treatment at KES 17,252 outperformed females in the control group at KES 14,450.
In terms of **resource mobilization**, there was no difference between combined training and mentorship treatment versus the control group. Both males in control and treatment groups kept records compared to females. Females kept legal documents regularity such as KRA PIN
The research also found that when training and mentorship were combined, males overtook females on familiarity with funding alternatives despite having outperformed males at baseline. Thus, while except for mobile banking, females outperformed males in all other alternatives at baseline, at endline, males outperformed females in all alternatives as shown in figure 5. This is interesting in that training alone resulted in better female performance, mentorship alone still had some females performing better in some alternatives but among those who had combined training and mentorship, females were outperformed across. This could mean some implications on the method of intervention whereby the training was face but the mentorship was virtual due to COVID 19.

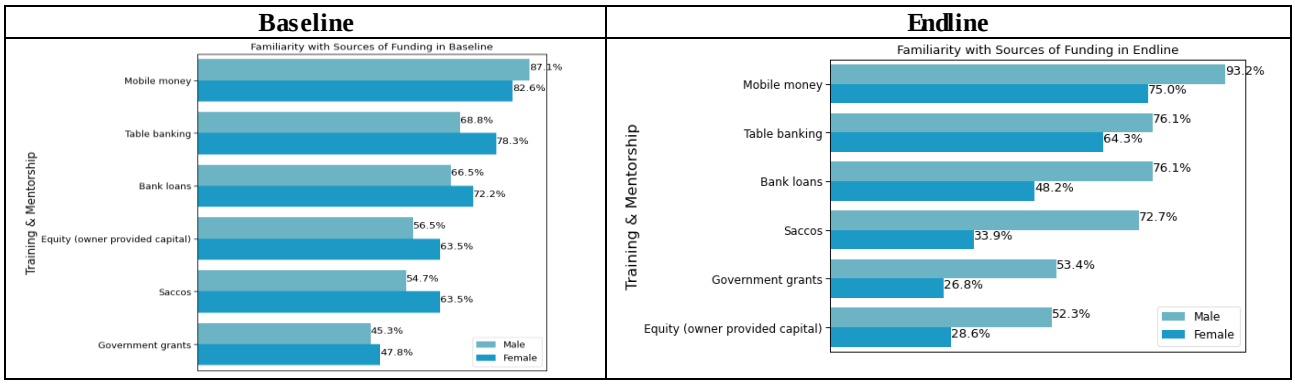


Figure 4: Combined Training and Mentorship Familiarity with Funding Alternatives

The same pattern was observed with types of records kept where while females outperformed males in several categories of record keeping types, at the end line, except for the records on goods sold and credit customers' records, the males outperformed the females as shown in figure 6. This too could have implications on the virtual mentorship as opposed to face to face training due to COVID 19.

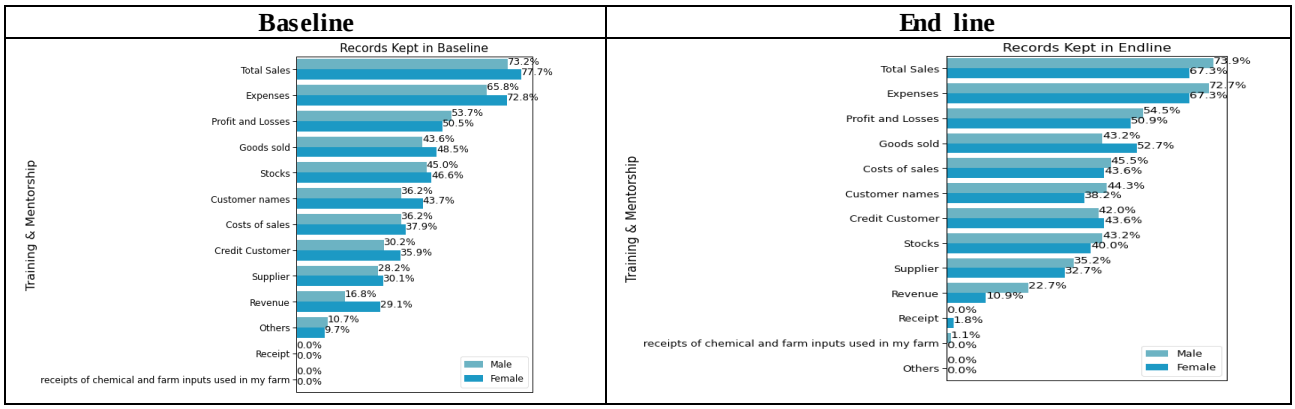
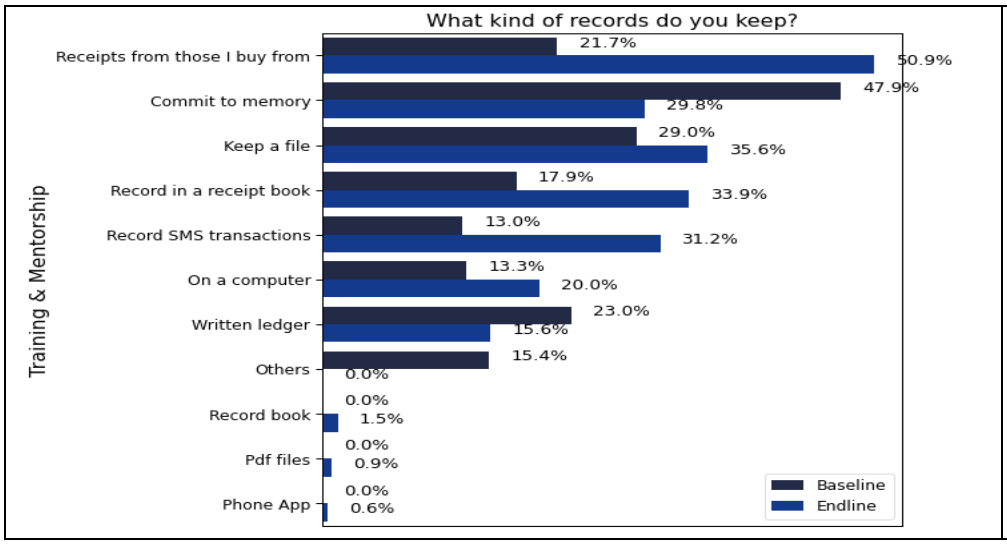


Figure 5: Combined Training and Mentorship types of records kept

When testing for **business sustainability and the entrepreneurial mindset** with respect to hours worked per week, females seem to have performed better than males. Males in the treatment group spent less hours in the business than males in the control group compared to females in the treatment group who seem to have spent more time in their business than the females in the control group.
Related to record keeping again, the research sought to understand how records are kept. The results are shown in figure 7



The results showed that except for keeping records in written ledger, there was improvement in all categories. It is also noticeable that at the end line, the percent of those committing records to memory declined from 47.9% to 29.8%.

Figure 6: Combined Training and Mentorship Kinds of Records Kept

Finally, with respect to training and mentorship, while the absence of funding and poor market access remain the biggest **challenge** faced by respondents, the impact of training and mentorship can be seen in terms of more businesses being more aware of their human resource deficiency and less about more commonly faced challenges relating to technical proficiency. Thus, training and mentorship intervention appeared to have an impacted female reducing the challenges faced by them in the areas such as lack of technical skills, lack of business related knowledge, poor business model and compliance and regulatory issues as opposed to their male counterparts

Objective 4: Engage policy makers to design, strengthen and (or) improve policy initiatives in addressing barriers to participation in training, gender, access to finance, youth disparities in business and enhancement of food security initiatives.

Policy makers were engaged from the onset to gain quick wins and build foundation for future engagements. Several lessons were learned from policy engagement. First, engaging county governments and local stakeholders (including local trainers and mentors, county extension workers, county governors) in project implementation at appropriate levels from inception to closure increases the level of scale up and out. Also, affirmative action in recruitment and retention for entrepreneurs, trainers and mentors enhances policies and practices in gender mainstreaming. Secondly, media engagement in documentation of impact enhances policy maker's appreciation of interventions, increases chances of scale up, and motivates other entrepreneurs to develop a "can do" attitude. Thirdly, more resources should be invested towards making the program to be user friendly for differently abled persons, such as conducting training in venues that are mobility friendly, producing brail instruction materials for the blind, and hiring interpreters for the hearing impaired. Overall, therefore, inclusion of county-based extension workers, local trainers, and local mentors; decentralization to local based training; and continued engagement of policy makers increases the potential for project sustainability through uptake by policy makers for scale up and out.

Resulting from stakeholder engagement processes, the GAME Center research team has been approached by, and is actively engaging partnerships with some stakeholders. First, UWEZO Fund,

a Government of Kenya fund that promotes businesses and enterprises run by female, youth and persons with disability wants us to scale up de-risking interventions to enhance success in financing. Secondly, the Association of Media Female in Kenya (AMWIK) wants us to conduct targeted trainings to female entrepreneurs to enhance participation in entrepreneurship. Finally, the County Governments of Bungoma, Kisumu and Nyandarua, expressed their commitments towards creation of funds and programs that support youth entrepreneurs. The County Government of Nyandarua sponsored an agricultural field visit and has since partnered with Equity Bank to offer funding for up to 10,000 youth with preference given to the USIU-Africa GAME Center program alumni.

Sample Case Studies

COVID 19 Resilience: As indicated earlier, while the majority of the youth tend to shun away from Agriculture, those who participate in agribusiness have found it to be more rewarding than they ever imagined. The Case study of Ronald Keter who quit his teaching job of KES 54,000 in 2015 for Agribusiness with sales of KES 200,000 in 2017 is exemplary., "As a teacher, I used to fear getting calls from my parents asking for financial support….now I don't, even though initially they thought I was mad to venture into Agribusiness". Agribusiness has allowed him to finance his graduate school education and build a 2-storey house in the village. For Ronald, neither COVID 19 was to have the last laugh. When confronted with zero sales due to COVID 19 along with competition in his chicken business from returning urbanites, he aggressively reached out to his customers to buy his stock, shifted into supplying one day chicks to his competitors, leading his monthly profits soaring to KES. 10,000 net after May 2020, and KES 30,000 by August 2020. He also cut his feed cost by developing his own formula and producing his own feed, buying a lot of maize during the surplus season to make feeds for storage; anticipated Christmas season by rearing to sell roosters; diversified by launching production of various types of traditional vegetables to sell to health conscious returning urbanites; produced a variety of seedlings; foreseeing emerging opportunities and applying for a government seedling program and increasing bamboo seedlings from 1000, then 10,000 and now working on 200,000 leading to formation of an environmental based company to handle the bamboo business value chain; scaling up the Community Based Organization (CBO) for empowering the youth and female, leading to becoming the supplier to his empowered trainees; relying more on social media for marketing where for every WhatsApp posting, he always got at least one sale; and printing posters to post at Agrovet shops.

Knowledge Transfer: Evelyne Okoth said, "Knowledge is a must", despite her deprived childhood and broken dreams "I'm shy in seminars…I don't want to speak". While Evelyne might have had intentions for formal education for formal employment, her outcomes not only differed from her intentions and moved her towards entrepreneurship but also transformed her into a Agripreneur mentor of other female. Along the way, Evelyne was invited with other upcoming Kenyan female agripreneurs to launch a seed bank in Uganda where she was selected as the best field assistant to travel to FAO headquarters in Italy to receive her award and make a speech to an international audience. Despite COVID 19 rendering her with a 65% average drop in income, she diversified into Watermelons, making door mats, and planting tree seedlings and leaped back again. Simply put, it

was more practical for her to build on the knowledge she had (Agripreneurship) than venture into opportunities she had no experience in, despite intending towards formal education and employment.

4 Synthesis towards AFS themes

This project contributed to several of the AFS themes in terms of increasing agricultural productivity (*Availability*); improving access to resources, and/or markets and income (*Accessibility*); improving nutrition (*Utilization*); and influencing the development and implementation of food security policies (*informing policy*). Besides training and mentorship to improve agricultural productivity and income, the project has linked the entrepreneurs to financiers, and mainstreamed ethical and gender values in business. Instead of simple productivity, we primarily emphasized entrepreneurship which differentiates from other models that often simply focus on improved management and production as is explained below.

- **Increasing Agricultural Productivity (Availability)**

The project contributed towards agribusiness resilience, increased sales, and led to youth employment. This was made possible by the combined effect of training and mentorship. Moreover, involvement of county-based trainers, mentors and policy makers ensures effective knowledge transfer on agricultural productivity to others beyond the scope of the project. The project's training and mentorship component enhanced the business skills of male and female youth entrepreneurs, giving them potential to increase business operations, efficiency, grow and develop enterprises in the agricultural sector. First, the project contributed towards new and improved agricultural solutions that increase food productivity through *training and mentorship* on increasing business operations and efficiency; Efficient use of time; Finding more accessible markets; and Value addition. Secondly, through *better risk-mitigation* for food security through our COVID Resilience surveys to rapidly generate information and feeding it back to policy makers, county extension workers, our county based mentors and trainers, and ultimately to our entrepreneurs. This included providing internet bundles for them to access markets, coping mechanisms, networking activities, webinars, mentorship/counselling. Similarly, our capacity building for de-risking the youth to be able to get funding; diversification and reducing dependency on one product; learning importance of social networks and knowledge about markets; getting other sources of funding e.g. family; and application of better practices. Thirdly, by *addressing gender specific constraints*, the project applied affirmative action to increase recruitment and retention of female participants by addressing the issue of childcare at training sites; informed by survey, moved training closer to the entrepreneurs; worked with county-based trainers and mentors; ensured a good mix of male and female county-based trainers and mentors. Finally, with respect to *contributing to environmental sustainability*, the project had an inbuilt module on triple bottom line to mind about profit, people and place and the values module infused corporate social responsibility values.

- **Improving Access to Resources, and/or Markets and Income (Accessibility)**

The project provided training and mentorship activities in resource mobilization, value addition, market access and provided linkages to potential funders. Further, the project enhanced networking for inputs and outputs to increase access to markets and higher incomes. To address bottlenecks and constraints for accessing finances, negotiations were opened with the government fund. First, some *modules of the Metro Agri-food Living Lab*, which were set up by the GAME Center at USIU-A, have been designed to engage entrepreneurs in resource mobilization and pitching their concepts to potential financiers and funders. The final stage of the program, was designed to engage potential financiers for the purpose of providing a financial link to the market place. For example, the majority started their business using personal funds (66.2%) followed by informal borrowing (20.8%) with almost no difference between gender. However, those very experienced than moderately experienced had a higher ability respectively to attract funds from informal borrowing, hence the need to enhancing financing. Specifically, to improve access to capacity building resources, the project used local mentors familiar with the local terrain to guide entrepreneurs to access markets and finances; reached out to extension workers especially in Siaya County to support entrepreneurs; and enhanced networking for inputs and outputs for products to increase access to markets and higher incomes. Secondly, to address bottlenecks and constraints for accessing finances, the project included a *linkage to financing intervention* along with a module on resource mobilization. In addition, the project was built on an entrepreneurial model and thus contributed to increased sales, improved income, created more jobs which meant additional income to make them attractive to financing, develop new markets and ultimately increased incomes. Similarly, creation of social network groups was expected to enhance access to group loans which so far Nyandarua County has undertaken.
Finally, to contribute to *successful partnership models*, the project worked with county governments, youth officers, extension workers and financial partners; it is networking with AMWIK to increase female participation and retention; and is partnering with Signifide to match the entrepreneurs with markets. These partnerships are expected to open up new market opportunities and increased income.

- **Informing Policy**

The project's results continue to inform policy in training, mentorship, financing, gender inclusivity, and ethical business practices at both the county and national government level.
Policy Implications: First, the project's *action-research component* (whose focus was on identifying a good cause, identifying an intervention, collecting baseline data, and comparing with midline and end-line data to assess impact and effectiveness) is key in gathering data that continue to inform policy in the areas of training, mentorship, financing, gender inclusivity, and ethical business practices at both the county and national government level. Secondly, the project developed *strategies and media briefs* on the same. Some of the activities demonstrating this engagement include: the hiring local trainers and mentors to build local capacity; involving county extension officers in the project; And engaging senior policy makers, involving the media for sensitization and hosting a stakeholder workshop to increase concept ownership within counties. Thirdly, the project created opportunities for scaling. Notably, the County Government of Nyandarua, used the results to upscale the model with 10000 youth and is using the results to reshape the agribusiness strategy. Other opportunities included; the reduction of post-harvest losses by use of silos; Siaya County building on the MALL model in their GIZ project and for subsequent youth projects; ICIPE-

INSFEED project using the MALL approach; and UWEZO fund and Signifide International interest in the project and ongoing strategizing

Policy Takeaways: Some of the key takeaways were that the research found that by training and mentoring a young person, you increase their monthly sales by approximately Ksh. 10,628 and enable them to employ one extra person in their agri-enterprise. A strategy of combining multiple interventions over a period of at least 18 months is more effective than single interventions. Therefore, if we scaled to target 10,000 young people, this model will generate an additional KES 106.3M and create 10,000 jobs. Secondly, a knowledge transfer analysis found that while modules in marketing, technology adoption, entrepreneurial mind-set and business registration were rated high, those that were frequently applied by the entrepreneurs were book keeping and technology (use of mobile phones). Prior knowledge or experience has strong influence on decision to apply and there is need to segregate participants according to their levels of knowledge and experience. Thirdly, the COVID-19 disruption of activities especially for entrepreneurs, was mostly negative impact on their businesses while provided an opportunity for researchers, primarily mentorship and financing. However, it gave as an opportunity to implement a supplementary project to learn about entrepreneurship resilience

Lessons Learned: The project learned that more resources should be invested towards making the program to be user friendly for differently-abled, this include conducting training in venues that are mobility friendly, producing brail instruction materials, and hiring interpreters for the hearing impaired. We also learned about significance of engaging county governments and local stakeholders in project implementation. Finally, we learned about the need for managing entrepreneur expectations and partner unexpected developments.

5 Project outputs

Project Reports: Both technical and financial reports were produced at respective interims and final.
Media Reports: In partnership with WrenMedia and journalists from Nation Media, People Daily, and the Star 10 media case studies of 9 entrepreneurs were develop.
Case Studies: A minimum of three case studies from each of the 9 counties or 27 case studies done.
Policy Brief: A policy brief was developed on COVID 19.
Graduate Students Thesis: 3 Masters student thesis (Kendi Ngusu, Joy Leboo and Edgar Ochieng) and one PhD student is currently working on the financing intervention of the project.
Research Papers: Three research papers under way for journal publications.
Virtual stakeholder Roundtable Forum: Held forum in January 2021 and was attended by 83 policy makers and practitioners from 14 County Governments. The presentation sensitized and prepared respective policy makers towards designing, strengthening, or improving policies. At the end of the event the GAME Center was tasked with: assisting Nyandarua County Government to develop a county specific agribusiness plan; partnering with Signfide Group International to upscale digital platforms for linking entrepreneurs with suppliers and customers and partnering with AMWIK to disseminate targeted trainings to female entrepreneurs.

6 Problems, Challenges Encountered and Actions Taken

Effects of COVID-19: The prevalence of COVID-19 pandemic presented specific challenges that were addressed through innovative approaches. Specifically:

- The university closed in March 2020 in line with the Government directives. The university had a robust Business Continuity Plan that was rolled out soon after. This however slowed the project activities due to the inability to access the office.
- The pandemic restricted the original intention to have face to face mentorship and business visitations. To address the problem, alternative approaches were used to reach the youth through virtual platforms.
- Eight of the nine financial institutions that we had contacted to finance the youth who went through the program could not continue with the arrangements as their priorities had been altered by the pandemic. One of the potential funders still continued with the arrangement and held two pre-funding workshops. The UWEZO fund was also approached to fund the youth who had been de-risked.

Recruitment of Young Female and Persons with Disability into the Program: Initial applications to the project disclosed significant gender differences to the disadvantage of young female in five of nine counties that participated in the study. A decision was made to give proportionate admission of the applicants into the program per county while maintaining affirmative action for gender representativeness. During recruitment the team noted that some of the participants were persons living with disability. While on the ground, the team had to select and use disability friendly venues and recruit interpreters to assist with those with hearing impairment.

Financial Risk: The project incurred financial loss during implementation of the project due to exchange rate volatilities. These losses were absorbed by the University.

7 Overall assessment and recommendations

Overall, the project achieved its intended objectives, generated, and exceeded the intended impacts in the training and mentorship interventions. However, the linkage to funding intervention was only partially achieved. The approach adopted by the IDRC project officers was collegial, cordial and hands on. This helped in the achievement of project and funder development objectives. The key recommendations are:

- Given the exemplified impact of training and mentorship, it will be plausible to scale up the model to support the youth and more female. The model can be reconsidered to include agribusinesses that have group ownership or operate on the cooperative society model.
- The model can be applied for a relatively longer time to allow measurement of long-term effects and project sustainability.
- The MALL model as tested through agribusinesses is simple to understand and easy to replicate. We recommend that the model be publicized for adoption in other areas of vocational training.
- The findings on the impact of linkage of youth to potential funders remain inconclusive. We recommend that tracer studies be undertaken to determine the long-term effect of funding on Gender Inclusive Youth Entrepreneurship Development in Kenya.
- MALL has considerable buy in from policy makers and other stakeholders. However, the policy makers and county governments do not have enhanced capacity to build on to the current work. We recommend further support to county governments to help them contextualize agribusiness strategies and engage more youth.

To enhance funding processes IDRC and ACIAR should consider:

a) Continue their hands-on approach. Our IDRC Project Officers were hands-on and worked closely with the project team (co-researchers). This was very helpful in redirecting, not only the project towards our objectives, but also funder objectives, and thus fit in with global developments. Also our work with WrenMedia provided visibility of the project leading to new partnerships and also helped us to improve on our communication approaches.

b) Reconsider the exchange rates implications. The exchange rates created a major unusual financial risk, especially from unexpected COVID-19 that made it hard to reconcile expenditures with disbursements, not to mention an earlier budget hit resulting from decentralized training. While several activities such as subsequent field verifications, international travel, field visits, and graduation ceremony, were cut to accommodate these two disturbances, due to prior committed expenditures, the project could not avoid a deficit. With respect to exchange volatility, we suggest consideration of creating a local currency account from which the grant money can be disbursed without worry of currency fluctuations. Finally, some interventions require time to document the effects. We suggest consideration of longer grace period after the end project to document more research results. For example, a typical report could be presented at the end of the project, but then funding could be made available for follow up data collection to update the full impact on the intervention.