

AGRIFIN ACCELERATE ANNUAL LEARNING EVENT



CONFERENCE LEARNINGS DECEMBER 2016

Opening Plenary



From left: Leesa Shrader - Mercy Corps, Olga Morawcznski - The MasterCard Foundation, Bitange Ndemo - ICT Expert

The MasterCard foundation believes that the development of digital financial services for smallholder farmers is the best opportunity to use data to help SHFs to become more financially included. The current digital financial services such as MPESA are not designed with the smallholder farmer in mind. There is an increasing need to shift focus towards reaching mass market.

Prof. Bitange Ndemo feels that there need to be significant changes in the external environment that will make will enable African smallholder famers to increase their productivity. Particularly:

- Increase the yield is usually associated with some policy action and this is what Africa need to focus on – how to build policies that encourage productivity
- Big data can help us understands important information to make famers more productive such as rainfall patterns and soil structure
- We also need to make farmers understand our recommendations i.e. communicate effectively
- Africa needs more weather stations
- We need to make broadband more affordable to increase the sharing of information
- We need to explore more opportunities at delayed consumption
- We need to leverage technology and scale income through intra-African trade in agriculture

CGAP: Introduction to Digital Credit

Discussion Points

Ways in which we can manage defaulters in developing a loan collections strategy

- Charge penalty fees
- Submit defaulters names to the Credit Reference Bureau
- Send regular sms reminders
- Seek reimbursement from their savings

Ways in which we can build incentives for good borrowers

- Increase their loan size/amount.
- Reduce the costs of credit (reduce interest rate)

It was agreed that banks are the ones who technically ‘own’ the clients within digital credits arrangements. Those in the space need to start critically thinking of how smallholder farmers will benefit from the increase access to digital credit.



Intoduction to Digital Credit Workshop Session

Facts and Figures

- MPESA: 75% of Kenyan are financially inclusive.
- Absence of reliable national ID system is an infrastructural challenge for the scale up of MSHWARI services in other countries like Tanzania
- Few using banks/bank services: 7% Tanzania, 15.9% Kenya, 10.6% Zambia
- Mobile money usage strong in Kenya and Tanzania but nascent in Zambia (7.2%)
- 80-90% of the information for small businesses is unstructured hence their limited access to digital credit services.
- Digital credit services are very expensive due to high interest

Outcomes

- Digital credit providers need to rethink on their price/fee charging strategy, current products look expensive
- There are a lot of initiatives that are underway that address the need for effective defaulters management, KCB for example sends trigger/reminder messages to clients who are showing signs of defaulting
- Client education about digital credits: Arifu has this content and are related education to clients
- Digital credit inclusion for smallholder farmers: Farm Drive are working on a mechanism to have smallholder farmers access reliable data that will enable them to gain access digital input loans
- Esoko: Are undertaking a study on how to increase smallholder farmer loan repayment, the study will finish in about a month
- MicroSave and KWF: are looking on the possibility of extending digital credit services to rural smallholder farmers

Technology Innovations and Due Diligence

Discussion Points

- Nascent emerging areas for the development of technology innovations include distribution chains, farmer cooperatives, trading platforms such as OLX. Other areas within the sector that are quickly developing are:
 - o Micro-insurance
 - o Digital lending such as M-Shwari, KCB M-Pesa
 - o Technology platforms using content to disseminate information to farmers can sometimes compromise DFS over and above agronomic practices
 - o Supply chain services – iProcure
 - o Trading platforms – OLX, MFarm

Technologies that can drive innovations:

- Big data and alternative data that involve building a scorecard and risk-free lending to smallholder farmers
- Blockchain platforms for example AgriLedger
- Cloud Computing - these are scalable and secure open source platforms
- Leveraging the Internet of Things (IoT) in farming to push areas such as irrigation and solar power)
- Low cost handsets especially smartphones
- Web and mobile apps

There also exist opportunities for tailored service while taking of advantage of interoperability of various financial services

Challenges faced when trying to implement a number of these strategies include:

- Building farmer trust, limited access to digital tools, high cost of some of the services and low digital literacy level
- At the provider level, the struggles include implementation of DFS, customization of Digital Financial Services for smallholder farmers



Technology Innovations and Due Diligence Workshop Session

- The AFA program works with Value Adding Services (VAS) companies and some of the lesson learnt from that are:
 - o Partnerships are key to creating impact (including between small VAS and large platform players)
 - o AFA plays a key role in: risk mitigation (strategic and partnership), offering farmer centric methods, enabling monitoring, evaluation and learning and feedback loops
- Learnings generated from engagement with Fintech Companies include:
 - o The main hurdle is operational and management gaps
 - o Start-up technology companies have challenges in that they rarely can afford CTO types
 - o Need for additional working capital to scale
 - o Reticent to work with larger companies
 - o Issue of IP and data ownership
- Learnings generated from Tech companies' Due Diligence activities:
 - o Data governance plays a crucial role
 - o People and skills (technology emphasis) are a key aspect in the organization
 - o Data security and privacy especially connectivity with partners
 - o Current systems and scalability
- Technology and product review (conducting due diligence)
 - o High level assessment of the technology company
 - o When conducting a due diligence, AFA in particular looks out for the Technology Organisation's: vision & mission, customers, products, governance, people, internal systems, application designs used e.g. HCD, application development, testing, scalability, application integrations, security, sustainability and maintenance
- Investments in Tech companies
 - o (Village Capital) assesses organisations at the early stages looking at founders' and co-founders profiles, teams and their skills set and at financial projections
 - o Centum provides access to capital and access to skills. Looks at 4Ps:
 - People (qualifications, skills, desire to work on the ideas being pursued)
 - Product (solving an actual problem that is scalable and hard to replicate)
 - Price of product/business at that point
 - Profitability (has to be sustainable and core also for Centum's strategy to get investments to Series A funding).
- How they deal with some of the challenges in conducting due diligence:
 - o Village capital takes entrepreneurs through an acceleration program (workshop) that helps sift the potential investments from less feasible investments. The striking aspects at initial stages is the people's personalities and interpersonal skills. This is the core for relationship building
 - o Centum considers the personalities of the founders and people's profiles in partnership formation emerging during initial 3 month program
 - o Ability for an entrepreneur to take feedback and constructively using it for business is a core strength
 - o Funders sometimes find tech entrepreneurs declining funding needs in favour of partnerships and access to funders' networks.
 - Approaches in identifying an investment target:
 - o Understanding whether a business model can be transitioned for example if liquidity and business plans don't match.
 - o Understanding market reactions after the product is put in the market is important

It is important to figure out early on issues to do with intellectual property, such as who owns the data, when it comes to digital financial services.

Considerations when obtaining buy-in from larger organisations on products developed by tech companies:

- C-Suit level's commitment needs to be engaged to ensure budget is available
- Start-ups face the challenge that some big players (E.g established banks) think that their solutions are not necessary
- Often helps to align solutions to what the big players look at and aim to obtain top-management commitment

Challenges in addressing scalability include a lack of understanding on the concept of scalability at the onset. Start-ups ought to understand and define scalability, stating number of targeted users, profitability required.

Red flags to keep in mind for investors in tech companies:

- How often Tech start-ups attend events vs. work actively in their businesses (implies negatively if more time is spent in events), similarly, those focusing more on investment models over business models (companies creating value for investors instead of creating value for business is a red flag)
- Technical due diligence is critical for investors. People doing technical due diligence should be very experienced as they will pick up on aspects that the entrepreneur missed and they also serve as individuals who offer capacity building to tech companies due to their understanding of such businesses
- Understanding of the problem being solved, engagement of one person vs. team work, revenues streams planned
- Establish aim of engagement – looking for funding or partnership?

Facts and Figures

- MCF working with 9 Value- Added service companies (5 VAS companies in AFA programme)

Outcomes

- Mismatch in size and power of tech start-ups and collaborating big players needs to be facilitated
- Investors and tech companies should aim at short term engagement at the onset before pursuing long-term engagements.
- Tech start-ups should aim for buy-in from top management and subsequent buy-in and engagement of operational staff for ease and actualisation of partnerships (Chama Soft forged partnership with Equity bank which was willing to work with tech companies. Board level and CEO approvals preceded formation of an operational team to manage the relationship)
- Engage technical experts to conduct due diligence activities. They help identify potential loop holes and provide solutions while advising the tech companies.

Digital Financial Services: Farmer Frontiers

Discussion Points

Challenges in the space:

- Umati Capital: cost of capital; availability of capital; client awareness
- Kiva: balance supply and demand; encouraging MFI partners to develop innovative credit programs; balance impact, scale, risk and quality
- Facts: risk share mechanisms (limited collateral); business development services for clients to grow; securing partner investment in their IT platform
- M-KOPA: awareness and education; new products and partnerships
- ACRE: communication with clients about insurance



Digital Financial Services Workshop Session

When creating Digital Financial Products for smallholder farmers, companies need to be cognizant that:

- Products need to solve an actual need that farmers find important
- Finding the right channels for products is key
- How to help agribusinesses grow given that lack of collateral for finance is a key issue
- Customizing existing products for agriculture clients is key
- Finding a good ratio of managers to agents and having a good incentive structure in place is important for customer acquisition (and keeping these costs low)
- Having introductory products that can deliver immediate solutions to farmer's problems can help drive customer adoption
- Balancing digital with human connection is important when thinking about marketing and adoption
- Give equal attention to supply side players, particularly when looking at input finance which is one of the most difficult areas of agriculture finance; need to find a credit model that works for these organizations; some start-ups are starting to look at this space
- How do you deal with insurance with the effects of climate change? Insurance products have a dynamic start date and are based on actual rainfall; usually, the season is deemed to start after certain amount of rainfall has fallen
- Data is enabling solution providers to see what customers want and what their appetites for change are

The biggest takeaways are:

- In designing a product: must meet an actual need; must also allow client to leverage any collateral they own. Data analytics can also help improve product design by seeing what both lenders and borrowers are looking for. A lot of the time it isn't about developing new products but customizing for the needs of the farmers
- Cost of customer acquisition: commission/agent model has worked well for mKopa, requires that you get the right incentive structure in place as well as having right mix between manager and agents. Using cooperative or SACCO model also good because you can talk to a lot of farmers at once, rather than having to speak to individuals
- Limited financing for retailers of inputs: Difficult to apply existing credit underwriting models. Input finance is the most difficult area to get into because there is a lot of risk at this level in guaranteeing repayment

- How do you support behavior change to increase uptake: client needs to be forefront. Data is allowing us to start to see what customers want → it can show what people are demanding the most

Outcomes

- Umati is starting to process payments; partnering with CitiBank; piloting web mobile payments and savings system
- M-KOPA launching solar asset-based model for agriculture inputs (Kenya and Tanzania)
- Umati have received 500k from AGRA to help build client awareness
- KIVA can lend up to 50% of the equity base for non-financial institutions (like agriculture)
- ACRE is layering ground data to try and improve the quality of the weather information they're receiving

Contract Farming: Going Digital?

Discussion Points

- We should broaden our scope and look at contract farming as supply chain management
- Real time information is a big issue in supply chain management as almost every individual in the value chain would like to know how their product is fairing at a particular time
- Supply chain financing is also a challenge –and yet a big need as more farmer need working capital to sustain their productivity
- Side-selling is a big challenge that threatens to compromise contract farming by reducing the level of trust
- Within contract farming, there needs to be ways to empower the farmer so that they engage with the middle man to get the best out of it
- Weather information is increasingly important in helping smallholder farmers plan out their production cycle and predict yield
- There is an increasing worry in the growing level of fraud and lack of compliance especially within production of adhering to international guidelines of exporting products
- The responsibility in a contract farming for supplying inputs should also lie with the with the buyer – come up with innovative ways to support financing
- Solution providers need to ensure that they are crowing in the right people to ensure that financing is an option for SHF for the long-term, banks might not be the best bet in all situations
- Contracting farming players need to start looking ways in which they can use data to crowd in more funding. Currently, financing smallholder farmers is the biggest problem – with the right data, alternative lenders can lend more easily
- As the need for insurance for smallholder farmers increases, we need to find ways to address moral hazard, non-payment, that is become more prevalent in the sector

Outcomes

- Digitization helps create trust when used consistently
- Farmforce helps curb side selling
- Insurance is a tricky yet effective instrument to increase productivity
- Consider alternative lenders – some private companies have resorted to taking loans on behalf of the farmers
- There could be a benefit of mixing input financing, immediate financing and supply-side financing to meet the customers' needs but we also have to relies most farmers have existing loans to pay
- An innovative approach would be to consider supply chain partnerships
- Challenges that solution providers might face when going digital is: acquiring real time data on the production process, value chain financing, overcoming trust issues from farmers, side-selling, quality assurance, transport and logistics, negotiations with farmers and visibility of partners in the contract, reliable weather information, market fraud and compliance etc.

Farmer Capability Lab: Ongoing Learning

Discussion Points

- How much can we standardize the information sent to smallholder farmers so we can avoid confusing them?
- To the success of building farmer capability, solution providers need to device the most effective ways of communication to the customers
- Freemium and Premium models don't work for farmer capability building organizations
- Capability building would only work if there are linkages to banks and other financial institutions as more and more farmers need faster access to financial services
- A key question is how to empower the farmers to make the choice of content they want disseminated out to them
- Disseminating information alone is not enough, more effort needs to be put in place in order to increase their knowledge resulting in a change of attitude and later, change in practice
- Different users have different needs, how then can content be tailored to address the needs of the different market segments?
- How else can data collected by the different platforms be used to aid the SHF?
- Can capability building platforms be used to accelerate the process of market aggregation?



Farmer Capability Lab Workshop Session

The Rockefeller Foundation believes that to improve/promote well-being farmers, one would need to:

- Build trust on the data usage
- Align all relevant data in use
- Learn how to use the data correctly so we can improve human life
- Learn how to integrate the data system
- Speed the data dissemination process for greater long-term effects

Outcomes

- Farmers should be involved in the process of making content/information to be used by them in improving productivity and income
- When sending/ delivering content to the farmers we have to try and make it realistic and focus on the diversity of the difference/multiple users of sources of information like TV, radio and applications

Market Access

Discussion points

Some of the challenges that solution providers faces when trying to assist farmers bring their product to market are:

- Trust – most of the time farmers perceive anyone approaching them as a broker
- Technology – can work as an enabler but puts a distance between you and the farmer, you have to build a level of trust so that farmers can also trust the tech
- The balance between having technology and having actual people - there is still a capacity issue in terms of usage of technology and smart phones
- Behavior change – maize farmers are unlikely to change because they all think they're doing it right as opposed to other farmers



Market Access Workshop Session

Facts and figures

- TruTrade seeing 16-17% income increase in farmers
- Twiga's system has wastage of 1-6% now compared to average market wastage of 20% - 30% in Kenya (wastage reduced as Twiga controls much of the transportation and storage as opposed to the lenders)
- Bananas are the most popular produce product and also the one with the lowest margins and the most difficult to handle
- Twiga have departments 5-10 km from vendors and this helps reduce distribution costs
- OLX - 30% of agriculture products were sold within 7 days on their platform, those not sold are due to large distances between buyer and seller. 1000 farmers registered within 2 weeks of radio advertisements on inputs being sold

Outcomes

OLX is trying to use tech to predict prices because price fluctuation has been the biggest challenge for them in going digital

Challenges

- Finding the right medium for content delivery
- Building trust with farmers
- Buying direct from farmers
- Making timely payments, particularly within 48 hours

The particular insights and challenges for each panelists was:

- TruTrade: are dealing with transaction security challenges, fair prices, reliable markets, sourcing service for buyers, score-online platforms, having transparent fees and transaction costs and the fact that a limited number of farmers can use a digital tool for negotiation
- Twiga foods: are developing a data management system that will help in collection of batches of produce while being sensitive to daily price fluctuations. Some challenges while doing this include; building trust, broadband and data access penetration and the broker system most often favours the broker over the farmers
- Syngenta: they have cold stores and engage in produce aggregation with Techno serve, they also have a platform for virtual aggregation of farmer group leaders and partner with Arifu to provide training
- Success of the technology will most likely be based on: its ability to offer bundled solutions, a thriving business model and its ability to provide scalable solutions
- Barriers to scale: security, convenience, access to distribution, have the right team, expansion, budget availability of employees, tech sustainability and API
- Important notes when judging an application system is looking at: its ability to focus, ability to understand markets, its business case and its founding team

Outcomes

When building an application, concentrate on the investor model instead of focusing on the business model

Credit Scoring Panel and Practice

- Alternative data is starting to become a viable source of credit scoring data and this can include a variety of information environmental information to weather pattern data
- The notion of one size fits all for modelling a credit scoring tool is outdated – it should be more dynamic
- The cost of data that is being collected when modelling a credit scoring tool is a big consideration – it should not be more than the cost of operation
- Always important to give context to the data especially when modelling
- Solution providers in the space are starting to consider the viability of network data like peer-reviewed loan as a basis in credit scoring modelling
- One thing that would make credit scoring easier is indexing of data, especially when done by credit bureaus
- A lot of issues lending challenges, when it comes to smallholder farmers can be addressed by product design, specifically how designing the right incentives can ease the repayment process as done with m-kopa
- It's important to start thinking about how to bring in other parties like insurance providers to create more dynamic products and to ease the lending process
- Studying the whole value chain will be expensive but very valuable in making lending decisions, however, sometimes over complexity of data can be a very expensive to the effectiveness of the application
- Every institution in the space acts like a laboratory where they try to find the perfect mix of alternative data and to mainstream data, the biggest being trying to understand what kind of data you can use for creating your products

Farmer Protection in a Digital World

Discussion Points

- CGAP highlighted the need to use agents as part of the solution to consumer protection. Mistrust generated by mobile money agents who practice mystery shopping (withdrawing more than what the client had intended to withdraw)
- CGAP works with “Wing” in Cambodia – that deals in peer to peer Agent malpractice assessment and agents are incentivized through commissions
- Fraud in digital systems diminishes trust among its users and increases levels of inactivity, on the other hand, increasing levels of over the counter transactions.
- To address digital risks, players in the sector need to:
 - o Ensure reliable payments
 - o Improve communication
 - o Monitor and adjust as needed
- If the people do not trust your service, they will not sign up and they will turn away from the entire digital ecosystem.
- Yahoo!: Almost 500 Million accounts might have been compromised by illegal/ unsolicited access to user data. It is not good news for competitors such as Google as it has consequences in the ecosystem. The process for recourse is long and tedious and while there are some issues that can be resolved by the clients directly, they are usually denied access to any data in order to solve such problems
- What does informed consent look like to illiterate clients/customers when they have never seen terms and conditions in their entire lives?
 - › Google uses content flows to assess the learning of the clients and obtain consent for services/ options
 - › Informed consent from customers flows as a learning tool for organizations
 - › Use of videos to display the terms and conditions
- Everyone is data hungry for customizing services to the users
- African government systems are too fragmented and trust is weak. In Estonia, a digital signature and encryption tools are used and trustedFor organizations that run on SMS platforms to deliver services e.g. Arifu, there has been little progress on how to present terms and conditions in a way that will make it brief, easy to read and understand by the users.
- For innovators, too much choice in systems is bad (builds complications)



Farmer Protection Workshop Session

Facts and Figures

- The current household in Mobile credit debt is KES 907 Billion
- Most millennials (youth born in 2000+) give their data freely without question
- Google is working on an easier way of setting applications and making configurations to better suit the user
- In May 2018, a law will come into effect which will dictate that companies holding data will need to re-vamp how they interact with users
- There are standards that need to be adhered to which involves clearly informing the client what data is collected and to be kept for the period that it will be needed for, before it is deleted forever.
- In an emergency data protection is usually not considered

Outcomes

- Artificial Intelligence and Arifu's tools are used to assist the users in accessing content
- Google encourages its users to make use of HTTPS, use of encryption tools, and placing monitoring systems to prevent fraud and for the security needs of information sent over the internet
- Algorithms are not solely reliable as a decision-making tool but a human being must be assisted by the algorithms to make proper decisions.
- Organizations are encouraged to always monitor and adjust their processes.
- Mobile education and chatbots can be used to enhance the levels of client protection

Distribution Channels: Building Touchpoints for Farmers

Discussion Points

- Historically subsidies were used to distribute inputs but this is changing with farmers purchasing directly from agro-dealers. Often, the education of farmers will determine what types of distribution methods they will use. One distribution models that has worked includes using one main stock point (Coopers has 13 stock points across Kenya) where they can provide volume discounts. Coop bank has been aggressive in their drive for different touchpoints besides ATMs and branches – and has been building agency platforms as it is more cost effective.
- Digitizing the distribution process requires behavior change and this is opposed by some people (it improves transparency which a lot of people don't want). Often there is a limited value proposition for rural merchants to take cash digitally, for example they would need different terminals to make payments to different banks and providing terminals is a high cost. Agents are conservative too – USSD processes are often difficult to use and can time out, the process needs to be value accredited for agents.
- How do you control prices / margins as it move down the distribution channel? Dictate price to distributor and dictate price that distributors can sell to agro-dealer. Remove the recommended retail price and have agro-dealers decide how much they sell for at competitive price
- Why isn't technology used by agro dealers? This could be due to: insufficient support and lack of understanding by agro-dealers on why electronic management is important (there was a lack of human-centered design in products developed).
- Opportunities exist to work with cooperatives. It is up to the agri-suppliers to work out how to work with the cooperatives and learn best practice in the use of products. Gatsby Foundation get groups of farmers together and offers training on products. Agri-businesses need to go out with them and market their products.
- The solution shouldn't solely focus on the suppliers but should also focus on bringing the demanders (the farmers) together.

Facts and Figures

- 8.7 million people engage in crops in Kenya
- Financial inclusion isn't enough if you aren't increasing productivity, incomes and resilience
- Coopers sells over 170 products to between 6,000 to 8,000 agro-dealers
- Coop banks has 8,000 agents. Coop agents do 80% of the bank's transaction (this is up from 40% 12 months ago). Mpesa has helped people understand and trust agents as people who are trustworthy.
- Coopers provides goods only on cash terms – can provide 7 day credit terms in some situations
- Mobile agents are a viable business. There is high agent turnover because of the high risk in the business – when agents “get hit” they have little financial buffer. The agents need support from those businesses who use them.

Outcomes

- FSP maps.com is a tool that shows all distribution points in multiple countries across SSA. Recommended to use to see where touchpoints exist
- Potential for Coop bank to provide financing solutions for Coopers in providing stock to distributors on credit
- Esoko could help overcome technology and digitization challenges with organizations such as Coopers

Transport and Mechanization

Discussion Points

A key point of innovation would be in understanding:

- How payments are made to the farmers and vendors
- How do solution providers maintain duality in delivery to the vendors looking at the long chain from the farmers to brokers to aggregation vendors?

Outcomes

- Twiga is working to include digital financial services to their payments made both to farmers and vendors
- Hello tractor is starting to operate in Kenya this week
- Hello tractors is partnering with Safaricom in Kenya to include payments via mpesa with their operations
- Hello tractor will also have an app to digitize where one can find a tractor so that booking agents and the small holder farmers access all the information in Kenya

Reaching Women and Youth: What Works?

Discussion Points

- Findings from BFA research in Kenya, Tanzania and Zambia indicated that women and Smallholder Agriculture have competing priorities, less decision making power
- Challenges and constraints in serving women SHFs: low decision making power, low collateral, less market access for most rural women as compared to urban, lower access to inputs
- Fewer female farmers using mobile money technologies as compared to men in Kenya, Tanzania and Zambia
- Youth (18-30) in agriculture are changing the dynamics they have a higher level of education, are attracted to value chains with lower production cycles, are eager to learn new techniques and are willing to take on complex ideas
- Young people think that a successful farmer is: TZ “Those who have land/resources by parents,” KE “Success involves diversifying out of agriculture” while the peri-urban youth think “they are” successful

- Internet access and usage still under 20% for the youth
- Kenyan women are industrious and majority of them found themselves as farmers. Repayment of loans by women is higher than by men.
- Youth farming is considered generally tricky/more challenging for the youth not considered as a first career option
- Digital financial services adds value to customers but may draw value from them and we need to bear in mind the client profile when designing a platform. Platforms must be simple and friendly. Digital financial services serve as a relief as traditional financial systems often remove women from their multiple roles. KWFT did a research and found that many rural women didn't have phones, they developed phones loan products before providing mobile money solutions.
- Part of the problem that relates to young smallholder farmers is that their parents are not encouraging of their turn to farming. This is due to:
 - o Farmers have seen the reality – income has been reducing over the years and wouldn't want their children to go through that.
 - o Agriculture has long been considered a poor man's occupation. The idea of social mobility is moving outside of agriculture as agriculture is based in rural areas. Parents want their kids to enhance status by getting a job in other sectors such as the business sector.
 - o Perceived highest returns. Parents will borrow money to invest in college fees but will not borrow to invest in their kids to run the farm.



Panel Discussion Session: Reaching Women and Youth Workshop

Facts and Figures

- 7% of female SHF use banks in Tanzania, 15.9% in Kenya, 10.6% in Zambia.
- Half the population comprise of women while 20-25% are house hold heads
- TZ 4%, KE 11.9% with bank accounts

Profile of Women Smallholders

- Backbone of labor force, but excluded from commercial value chains and decision making on household farm
- Less collateral (land), weaker linkages, lower access to inputs and information
- Few using banks/bank services: 7% Tanzania, 15.9% Kenya, 10.6% Zambia
- Mobile money usage strong in Kenya and Tanzania but nascent in Zambia (7.2%)

Profile of Youth Smallholders

- Tech savvy and more educated but limited land access and attracted to short production cycles; don't want to be a farmer for life – negative perception
- Few have bank accounts (4% Tanzania, 21% Kenya, 11.9% Zambia)

Outcomes

Opportunities for engagement with Women Farmers:

- Work with organisations that promote savings groups
- Use a HCD approach to find what women want
- Use value chains where women are highly engaged
- Mimic women group interactions in the digital space

How do we design for Women?

- Product design should aim for family oriented inclinations – which serves as an incentive
- Create voice messages – IVR in local languages
- Use story telling as a mode of communication – use of examples
- Leverage on simplicity
- Provide information when women are more relaxed such as on Sunday

Reaching the Youth:

- Youth groups, colleges, clubs from an attractive
- Non-ag events and gigs
- Inspirational characters,
- FSPs being proactive for youth
- Thinking of trends followed by

Opportunities for engagement with Youth/ designing for youth:

- Engagement during product development processes
- Improve the image of farmers
- Partnerships, with financial service providers with products in larger value chains
- Use inspirational role models
- Engage important stakeholders in their ecosystem – parents, teachers, etc

Client –Centered Product Design and Delivery

Discussion Points

- Extension services are slowly dying, and we need to find ways to innovate around them
- Need to collaborate between the design team and the other program implementers for the program success, such as business modeling, partnership building etc
- Design should be based on more than just need, it should look at behavior patterns and characteristics
- Everyone is trying to do this on their own (agri-oriented solutions) but we need more collaboration and not just words but people actually being willing to hit the ground
- We have to consider the farmers context, for example to rethink how we phrase things like risk averseness, as some farmers are considered risk averse yet they bet on Sport Pesa to consider content, one is a huge loss versus a huge risk
- It is important to build trust and aligning on the vision with the farmers before building the product



Client –Centered Product Design and Delivery Workshop Session

Closing Plenary

- The main contribution from the internet giants would be to bridge market gaps and increase and information access
- Big data for OLX is useful in helping them advice farmers what to buy, where to buy it and when and at what price
- Legitimization of good payment systems helps to scale digital financial services but farms still prefer cash (they still have a lot of mistrust), there is a need to build out the lending in these platforms



Closing Panel Discussion. From Left: Sieka Gatabaki - Moderator, Sean Krepp - Google, Naheed Hirji - Facebook, and Peter Ndiang'ui - OLX.

- Facebook is looking to become an added layer in which people can access digital financial services and can use rather than starting its own platform. They are already experimenting on peer to peer payments. And ways to create a healthy eco-system
- OLX looks at the bottom of the pyramid just like any markets, segmenting them on their needs rather than only their income
- A big challenge in making digital financial services widely available is finding ways to make mobile data more affordable
- Some of the biggest regulatory issues faced include: data pricing, data storage, internet shutdown
- The role of artificial intelligence (AI): AI has the potential to have a big impact on digital financial services but we are yet to discover how it directly impact smallholder farmers. One thin AI can do is help fin trends in weather patterns