Digital Platforms and Customer Centricity:

Fostering Adoption and Sustained Use of AgTech Solutions

March 2020

MEDA

IDRC | CRDI
International Development Research Centre
Centre de recherches pour le développement international

Canada

Acknowledgements

About INNOVATE

Contents

Acronyms

AFA – AgriFin Accelerate

CGAP – Consultative Group to Assist the Poor

CRM – Customer Relationship Management

CX – Customer Experience

DFID – UK Department for International Development

FSP – Financial Service Providers

GSMA – Global System for Mobile Communications Association

HCD – Human centered design

KPIs – Key Performance Indicators

MNOs – Mobile Network Operators

USSD – Unstructured Supplementary Service Data

UX – User Experience

Introduction

In recent years, the use of technology to drive agricultural innovation has accelerated at a rapid pace. As mobile phone infrastructure and accessibility expand, internet penetration increases, and connectivity improves worldwide, the use of technology to enhance farming activities via agriculture technologies – **AgTech** – continues to grow. While AgTech encompasses a range of technologies (from plant science to smart farm equipment), for this paper we focus more narrowly on digital software and hardware for agriculture. Mobile phones, mobile money services and digital technologies more broadly have the potential to reach vast numbers of rural customers, particularly smallholder farmers, by reducing the costs involved in servicing remote areas and lower-income customers. In addition to providing access to much-needed financing, digital technologies can deliver information to smallholders and promote linkages to quality inputs and markets, while at the same time reducing transaction costs.

Achieving gains in productivity for smallholder farmers, who rely on farming for food and income, has wide-reaching implications for the welfare of smallholders and their families, as well as for the food security of entire countries that rely on smallholders to produce the majority of food consumed. Despite the potential benefits of AgTech for smallholder farmers, examples of digital products that are successful in achieving long-term sustainability are rare. Challenges are still faced with technology adoption and use, including poor connectivity, low rates of mobile literacy, lack of access to phones (particularly smartphones), and products that are not adequately tailored to smallholders' specific needs and contexts.[1]

There is growing recognition that digital platforms, which bundle products together in order to provide a full range of services, are a promising avenue to engage with smallholders, offer value, and maximize impact as well as financial viability. There is also growing awareness that for interventions to be successful, providers in the AgTech sector must achieve a deep understanding of customers and the challenges they face through a focus on customer and user experiences (CX/UX).

In this paper, we examine the role of digital platforms and the importance of CX/UX to reach and serve smallholder farmers. Through a review of the literature and in-depth interviews with firms leading the development of digital platforms for smallholders and relevant ecosystem players, this paper examines lessons learned for improving customer experiences and fostering increased uptake and sustained use of AgTech innovations.
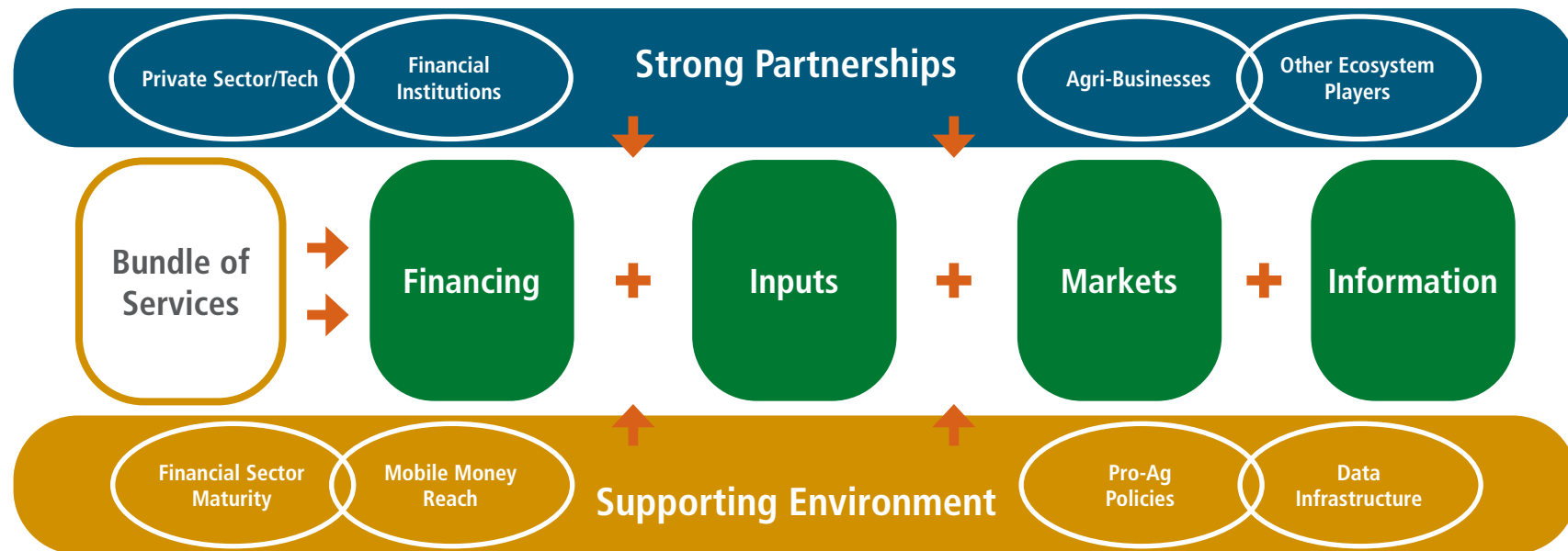
This paper is part of the INNOVATE learning series, which examines the role of customer centricity and product design for adoption of agricultural innovations by smallholder farmers.

---

[1]   Mattern & Tarazi, "DESIGNING DIGITAL FINANCIAL SERVICES FOR SMALLHOLDER FAMILIES. Lessons from Zimbabwe, Senegal, Rwanda, and Cambodia." CGAP, October 2015

1. Overview of Digital Agriculture Platforms

A number of innovators in the AgTech sector have launched digital platforms that serve farmers by bundling a range of products together to provide enhanced value and impact for farmers along the agricultural value chain, as well as to maximize economic viability. These platforms often combine digital financial services (i.e., credit and/or savings) with the digitization of other services, ranging from farming advice delivered via text or voice message to connecting farmers to quality inputs, buyers, markets, and/or other forms of information. This suite of services is generally made possible through leveraging the expertise and product offerings of multiple partners engaged with the platform. In a survey of digital platforms serving farmers, the World Bank's Agricultural Finance initiative (AgriFin) found that most of them are private sector initiatives that function best in the context of a strong supporting environment in terms of financial regulation, data infrastructure, and policies that foster innovation and support agriculture.[2]

Strong Partnerships

Private Sector/Tech • Financial Institutions • Agri-Businesses • Other Ecosystem Players

Bundle of Services → **Financing** + **Inputs** + **Markets** + **Information**

Supporting Environment

Financial Sector Maturity • Mobile Money Reach • Pro-Ag Policies • Data Infrastructure

---

2   The World Bank Group, "Digital Platforms as Facilitators of Financing along Agricultural Value Chains."

One such platform is *Agri-wallet*, a product by Dodore Kenya Limited, which aims to address a shortage of loans for smallholder farmers in Kenya. Without financing, farmers often lack the ability to purchase seeds, fertilizer, pesticides or crop insurance. Both farmers and agri-buyers participate in Agri-wallet, and the platform enables farmers to purchase high-quality seeds, fertilizer and other inputs by providing earmarked loans, which are transferred to a digital account. The loans are provided by Rabobank, a multinational banking and financial services institution with a focus on agriculture financing, and funds in these accounts can only be spent at participating stores. Funds therefore remain in the agricultural supply chain and cannot be diverted elsewhere. Farmers can also receive into the Agri-wallet and save funds within the Wallet as well. To qualify for larger loans, savings is a requirement. Agri-wallet uses blockchain technology, which is a type of cryptocurrency that has no value except in the agricultural supply chain. These accounts work with any mobile phone; they don't require a smartphone.

Another example comes from Musoni, a microfinance institution in Kenya. Musoni leverages technology to make their loan processes more efficient and customer-centric. Their agricultural loan product (Kilimo Booster) builds on the organization's high-touch customer service and all-around customer-centric processes and culture. If a Kilimo Booster loan is approved, the customer receives the funds in his or her mobile money account within 72 hours. Customers can also use Musoni's mobile platform to receive payment reminders and find information about their loans, which reduces physical visits to branch locations.[3]

Despite the potential benefits of digital platforms for smallholders, many digital initiatives for rural customers face challenges with uptake and sustained use. Rural segments are highly price sensitive, so models need to be very competitive on price - reaching scale is key for financial viability. Other barriers can involve low levels of financial and digital literacy, as well as mistrust of digital technology. Gender and other social norms, as well as dynamics of household decision-making, can also play a role in restricting access to technology and digital financial services for women smallholders.

To address these challenges, there is growing awareness of the importance of customer centricity in the design of digital technologies for smallholder farmers. The work of INNOVATE partners and others has shown that not all farmers are the same. Understanding smallholders' diverse needs and circumstances, and tailoring products and services to specific farmer segment types, is therefore key to fostering innovation adoption. Sustained use of a product or service can be enhanced through feedback loops that are designed to collect input and information from farmers on an ongoing basis and can foster a rapid response to farmers' changing needs and circumstances. Many models and approaches that have been developed in recent years to serve rural customers and smallholder farmers have placed a strong emphasis on the importance of achieving a better understanding of customer needs, preferences, perceptions, and behaviors in order to create products and services that best meet smallholders' needs.

---

3 Fintrac, "Client-Focused Approach Helps Musoni Reach Smallholders."

2. The Role of Customer Experience and User Experience in a Digital Age

2.1. FOCUSING ON THE CUSTOMER EXPERIENCE AND WHY IT MATTERS

Customer centricity is a key theme in the MEDA INNOVATE learning agenda. Among the ten research projects MEDA supported, partners varied in terms of their processes, operations and organizational culture in relation to customer centricity. For this paper, we will focus on customer experience (CX), building on the growing literature and evidence-base promoting the business case for CX. Just as customer experience and user experience are often used interchangeably (see next section), so are customer centricity and customer experience. One author framed it like this: "Customer centricity is a **commitment or strategy** to assure the success of your customer. Whereas, customer experience is a **set of customer perceptions** forged across all their interactions with your brand."[4] Thus, customer experience can be understood as a sub-aspect of customer centricity.

Over the last few years, McKinsey & Company has developed guides and articles focused on the theme of customer experience. According to *The CEO guide to customer experience* (2017), "improving customer experience delivers real benefits to companies that successfully execute customer-centric

strategies. Across sectors, satisfied customers spend more, exhibit deeper loyalty to companies, and create conditions that allow companies to have lower costs and higher levels of employee engagement."[5] Understanding the growth of Agtech companies worldwide through the lens of customer experience and user experience enables one to understand how such companies remain ahead of the curve and compete in a market disrupted by technology, new actors, and changing regulations to maintain their customer/user base while acquiring new customers.

"In that dynamic of value creation and durable competitive advantage, delivering digital services and operations has emerged as a prime mover in reshaping customer experience in almost every sector."

– McKinsey & Company[6]

---

4   Joseph Michelli, "Customer Centricity is MORE than Customer Experience." CustomerThink, February 2018.
5   McKinsey & Company, "Customer Experience: New capabilities, new audiences, new opportunities," Number 2, June 2017; p. 21.
6   McKinsey & Company, "Mastering the digital advantage in transforming customer experience," May 2017.

A whitepaper on 'How to achieve customer focus' written by Nomensa (a UX design agency) argues for five common factors that make the business case for CX.[7] A few of these include:

1. **Improved KPIs** – Tracking CX and UX activities and KPIs (customer interactions with digital journeys, customer experience during a support request, customer opinions and satisfaction etc.) can provide insight and data to potentially enhance financial performance;

2. **Financial returns** – Excellent CX saves money across the organization as support costs decrease (because the product/service experience is intuitive and seamless, requiring little to no assistance); and marketing spend reduces (because customer acquisition costs decrease, and word-of-mouth from existing customers helps promote your brand, product or service);

3. **Digital transformation** - Organizations cannot assume that digital transformation alone is the panacea to achieving scale and maximizing growth; rather, it is an enabler. 'Digital' is the medium, not the overall outcome. As an enabler, digital transformation contributes to having the capabilities to implement strategies for delivering excellent customer experience.[8]

2.2. CX VS. UX – HOW THEY ARE DIFFERENT, AND WHY IT MATTERS

Just like customer centricity and customer experience can be used interchangeably, so can customer experience (CX) and user experience (UX).[9] For the purpose of this paper, we rely on the following definitions where UX is product or service-specific, and CX refers to the totality of a customer's interactions and experiences with an organization/firm:[10]

TABLE 1. Customer Experience vs. User Experience

	User Experience	**Customer Experience**
Definition	Product (or service) specific, refers to the experience that a user (or customer) has when they interact with one product, service or interface	Totality of interactions that a user (or customer) has with an organization / firm over time
Example Metrics	• Active use • Abandonment rate • Clicks to completion	• Net promoter score • Customer loyalty • Customer satisfaction

---

7 Norris & Metcalf, "The business case for Customer Experience (CX)." Nomensa, August 2019.
8 Ibid.
9 Interaction Design, "User Experience and Customer Experience what's the Difference?"; Kim Flaherty, "User Experience vs. Customer Experience: What's The Difference?" Nielsen Norman Group, June 2019; Caroline White, "Do Not Confuse User Experience With Customer Experience." UsabilityGeek; Tim Lowden, "User Experience (UX) vs. Customer Experience (CX): What's the Dif?" Digital.gov, July 2014.
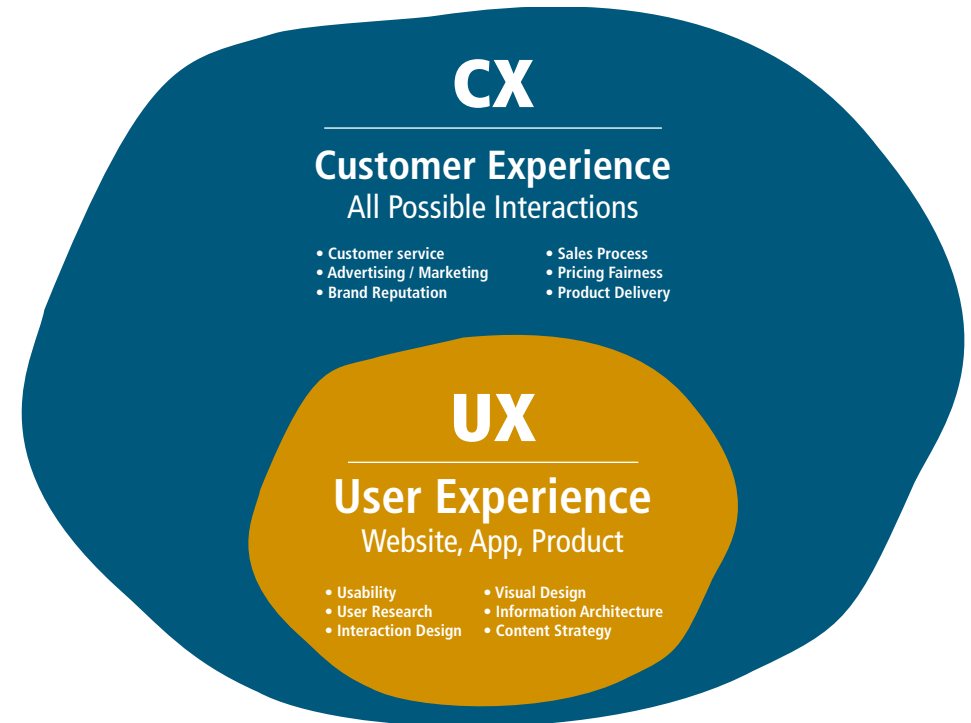10 Flaherty 2019.

CX and UX together influence an end-user's satisfaction with an AgTech product or solution, along with specific experiences and the overall journey interacting with a firm. Figure 1 depicts how UX is embedded and interrelated to CX, but relates to a specific website, application, product or service. Both are key to delivering products and services that meet real needs and generate value for the end user.

According to Forbes Magazine, "Both customer experience and user experience are incredibly important and can't truly exist and thrive without each other. If a website or mobile app has a bad layout and is cumbersome to navigate, it will be difficult for customers to find what they need and can lead to frustration. If customers can't easily open [or navigate] the mobile app, they likely won't purchase your product. Likewise, if the product layout is clunky, customers likely won't recommend it to a friend no matter how innovative it is."[11] This also applies to smallholder farmers as customers and users of digital products and applications. Not only

"Although UX and CX are different, they need to work closely together to truly be successful."

– Forbes Magazine

11 Blake Morgan, "The Difference Between Customer Experience And User Experience." Forbes, January 2017.
12 Graphic adapted from Sunjeewa, Ishara, "What's the Dif? UX vs CX," *Medium*, https://medium.com/@ineedspd/whats-the-dif-ux-vs-cx-5c65be4f33e1; Cao, Jerry, "Customer Experience vs. User Experience: Why the Difference Matters," *Studio by UXPin*, https://www.uxpin.com/studio/blog/customer-experience-vs-user-experience-why-the-difference-matters.

FIGURE 1. How UX Relates to CX [12]

CX

Customer Experience
All Possible Interactions

- Customer service
- Advertising / Marketing
- Brand Reputation
- Sales Process
- Pricing Fairness
- Product Delivery

UX

User Experience
Website, App, Product

- Usability
- User Research
- Interaction Design
- Visual Design
- Information Architecture
- Content Strategy

should the product (mobile application, website, USSD or 'Quick Codes/ Feature Codes' for checking mobile money or bank balances etc.)[12] align with a farmer's needs and literacy levels, farmers should have a seamless and high-quality experience that enables them to achieve their goals. Delivering both excellent CX and UX can drive repeat usage of a digital product/service based on a farmer's value perception, as opposed to one-time registration and low sustained usage rates.

2.3. USER-CENTERED DESIGN IN PRODUCT DEVELOPMENT AND TESTING

The fields of design thinking, human-centered design (HCD), and user-centered design have similar characteristics and principles along with their own unique nuances. As this paper builds on one of MEDA INNOVATE's learning themes – customer-centricity – we will refer to user-centered design as **an iterative design process in which designers focus on the users and their needs in each phase of the design process**.[13] We can look to the GSMA's **mAgri Design Toolkit** as an example of this approach being used in the AgTech space. The toolkit highlights the following based on work with six mobile network operators (MNOs) in Malawi, Sri Lanka,

Bangladesh, Myanmar, Pakistan and Ghana, to develop and launch life-changing mobile agriculture (mAgri) services:

- The GSMA mAgri program partnered with **frog design** to bring the user-centered design approach into the product development process in order to better connect mAgri services with the needs of farmers and key actors in the ecosystem;

- The design toolkit provides guidance to develop and implement mAgri services with tools that have been tested, refined, and tailored to the mobile agriculture context.

One of the key takeaways from the GSMA toolkit is that user-centered design can help companies understand what farmers really need and the constraints they face, helping to increase the chances that a new product or service will be successful. A user-centered design approach puts farmers and their experiences at the center of product development and collects ongoing feedback from the end-user to ensure that every feature and the overall experience work well.[14] The following sections provide specific examples of user-centered design along with insights on practices and principles to leverage for more customer-centric design and delivery of digital solutions and products for smallholder farmers.

13 Michel Hanouch, "What is USSD & Why Does it Matter for Mobile Financial Services?" CGAP, February 2015

14 Interaction Design Foundation, "User Centered Design."

15 GSMA, "mAgri Design Toolkit."

3. Case Studies and Lessons Learned

The previous section highlights some resources available to support the facilitation of a user-centered approach to product design and implementation. However, there is less literature that examines specifically what has been learned thus far from initiatives that have taken a customer-centric approach to (1) serving smallholder farmers, (2) improving customer experiences, and (3) promoting the uptake and usage of digital platforms and products. In this section, we aim to synthesize some of the insights gained thus far through a review of the literature, as well as interviews conducted with companies that serve smallholders through digital platforms.

Three recent initiatives to promote digital products and services among smallholder farmers have shared some of the lessons learned about what works to promote uptake and continued engagement. Mercy Corps' AgriFin Accelerate (AFA) program,[15] GSMA's AgriTech mNutrition Initiative,[16] and CGAP's partnership with financial service providers[17] have all taken a customer-centric approach in their recent engagements designing and delivering digital products and services for smallholder families.

Table 2 provides an overview of these initiatives.

---

16 For example: Mercy Corps, "Lessons Learned on Service Delivery, Marketing and Capacity building. Please see bibliography for additional examples.

17 See, for example: GSMA, "Creating scalable, engaging mobile solutions for agriculture. A study of six content services in the mNutrition Initiative portfolio." July 2017.

18 See, for example: Mattern & Tarazi, "DESIGNING DIGITAL FINANCIAL SERVICES FOR SMALLHOLDER FAMILIES. Lessons from Zimbabwe, Senegal, Rwanda, and Cambodia." CGAP, October 2015.

TABLE 2. Overview of AFA, GSMA, and CGAP Initiatives

Program / Initiative	Overview	Program Partners/Stakeholders	Countries/Regions
Mercy Corps' AFA Program	6-year, $25 million initiative funded by the MasterCard Foundation to support the development, delivery, and scaling of bundles of digitally-enabled services to more than 1 million smallholders.	Banks, mobile network operators, agribusinesses, and technology companies	Indonesia, Kenya, Tanzania, Uganda, Zambia, Zimbabwe
GSMA's AgriTech mNutrition Initiative	Under the mNutrition Initiative funded by the UK Department for International Development (DFID), the GSMA worked with six mobile network operators to support the launch and scale of agricultural value-added services.	MNOs (one in each of the six countries), Frog Design, local content partners	Malawi, Sri Lanka, Bangladesh, Ghana, Myanmar, Pakistan
CGAP Partnership with FSPs	In collaboration with two human-centered design (HCD) firms, CGAP and its FSP partners worked to explore, create, evolve, and test possible digital solutions for smallholder families, with a focus on financial products and services.	Financial service providers (one in each of the four countries), IDEO.org, Dalberg's Design Impact Group	Cambodia, Rwanda, Senegal, Zimbabwe

Across its portfolio, Mercy Corps' AFA program promotes a farmer-centric approach, employing HCD research techniques to develop products that meet farmers' needs and focusing on user-experience throughout the design, launch and scaling processes. The GSMA employed a customer journey framework to identify and understand barriers to adoption, and made investments in user-centered design, customer feedback, and collecting behavioral data from business intelligence. These measures enabled product iteration and supported product uptake and ongoing engagement among farmers. Finally, CGAP conducted research in partnership with FSPs and the human-centered design firms IDEO.org and Dalberg's Design Impact Group, to understand how to design and deliver financial products that best meet the needs of smallholder families.

The programs have been committed to synthesizing and sharing the lessons learned throughout these processes. Table 3 summarizes some of the key insights gained through these programs about how to best foster uptake and use of digital products and services by smallholder farmers. An extended list of insights organized by program is included in Appendix A.

TABLE 3. Summary of key lessons learned across Mercy Corps' AFA Program, GSMA's AgriTech mNutrition Initiative, and CGAP's partnership with FSPs

Design

- **Service bundling reduces costs and risk**, and drives uptake and loyalty
- **Tech applications in many contexts need to be relatively basic** given capabilities of farmers, agents, and others
- **Country context matters** for platform models (e.g. financial sector maturity, strength of aggregator networks, mobile money penetration)
- Smallholders value **timely and responsive agricultural information**, as well as **speed and ease of access to financial services**. Women smallholders especially value savings channels that allow for flexible and readily accessible small deposits

Marketing

- Farmers respond best to **trusted channels**, particularly other farmers
- **Branding and marketing research** can ensure product-market fit
- Information about bundled services needs to be **transparent and written** to farmers
- Use of **field agents to market low-revenue products may not be cost effective**
- **Interactive voice messaging** and **word-of-mouth marketing** can be effective, but potential users need to be able to **self-register**
- **Appeal to smallholder aspirations** to position financial services as a means to achieve their goals

Onboarding

- Using **booster teams to onboard communities** and build a digital ecosystem can be cost-effective and drive use
- Reach farmers through **trusted, in-person channels** (e.g. farmer groups, cooperatives)
- Build farmers' **financial literacy simultaneously** with introducing technology
- **Remove barriers to registration** for successful customer acquisition
- **Onboarding processes** longer than "one-click" registration lead to drop off during self-registration

TABLE 3. Summary of key lessons learned across Mercy Corps' AFA Program, GSMA's AgriTech mNutrition Initiative, and CGAP's partnership with FSPs (Cont'd)

Ongoing Engagement

- **Human touch points and ongoing sensitization** (on how the product works and any product changes) are key for continued product engagement
- **Monitor platform interactions** by partners and farmers to assess satisfaction; identify and quickly resolve technical issues or bottlenecks
- **Content must be timely, locally relevant and actionable**; navigational prompts must be accurately translated to customers' languages
- **Dynamic, informative push messages** increase user engagement
- **Offer incentives, not penalties**; punitive fees for missing a loan repayment or not meeting a savings goal may discourage smallholder farmers

Payment

- **Willingness and ability to pay for services is context-specific**; test different pricing models during pilot phase
- Where target segments demonstrate low willingness to pay, exceptions may be found for **trusted services** that show **clear evidence** of economic payoff
- **Free trial periods** can be effective to attract attention
- Communicate considerations of, and account for, **seasonal variation** in smallholder farming income in pricing and payment structures
- Some operators have had **early success with B2B charging models**

While these learnings are context-specific, they still shed some light on the kinds of actionable insights that can be gained through a customer-centric approach to smallholder farmers.

3.1. CASE 1: AGRI-WALLET'S APPROACH TO CUSTOMER CENTRICITY – Insight from Dodore Program Manager - Agriculture, Vyone Ming'ate

In the process of implementing **Agri-wallet**, Dodore Kenya Limited established that customer needs are varied and no one approach can be applied in serving all customers. Dodore serves farmers by conducting a needs analysis that considers the value chain, geographical location, and farmer personas, and designs products to suit the individual farmer's circumstances. Given the company's overall value proposition and strategy, Dodore aims to first assess the customer experience that they should create, and then identify the capabilities required to deliver that experience. The company then organizes resources accordingly.

Customer Touchpoints

Dodore has several customer touchpoints from training to overdraft extension through to loan recovery. They have a dedicated Customer Relationship Management (CRM) team that is regularly in touch with farmers. In addition, they have field agents and agro-dealers that they work with, who provide feedback loops and farmer touchpoints as well. They take the approach of "training the trainers," such that field officers, who are part of the CRM team, train field agents who are contracted by Dodore to deliver certain milestones. The field officers are involved in Agri-wallet's operations and know farmers well. Training with the farmers takes place in-person, and agents explain Agri-wallet features and the charges in detail to make sure the farmers understand how it works and what costs are involved.

Dodore has also developed a 'merchant app' that they use to train agro-dealers to capture farmer information, since agro-dealers interact with farmers more regularly. They feel this assists in getting to know their customers, and provides them with information from those farmers that are active and engaged, rather than taking an untargeted approach to data collection.

Dodore also conducts customer surveys to review and understand if products meet farmer expectations. One such survey was to understand farmer overdraft experiences and gain insight into what farmers thought of the loans extended to them, and if they had any recommendations for improvements.

Driving Adoption and Sustained Use

Dodore is conscious of the need to keep re-engineering their processes and practices in order to offer the best customer experience that they can while remaining efficient and sustainable. They are cognizant of the fact that a holistic approach is necessary to provide farmers with the best experience. They consistently seek out opportunities to partner with appropriate ecosystem players to deliver a lasting experience to farmers. This includes partnerships with input providers such as Syngenta and Hendrix to efficiently serve farmers.

Dodore has learned that there is no shortcut to creating a lasting impact. They have had to walk with the customers -- a costly but worthwhile endeavor. Dodore has grown its understanding of customer value and can now target farmers better and offer tailor-made services that in turn improve customer loyalty.

Key Priorities for Embarking on Customer Centricity

For financial service providers or other companies serving smallholder farmers, Dodore has identified three key priorities for embarking on a customer-centric approach:

1. **Partner with the right institutions to ensure quality service delivery to farmers.**

2. **A holistic approach will ensure farmers are better served than fragmented stand-alone approaches.**

3. **Risk assessment, management, and planning are all very important and there should be a strategy in place to effectively carry out these processes.**

CASE 2: MUSONI'S JOURNEY TO CUSTOMER CENTRICITY – Insight from Chief Innovation Officer, Juliet Ongwae

Musoni is a microfinance institution in Kenya whose vision is to be the most efficient MFI in the country by being cashless, paperless and data-driven to offer the best value, most flexible and most customer-oriented financial services in the market. Musoni's Chief Innovation Officer Juliet Ongwae shared her experience and some key insights on Musoni's difficult, but ultimately successful journey.

Changing culture and processes is not a one-person job. It requires diverse participation and buy-in from all levels and divisions in the organization. Juliet learned that promoting human-centered design (HCD) in a theoretical way would not work. Rather, a successful strategy and initiative involved forming a cross-functional committee with members from Finance, HR, Business units, Risk and branch staff for diverse representation, while enabling the committee to learn together and gain exposure to HCD. Over a period of more than a year, the committee experienced a shift in thinking and culture as the business case of using HCD in designing and delivering products that meet client needs was demonstrated and proven.

Learning by doing. The Kilimo Booster, Musoni's agricultural loan product for smallholder farmers, took one year to design. It followed HCD practices from start to finish, with support from Grameen. The product design integrated crop cycles, client feedback and input, and improvements from prototyping – and out of the process, a farmer-centric product was developed. Team members learned through the experience that there is no

"one-size fits all" for developing products for client needs and pain points. They also came to learn and understand what iteration is, how to approach and deal with failure, and to always take a testing lens to piloting products, policies and processes.

Business impact and organizational cultural change. With this business and organizational shift of putting its customers at the center and valuing feedback and ideas from customers and staff, Musoni has learned key lessons on how customer centricity impacts the business and organizational culture. A few include:

- Intentionality: Putting the client at the center of everything Musoni does, especially in areas like product re-design and process engineering. As Musoni innovates and comes up with new or improved ideas, they also think intentionally on how clients will or could be impacted.

- Data: Leveraging data, feedback, and analytics (especially from clients) to inform Musoni's business decisions, rather than following gut feelings or assumptions.

- Culture shift: The shift in culture has allowed Musoni to be more agile and more forgiving of failure overall, not just when it comes to innovating around products, but also for internal processes and domains.

Start small, start now. For firms and organizations serving smallholder farmers with products, services, or capacity building, there are some simple steps that can be implemented to become more customer-centric:

1. Start with an internal cross-functional committee (can be formal or informal, depending on the company's size, maturity, and processes) and use this committee to start talking with clients intentionally and frequently. Do not just create a separate department, otherwise you risk client disconnection and creating silos. Such a committee should have representation from Management and different departments. Everyone needs to take responsibility. These conversations and shifts in customer-centric orientation needs to occur across the organization and not be dependent on one person or team leading the change.

2. Find ways for Management to engage with clients on a regular basis, whether it is going out to visiting branch/agent locations or interacting with customers outside of the HQ office. This simple yet powerful activity allows Management and Executives to have eye-opening experiences and interactions with branch staff and clients, and to understand how decisions impact branches and clients in a way that cannot be derived from reports or HQ meetings.

After initiatives like the above are in motion, you will start to embed more client-centric measures and processes. This is all for the benefit of making more informed decisions and ensuring customers have positive experiences with the brand, while having their needs met and feeling like valued customers.

5. Conclusions and Recommendations

This paper explores the potential of AgTech, and digital platforms more specifically, together with a focus on customer centricity, to effectively foster innovation uptake and use by smallholder farmers. Digital platforms, which bundle a range of products and services through a partnership model, can offer the most value to farmers by providing access to a full range of offerings along the agriculture value chain. Customer-centric approaches that place emphasis on gaining a deeper understanding of customer needs and aspirations, and on enhancing the customer and user experiences, can foster increased uptake of agriculture innovations and ongoing engagement with products and services. These lessons have implications for financial institutions, technology companies, and organizations that work with smallholders and have a vested interest in financial inclusion and service delivery for farmers.

Based on our research and discussions, some of the key takeaways for initiatives involved in the development and implementation of digital technologies for smallholder farmers include:

- **Digital platforms offer potential value for farmers**, and can help ensure commercial viability for providers/firms, through bundling services together.

- **Strong partnerships, clear expectations and solid systems for collaboration are key** to deliver a service bundle to smallholder farmers.

- **Implementing a customer-centric approach as early as the product design phase**, can ensure product-market fit.

- **For product marketing and onboarding**, farmers respond best to trusted channels, in-person engagement, and clear communication about product benefits and costs.

- **To promote sustained product engagement, ongoing human interaction is key**, as is the continual sensitization of both agents and users with respect to product features and product changes.

- **Product pricing and willingness to pay is highly context-specific**. Different pricing structures should be explored during pilot phases to appropriately tailor them to farmers' realities and inform commercial viability.

Bibliography

Blake Morgan, "The Difference Between Customer Experience And User Experience." Forbes, January 2017

Caroline White, "Do Not Confuse User Experience With Customer Experience." UsabilityGeek

Fintrac, "Client-Focused Approach Helps Musoni Reach Smallholders."

GSMA, "mAgri Design Toolkit."

GSMA, "Creating scalable, engaging mobile solutions for agriculture. A study of six content services in the mNutrition Initiative portfolio." July 2017

Interaction Design, "User Experience and Customer Experience what's the Difference?"

Interaction Design Foundation, "User Centered Design."

Ishara Sunjeewa. "What's the Dif? UX vs CX." Medium. https://medium.com/@ineedspd/whats-the-dif-ux-vs-cx-5c65be4f33e1

Jerry Cao. "Customer Experience vs. User Experience: Why the Difference Matters," *Studio by UXPin*. https://www.uxpin.com/studio/blog/customer-experience-vs-user-experience-why-the-difference-matters.

Joseph Michelli, "Customer Centricity is MORE than Customer Experience." CustomerThink, February 2018

Kim Flaherty, "User Experience vs. Customer Experience: What's The Difference?" Nielsen Norman Group, June 2019

Mattern & Tarazi, "DESIGNING DIGITAL FINANCIAL SERVICES FOR SMALLHOLDER FAMILIES. Lessons from Zimbabwe, Senegal, Rwanda, and Cambodia." CGAP, October 2015

McKinsey & Company, "Customer Experience: New capabilities, new audiences, new opportunities." Number 2, June 2017

Michel Hanouch, "What is USSD & Why Does it Matter for Mobile Financial Services?" CGAP, February 2015

Norris & Metcalf, "The business case for Customer Experience (CX)." Nomensa, August 2019

Mercy Corps, "AgriPay - the ZANACO FARMERS' ACCOUNT"

Mercy Corps, "DIGITALLY ENABLED SERVICES FOR AGRICULTURE IN ETHIOPIA: Ecosystem Study Report"

Mercy Corps, "FARM TO MARKET ALLIANCE: DIGITIZING A BUYING PLATFORM FOR SMALLHOLDERS & LESSONS LEARNED: An AgriFin Accelerate Partner Case Study"

Mercy Corps, "Lessons Learned on Service Delivery, Marketing and Capacity building."

Mercy Corps, "AGRIFIN MOBILE PROJECT - Product Development and Defining the Stages of Bundling."

Mercy Corps, "DigiFarm: A DIGITAL PLATFORM FOR FARMERS, Case study."

Mercy Corps, "6 INSIGHTS FOR BETTER DIGITAL ENGAGEMENT OF WOMEN FARMERS LEARNINGS FROM AFA PROGRAMS IN KENYA, TANZANIA AND ZAMBIA"

Mercy Corps, "AGRIFIN ACCELERATE: Tanzania Learning Event, January 23, 2020"

The World Bank Group, "Digital Platforms as Facilitators of Financing along Agricultural Value Chains."

Tim Lowden, "User Experience (UX) vs. Customer Experience (CX): What's the Dif?" Digital.gov, July 2014.

Appendix A

TABLE 4. Insights from **Mercy Corps' AFA Program**, including DigiFarm; ZANACO AgriPay; Ethiopia ecosystem study; Farm to Market Alliance; and Agri-Fin Mobile Project

Design	- Offering bundled services reduces costs and risk, and drives uptake and loyalty. - Strong demand for DFS; goal-oriented savings has stronger appeal than credit - Embracing a full value chain approach, involving farmers, buyers, distributors/aggregator networks is the best way to mitigate risk and achieve commercial value - Partnerships with buyers and farmer associations enhance credibility - In many contexts, tech applications need to be relatively basic given capabilities of farmers, agents, and others - Clear terms of engagement among platform partners should be set upfront to align on expectations - Rigorous business modeling of different services offered by platform partners was key to plan for sustainability and identify value drivers for partners - Patient capital and a process of trial and adjustment is crucial in underserved markets - Loan product structure is critical given farmer income is lumpy and volatile; appropriate structuring can increase repayment rates - Country context really matters for platform model, e.g., in the maturity of financial sector, the strength of aggregator networks, and mobile money penetration - Digital platforms require upfront efforts with well-targeted pilot groups and phasing in of service layers and functionality to succeed - A purposeful data strategy needs to be established upfront, to leverage the opportunity provided by emerging platforms. - Private sector partnerships are a difficult terrain to navigate, particularly in a challenging economic environment. Partners may need to implement changes in order to survive in a changing context. - To appeal to women, provide easier channels for women to save; allow for flexible, small deposits that are easily accessed.
Marketing	- Farmers respond best to trusted channels – in particular other farmers. - Having reliable physical touchpoints for in-person engagement is imperative. - Sensitization is key to ensure farmers are ready to engage with digital products - Conducting branding and marketing research can ensure product-market fit - Information about bundled products needs to be transparent and written to the farmers - To appeal to women, explore home-based or women-only group-based sensitization; create women-centric product awareness and interest through trusted channels (e.g., women brand ambassadors)

TABLE 5. Insights from **Mercy Corps' AFA Program**, including **DigiFarm; ZANACO AgriPay; Ethiopia ecosystem study; Farm to Market Alliance; and Agri-Fin Mobile Project** (Cont'd)

Onboarding	- Onboarding exercises focused on acquisition and not usage is likely to lead to dormancy and low activity rates. - Brand ambassadors can play a key role in educating and registering farmers by being able to respond immediately to farmer queries. - Leverage the advantages of physical channels such as farmer groups and cooperatives to optimize the delivery of digital lending. - Terms of digital credit must be well communicated, avoid collateral and have loan applications at the same time as off-taker contracting to minimise mobilisation costs. - Capacity building of the agents/interaction point for the farmers is critical in some instances. - Financial literacy should be conducted simultaneously with introducing technology to farmers
Ongoing Engagement	- Human interface is key for continued account engagement - Booster teams – with KPIs linked to both uptake and account activity- can be effective to drive ongoing account use - Monitor the farmer and partner interactions with the platform, tracking the usage, user satisfaction, and bottlenecks for input into subsequent refinements - Onboarding and sensitization are the biggest drivers of independent usage - Resolving technical issues will improve access, usage, and engagement - Leverage digital tools and systems data to offer new financial products and services, such as insurance and digital payments - Improve information flow and UX by refining user roles and tailoring digital tools and dashboards across user types. - Streamlined coordination and efficiency of backend service provision across partner processes is important. - Farmer customer journey should prioritize a simple user experience that maintains farmers' trust in the partners, be clear in messaging, have rapid response times, and maintain continuous contact with the farmer. - Ensure that comprehensive data is being collected; Identify new data points and prioritize high impact metrics to deliver maximum value to farmers and partners - There should be continual sensitization of the farmers on how the product/platform works and its value. - Important to continuously refresh agents on what the product is and any changes to it. - Environments where these products are launched in are very dynamic and as such require constant market intelligence to understand farmer interest and make ongoing adjustments to the product or service. - To effectively target women smallholders, consider safety at transaction points and align services with women's activities
Payment	- SHF's are willing to pay for some services if the SHF trusts the service and has clear evidence of economic payoff. - It's critical that different pricing models are tested during the piloting of the products and services to gain acceptance of the product for commercial purposes. - Farming often has a seasonal trend that greatly affects any pricing and payment structure for a service or product.

TABLE 6. Insights from **GSMA's AgriTech mNutrition Initiative**

Design	• Early UX research can help to identify the farmer archetypes who would be early adopters of the service and the key value propositions for these customers.
Marketing	• Early-stage UX research can inform future marketing efforts; Including a marketing representative in some of the UX research can help to ensure the value proposition speaks to the target audience while meeting internal branding requirements. • An ability to leverage existing networks of agricultural officers was invaluable for both acquisitions and trust. • Highly targeted interactive voice messaging marketing has been the biggest contributor to reaching scale. • Bundled solutions have the most comprehensive offerings, but the value proposition is less concise and the on-boarding process takes longer. • When trying to scale a low-revenue product, relying solely on field agents or call center agents is not cost-effective. • Word-of-mouth marketing can be effective, but potential users need to be able to self-register.
Onboarding	• Maintain human touch points in digital services to ease smallholders into the use of new technologies • Minimize the risk of trying digital services
Ongoing Engagement	• Make products accessible both physically and financially • Offer incentives, not penalties; punitive fees for missing a loan repayment or not meeting a savings goal may only discourage smallholders • Build in ongoing support, such as a SMS or IVR reminders • Build pathways for financial growth, not repeating loan cycles

TABLE 7. Insights from **CGAP's partnership with FSPs** in Cambodia, Rwanda, Senegal, and Zimbabwe

Design	• Smallholders want financial services that support their full range of household needs and aspirations (such as education, home improvements); offer a portfolio rather than individual products. • Smallholders want to plan ahead, but short-term priorities often make planning for the future difficult • Smallholders value speed and ease of access to financial services • Smallholders value timely and responsive agricultural information, which can serve as a gateway to DFS • Products for smallholders should be flexible, familiar, and tangible to minimize perceived risk
Marketing	• Overcome mistrust of financial services • Appeal to smallholder aspirations to position financial services as a means toward achieving goals
Onboarding	• Maintain human touch points in digital services to ease smallholders into the use of new technologies • Minimize the risk of trying digital services
Ongoing Engagement	• Make products accessible both physically and financially • Offer incentives, not penalties; punitive fees for missing a loan repayment or not meeting a savings goal may only discourage smallholders • Build in ongoing support, such as a SMS or IVR reminders • Build pathways for financial growth, not repeating loan cycles

Digital Platforms and Customer Centricity:
Fostering Adoption and Sustained Use of AgTech Solutions

About MEDA

Since 1953, Mennonite Economic Development Associates (MEDA) has been implementing effective marketdriven programs which have enabled millions of people around the world to realize their economic and social aspirations. MEDA combines innovative private sector solutions with a commitment to the advancement of excluded, low-income and disadvantaged communities. As a dynamic technical innovator, MEDA has expertise in market systems and value chains, climate-smart agriculture, inclusive and green finance, impact investing, women's empowerment, and youth workforce development. MEDA partners with local private, public and civil society actors, strengthening individuals, institutions, communities and ecosystems, and thereby contributing to sustainable and inclusive systemic change.

About IDRC

The International Development Research Centre (IDRC) funds research in developing countries to promote growth, reduce poverty, and drive large-scale positive change. A Crown corporation, it supports leading thinkers who advance knowledge and solve practical development problems. IDRC provides the resources, advice, and training they need to implement and share their solutions with those who need them most. In short, IDRC increases opportunities — and makes a real difference in people's lives.

Its head office is located in Ottawa, Canada, while four regional offices keep us close to our work. They are located in Montevideo, Uruguay; Kenya; Amman, Jordan; and New Delhi, India.