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Digital Platforms for Agriculture in Africa create New Opportunities for Access to Finance

Reuben Gicheha and Rewa Misra

What are agri-service platforms?

Five years ago, rural 'digital' finance was largely about a bank or other financial service providers connecting bilaterally with a consumer using technology to enable their existent business model. Today, digital 'platforms' facilitate a range of diverse services by inter-connecting multiple service providers and consumers, that allow for the rapid roll out of diverse services. Today's digital platforms include payment systems, credit scoring, individual data profiles, content services such as farming advice, weather information, market linkages and social media links. Focused on rural and agricultural needs, agri-service platforms have three service pillars: 1) e-commerce that enables farmers and businesses to trade directly, 2) digital payments, savings, credit and insurance services and 3) content services such as farming advice, weather or market information. At the foundation of these platforms is the potential for acquiring and analyzing detailed customer data including demographic, behavioral, psychometric, geospatial and market data, to create new kinds of value. Data usage includes predicting and managing loan risk, marketing new services, and/or designing and improving existent services.

This blog captures advances made by two emerging platforms in Kenya – Safaricom's Digifarm and KCB Bank's Mobigrow. On a broader level, it also reflects the progress and hurdles confronting digital agri-service platforms in comparison to urban digital finance models.

What is the relevance of agri-service platforms?

Farmers work is often associated with razor thin margins. Any setback in the form of poor-quality inputs, weather or price risk can set farming households back by years. Although finance is an important tool for farmers to access high quality inputs or hedge against risk, net bank credit to agriculture has remained at 4% of the total portfolio in Kenya¹. In addition, the interest rate caps introduced in September 2016, and lifted in November 2019, have so far had an adverse effect on the flows of both private credit to Micro Small & Medium Enterprises (MSMEs) and credit to agriculture².

- 1 Realisation of Full Potential of the Agriculture Sector: Is Commercial Financing a Core Missing Cog?, Kenya Bankers Association, June 2018
- 2 Alper et.al (2019) "Do Interest Rate Controls Work? Evidence from Kenya", International Monetary Fund Working Paper; May 31st, 2019.

Multiple market intermediaries mean farmers obtain a smaller piece of the profit pie. E-commerce can play an important role in directly linking farmers and larger buyers or aggregators, thereby enhancing their share of the gains and can also provide an opportunity for digitizing value chain payments to improve timeliness of payments. Additionally, sales data can be used to assess borrower risk and extend credit.

What do digital platforms for agriculture services look like today?

Kenya has seen the emergence of as many as 49 digital credit providers or mass market consumer credit models. Digital agri-service platforms are distinct from digital consumer credit in that they focus on savings, and/or credit and insurance services for rural households - essentially for productive needs, and provide a range of other value-added services for agriculture. Most offer input loans linked to agro-dealers offering high quality inputs as well as forward linkages for enabling improved returns for farmers.

Kenya Commercial Bank (KCB) Mobigrow (Bank-led) and Safaricom's Digifarm (Mobile Network Operator (MNO)-led) are just two of the fast-growing platforms for rural agriculture and financial services. Started in 2015, Digifarm has over one million farmers registered on the platform and accessing educational content on good agronomy practices and financial advice. In addition, a subset of the farmers receive input and post-harvest loans. As at 1st May 2019, over 60,000 digital input loans have been issued with a nearly 90% repayment rate. The maximum loan size is USD280. The reported activity ratio on the platform is at 30% of the registered farmers³.

KCB Mobigrow, which commenced in 2016, has 400,000 registered users on their platform accessing savings, input loans, supply chain finance, farming advisory services, market information and financial education⁴ (Source: CTA, 2019). KCB has focused on digital savings accounts for smallholder farmers and as of July 2019 had 200,000 depositors with a total value of KES 150M (USD 1.5M). The activity ratio for Mobigrow services is ~30%. On the loans side, Mobigrow takes a value chain finance approach with a strong focus on tripartite (farmer-bank-lead agribusiness) forward contracts for risk sharing. As of 30 June 2019, a total of KES 100M (USD 1M) in loans was disbursed in three counties in Kenya.

Agri-Service Platforms at the teething stage: Building consumer trust and partnerships

Given that farming households are finance-constrained we would expect a strong demand for financing solutions. However, as reflected in the progress above, facilitating the adoption and use of financial products in rural areas is often difficult. In particular, ramping up the use of technology enabled services is a complex uphill battle for providers. There are multiple challenges to building a large reputable platform and consumer trust is critical in the initial scale-up stage of platforms.

Trust could breakdown from either low familiarity with a solution or a negative experience. For example, a connectivity related problem during the registration, loan or deposit process or technical error on the repayment record could result in a customer dropping out. Many digital or advisory services work through unstructured supplementary service data (USSD) solutions that charge a fee in the form of airtime. Farmers sometimes 'opt-in' for premium services either due to an awareness issue or weak disclosure or 'choice framing'⁵ on the part of providers, and as a result lose air-time credit. Additionally, some platforms facilitate market linkages with input providers or buyers. However, if a farmer believes that an off-taker agreement did not offer a good price relative to other options or that input quality or timeliness was an issue, they could stop using the platform.

Both Digifarm and KCB Mobigrow work with a diverse group of private sector partners such as agro-dealers, mobile network operators, buyers, cooperatives or other farmer aggregators and specialized technical service providers. Initial partnerships often come together driven by the optimism around a proverbial "win-win" proposition. However, sustaining partnerships particularly for a fast-growing digital platform, requires deliberate market coordination and well-aligned incentives. Partnerships can be challenged by the absence of alignment in project planning, expectations and resources. Additionally, who controls project assets such as data, brands or IP, often becomes a bone of contention. Both platforms (with the help of external market facilitators⁶) have therefore spent a significant amount of time upfront building appropriate partnership models for the seamless delivery of services.

³ Mercycorps Agrifin Accelerate, Digifarm Platform Case, <https://mercycorpsagrifin.org>, 2019

⁴ CTA and Dalberg, The digitalisation of African Agriculture report 2018-2019, June 2019

⁵ For example, every farmer may by default be enrolled for a service unless they deliberately opt out.

⁶ Mercycorps has been central to the development of Digifarm and AGRA has supported Mobigrow in the early stages of market research and product development.

Clearing the First Hurdles - What's next for agri-service platforms?

Agri-service platforms in developing countries encounter relatively uncompetitive value chains, information constraints and partnerships related risks. Unlike urban consumer focused platforms like M-Shwari which took 18 months to go to market, agri-service platforms have so far taken approximately 3 years. Future sustainability could be affected by several factors in addition to usage and partner coordination such as, platform costs and market perceptions.

While direct farmer engagement can be critical in early stages of a deployment, it can also be a significant cost center for platforms. The 'e-commerce' component of most of the platforms is principally focused on digitizing input sales and/or procurement, enabling bulk e-payment and/or using sales data to build a credit history. In rural areas digital platforms often need costly in-person engagement with local advisors offering training on the appropriate use of inputs and marketing. There are also logistics related costs, which in Africa are among the highest in the world. In the coming years as farmers get used to engaging with technology, we may see the emergence of low touch virtual marketplaces where farmers and buyers can connect without the need for in-person engagement.

Urban digital finance offerings have been tremendously successful in terms of reaching scale followed closely by a range of digital credit offerings. However, they have also brought with them concerns about the unclear disclosure of interest rates, fees and data privacy issues (CGAP, 2016⁷). Another aspect of urban digital credit has been multiple borrowing and the blacklisting of borrowers, for small amounts of credit, which could effectively limit defaulters from future access to credit.

Agri-service platforms are well positioned to learn from these experiences as they are still at an early stage. In the case of agri- service platforms, loans are tied to input

suppliers or buyers and there is a lower potential for overborrowing on the same service platform. Additionally, there are fewer digital providers for rural finance overall. Providers are experimenting with different approaches to consumer protection to decrease risk and build trust in the system. For example, in partnership with technical service providers like Arifu, both Mercycorps and KCB are testing "nudges" for repayments and savings, working to avoid "sludge" - unclear or difficult opt-outs, slow down impulse enrolment in services, or streamline service options and push content to avoid an overload of choice. Additionally, Arifu offers a 'chatbot' based learning tool which aims to lower costs on training, marketing and increasingly advisory services by 90%.

Farmers work based on razor thin margins and any setback in the form of poor-quality inputs, or weather or price risk can set farming households back by years. Multiple market intermediaries mean farmers obtain a smaller piece of the profit pie. Agri-service platforms provide a tremendous opportunity for growers that are at a sub-optimal level of yield or return, to improve their level of profitability. For agri-service platforms in the coming months, the question will be; are they able to move beyond early adopters to the broad base of typical farmers, fostering active use and engagement? We will also learn more about:

- a) Which services matter and sustain e-commerce, finance or content? What is the vision of the core revenue model – new data use cases, the growth in loans or a new revolutionary sales channel for inputs (perhaps an Amazon or Alibaba for agri-inputs?)
- b) Whether or not offering multiple services on a single platform creates any significant lessons for impact, scale and sustainability.

7 Izaguirre J.C, et.al (2016) It's Time to Slow Digital Credit's Growth in East Africa

About AGRA

Alliance for a Green Revolution in Africa (AGRA) is a partnership-driven institution that is African-led and farmer centered. Established in 2006, AGRA places smallholder farmers at the center of the continent's growing economy by transforming their farming beyond the solitary struggle for survival, into thriving businesses. Our partners include African governments, researchers, development partners, the private sector and civil society working primarily with smallholder farmers - men and women who typically cultivate staple crops on two hectares of land or less. Our five-year strategy (2017 – 2021), aims to catalyze and sustain an inclusive agricultural transformation through integrated, country-based investment plans in 11 countries with a high potential for success. The focus is on increasing incomes and improving food security for 30 million farm households with support that strengthens the capacities of governments and private sector through policies, programs and partnerships that increase productivity and access to markets and finance.

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