

CASE STUDY: FARMDRIVE

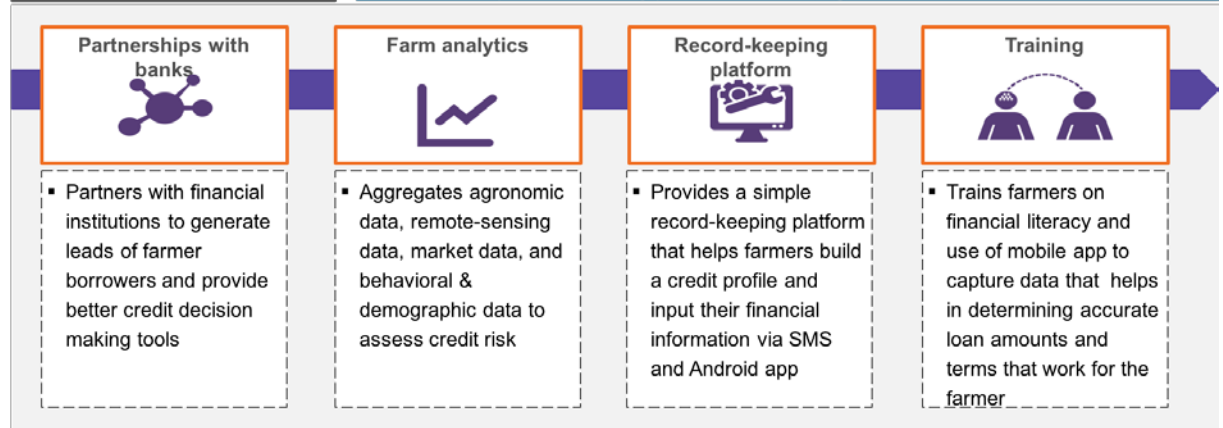


FarmDrive

Founding year: 2014
 HQ: Nairobi, Kenya
 Countries of operation : Kenya
 Orientation: For-profit
 Employees: 7 staff + 2 directors
 Turnover: USD 17,000 (~KSh 17 million)

There is very little aggregated data about smallholder farmers, particularly about their financial performance and history. The lack of data makes it difficult for financial institutions to conduct credit assessments on farmers, hence they are viewed as high risk, locking them out of formal financial systems. Currently, only 1% of commercial loans in East Africa go to agriculture.

FarmDrive works at the intersection of technology, agriculture and finance. FarmDrive offers products to farmers and banks to ease lending. FarmDrive has pioneered an innovative way to use data that is generated in smallholder farmers' value chains for enabling their financial inclusion. By harnessing the power of data analytics and mobile technology, it aggregates and analyzes pertinent information about smallholder farmers from dynamic traditional and alternate data points - including produce offtakers, agro-dealers and the farmers themselves.



Operating Model

A significant amount of data is generated by smallholder farmers when they transact during the farming process, for instance, when they purchase inputs from the local agro dealer or when they sell at the farm gate. This data, which is very crucial in cash flow management and making lending decisions, is most often lost, as there are no mechanisms to capture and aggregate it. Given their proliferation in Kenya, mobile phones can be leveraged to digitize the process of capturing this data, and address the data gaps that lead to financial exclusion.

FarmDrive, a company based in Kenya, builds risk assessment models for financial institutions to evaluate farmers for making lending easier and less risky. FarmDrive’s platform harnesses the power of data analytics, machine learning and mobile technology to build innovative credit scoring models giving financial institutions an operationally efficient and cost effective way to identify and assess farmers’ risks. FarmDrive has SMS and android apps that enable farmers to record revenues and expenses. It builds innovative comprehensive credit profiles used for real-time credit assessment to enable banks to serve smallholder farmers through digital financial services. It aggregates agronomic data (soil and water), remote-sensing data (weather, humidity, precipitation data), market data, behavioral data, and demographic data. It provides financial institutions credit profiles and loan terms based on the aggregate data to assess farmers' credit risk. It helps farmers, who lack access to capital, business records and fixed assets, to be evaluated on metrics that are suitable to them and information that is readily available. FarmDrive also facilitates insurance bundled with the credit from partner banks.

FarmDrive provides a simple record-keeping platform that allows farmers to input their financial information via SMS and

Digital records enable farmers to gain valuable insight into their farming operations, and maximize potential of their farms.

an Android app and build a credit profile. The farmers' data combined with existing agricultural data is used to develop a comprehensive credit profile, to be used for the farmers' credit assessment by financial institutions when they need funding. In addition, FarmDrive also uses the records to understand each farmer's specific financial requirement and provide tailored information via SMS. The turnaround time for loan decision by banks through FarmDrive platform is 72 hours. approval to disbursement.

Farm Drive has a wide variety of partners including: investors (Engineers without Borders and Mercy Corps); capacity building (Open Capital advisors, ACRE Africa -to create insurance products); and financial institutions (Musoni Kenya).

FarmDrive has also partnered with the ACP-EU Technical Centre for Agricultural and Rural Co-operation (CTA) to build the capacity of Kenyan young farmers and stakeholders and help them access finance. In partnership with CTA, FarmDrive has organized 20 mobile training sessions dubbed "Apps4Ag Learning Opportunities". These sessions help young farmers learn how to use FarmDrive's financial management tool to keep records of their farming activities, receive

agronomic recommendations, and benefit from mobile money payments, access to loans and other digital financial services. The workshops are being held across different regions in Kenya. They provide hands-on experience to a total of 500 young farmers and other agricultural stakeholders. FarmDrive has created comprehensive credit profiles for the young farmers, who can apply and eventually receive credit from lending partners through their mobile phones.

FarmDrive works with 15 farmer youth leaders from the local community to spread awareness about its services. These leaders also provide training to the farmers on how to use mobile phones and educate them about the risks of borrowing. FarmDrive's training teams help farmers gain financial literacy and skills to use the mobile app. The data helps the enterprise in determining accurate loan amounts that work for the farmer's crop, acre size, planting date, and income.

Financial Sustainability

FarmDrive earns revenues from finance providers for their use of the credit profiles (fixed fee) and from farmers (percentage of loan amount as transaction fee). It incurs negligible capital expenditure as the operations are largely digital. Its operating expenses include cost of training farmers on the use of mobile application, and the cost of creating the credit profiles. Currently, average training/profiling cost per farmer is KSh 130 (USD 1.3).

FarmDrive has participated in the Village Capital and Unreasonable Institute Accelerators. The data accuracy mitigates the risk for financial institutions and helps them maintain very low NPAs (3 defaults out of 350 loans facilitated by FarmDrive till now). As financial institutions are able to price their loans better, they are able to minimize the risk premium and still charge farmers lower than traditional loans on an average. Thus, FarmDrive is able to create a win-win situation for both, finance providers and borrowers.

Farmdrive's algorithm determines the loan amount, loan term and other parameters for financial institutions to lend to farmers. As more financial institutions and farmers are onboarded, operational costs are expected to decrease with economies of scale.

Impact

FarmDrive catalyzes financial institutions to lend more to smallholder farmers by de-risking the process through clear and transparent records. Farmer clients of FarmDrive are benefiting from financial awareness, financial management tools, farming-related recommendations, access to finance and links to profitable markets. The increase in lending to smallholder farmers positively affects the economies and food security of these regions, and has a huge economic impact and

multiplier effect.. For example, working closely with Musoni Kenya, a tech -driven MFI, FarmDrive has helped facilitate a loan portfolio of more than \$25,000 to some of these farmers who have never received credit before. They now are able to lease tractors to plough their farms in 30 mins, an activity that would take them 2 weeks manually, they no longer reuse seeds from previous harvests as they can afford quality seeds and fertilizer.FarmDrive has onboarded 2,500+ farmers since December 2015 and expects to serve around 10,000 by end of 2016. 60 percent of these smallholder farmers are women, who are less financially empowered because traditionally, women do not own assets. Providing a digital platform for loans that are not tied to asset ownership levels the playing field for women to access credit.

Challenges and Lessons

Lack of understanding of IT among farmers is a major challenge for the adoption of FarmDrive's solutions. To address this issue, FarmDrive has made available its tools in two languages (English and Kiswahili), and on multiple platforms, so that farmers can avail of its services with minimal training and support across different formats. Access to data is also a challenge since few available datasets are digitized. FarmDrive is also struggling to achieve a critical mass, both on the supply and demand sides so that it achieves economies of scale to sustain its business.