





DIGITAL INPUT CREDIT

A synthesis of learnings from DigiFarm and FtMA Loan Pilots

OCTOBER 2019

Dalberg

About AgriFin Accelerate (AFA)

AFA supports innovative Digital Financial & Non-Financial Services to smallholder farmers

AGRIFIN ACCELERATE

The AgriFin Accelerate program aims to support the extension of digital financial and informational services to one million smallholder farmers from Kenya, Tanzania and Zambia

AFA provides technical support to innovative initiatives to accelerate the expansion of digital financial and non-financial services to farmers

As an extension of this technical support, AFA supports the evaluation of initiatives and shares lessons learned with key stakeholders in the ecosystem

CASE STUDY: DIGITAL INPUT CREDIT

This case study captures lessons from loan evaluations of two initiatives supported by AFA: **DigiFarm Loan** and **FtMA Loan**. Both programs are in the pilot stages; the case study will share a glimpse of lessons learned across the user journey:

1. Uptake

How to increase uptake of digital input credit, including applying and redeeming loans?

2. Repay

How do you increase repayment of loans before and after loans are distributed?

3. UX

How to design products and user experience to increase effective use of digital input credit?

4. Inclusion

How do you specifically design digital credit products for women and youth?



About Dalberg

Dalberg brings a range of business capabilities to support AgriFin Accelerate's vision of assisting farmers

DALBERG GROUP

We are a global group working to build a more inclusive and sustainable world where all people, everywhere, can reach their fullest potential.

23 Locations	32 ⁺ Nationalities
8 Locations in Africa	60+ Languages
8 Businesses	90+ Countries we've worked in

COLLABORATION WITH AFA

Dalberg leverages a range of business capabilities to support AgriFin Accelerate's vision for reaching 1 million smallholder farmers across Kenya, Tanzania and Zambia. Dalberg's role included:

- Conducting ecosystem studies for each country
- Designing innovative products and services using Human-Centered Design capabilities
- Piloting and assessing the effectiveness of products and services.

In partnership with AFA, Dalberg's role in the Digital Input Credit case study included:

- Conducting an evaluation of DigiFarm's digital input loan pilot data
- Drafting lessons learned from existing digital loan pilot evaluation documents for DigiFarm and FtMA loans.





AFA has learned a number of lessons on how to expand digital credit to farmers

OVERVIEW

- The Digital Input Credit case study captures lessons from loan evaluations of DigiFarm and Farm to Market Alliance (FtMA), that have piloted digital input credit targeting farmers in Kenya with AFA's support
- DigiFarm launched 3 loan products starting in Dec 2017 in 9 counties focused on dairy farmers with different repayment terms and sizes. An assessment of DigiFarm data and a survey of 152 Digifarm farmers in Bomet and Meru by Nielsen East Africa (October 2018) was leveraged for this case.
- FtMA provided input loans in the short rains in 2018. A survey of 185 FtMA farmers in Meru and Tharaka Nithi (November 2018) was leveraged for this case
- Both loans are in relatively early stages, therefore, the case study will share a glimpse of lessons learned across the user journey from uptake, usage to repayment as well as lessons on inclusion of women and youth.

Pilots generated a number of learning on drivers for, and barriers to uptake of Digital Input loans across various farmer-related factors

INSIGHTS

- Digital input loan is popular among farmers, and provide access to those but with limited alternatives sources of loans
- At the same time, many farmers still rely on savings and informal loans for inputs, and shy away from loan all together
- Speedy approval is a value proposition farmers appreciate about digital loan. Lack of it, or lack of time alignment with planting season can limit uptake for those needing time to reflect, getting spousal consent, or getting cash collateral ready
- Perception that loans from Safaricom, not a bank nor MFI, is less stringent on collection, may have also attracted those who are afraid of banks/MFI – great for uptake but it has an implication on repayment
- Trusted brand as a platform to help farmers helps driving uptake
- Bundling with quality input is generally well received and operational excellence and coordination with access to inputs are key to boost repeat application and redemption

- Target digital input loans first to those who have more openness to use loans by age group, gender, or psychometrics
- Enhance financial literacy among farmers before loan is approved
- Consider introducing non-loan digital financial product, such as savings, to onboard farmers less open to loans
- If loan is only for specific period, time the sensitization, application and disbursement well in line with planting season
- If loan is provided on platform or in partnership with non-financial service provider, take advantage the brand. Continue buildling the brand as a platform that provides value for farmers – not just through loans but as a full platform (if it's a platform)
- Plan well to nail operational excellence early on and in particular, ensure the coordination with input availability





The Evaluation also yielded some reasons for defaulted or delayed repayments and what can drive repayment on digital input loans

INSIGHTS

- Late or unsuccessful harvest, other personal expenditures (school and medical expenses) were key reasons cited for default or delay. Crop-focused farmers were more likely to default or delay during pilot.
- Some also cited "not understanding the terms or how to repay" as reason of defaulting or delaying
- Higher financial literacy appears to be correlated with higher repayment. Many do not even read Terms of Conditions, and some find DigiFarm reminder too soft (and hence can ignore)
- Nonetheless, SMS and Telesales reminders are effective in enhancing repayment

- Adjust the loan tenure in line with agricultural cashflow could potentially enhance repayment by allowing farmers to wait for farm income
- Consider providing insurance or savings products for managing non-farm expenses can increase value propositions and lower risk of digital input loan
- Address farmers' financial literacy level in general, and ensure they read and understand Terms and Conditions, as well as operations required for repayment, especially leveraging in-person support
- Continue SMS and telesales reminders and consider adjusting messages to be stricter





Learnings on cross-cutting themes of product design and customer experience to enhance uptake and repayment were also captured

INSIGHTS

- Short tenure may have led to delayed repayment or default. Needs for nonfarm expenses also drove repayment rate down (mentioned above)
- Inputs vouchers instead of cash disbursements were successful for farmers with easy access to depot
- Smooth back-end processes are critical to ensure user uptake and satisfaction, so are appropriate support to farmers to guide through technology

- Product design should consider farmers cash flow, especially tenure of loans; mixed farmers need larger loans with longer tenures. Insurance or savings for non-farm needs can be a strong value proposition
- Continue facilitating easy access to quality inputs to encourage uptake of financial products
- End to end digitization is effective, however, needs to be accompanied by smooth back-end processes, as well as in-person support





WOMEN

Executive Summary

The Pilots also provides specific insights on digital loan uptake and usage by women

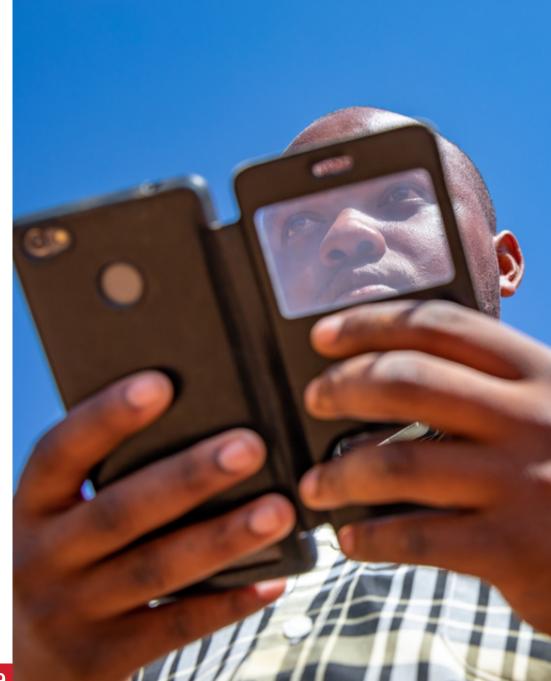
INSIGHTS

- Women have limited experience with formal loans and borrow largely from friends, family and groups.
- Women were more reluctant to take up digital input loans, but it also presents opportunities to target and serve this underserved segments.
- Women face gender-specific barriers, such as mobility constraints and the need for spousal consent.
- Limited time windows for product adoption made it impossible for some women to participate.
- Some gender-neutral barriers affect women disproportionately. For example, for cash collateral requirements under FTMA's loan product presented a greater challenge for women compared to men.
- Women's family obligations also affect their ability to borrow and repay. Women face 2.5 times more emergencies than men. For example, half of women interviewed cited medical expenses as the reason for default or repayment delays.

- Consider developing products that specifically address the needs of women, such as savings and products that include group functionality
- Address agricultural markets where women are commonly engaged, including dairy Market and onboard women to financial services taking into consideration mobility and device constraints
- Consider bundling product offering with health and crop insurance to manage default risk although it may become affordable only after farmers raise income through access to finance and other support
- Provide targeted financial literacy training to women, potentially as they get onboarded onto non credit financial services
- Allow more planning time and repeat sessions for women to prepare their loan application and align loan approval with planting season

Input Loan Overview

What are the Digital Input Credit solutions in consideration?







Digital Loan Product Overview

With AFA's support, DigiFarm and FtMA piloted digital input credit for farmers in Kenya



- Model: Digifarm is a partnership between Safaricom, iProcure, FarmDrive, Arifu and other partners that empowers farmers to grow their businesses
- Loan portfolio: DigiFarm launched digital input credit starting in Dec 2017 in 9 counties focused on dairy farmers. Products had different repayment terms of 30, 60 and 90 days with loan sizes between KES 500 to 15,000. DigiFarm had provided 49,850 loans by Oct 2018
- Customer journey: Farmers apply for loans on their mobile phone. If approved, the farmer receives a loan voucher on their mobile phone that can be redeemed for farm inputs at iProduce depots. The voucher expires in 7 days, if not redeemed. Farmers repay their loan via M-PESA



- Model: FtMA is an alliance of eight agri-focused organizations that link farmers to product and services and to market through demand-led
- Loan portfolio: In Kenya, ~5,000 farmers were targeted through 4 financial service partners for pilot digital input credits in the short rains in 2018 in Soya, Sorghum and Green grams value chains. 141 loans were generated
- Customer journey: Farners apply for loans, banks approve loans and money disbursed into select agrodealers's account. Loan packages schedules are shared with agrodealers who delivers the inputs at group level. Goods received notes (GRN) sent to bank.

Survey of 152 users in Bomet and Meru

(non-representative sample)

- 82% male and 18% female
- 57% of respondents under the age of 35
- Key objectives was to understand drivers for better uptake and repayment and build learning from it

Survey of 185 users in Meru and Tharaka Nithi

(non-representative, snow-ball sampling)

- 35% male and 65% female
- 22% of respondents under the age of 35
- Key objectives was to understand the reasons for low uptake and build learning





Key Findings

How can we increase the uptake, use and repayment of Digital Input Credit by farmers?







Uptake

Key learning questions:

- What drives uptake of digital input loans?
- What are the barriers of uptake of digital input loans?



What drives uptake of digital input loans?

Lack of access to, and negative perception of alternative sources make digital input loan, from a non-bank player, attractive. Trusted brand helps accelerating uptake

Farmers trust the DigiFarm brand and platform

 DigiFarm loan borrowers generally had positive perceptions of DigiFarm as a platform that provides quick assistance to farmers

There is a lack of alternative sources of credit for agricultural inputs

- DigiFarm and FtMA farmers (and possibly farmers in general) use loans less
- frequently than the general population in Kenya, ~50% of whom use credit ¹
- Only one third of surveyed DigiFarm users had ever borrowed before.
- Only 40% of surveyed farmers under FtMA program had outstanding loans,
- mainly from table banking 2
- Neither M Shwari nor table banking are well tailored for farm inputs

Understanding of farm economics led to grater loan uptake

- FtMA farmers who understood return on investment on farming had a
- greater appetite to take a loan

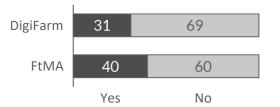
Borrowers are attracted by efficient and timely approvals

- Borrowers who apply for mobile loans cite "speed" as the reason to choose this source of credit over others
- DigiFarm loan is approved (or declined) within hours of application

There is a perception that a lender other than bank/MFI is less stringent (this works positively for MNO, not for banks/MFIs)

- Many farmers refrained from borrowing from FtMA facilitated loans due to
- concerns about inability to meet repayment
- Farmers perceived DigiFarm as less strict with implications on repayment.

PREVIOUS USE OF LOAN¹



FUNDING SOURCE FOR FARMING ACTIVITIES

(DigiFarm surveyed farmers)

Source	Why/for what?
Friends, relative neighbors	Trust, No charges, No penalties
Employment	No pressure to repay
Table banking	Women empowerment model
SACCOs	Low interest rate, large sum, ease of access
Mobile money	Speed





What drives uptake of digital input loans?

Bundling with quality input is generally received positively. Operational excellence and coordination with access to input are also key to boost repeat applications and redemption

Farmers appreciate bundling of credit to agricultural input

- Some farmers appreciate voucher system as self-binding mechanism not to divert money for other pressing needs
- There are nonetheless those who request for partial cash disbursement for greater flexibility
- Beyond tight bundling like DigiFarm loan, assurance that the farmers can access quality, affordable inputs through platform also likely contribute to the loan uptake – the initial research for DigiFarm highlighted that farmers want loans only after they have access to quality, affordable inputs

"If [loan] in money form, the money would easily be diverted to other pressing needs. So yes voucher is good so that we focus on farming only"

Women FGD Bomet on DigiFarm

Uptake increased due to support for loan applications

 Many farmers were activated by Safaricom's activation drive. Many appreciated support for loan application by Safaricom's drive and at iProcure depot

Coordination with input depot – both expansion of depot network and communication of depot location

 At the launch, DigiFarm loan's redemption rate was low – due to distance to depot and unclarity on depot locations. With expansion of depot network and communication, the redemption rate steadily improved to reach almost 70% in August 2018. "Loan redemption peaked as new iProcure depots were launched"

DigiFarm Loan Repayment Report

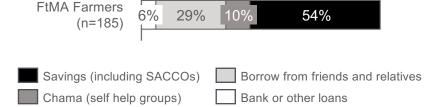




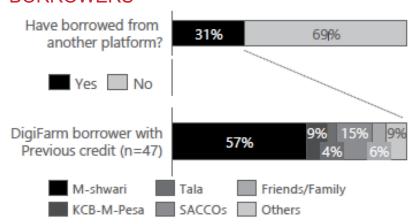
What are the barriers of uptake of digital input loans?

Farmers' general reliance on savings and informal loans for farm inputs, rather than loans, implies time and education required to shift to digital input loans

FARMER BEHAVIOR WITH FINANCING NEEDS¹



LOAN EXPERIENCE AND SOURCE OF PREVIOUS CREDIT FOR DIGIFARM BORROWERS²



Many farmers rely on savings and informal loans

 Among savings, group saving (table banking) is the most-widely used. DigiFarm farmers who are likely to default or delay repayment tend to rely on alternative sources of financing/credit (such as table banking)

Previous experience with mobile loansis associated with greater uptake of DigiFarm loans

- The uptake of mobile app loans among the general population in Kenya (8.3%) is lower than that of loans from family friends (10.1%), and almost double that of SACCOs loan uptake (5.1%).3Compared to national average, DigiFarm borrowers' previous loan experience, if any, is heavily weighted towards mobile app loans.
- Previous exposure to mobile loans may lowers the bar to taking a new digital input loan. This could, however, simply indicate the open-mindedness of this segment or its lack of access to alternative sources of credit.





¹ FtMA Farmers identified how they cope with financial difficulties.

^{2.} DigiFarm farmers identified if they belonged to financial support group; Youth defined as under the age of 35

What are the barriers of uptake of digital input loans?

Operational factors also added some barriers – limited lead time made it difficult for some farmers. Initial lack of clear tie to input depots limited loan redemption

Limited lead time was a challenge for some farmers to apply for loans, and pushed others to alternative sources of credit.

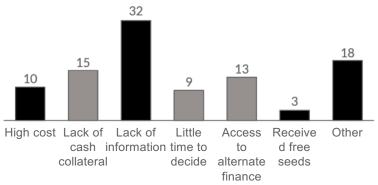
- Some farmers explicitly mentioned limited time for not applying loans, while those who mentioned lack of cash collateral as barrier may have been able to raise the fund if given enough lead time
- Some farmers already had secured credit before digital input loan was offered

Limited coordination with input depots created a large number of unredeemed loans initially

 DigiFarm initially experienced a large number of unredeemed loans – major reasons were distance to depots, lack of knowledge about depot location, and lack of inputs at depots

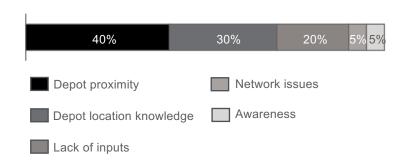
REASON FOR NOT APPLYING FOR LOANS

% of surveyed FtMA farmers1



REASON FOR NOT REDEEMING LOANS

% of surveyed Digifarm farmers







Repayment

Key learning questions:

- Among farmers who did not pay, why did they not pay?
- What enhances farmers' willingness to pay?

Why did farmers fail/delay with repayment?

The main reasons cited for non-payment or delayed repayment are late or unsuccessful harvest, other personal expenses¹, and not understanding the terms or how to repay

Short loan tenure makes it difficult for farmers to repay within the period, especially for crop farming.

- Among DigiFarmers, this reason accounts for 20% of defaulters and 10% of those in arrears
- As in page 23, crop-focused farmers appear more likely to delay/default than those with livestock (with more frequent cash inflow)

Some reasons for non-payment or delayed repayments are related to lack of knowledge Some refer to not understanding payment terms

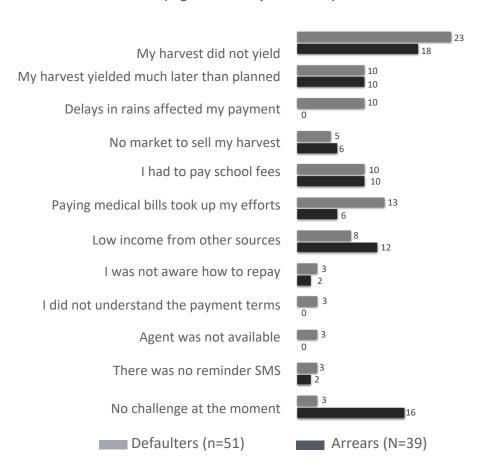
 Others are more operational – not knowing how to operate on platform, or using lack of reminder as excuse

"The repayment period is short. The farmers are hardly out of the woods in terms of their farming activities and repayment is due. If am making money from my farm produce I will still not have harvested when my repayment is due"

DigiFarm Borrower

REASONS FOR DEFAULT AND LATE PAYMENT

(DigiFarm surveyed farmers)





^{1.} See product design section for more detail

What enhance repayment among farmers?

Higher financial literacy and reminders can help enhance repayment. During the pilot, many farmers did not even read Terms and Conditions, and found DigiFarm reminder too soft

Farmers with better financial literacy are more likely to repay

 Financial literacy is slightly higher among DigiFarm farmers who repay on schedule, particularly understanding of penalties and consequences of failing to clear loans (not statistically significant)

Farmers, especially youth, had limited knowledge of terms and conditions

 68% of farmers, specifically youth, were not aware of penalties and repayment periods. Farmers did not read the Terms and Conditions, and, implications were only transferred from friends

SMS and telesales reminders can enhance repayment

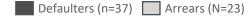
 Weekly calls resulted in reduction in default rates among DigiFarm borrowers

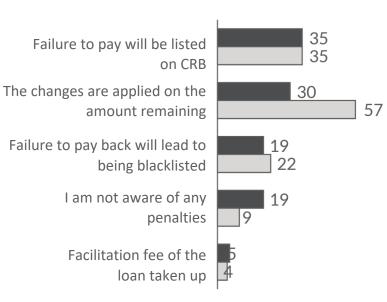
Though, they are perceived too soft

 Farmers suggest that the penalty and SMS reminders from DigiFarm is not as strict as other financial institutions. However, fear of being listed on the Credit Reference Bureau (CRB) and awareness that it will spoil their chances to borrow elsewhere was effective in creating a sense of urgency to repay loans

ASPECTS UNDERSTOOD BY DIFFERENT BORROWING SEGMENTS

(DigiFarm surveyed farmers)









Product Design

Key learning questions:

- What feature of pilot design met farmers needs? What can be improved?
- In particular, does farmers appreciate voucher system for purchasing inputs?

Were pilot digital input loans designed to meet farmers' needs?

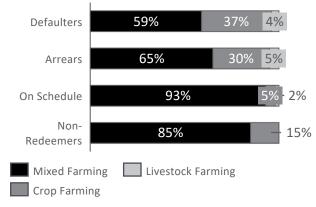
While DigiFarm has been popular among farmers, the loan tenure (1-3 months) is too short for many farmers. Farmers also expressed demand for larger loans

Initial loan tenure of 1 - 3 months (especially 1 month) was too short for many farmers, especially those dependent on crops, as opposed to livestock

- Crop farming has a generally longer cash flow cycle than livestock farming. A large share (over 70%) of DigiFarm borrowers conduct both livestock and crop farming, while some only farm crops. These farmers need input credit to be aligned with their farming cashflow, i.e., longer tenure
- A significant share of defaulters and those in arrears cited "harvest yielded later" as a reason for not repaying, in addition to "harvest did not yield", pointing to the need for longer loan tenure
- Borrowers who are solely dependent on crop farming (without livestock) during the pilot were more likely to default or fall in arrears also pointing to the need of for longer loan tenure among crop farmers Product Design for Dairy
- The DigiFarm loan was initially designed for dairy, involving small amounts and short loan terms. Via digital input ordering, however, most farmers elected to use these loans to support crops and needed larger amounts and longer terms. The product has since expanded.

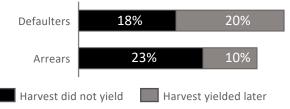
TYPES OF FARMING BY REPAYMENT STATUS

% of surveyed DigiFarm farmers¹



HARVEST—RELATED DEFAULT AND ARREARS

% of surveyed DigiFarm farmers¹







Were pilot digital input loans designed to meet farmers' needs?

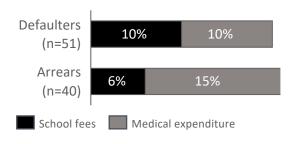
Farmers also have financing needs outside of farming. Digital inputs loan do not cater for those needs, and such needs tend to influence repayment on input loan

School fees constitute one of the largest expenses for farmers and impacts demand for and repayment of input loans

- FtMA farmers, of which 56% have more than 3 children, spend KES 48,000/year on school fees on average. This represents ~50% of a farmer's annual household cash budget
- Farmers primarily use savings or table banking to pay for school fees, complemented by sales of farm produce and casual labour among other sources of income
- Poor financial planning tends to influence the need for credit and ability to repay, especially during lean seasons when school fees are due (January, May, September) Emergency medical costs contribute to default & delinquency
- Medical expenditures are often unplanned, which leads to emergency financing needs and hinders a farmer's ability to make existing loan payments
- This is particularly relevant for female farmers as 50% of surveyed females indicated medical bills was the reason for late payments; this is due to their perceived responsibility to care for their families. Another study focusing on women farmers found that they face 2.5 times more emergencies than men do.

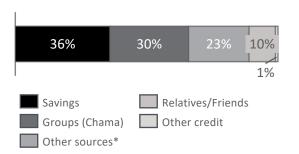
REASONS FOR LATE PAYMENT OR DEFAULT

% of DigiFarm farmers



FARMER BURDEN FOR SCHOOL FEES

% of FtMA farmers







Do farmers appreciate the voucher system for purchasing inputs?

Input vouchers, instead of cash, were viewed positively by a majority of farmers who could easily access inputs. Cash is needed if depots are too far to access.

VOUCHER DESIGN



- Farmers receive loan voucher on their mobile phone, when loans are approved
- Vouchers can be redeemed by selecting inputs at partner depots within 7 days

FARM TO MARKET ALLIANCE Making markets work better for farmers

- Farmers apply for loans. Banks approve loans and disburse money into selected agrodealer's account.
- Loan package schedule is shared with agrodealer who delivers the inputs to group
- Goods received notes (GRN) sent to Bank

SATISFACTION WITH VOUCHERS

% of DigiFarm farmers



Dissatisfaction with vouchers

- Inability to use cash to buy other input products or pay for other needs
- Inability to use input vouchers at other nearby vendors to purchase inputs, when stocks are low or do not have the right inputs
- Inability to use cash to pay for labor – an important farming input that is currently not covered under the voucher

Satisfaction with vouchers can be summed up by the following quote:

"We need the vouchers to get quality inputs that we require. If it in money form, the money would easily be diverted to other pressing needs. So yes voucher is good so that we focus on farming only"

- DigiFarm Farmers





User Experience

Key learning questions:

 What can enhance farmers' experience with digital input loans?



What can enhance the user experience of digital input loan among farmers?

Digitization provides various benefits, but better alignment with planting cycles can further enhance the experience of farmers using digital input loans

End to end digitization can give farmers the immediate financial support they need. The following key digital features are particularly helpful:

- **Digital applications** have been helpful for DigiFarm farmers to apply from their phones. However, some farmers have required support from depot staff to fill out and submit their application
- Instant approval allows DigiFarm farmers to receive immediate funds required to purchase inputs on the same day. In fact, DigiFarm farmers often apply for loans and purchase inputs while at depots
- Individual digital loans allow both DigiFarm and FtMA farmers to build credit history for future loans

Even with instant approval, the lack of alignment between the marketing of digital input loans and the planting cycle made it difficult for some farmers to apply for loans. This encompassed a number of time related constraints:

- Time to make a decision as some farmers need time to reflect before deciding to taking up loan
- Farmers had already applied for alternative sources of financing, when available, when they learned about the possibility to apply for FtMA loans
- Cash collateral takes time for farmers to raise
- Inputs not available if inadequate time between ordering and delivery
- Spousal consent is required for some women farmers. Even when such consent is easy to get, it takes time

What can enhance the user experience of digital input loan among farmers?

For farmers to effectively use digital input loan, operational excellency and in-person support is very helpful and necessary for many farmers

There are a few operational barriers that limit uptake, usage, and satisfaction as a result of digitization. These include:

- Challenges with technology and back end processes, such as system shutdowns, data sharing,
- On platform transaction costs (e.g., cost of mobile loan payments, interest rates) can hinder farmer usage
- The lack of pre registration platform know-how is an additional barrier as only 8% of DigiFarm farmers (15% among women farmers) knew how to use the platform before registration

In person and call center support can be helpful throughout the user journey. In the DigiFarm model, iProcure depots were helpful touchpoints for farmers to improve onboarding and payment collections.

- **Digital applications**: farmers often apply for loans inside a depot, sometimes with the help of depot staff
- Onboarding and repayment: SMS and tele sales follow ups were helpful to increase repayment
- Technical training: farmers often rely on other farmers or trusted advisors for farming related advice.
 Leveraging trusted advisors at depots or centers can accelerate agricultural training. Although minimal interactions to date, farmers value websites or platforms where they can ask questions and receive immediate answers
- **Personal touchpoints**: FTMA farmers appeared to respond more positively to loan adoption and repayment with providers which spent more time in the field and made multiple visits
- Call center: For FTMA loans, strong call center support was also critical supporting farmers.

ANNEX







Sources of information

Evaluation of DigiFarm Input Loan Pilot, AgriFin Accelerate and Dalberg (November 2018)

FtMA in Kenya Smallholder Finance Survey: Why was input loan uptake so low in Meru and Tharaka Nithi Counties?, Farm to Market Alliance (November 2018)

DigiFarm Loan Repayment Report: Unearthing the drivers of DigiFarm's low loan repayment levels, Nielsen East Africa and Safaricom (October 2018)

Advisory Support - Farm to Market Alliance (FtMA) Kenya, AgriFin Accelerate and Dalberg (December 2017)











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