



# DigiFarm

## Gender Impact Study: Final Consolidated Report

---

Report completed by Busara and  
Dalberg on behalf of Mercy Corps  
AgriFin

April 2021

# Contents

- Study Objective
- Executive Summary
- Study Methodology
- About DigiFarm
- Farmer Engagement Journey
  - Usage Overview
  - Factors that drive and limit awareness and adoption
  - Factors that drive and limit engagement with loans, access to markets and learning
- Women Segments and Mental Models
- Engagement Impact
- Recommendations



# Study Objectives

# Context

Women account for nearly half of the world's smallholder farmers and greatly contribute to agricultural activity yet are disproportionately affected by systemic challenges in the agricultural sector such as access to markets, credit, inputs, knowledge, and land. Digital solutions have potential to revolutionize the livelihoods of farmers, however, **challenges that constrain meaningful use of digital services by female users limit sustainable impact for women smallholder farmers.**

The agriculture sector in Africa has been facing systemic challenges over the past decades including issues around markets, credit, quality inputs as well as knowledge and networks. These **challenges disproportionately affect female smallholder farmers** who contribute greatly to agricultural labor and productivity.

**Digital solutions have potential to revolutionize the livelihoods of farmers,** however, consistent challenges that constrain meaningful use of digital services by female users limit sustainable impact for female smallholder farmers.

The Bill and Melinda Gates Foundation has engaged AgriFin to understand **the impact of digital services on women smallholder farmers,** and the factors driving and inhibiting their adoption and usage of the services.

This study consisted of 3 phases of research and this report highlights the key learning from each phase.

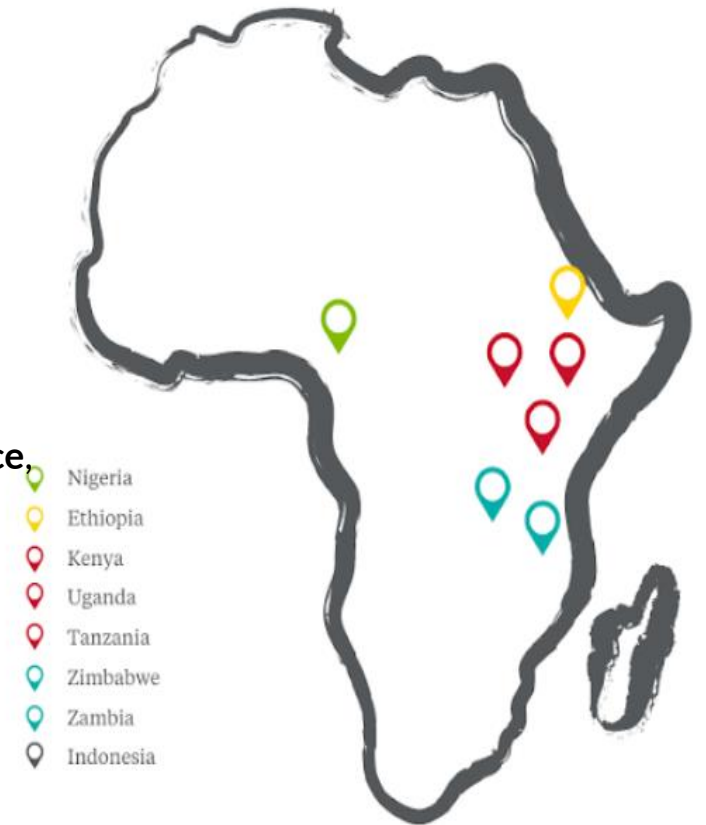
# About Mercy Corps AgriFin

We work with over 9 million farmers and 150 partners across Africa

Mercy Corps' AgriFin Digital Farmer (ADF) Program is funded by the Bill and Melinda Gates Foundation to help organizations design, test and scale digitally-enabled services for Africa's smallholder farmers.

- Objective is to develop services that increase **farmer income, productivity and resilience**, with 50% outreach to women.
- Work with **private & public sector scale partners** such as banks, mobile network operators, agribusinesses, technology innovators and governments.
- We help our partners develop bundles of digitally-enabled services, including **smart farming, financial services, market access and logistics** supporting data-driven partnerships.

The AgriFin Digital Farmer (ADF) program is championing the development and deployment of a range of full-service digital ecosystems to support end-to-end farming activity across East Africa.



# Objectives

This assessment was conducted to map the impact of digital product and services on women farmers, and factors driving its adoption and use by farmers, particularly women.

This report presents the results of a gender impact assessment of the DigiFarm products and service offerings on farmers, particularly women. The main objectives of the study were centered around understanding knowledge/attitudes towards digital solutions, usage of DigiFarm services by gender, factors that drive adoption and use, particularly by women as well as impact on women smallholder farmers' livelihoods and learnings for delivering digital solutions for women.

This report is structured to convey the following insights inline with the objectives outlined above:

- User engagement statistics of a selected sample of men and women users
- Factors influencing adoption and usage of DigiFarm from qualitative interviews with farmers and key informants,
- Elicitation of mental models that inform women's decision making around uptake and usage of DigiFarm
- Overall impact of DigiFarm on women's livelihoods
- Recommendations on lessons learned for improving adoption, utilisation, and impact of DigiFarm, particularly for women.



# Executive Summary

# Executive Summary- Overview

The insights gained from the analytics of the sample data used covered 3140 farmers across 10 counties. A majority of users were concentrated in Makueni county. The insights gained from the analytics show overall engagement with the learning modules offered through Arifu was the highest of all 3 platform features assessed (40%), followed by access to markets (32%) and access to finance (9%) in the last 90 days of the sample time period. Usage by women was highest for the access to markets modules compared to men. Although the number of men that received input loans was slightly higher than women (8%) the average loan amount received was fairly equitable between gender. However, women did not engage with the learning modules as frequently as men

The assessment finds that **women's user journey on DigiFarm is more complex than the organizational journey** and women farmers experience various drivers and barriers across their journey. On drivers, we find that community channels e.g. friends, neighbors, DigiFarm Village Advisors (DVAs) and local agrovets, and Safaricom's strong brand play a key role in creating awareness and trust among women to join DigiFarm. Further, DigiFarm's Village Advisors (DVAs) are a key source of support for women farmers to register and learn how to use DigiFarm. Most women farmers do not mind the gender of the DVA registering them as long as they are supportive. Amongst DigiFarm's products, women farmers most appreciate input credit, due to its non-cash nature limiting misuse of cash, and a guaranteed market, assuring them of some income. Women also value the high quality of inputs provided through DigiFarm, high prices offered on produce and DVA's support to offtake produce, which removes women's' mobility constraints.

However, **women also face a number of challenges across the user journey**. Their limited mobility due to household duties and time constraints limits their opportunities to learn about DigiFarm. Further, women's registration process is not straightforward, as they often have to consult with a number of people before making the decision to register, and often require permission from the husband, as the husband likely owns the land. Once registered, there is variance in the onboarding and training support provided by DVAs, limiting women to using the products and services that are recommended by DVAs.

Based on the qualitative insights gathered as well a farmer demographics **3 segments of women farmers were identified:**

- Savvy Explorer: They are the most active women users and the most digitally savvy
- Comfortable Observer: They are average women users and moderately digital savvy
- Passive Onlooker: They are the lowest user segment and the least digitally savvy

# Executive Summary- Drivers and Barriers to Adoption

## *Factors driving adoption of DigiFarm by women farmers*

- **Community-level channels and savings groups** are effective channels to create awareness and convert women to register. While women farmers may hear of DigiFarm from mass media, women farmers are only convinced to register when they learn about DigiFarm from trusted community sources. **Safaricom's well known brand** also aids to increase trust and encourages registration.
- **Use of savings groups to recruit** - Savings groups are an effective and efficient channel for creating awareness on DigiFarm as women are more likely to be in savings groups than men, and trust information shared in the groups. **Visual evidence of DigiFarm's impact** on neighbours' farms also increases women's trust of the platform and encourages registration. **Use of agents (DVAs)** to create awareness about DigiFarm and support women farmers to register is effective in supporting women farmers with digital literacy challenges.
- **Input credit:** Women farmers indicate input credit as one of the reasons they joined DigiFarm as they can receive inputs as credit, leaving them with more disposable income for other uses.
- **Market Access:** A guaranteed market is the other key draw for women farmers to join DigiFarm besides input credit as it offers women farmers a guaranteed income.

## *Barriers to adoption of DigiFarm by women farmers*

- **Limited mobility** due to household responsibilities decreases women farmers' opportunities to be exposed to DigiFarm
- **Low trust and higher risk aversion** among women farmers than men farmers results in a long decision-making process – women farmers speak to multiple individuals they trust to gather more evidence on DigiFarm's benefits before making the decision to register.
- **Required permission from husbands** (for married women farmers) and sometimes parents (for unmarried women) who typically own the land can be a barrier to women farmers' registration.
- **There is variation in the onboarding and training support provided by DVAs.** This is a challenge for women farmers in particular, because they have lower digital skills on average and may find it challenging to navigate the menu on their own; and they have more limited time due to household responsibilities, leaving them with less time to explore DigiFarm

# Executive Summary- Drivers and Barriers to Use

## *Factors driving active use of AgriPay by women farmers*

- **Input credit:** Input credit is preferred as cash may be used for other purposes, by women farmers themselves e.g. for emergencies, or by their partners for other needs.
- **High-quality inputs:** Access to high-quality inputs encourages women farmers' continued use of DigiFarm. Women farmers are more involved in the planting and cultivation stages of farming compared to men farmers and are therefore more likely to appreciate access to high-quality inputs.
- **Market Access:** High prices offered by DigiFarm relative to middlemen incentivize women farmers to sell produce through DigiFarm as opposed to other channels.
- **Market Access:** DVAs offtake produce from women farmers' homes or farms, mitigating women farmers' mobility challenges

## *Barriers to active use of DigiFarm by women farmers*

- **Inputs:** Women in rural areas can have poor mobility and limited time to travel to source inputs.
- **Insurance:** Limited awareness and understanding of insurance services constrains women's uptake, along with past negative experiences with insurance.
- **Learning:** Learning modules can take up women farmers' already constrained time. Some women farmers face a language barrier and sometimes find the language used too technical for them to understand. Lower digital literacy relative to men farmers limits women's engagement with DigiFarm to the same extent as men farmers. Women farmers' have higher time poverty, which is a barrier to exploring additional features on DigiFarm.

# Executive Summary- Impact

**Impact on women farmers' livelihoods** - overall, we find that DigiFarm has enhanced the livelihoods of women farmers:

- Women farmers report seeing an **increase in yields and farm productivity** due to enhanced access and use of certified, quality inputs (particularly seeds) provided by DigiFarm on credit.
- Farmers cite that the education they have received on good farming and agronomic practices from DigiFarm has **simplified farming activities; helped them effectively use inputs; and reduced their cost of labor**
- **Increased incomes** - Women farmers are guaranteed a market for their produce, which enables them to sell more and offers higher prices than those offered by middlemen, increasing their income from farming
- **Multiple income streams** – women farmers have been able to add to the income streams in the household, enabling them to cover essential expenses such as food and school fees as well as non-essential aspirational goods such as T.V.s
- **Disposable income** - The small down payment required for input credit results in women farmers reporting having more disposable income to use for other activities

**Impact on women farmers' lifestyles** - DigiFarm has also enhanced women's decision-making power, time savings and nutrition:

- Women farmers' increased income through DigiFarm has resulted in **greater trust from their partners to make agricultural and financial decisions** in households
- Women have **increased control over their finances** and financial decision-making as earnings from sales through DigiFarm are sent directly to their cell phones increasing their agency
- Women's success in agriculture and increased incomes have **boosted their self-esteem and confidence**
- With increased income, women farmers **can afford to hire extra help** at the farm and increase their time available for other activities
- DigiFarm **saves women farmer's time** by providing DVA farm visits to respond to challenges and off-take produce
- Increased yields enable women farmers to retain more food for consumption and increased incomes help them diversify meals, **increasing food security and nutrition**

# Executive Summary- Recommendations

To amplify impact and continue supporting women farmers, we identify a number of opportunity areas for DigiFarm, specifically:

## Awareness and onboarding to encourage adoption

### **Awareness**

- **Target women farmers more effectively in awareness raising** - target sites and events women tend to attend frequently (markets, churches and health); and be gender inclusive in media outreach – use local language, use local-language radio stations, and target time slots when women are listening/watching
- **Encourage DVAs to follow up more frequently with women farmers** to encourage their registration during their evidence gathering stage
- **Engage gatekeepers** - engage husbands during household visits, and through group meetings including spouses of women farmers.

### **Onboarding & Training**

- **Equip DVAs for onboarding and training women farmers more effectively**
  - Enhance and increase trainings for DVAs to comprehensively understand all DigiFarm's services e.g. insurance
  - Include gender-sensitivity training to educate DVAs on some of the additional challenges women farmers may face and the best approaches to recruit and support them e.g. how best to engage gatekeepers/husbands
  - Create a standardized onboarding checklist or DVA toolkit of all the items that the DVA needs to go through with farmers to onboard them, have a distinct version for interaction with women farmers
- **Offer incentives** e.g. additional commission for DVA's who recruit and onboard women
- **Adapt training for women's need and convenience**
  - Leverage commonly-watched farming shows to demonstrate how to navigate the DigiFarm platform e.g. Shamba Shape-up
  - Provide SMS and voice-based reminders/pre-recorded calls to women farmers with tips of what more they can do with DigiFarm and products available on the platform

# Executive Summary- Recommendations

## Product design and roll-out to encourage active use

### **Inputs**

- **Expand the inputs delivery network** to increase coverage of rural areas by enrolling more agrovets and input stores, to reduce some of the mobility issues faced by women
- **Incentivize DVAs to deliver inputs** needed to women farmers either directly or through partnerships with transport services

### **Input credit and Insurance**

- **Consider bundling input credit with savings** to serve women farmers who prefer to use savings rather than input credit to purchase inputs. **Increase training on insurance** to enhance awareness and understanding of insurance and shift negative perceptions for both DVAs and farmers e.g. through sensitization campaigns, SMS, and sharing stories from farmers who have benefitted from insurance

### **Access to markets**

- **Expand value chains that DigiFarm works with**, particularly those engaging women farmers e.g. poultry
- **Provide harvest collection services** as additional support for women farmers to address their financial, time, and mobility constraints from accessing markets

### **Learning**

- **Incorporate more IVR** (Interactive Voice Response) features in the learning which can enable women to learn while doing other tasks e.g. cooking
- **Increase language options** available on DigiFarm to address language barriers
- **Increase learning modules** that are of most interest to women farmers e.g. in value chains they are most involved in such as maize and poultry, and in stages they are engaged in (planting and cultivation)
- **Offer more in-person DigiFarm trainings**, since women are more likely to attend these, and use them as a tool for both training and encouraging women farmers to engage with the digital learning platform
- **Consider adoption of smart advisory services for farmers** as an additional channel to support farmers to enable farmers to improve production, reduce crop loss and ultimately increase productivity



# Study Methodology

# Study Methodology

➤ To achieve the learning objectives, a mixed approach is applied and executed by Busara and Dalberg over three phases:



**Data Analytics:** Analysis of a selected sample of administrative data on farmer usage of DigiFarm by gender.







**Qualitative Research:** Explores farmer experiences and journeys for each partner product with in-depth interviews with a subset of farmers and stakeholders (informants).



**Behavioral Mapping:** Identifies shared mental model themes (from the farmer interviews) of how farmers perceive the DigiFarm value proposition and the cognitive barriers and levers that may be driving decision making around usage.

- Four partners have participated in this study:
  - Arifu
  - AgriPay (by Zanaco)
  - **DigiFarm**
  - FtMA (Farm to Market Alliance) Kenya

# Study Methodology

Research method	Description	
	<b>LITERATURE REVIEW</b>	<p>We reviewed <b>key documents</b>, including past AgriFin, Dalberg, BMGF and external research on DigiFarm on topics around digital agricultural technology and and best practices in reaching women farmers through digital services.</p>
	<b>DATA ANALYTICS</b>	<p>We reviewed <b>quantitative data analysis of a sample of DigiFarm data</b> to identify key themes and questions for deeper probing in farmer and informant interviews.</p>
	<b>KEY INFORMANT INTERVIEWS</b>	<p>We are conducted <b>key informant interviews with 5 of DigiFarm’s key partners and 9 farmers</b>            Key partners include</p> <ul style="list-style-type: none"> <li>• Onboarding (KLPA, AIS)</li> <li>• Learning (The Mediae Company (iShamba), Arifu)</li> </ul>
	<b>HCD- INSPIRED AGENT AND FARMER INTERVIEWS</b>	<p>We conducted <b>17 Human Centered Design (HCD)-inspired interviews, 14 with farmers, and 3 with DigiFarm Village Advisors (DVAs)</b> who serve as recruiting and onboarding agents</p>

Note: We targeted our recruitment to ensure a diversity of women's experiences would be captured, including using selection criteria around age, education level, marital status, and smartphone ownership. The full breakdown of farmers and agents interviewed is available in the annex.



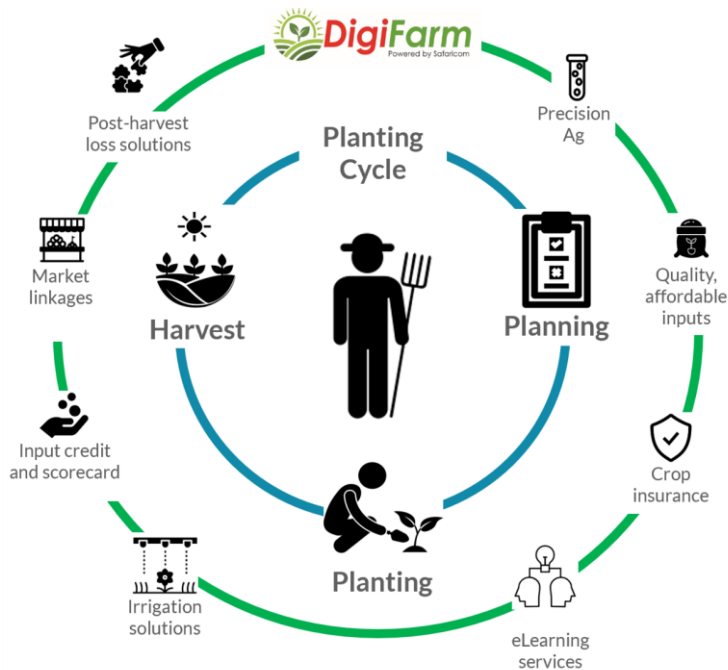
# About DigiFarm

# About DigiFarm

## The DigiFarm Model

Launched in 2017, DigiFarm is Safaricom's (East Africa's leading network provider) integrated mobile platform of digital services for farmers. DigiFarm, accessible on a basic feature phone, provides farmers with access to products and services enabling them to conveniently source, transact, learn, and grow their farms. DigiFarm has had over 1.3 million registered users since its launch. Additional services have been added to the platform since 2017 to make DigiFarm a one-stop shop for Kenyan farmers.

## Overview of DigiFarm services



### Inputs

- DigiFarm works with agrovets to offer farmers high quality, certified inputs at an affordable price point.

### Input credit

- DigiFarm offers input credit to its farmers through credit partners, in the form of a code used to access the inputs. A 20% deposit is required to access input credit.

### Learning

- DigiFarm shares knowledge through education partners e.g. Arifu on topics such as planting methods, farming, cultivation and best farming practices.

### Crop insurance

- DigiFarm offers agri-insurance through partners in 2 forms: 1) bundled with input credit as mandatory insurance, and 2) a separate offering for farmers who decide to pay for inputs in cash.

### Market linkages

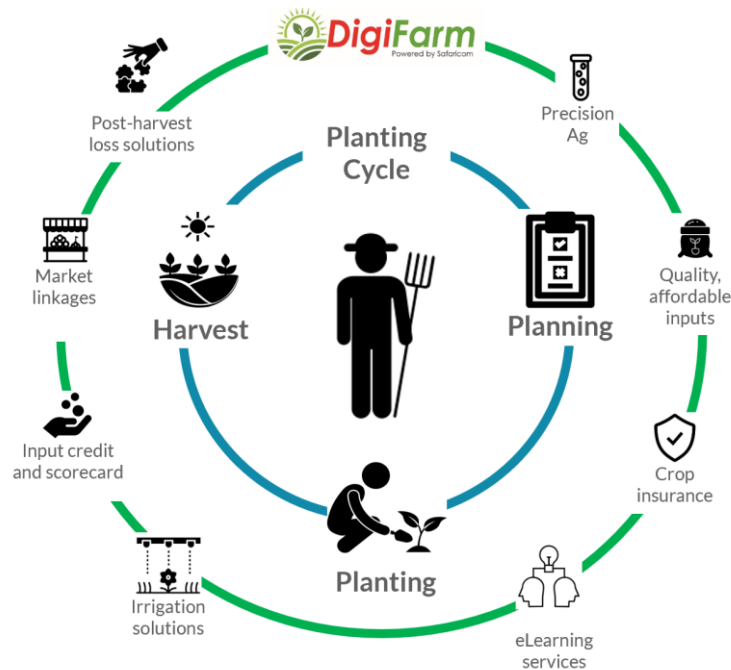
- DigiFarm links farmers to markets through Digisoko and other partners e.g. UNGA Group Limited, EABL, BIDCO and Capwell Industries.

# About DigiFarm

## The DigiFarm Model

DigiFarm's platform model opens up the marketplace for farmers to access products and services from financial institutions, agri-input providers, and other value-added service firms, enabling farmers to easily source, transact, learn and grow. The platform is accessible on a basic feature phone, allowing farmers to access information and complete transactions conveniently

## Overview of DigiFarm services



Of all the platform features and services, access to markets, education and credit are among the most popular features, while uptake of soil testing is a less conventional option among farmers. In 2019, AFA, in partnership with Busara, conducted a baseline study with 3239 farmers (the total sample including non-users) with a relatively even split between men (60%) and women (40%). 27% (874) of registered users in this study were active users. Of the users that reported receiving agricultural loans, DigiFarm was among the top 3 sources. However, uptake of agricultural insurance was generally low. Despite the DigiFarm platform linkages to verified input vendors, a significant proportion of registered farms still get inputs from vendors outside the DigiFarm network of approved vendors. With appropriate data, it will be worthy to investigate how phone type influences the uptake and usages of particular services.



# Farmer Engagement Journey

# Usage Overview

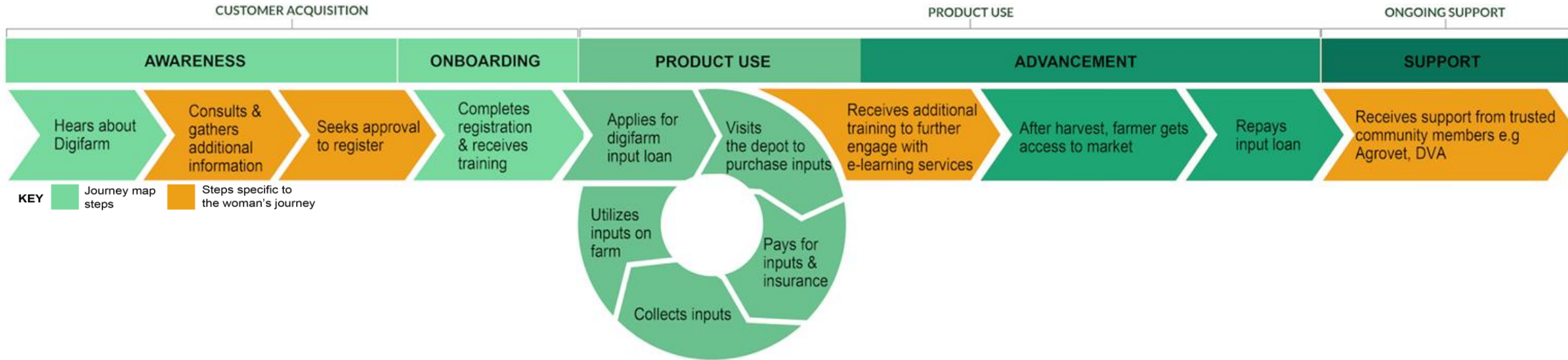
---

In this section, we presented the overview of who are using DigiFarm and how various services provided by DigiFarm have been used.

# Engagement Journey of Women Farmers

DigiFarm Product Journey

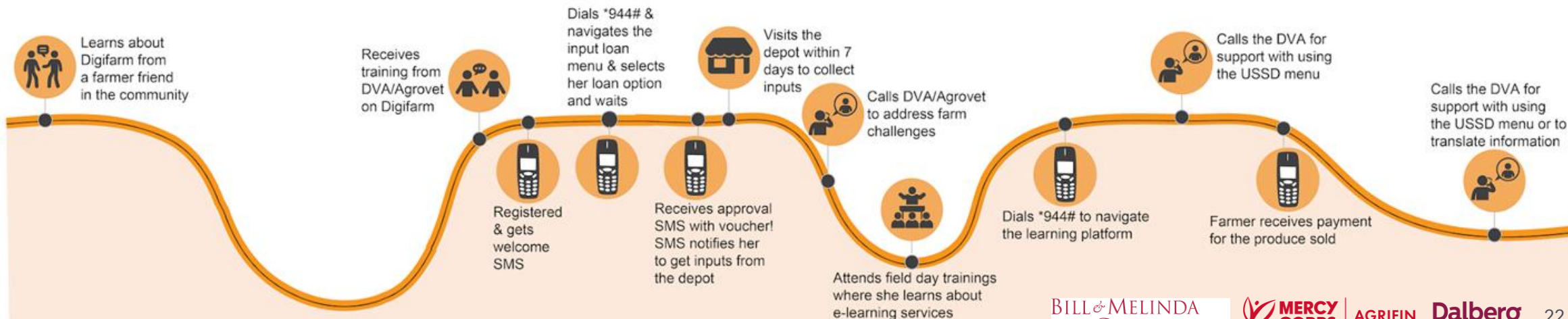
Woman Farmer's Journey



Woman Farmer's Questions

- How easy is it to apply?
- Who do I speak with to learn more?
- What do my peers think about DigiFarm?
- What would my husband think of me using this product?
- Would my husband agree for me to use it?
- How easy is it to use?
- What is the quality of inputs I will receive?
- How do I apply for the loan?
- How will I find market for my produce?
- What price can I get for my produce?
- How will insurance help me?
- How/Where can I access additional services?
- What are the benefits of the additional services?
- What content is available on the USSD platform?
- How do I navigate the USSD?
- Who do I turn to for additional support or to get help?
- How do I translate the SMSs I receive?

DigiFarm Engagement & Service Touchpoints

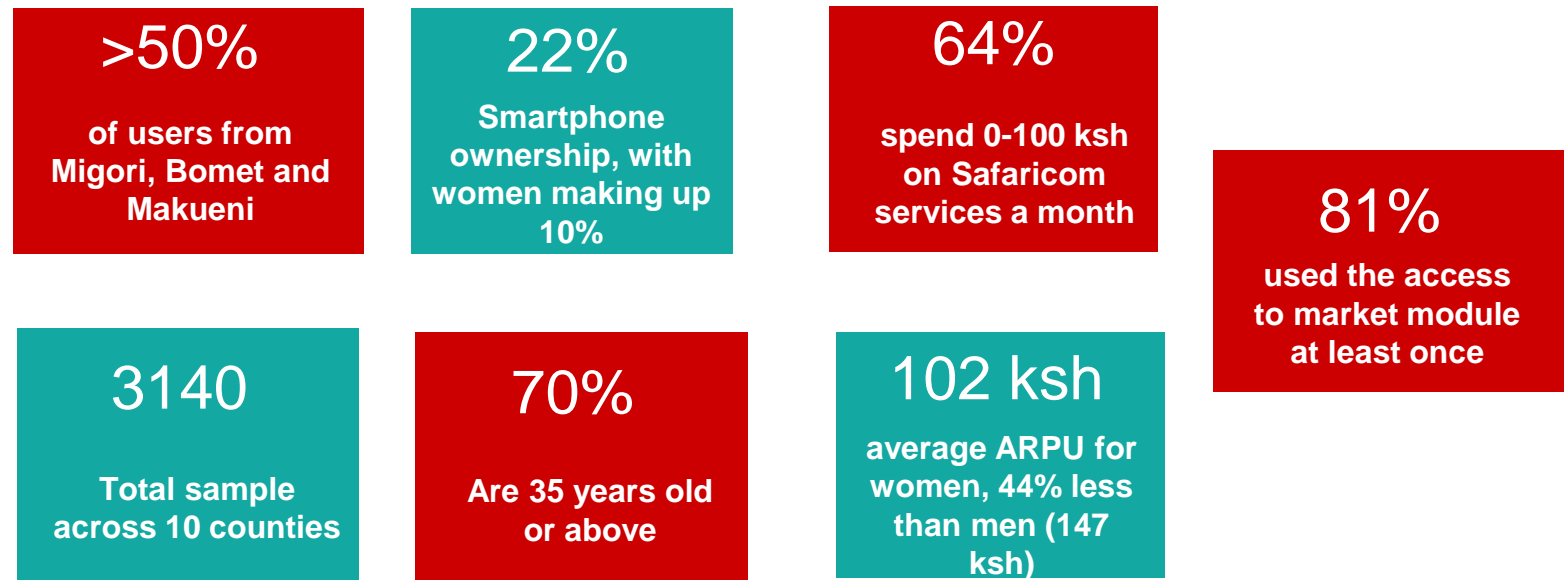


# DigiFarm Sample Demographics and Engagement Statistics



The sample used was provided by Safaricom and sourced from 10 counties (Tharaka Nithi, Migori, Meru, Makueni, Kitui, Bomet, Bungoma, Busia, Kakamega and Kericho). A majority of the sample was taken from Makueni and Migori. The sample distribution among counties closely reflects the distribution of DigiFarm users in these areas.

To better understand existing levels of user engagement of DigiFarm users we analysed a sample of 3140 DigiFarm user data to observe demographic characteristics of users as well as their engagement with the various DigiFarm product feature by gender.

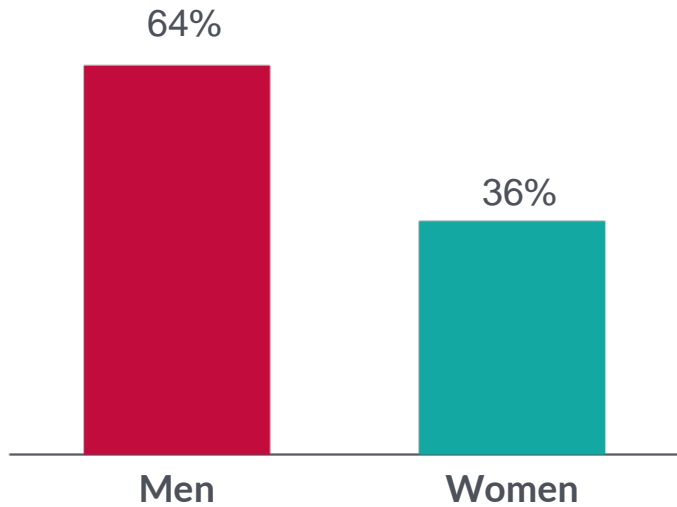


Most users, especially women, fall under the ARPU bracket 0-100 ksh. In the the higher ARPU\* bracket of 101-500 ksh, there are 17% more men than women.

# DigiFarm Registrations and Usage

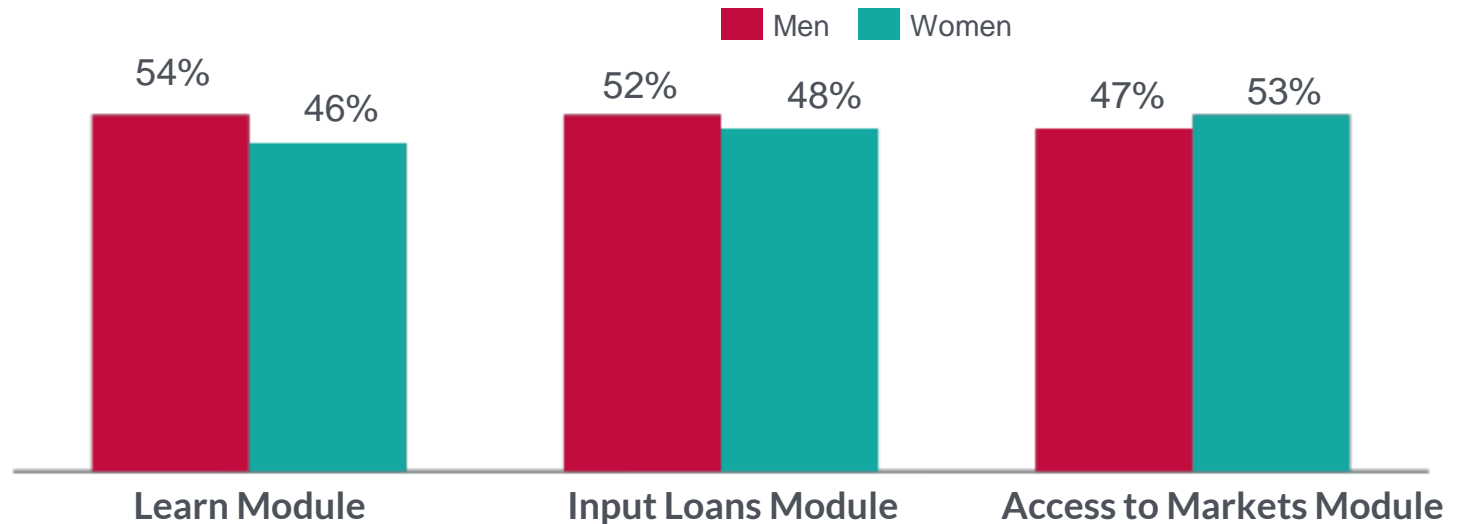
Women's registration on DigiFarm is lower than men's, however, the gender gap in product use is lower, driven by targeted recruitment and support for women

**Farmer Registration on DigiFarm by Gender [%]**



Active and inactive usage varies during the year, driven by seasonality; most users stay engaged on the platform between seasons through eLearning

**DigiFarm Service use by Gender [%]**



40% of the sample had used the learn module at least once; The learn module is offered by Arifu.

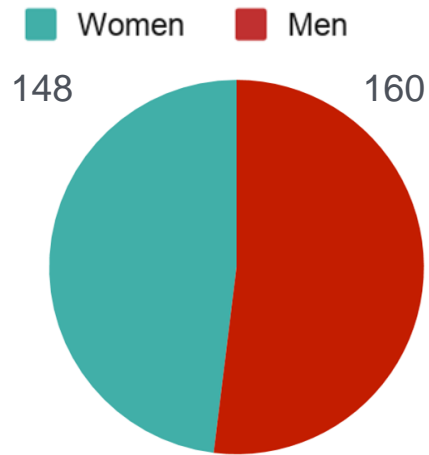
Total loan amount in the sample is slightly higher for men (7%), but average loan amount is fairly even for both genders

32% of the sample had used the access to markets module with 6% more women than men using the module

# DigiFarm Usage Frequency

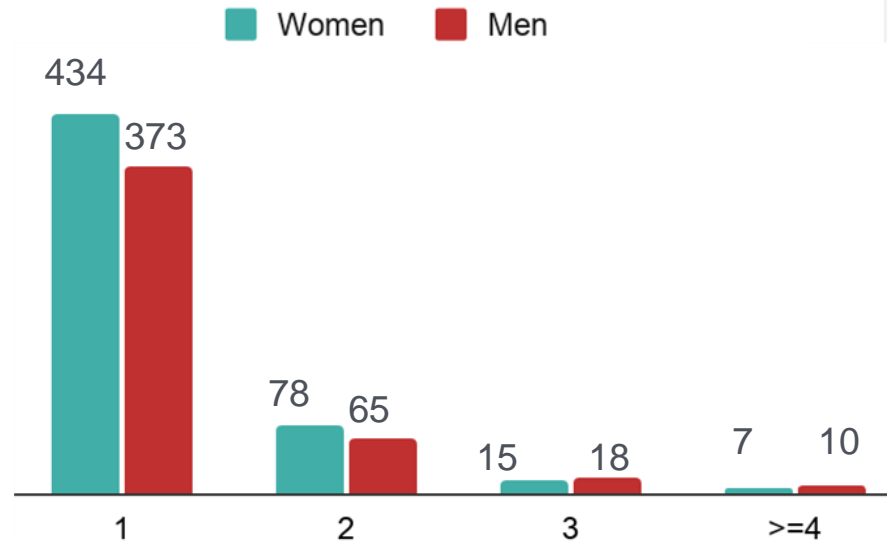
Access to markets had the highest level of participation by women while input loans had the least

## Farmers that Received Input Loans



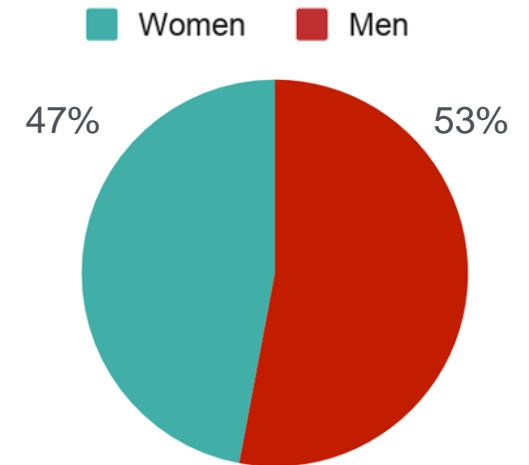
Only 9% of the sample (308/ 3140) had received a loan. 8% more men received loans than women. The average loan amount was 3.856KES with little disparities between in the average amount between men and women although total loan amount was slightly higher for men.

## Access To Markets Frequency



Most users had only used the access to markets module once over the 1 year sample period. Most users prefer to bring most of their harvest in bulk in 1 trip. Men were observed to use the module more frequently than women most likely because they have the time and means to make multiple trips to offtakers.

## Learn Module Use Frequency

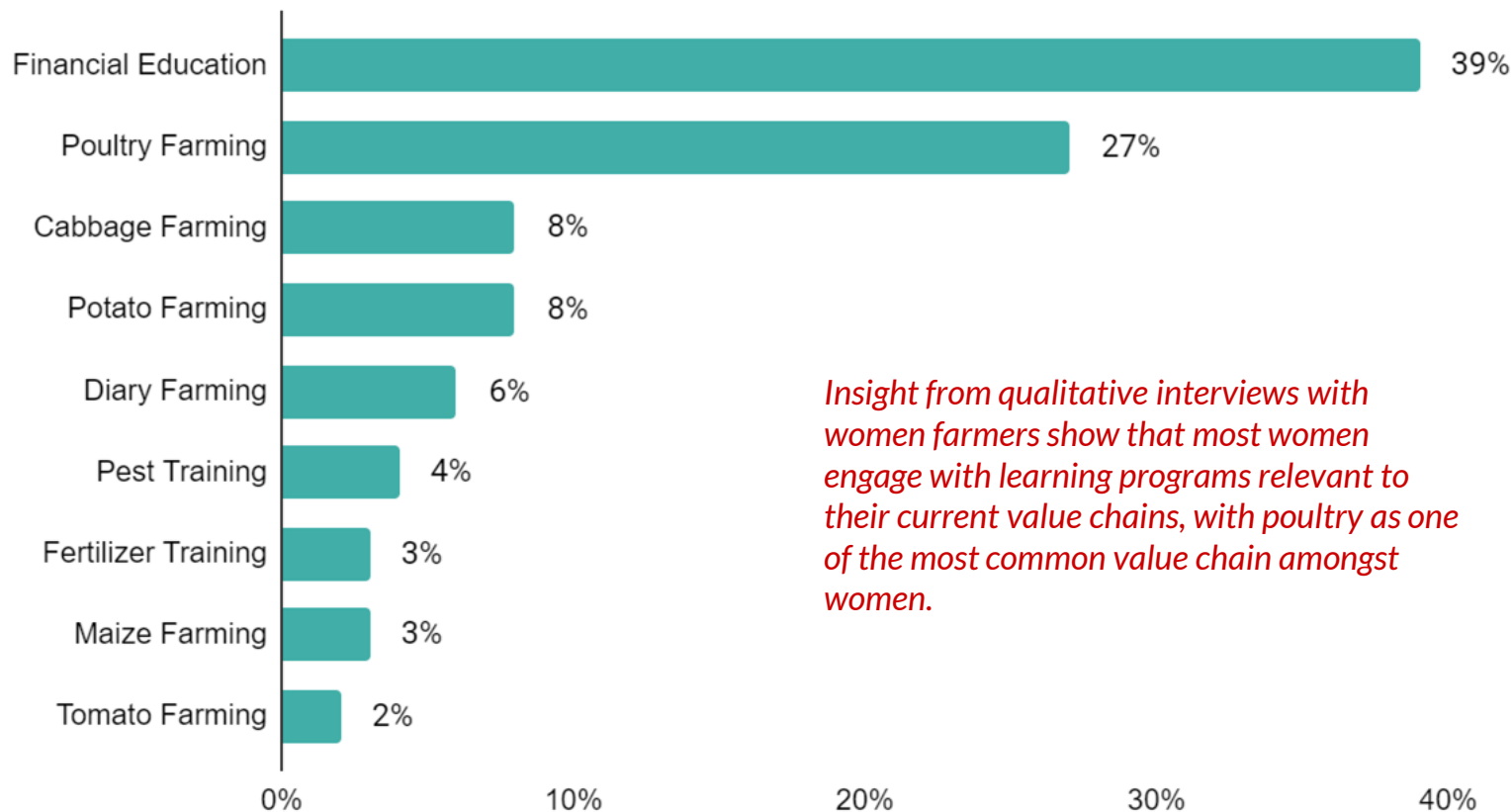


### Frequency of Use (1-5 times)

Most users used the Arifu learn module at least 1-5 times within the sample period of 1 year. Men were observed to use the learning platform more frequently than women, with 8% more men using the platform overall and 16% more men using it 50 or more times.

# DigiFarm Arifu Learning Programs

## Proportion of DigiFarm Users Engaging with Arifu Learning Programs



*Insight from qualitative interviews with women farmers show that most women engage with learning programs relevant to their current value chains, with poultry as one of the most common value chain amongst women.*

Of all the learning modules offered to DigiFarm users through Arifu since the launch of the platform, more users engaged with financial education content (39%)

However the average number of interactions per module is higher for poultry farming. Meaning there are more users accessing financial education content but poultry farming has the highest frequency of engagement (interactions with program content).

DigiFarm user interactions with tomato farming, maize farming and fertilizer farming learning content were among the least.

# Factors that Influence Awareness and Adoption

---

In this section, we analyzed the data and information from farmer interviews and identified factors that influence awareness and adoption of DigiFarm services, particularly among women users.

# Factors that Drive Awareness and Adoption Among Women

## Leveraging Farming or Community Groups

While men and women farmers usually hear of DigiFarm from mass media e.g. radio and TV, the most common sources of awareness for women are community-level channels (friends, neighbors, DVAs and local agrovets). These are also the most effective channels to convert women farmers to register- Hearing about DigiFarm from mass media alone is not enough to convert women farmers to register. Women farmers are only convinced to register when they learn about DigiFarm from community sources such as savings groups and DVAs) likely because the sources are well known, trusted, accessible and women can share their experiences of the platform. This reflect women's lower levels of trust than men on average (THA) which makes them more likely to trust sources of information near them than mass media. We found that women were indifferent to the gender of the DVA agents

*“I heard about DigiFarm from the DVA and groups - the DVA often comes and talks to us.”*

WOMAN | FARMER/DVA | 48 | THARAKA NITHI

## Trust

Safaricom's strong brand has played a key role in creating awareness about DigiFarm and converting women farmers to register. Safaricom's brand is well-known, familiar, and trusted amongst farmers, because most farmers recognize it from using its cell phone services and mobile money. The familiarity creates trust, especially among women farmers. Safaricom's longevity in the market also creates an assurance among farmers that the DigiFarm brand will likely be a long-term initiative than other programs farmers may have worked with in the past.

*“Many people really trust Safaricom, they trust DigiFarm because of the association.”*

MAN | FARMER | 26 | MIGORI

# Factors that Drive Awareness and Adoption Among Women

## Mobility and Accessibility

Women farmers' have limited mobility which limits their opportunities for exposure to DigiFarm. Women farmers are less likely to travel away from their homes and farms due to their roles as caretakers, influenced by socio-cultural norms. However, men are more mobile, and therefore more likely to go to towns where they hear about DigiFarm from sources that are more prevalent in urban areas, e.g. agrovets, which women may have less access to.

## Gender Roles and Cultural Norms

Husbands (for married women farmers) and sometimes parents (for unmarried women) are often the final gatekeepers for women farmers to join DigiFarm. Married women farmers consult with husbands before joining DigiFarm partially because they are the key decision-makers in the household due to sociocultural norms, but also because men typically own the land, solely or jointly. In cases where permission is not granted, this can be a barrier to join DigiFarm. For example, some women farmers stated that their friends wanted to join DigiFarm but their husbands did not allow it.

## Quality Onboarding

There is variance in the onboarding and training support provided by DVAs. Women farmers report hearing of some services from the DVAs while others had to come across features first and ask the DVA in order to learn about them, e.g. the learning module. This is a challenge for women farmers in particular, because i) they have lower digital skills on average and may find it challenging to navigate the menu on their own; and ii) they have more limited time due to household responsibilities, leaving them with less time to explore DigiFarm.

*"Some of the Agrovets are far so a farmer would use transport and time"*

WOMAN | FARMER/DVA | 48 | THARAKA NITHI

*"I consulted with my husband and he was okay with it [registering for DigiFarm]. I then registered"*

WOMAN | FARMER | 26 | MAKUENI

*"I only know of the farm inputs and farm insurance. I am ready to learn of more features because the few that I know have been of help."*

WOMAN | DVA | 48 | THARAKA NITHI



# Factors that Influence Product Engagement

---

In this section, we analyzed the data and information from farmer interviews and identified factors that influence the usage and level of engagement of DigiFarm services, particularly among women users.

# Input Credit Feature: Factors that Drive Usage Among Women

## Preference for non cash loans

Women farmers report being more averse to credit than men farmers, however, the aversion appears to be particularly for cash-based credit. Women indicate input credit as one of the services they value most from DigiFarm because they can receive credit as inputs rather than cash. Input credit is preferred, since cash may be used for other purposes, by themselves e.g. for emergencies, or by their partners for other needs. This reflects the nature of women's expenses compared to men e.g. in covering household and emergency expenses – women farmers are worried if they have a cash loan they will use it for emergencies rather than inputs as intended. Other reasons input credit is favored by women farmers is that only a small **down payment is required** (20%) for the input credit which leaves women farmers with more disposable income for other needs in the household; and **the option to pay back the input credit from harvest directly**.

*“I have used DigiFarm for three years, and they provide us with inputs (seeds, pesticides etc.) on loan which eliminates the need for having money up front”*

WOMAN | FARMER | 26 | MAKUENI

## Quality inputs

Access to high-quality inputs is an incentive for women farmers to join DigiFarm. Women farmers are more involved in the planting and cultivation stages of farming compared to men farmers and are therefore more likely to appreciate access to high-quality inputs. According to women farmers, the certified inputs offered by DigiFarm are higher quality than competitors' - women have seen higher germination rates and yield using these inputs compared to others.

*“DigiFarm has really encouraged me to be a farmer, especially with the input loans, because at that time I had no capital”*

MAN | DVA | 26 | MIGORI

## Convenience

Given women farmers have poor mobility and limited time to travel to source inputs – the distances they need to travel to search for quality inputs is a challenge that DigiFarm helps solve. However collecting these inputs from DigiFarm agents also poses a challenge for time constrained women with no means of transportation. Some married women are able to ask their husbands to purchase or collect inputs for them, but this may reduce their agency in choosing inputs and can result in a lower desire to learn more about the best inputs to use.

*“When the husband is around, he is the one who can take inputs, the woman is in the shamba.”*

MAN | DVA | 26 | MIGORI

# Access to Markets Feature : Factors that Drive Usage Among Women

## Guaranteed Market

A guaranteed market is the other key draw for women farmers to join DigiFarm besides input credit. Most women farmers in rural and peri-urban areas often use the access to markets service to supplement income and provide for their families' needs. Women residing in these areas sometimes opt to farm to supplement family income as their partners may be away from home e.g. in cities or carrying out different activities (such as operating boda-bodas (motorcycles)), so they farm to provide for their families in their partners' absence.

## Higher Earnings

High prices offered by DigiFarm relative to middlemen incentivize women farmers to sell produce through DigiFarm as opposed to other channels. Women farmers mentioned that the prices offered by DigiFarm were much more attractive and they felt they were getting good value for their produce.

## Support with collections

DVAs also sometimes help to facilitate off take of produce from farmers by sending off takers to collect produce from their homes or farms. Some women farmers mentioned this as something they found very valuable as it saved them time from having to travel and transport their produce to off takers, easing women's time and mobility constraints.



*"I deliver to DigiFarm, because of the price- the price of DigiFarm is good."*

MAN | FARMER | 26 | MIGORI

# Access to Markets Feature: Factors that Limit Usage Among Women

However, challenges accessing aggregation points and prioritization of household food security often leads to women farmers selling less to DigiFarm than men



Sometimes farmers may need to take produce to aggregation points and to offtakers which can be a challenge for women farmers. This is because women face time and mobility constraints and taking their harvest to the nearest aggregation center may cause them to incur time and transportation costs. With these constraints, women farmers sometimes end up selling to non-DigiFarm middlemen who go door-to-door due to the convenience, resulting in women farmers losing out on better price offers from DigiFarm.

*“If you have the produce and don’t have the markets, it’s riskier, products can spoil and it’s a loss.”*

WOMAN | FARMER | 26 | MAKUENI

Prioritization of household food security also results in women selling less produce than men on average. Women farmers often put some of their produce aside for the household’s consumption, prioritizing food security. This underscores women’s roles as caretakers of their families to provide food and other family needs. This results in women often bringing lower harvest volumes to sell through DigiFarm, than men farmers.

# Insurance Feature: Factors that Limit Usage Among Women

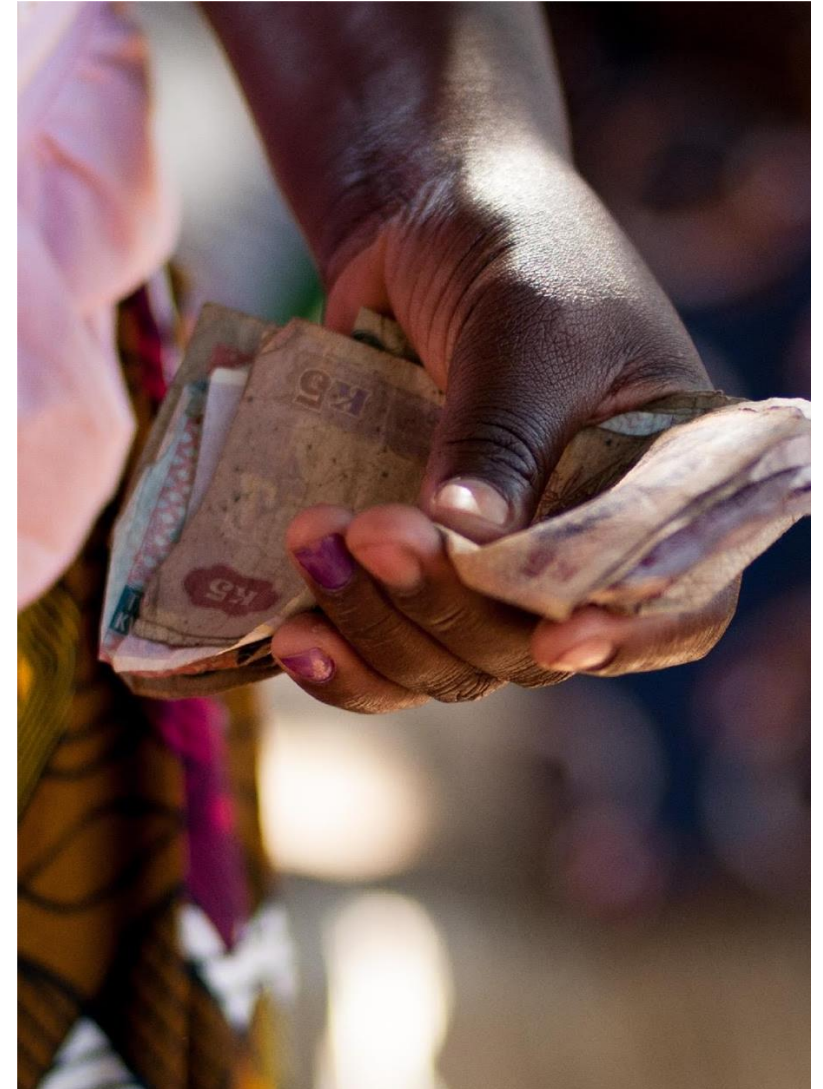
## Understanding of Insurance

**Limited awareness and understanding of the process and benefits of insurance constraints most women farmers' uptake.** In particular, women report that they have uncertainties of what insurance covers, while others assert that some of the risks covered by insurance may not be particularly relevant for them (e.g. natural disasters are covered while wild animals are not). There is also limited awareness and understanding of insurance among DVAs - some remarked that farmers often ask difficult questions about insurance that they cannot answer. Nevertheless, women farmers face trade offs when deciding whether to pay for insurance, which may increase their reluctance in opting to pay separately for the product.

**Past negative experiences with insurance payouts for both women farmers and their community members have led them to believe that it is a waste of money.** Some farmers believe that they may not receive payouts when they need it.

***“Sometimes it is hard to understand insurance. You can give your money and then find out it is a scam.”***

WOMAN | FARMER | 32 | MIGORI



# Learning Feature: Factors Drive Usage Among Women



## Preference for in-person learning

Women are eager to engage with education-related services but prefer to do this in a tactile way- through DVAs, training, or demonstration plots (especially when content is in relation to planting and cultivation). Some women prefer to call DVAs directly with any agricultural-related challenges rather than use the learning service on DigiFarm.

## Specificity of learning content

Women farmers face challenges with the specificity of information on the learn platform. Women have cited the reason they frequently contact DVAs is because the platform does not provide information that is specific enough for them to address their challenges.

*“I only learn about better practices, improvements and type of seeds you are supposed to plant.”*

WOMAN | FARMER | 52 | MIGORI

A perceived lack of relevance of some learn modules also drives low usage. Some women farmers mentioned they don't find the learning modules on land improvement and farm management of value to them because they do not own the land. These farmers indicated that due to their limited decision-making power over land management, they would not be able to apply what they have learnt, and the knowledge gained would therefore remain unusable.

# Learning Feature: Factors that Limit Usage Among Women

Other barriers to eLearning on DigiFarm by women farmers include limited time, language barriers and lower digital literacy

**Learning modules take up women farmers' already constrained time**, which is sometimes a disincentive to engaging frequently with content. Women farmers often engage with the learning content in the evening, after farming, sometimes while preparing meals, which can make it difficult for them to use the learn module as much given that they are tired and multitasking.

**Some women farmers face a language barrier and have said that the language is too technical for them to understand or is not in the language they understand** (e.g. mother tongue which would be easier for them to comprehend).

**Women farmers' limited digital literacy levels compared to male farmers** also present a barrier to learning – women farmers mentioned they mostly only use phones for calling and texting and are not familiar with other ways of navigating the phone. Consequently, they did not explore the phones as much and learn on DigiFarm. This challenge was mentioned more among women farmers than men farmers.

*“Not all the farmers will be able to learn or dial the USSD...Farmers are busy, sometimes they do not understand English or Swahili.”*

WOMAN | DVA | 26

# Factors that Limit Overall Engagement

Reliance on DVAs, limited time to explore, and low digital literacy are key barriers to limited use of other services, rather than limited interest

Women are more likely to only use the products and services that are recommended by DVAs with little self-initiative to explore other products or services available on DigiFarm. Product and service recommendations of DVAs influence women's usage and awareness of DigiFarm offerings. This may be more limiting for women farmers as they are less likely to be digitally savvy and able to explore the platform on their own.

Time poverty is a barrier to exploring additional features on DigiFarm for women farmers – women's additional responsibilities limit the time available to explore additional features in the platform. Women farmers indicate that working in the farm and being busy all day with non-farming activities makes them tired and they do not have enough time to explore additional features/offerings of DigiFarm. However, a few male farmers also mentioned having limited time to explore features on DigiFarm. This can be attributed to the time-consuming and labor-intensive nature of farming which leaves farmers time-poor.

*“Most of the women farmers need training on usage of the phone as they currently use it only for making and answering calls”*

WOMAN | DVA | 48 | THARAKA NITHI

*“I have too many tasks - taking care of my husband, kids, farming, running the store - sometimes I have to hire extra help for some of the tasks.”*

WOMAN | FARMER | 42 | MAKUENI

A woman is visible in the background, looking down, with a red overlay covering the entire image. The scene appears to be a field or garden.

# Women Segments and Mental Models

---

In this section, we created a framework to understand users' mental models and applied it on DigiFarm's women users to unpack the ways typical women users of DigiFarm think and behave.

# Segments of Women and their Mental Models



*Through the analysis of drivers and barriers to adoption/engagement, several segments of women users emerged, and some degree of insight into their psychometric traits was possible.*

*We explored these beliefs and attributes further, to deepen our understanding around drivers/barriers of product use by applying a mental models analytical framework to the emergent segments.*

*Through this framework we were able to distill some of the key beliefs, value propositions and cognitive biases that may be affecting decision-making around adoption/engagement with products.*

# Segmentation Methodology

We used four dimensions to segment and better understand women users on DigiFarm

## DIGITAL USAGE PATTERNS

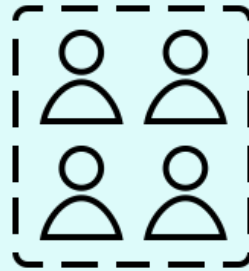
*What are the usage patterns across the customer journey of DigiFarm (awareness, onboarding, product use and advancement)?*

High, average and low usage

## BEHAVIOR

*What is the financial and social behavior of women users that drive their usage patterns?*

How likely are women users to have a bank or mobile wallet account, save, borrow, budget, etc.? Which community activities do women users engage in that affect their usage patterns of DigiFarm?



## DEMOGRAPHICS

*What are the socioeconomic characteristics of women users that drive their usage patterns?*

Age, location, marital status, education, digital literacy, livelihoods and household context

## PSYCHOLOGY\*

*Which are the psychometric traits that could explain women usage patterns on DigiFarm?*

Women's sense of control, self efficacy, openness, trust, optimism, conscientiousness, and dependability

Note\*: The Psychometric traits used are based on The Human Account of Kenya Women Smallholder farmers, created and developed by Dalberg with Rockefeller Philanthropy Advisors and funded by the Bill & Melinda Gates Foundation in 2019. The Human Account (THA) is a three-dimensional research framework aiming to better understand customers in emerging markets based on their contextual, behavioural, and psychological dimensions. While the THA segments were created to understand users' financial health rather than digital engagement, they can provide useful insights into the digital usage trends we observe among digital platform users. See Annex for the THA Kenya women segments.

# DigiFarm Women Segments



## THE SAVVY EXPLORER (Super-users)

Mostly married women, in peri-urban areas that have the highest education of all segments and are consequently the most active women users of DigiFarm. They have a strong penchant for technology, and leverage multiple online channels to educate themselves further on new digital tools and services. They participate equally in the financial decision-making in the household, usually with someone else. These women have an entrepreneurial spirit and multiple income streams they rely on beyond farming. This enables them to take care of household expenses. They participate in chamas and they are often the leaders of their groups. People in their community look up to this segment for advice and in some cases financial support. They often grow multiple crops and rear livestock that they sell commercially and, frequently hire additional labor to support them during planting and harvesting seasons. Psychometrically, they are optimistic, have a high sense of agency and have high trust in the community around them, which makes them more likely to seek advice from close sources on whether to join DigiFarm. They are most likely to constitute the Educated Planners segment of Kenyan women in The Human Account.



## THE COMFORTABLE OBSERVER (Average users)

Most live in peri-urban or rural areas and their highest level of education is high school. They are relatively digital savvy and constitute the average-user segment of DigiFarm. Women of this segment frequently rent land or may use a portion of their husbands land for farming. In some cases, they require permission from their partners especially financial decisions. They often have a bank account that is inactive and use mobile money as the main means to transact and informal groups to borrow money. They depend on crop farming and poultry rearing and farm both for commercial and food security purposes. This segment does most of the farm work themselves but, sometimes hire seasonal labor for support. Some either own a smartphone or previously owned one. Psychometrically, their self-esteem, optimism and trust levels are average compared to other Kenyan female farmers. They are slightly more open than other female farmers, and likely to experiment with new financial and digital services, but their usage is limited by lower incomes than those of Savvy Explorers. They most closely resemble the Careful Strivers segment in The Human Account of Kenyan women farmers.



## THE PASSIVE ONLOOKERS (Low users)

Mostly middle-aged and older women in rural areas, with primary education as their highest level of education. They have low levels of digital-savviness, and form the segment that engages with DigiFarm the least. If married, they do not participate equally in the household decision making and often rely on their partners approval in financial and farming decisions. They solely depend on crop farming for their livelihood and are most likely to depend on others (family and community) to support them financially. They have no bank account and save their money through informal groups. They frequently borrow from mobile money applications like Mshwari to make ends meet. Due to their limited income streams, they do not outsource for additional labour and support and are more likely to farm for their household food security. They typically do not own a smartphone and therefore, rely on in person trainings, their informal group and trusted members in the community to stay up to date with current trends. They tend to have lower trust than average of other people, digital and financial services. They also have low self-esteem and a negative view of the future. They are mostly like the Reserved Individualists and Disciplined Pragmatics in The Human Account.

# The Savvy Explorer: Product Use

## AWARENESS

- **Channel for first exposure to DigiFarm:** Most savvy explorers have heard about DigiFarm through an external source such as social media and radio.
- **Evidence gathering:** They may google, search online or use social media for information first but always refer to a trusted individual to confirm what they've been reading.
- **Permission:** In scenarios where savvy explorers are married they consult with their partners in the form of a partnership and discussion, rather than hierarchical relationship.

## ONBOARDING AND TRAINING

- These farmers are still not at a level where they self-register onto DigiFarm. They still need a DVA to guide them through how to access the services on the platform e.g using \*944# USSD menu.

## PRODUCT USE

- **Inputs/Input credit:** Uses DigiFarm inputs but would prefer to pay cash instead of taking input credit because they may have more cash on hand given varied income streams. In instances where input credit has been taken, they keep track of repayment via SMS from DigiFarm.
- **Learning:** Utilizes the e-learning service menu more frequently during the planting and cultivation season and uses SMSs to plan for planting season. They are more likely to use e-learning services to get the information they need than call a DVA because they rely on multiple sources of information.
- **Access to markets:** Uses DigiFarm but tries to be informed of buyers with higher prices - they are more likely to probe around market prices since they are more concerned about the best price for their produce than platform loyalty.

## ADVANCEMENT

- They are very proactive and are most likely to do research on other ways they can leverage DigiFarm - e.g. on Google, Facebook, and use several DigiFarm products as a result of exploration.

## ONGOING SUPPORT

- These farmers search information online first but still refer to a trusted individual to confirm what they've been reading. They interact differently with a human touchpoint and they are less likely to call the DVAs frequently for support and information.



# The Comfortable Explorer: Product Use

## AWARENESS

- **Channel for first exposure to DigiFarm:** Most have heard about DigiFarm from a friend (more often a savvy explorer), neighbor, agrovet or DVA.
- **Evidence gathering:** This is done through trusted individuals and visual evidence of success from peers using the service is important to them.
- **Permission:** Some are in a hierarchical relationship and may need to ask for permission from their partner to gain their approval to register, while others engage in joint decision-making with partners

## ONBOARDING & TRAINING

- Needs moderate hand-holding from DVAs to walk them through the DigiFarm registration process.

## PRODUCT USE

- **Inputs/Input credit:** Uses digifarm inputs and are more likely to appreciate the availability of input credit
- **Learning:** Relies on SMSs from DigiFarm and DVA for learnings and asks other trusted farmers for information.
- **Access to markets:** Uses DigiFarm and appreciates that their price is higher than brokers, has fewer market linkages and price information.

## ADVANCEMENT

- Average proactivity in exploring the platform – typically contacts the DVA to understand best ways to leverage DigiFarm services to increase their yields.

## ONGOING SUPPORT

- Relies on trusted agriculture players in their community and contacts the DVA to seek advice and information.

# The Passive Onlooker: Product Use

## AWARENESS

- **Channel for first exposure to DigiFarm:** Most have heard about DigiFarm from a friend (this can be a “savvy explorer” or “comfortable observer”), agrovet or DVA in the community.
- **Evidence gathering:** They gather evidence mostly from trusted individuals and need to see visual evidence of success from peers using DigiFarm.
- **Permission:** If married, they are in a hierarchical relationship and need to ask permission from their partner to gain approval to register on DigiFarm.

## ONBOARDING AND TRAINING

- Needs heavy hand-holding from DVAs and likely to hand over their phone to them to help them complete registration.

## PRODUCT USE

- **Inputs/Input credit:** Uses digifarm inputs and is most appreciative of the availability of input credit due to little ability to afford it otherwise.
- **Learning:** Fully relies on DVA or trusted farmer in the community for learnings, not proactive in discovering new information and seeks advice from other trusted farmers e.g when encountering farm challenges.
- **Access to markets:** Appreciates that DigiFarm prices are higher than broker prices are more likely to have higher loyalty in selling to DigiFarm partially due to low market information for comparison and few market linkages.

## ADVANCEMENT

- They have very limited to no proactivity in exploring the platform. After the onboarding training, they are likely to stick to what the DVA has walked them through therefore, they need additional training to engage and advance to the other services available.

## ONGOING SUPPORT

- Relies on trusted agriculture players in the ecosystem in their community (agrovet/DVA) and are likely to call DVAs frequently for support and information.

# Shared Mental Models of Women: Elicitation Methodology

Mental models are the sum of beliefs and attitudes about a product or service, and they heavily influence the extent to which people engage with a product or service and for what purpose.

Based on the women segments identified, we added a behavioral lens to identify beliefs, aspirations and values systems that are most likely underpinning decision making to use digital solutions and current observed trends in uptake and usage for each segment.

Our approach to eliciting the shared mental models across the women segments involved 3 stages:

- Understanding user beliefs and aspirations and linkages to perceived value of DigiFarm.
- The actual perceived value and how this differs from the conceptual value proposition.
- Identifying the cognitive dimensions and biases driving decision making around uptake and usage of DigiFarm.



## User Beliefs, Values And Aspirations

Through content analysis based on the Means End Chain Theory elicitation method of qualitative interviews we identified user farming and non farming specific goals. This aids in understanding underlying motivations for usage and advancement in using digital solutions.

## User Perceived Value Proposition

We unpacked the user expectations and perceptions of the product value and how this may link to aspirations. We identify the features that users perceive to be the most valuable through self reported and quantitative data.

## Cognitive Dimensions and Cognitive Biases

We categorise user decision making under 4 broad cognitive dimensions that can be defined by 2 systems of thought. System 1, a subconscious system that uses deep seated beliefs and biases to make quick judgements. System 2: a more deliberate and methodical system that seeks new information or evidence for decision making.

# Shared Beliefs and Aspirations

User values, belief systems and aspirations play a significant part in guiding a broad range of decision making and behavior. We elicited some of the underlying beliefs and personal aspirations that shape women's thinking around their farming and uptake of digital solutions such as DigiFarm.

## Traditional farming beliefs and cultural norms

Although most women did not express adherence to any particular traditional practices around farming, a few women did hold cultural beliefs around anticipating weather and seed selection. We observed that some husbands adhere to some traditional practices and due to their ownership of the land require their wives to adopt them.

## Profitability and Expansion

All women had aspirations to give their children a better education. Improving their profitability was an aspiration shared by women across all segments. However we find women in the savvy explorer and comfortable observer segments being more intentional about their desire to gain more land, expand their value chains and sustainable access to ready markets.

## Food Security

Maintaining food security at the household and community level was also a concern and goal of women particularly savvy explorers who expressed aspirations not only centered around themselves but to contribute to the agricultural outcomes of their community.

*"We believe about them (animals) that when they appear it indicates the rainfall patterns"*

WOMAN | FARMER | 40|

*"Some husband doesn't want to sign up because they have traditional ways (only use traditional seeds)"*

WOMAN | FARMER | 26| Makueni

*"We want to ensure food security in our community and be self reliant. We will have more children going to school, create jobs for the youth etc"*

WOMAN | FARMER

**To what extent does farmer mental models of perceived attributes align with product conceptual models?**

We observed that women's perceived value of the DigiFarm platform was in sync with the product except scepticisms on the credibility of insurance.

Access to inputs coupled with access to markets was expressed as the most valued of all the features offered on the platform mostly due to poor liquidity women face in financing their farming independently.

# Perceived Value

Perceived value or benefits of a product or service has an impact on user decisions on uptake and thereafter continued use. We distilled how women collectively perceive the value or benefits of DigiFarm based on their individual mental model.



## Desire to be informed

Despite the traditional farming beliefs of a few, most women are willing to learn, particularly on how to manage the negative consequences of climate change such as rainy seasons as well as pests and diseases. The informative messaging and learning options provided through Arifu was one of the reasons mentioned for continued usage of DigiFarm..



## Desire to be protected

The uncertainty in farming outcomes due to several risks both financial and environmental coupled with the household demands are some of the key reasons DigiFarm's concept of insurance resonated well with women. However women were skeptical of how they would benefit in practice and saw savings as a better form of resilience.



## Believe in flexible & informal credit

Female farmers expressed fear toward credit in general given the rigid lending conditions they have been exposed to. Women valued DigiFarm's flexible and minimal deposit input credit structure.

*"The main benefit is that they brought us the farm inputs and we only paid 20% of the money. After harvesting, they give us a ready market for my produces."*

WOMAN | FARMER | 30 | Makueni

## To what extent does farmer mental models of perceived value align with product conceptual models?

- We see that most women's perceived value of the DigiFarm digital features are in line with the conceptual model with the exception of women's skepticism over insurance payouts. Of all the features offered both men and women expressed the most perceived value for access to input loans followed by access to ready markets at competitive prices.

# Cognitive Dimensions of Women's Decision Making

## Common Cognitive Dimensions

## Observed Cognitive Biases (System 1)

System 1

System 2

**Faith**  
Belief Systems

### Faith/Traditional beliefs

Although faith in traditional farming beliefs were not common among most women, it may be a leading element in decision making for women in the passive onlooker segment. These women tend to have faith in traditional farming practices and solutions and are verse not trying new digitally enabled solutions

**Preference**  
personal Desire

### Preference

Preference for DigiFarm is often informed by testimonials from other users, spouses that approve of the platform, DVA agents as well as general aversion for formal credit channels and the need to access markets at prices that maximise profit.

**Logic**  
Rational Thinking

**Evidence**  
Proven or Tested

### Evidence

We observe referrals based on evidence of DigiFarm's impact was particularly common among women. Women often described being referred to DigiFarm by a friend before having an encounter with DigiFarm Village Agents (DVA). In addition poor past experiences (or lack of evidence) with insurance linked products limit trust in insurance products in general.

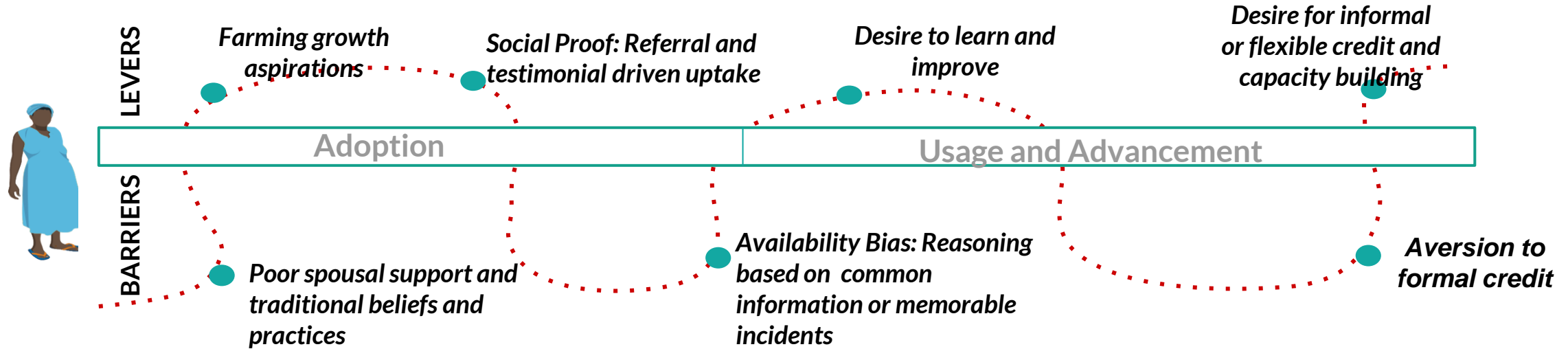
### Availability Heuristic

Heuristic is a mental shortcut that people take to judge and make decisions quickly. It might lead to some biases. Availability heuristic is when you make a judgment about something based on how available examples are in your mind. Common miss-information on the legitimacy of insurance payouts coupled with negative memories or associations with insurance linked products limit women's perceived value of the value of DigiFarm's insurance feature for some women. Women noted that more training on the range of DigiFarm's features including insurance would help bust any myths or common fears.

### Social Norms/Social Proof

Testimonials of the impact of DigiFarm on women's farming have driven decisions for uptake through multiple referrals.

# Mental Model Summary



## Savvy Explorer and Comfortable Explorer Mental Models



Women who share this mental model have pioneering mindset and are more evident in the savvy explorer segment. They wish to gain sustainable access to markets at a competitive price to achieve better profitability to achieve their farming and family aspirations. They also have conscientious outlook on farming with the aim of promoting better food security in their local communities through building better farming businesses. These women tend to have more agency over their decision making. Evidence based decision making plays a big role in their uptake of digital solutions and they are open to solutions that offer proven and efficient services.

## The Passive Onlooker Mental Model







This mental model categorizes mostly women in the passive onlooker segment. In addition to having limited independent farming goals they usually have to gain spousal approval before taking up digital solutions that involve credit or decision making on the type of inputs bought. In some cases gender roles mean these segments of women are restricted from exploring digital solutions such as DigiFarm and have to comply to the default traditional beliefs on farming help by their spouses. Their primary cognitive dimension is driven by faith in non digital solutions, instinct and preference that is informed by spousal influence.



# Engagement Impact






# Impact of Engagement on Women's' Livelihoods

DigiFarm has enhanced the livelihoods of women farmers by increasing agricultural productivity, yields, and incomes

Impact category	Key findings	Quotes
<p data-bbox="208 288 479 325">Livelihood</p> <p data-bbox="466 379 512 682">Farm Productivity</p>	 <ul style="list-style-type: none"> <li>Women farmers report seeing an <b>increase in yields and farm productivity</b> due to enhanced access and use of certified, quality inputs (particularly seeds) provided by DigiFarm on credit.</li> <li>Farmers cite that the education they have received on good farming and agronomic practices from DigiFarm has <b>simplified farming activities; helped them effectively use inputs; and reduced their cost of labor</b></li> </ul>	<p data-bbox="1773 405 2397 572"><i>“DigiFarm gets us fine quality, best seeds, and has helped me increase my yield.”</i></p> <p data-bbox="1773 579 2262 608">WOMAN   FARMER/DVA   26   MAKUENI</p>
<p data-bbox="208 815 384 852">Livelihood</p> <p data-bbox="466 951 512 1090">Incomes</p>	 <ul style="list-style-type: none"> <li><b>Increased incomes</b> - Women farmers are guaranteed a market for their produce, which enables them to sell more and offers higher prices than those offered by middlemen, increasing their income from farming</li> <li><b>Multiple income streams</b> – women farmers have been able to add to the income streams in the household, enabling them to cover essential expenses such as food and school fees as well as non-essential aspirational goods such as T.V.s</li> <li><b>Disposable income</b> - The small down payment required for input credit results in women farmers reporting having more disposable income to use for other activities, as they only pay a 20% deposit when they take an input loan</li> </ul>  	<p data-bbox="1773 815 2410 1105"><i>“It [DigiFarm] has helped - since I have a market for my produce, I am assured of money for school fees and I am secured against hunger.”</i></p> <p data-bbox="1773 1112 2168 1140">WOMAN   FARMER   42   MIGORI</p>

# Impact of Engagement on Women's Livelihoods

DigiFarm has also enhanced women farmers' agency and decision-making power, reduced time poverty, and enhanced families' food security and nutrition



Impact category		Key findings		Quotes
Lifestyle	Decision-making power	 <ul style="list-style-type: none"> <li>Women farmers' increased income through DigiFarm has resulted in greater trust from their partners- this drives <b>increased agricultural decision-making power</b> for women e.g. on planting and input decisions as well as greater <b>household financial decision-making power</b></li> <li>Women have <b>increased control over their finances</b> and financial decision-making as earnings from sales through DigiFarm are sent directly to their cell phones. This agency is due to increased control of finances for women farmers when income is sent directly to their phones</li> <li>Women's success in agriculture and increased incomes have <b>boosted their self-esteem and confidence</b></li> </ul>		<p><i><b>“My husband is happy that there is additional income in the family. I am now able to buy clothes and food, before, I had to ask my husband for money and permission.”</b></i></p> <p>WOMAN   FARMER   40   BOMET</p>
	Time	 <ul style="list-style-type: none"> <li>With increased income, women farmers <b>can afford to hire extra help</b> at the farm and increase their time available for other activities</li> </ul>	 <ul style="list-style-type: none"> <li>DigiFarm <b>saves women farmer's time</b> by providing DVA farm visits to respond to challenges and off-take produce</li> </ul>	<p><i><b>“DVAs off-taking our produce has saved us a lot of time.”</b></i></p> <p>WOMAN   FARMER   52   MERU</p>
	Nutrition	 <ul style="list-style-type: none"> <li>Increased yields enable women farmers to retain more food for consumption and increased incomes help them diversify meals, <b>increasing food security and nutrition</b></li> </ul>		



# Recommendations





# Recommendations

The following are emerging as key opportunity areas for DigiFarm to increase women farmers' awareness of the platform and improve onboarding

User journey	Recommendations
<p>Awareness</p> 	<ul style="list-style-type: none"> <li>• <b>Target women farmers more effectively in awareness raising:</b> <ul style="list-style-type: none"> <li>• <b>Target sites and events women tend to attend frequently</b> – markets, churches and health centers – for awareness drives</li> <li>• <b>Be gender inclusive in media outreach</b> – use local language, use local-language radio stations, and target time slots when women are listening/watching.</li> </ul> </li> <li>• <b>Encourage DVAs to follow up more frequently with women farmers to encourage their registration</b> during their evidence gathering stage.</li> <li>• <b>Engage gatekeepers:</b> <ul style="list-style-type: none"> <li>• <b>Engage husbands</b> during household visits, and through group meetings including spouses of women farmers.</li> </ul> </li> </ul>
<p>Onboarding and Training</p> 	<ul style="list-style-type: none"> <li>• <b>Equip DVAs for onboarding and training women farmers more effectively:</b> <ul style="list-style-type: none"> <li>• <b>Enhance and increase trainings for DVAs</b> to comprehensively understand all DigiFarm's services e.g. insurance</li> <li>• <b>Include gender-sensitivity training to educate DVAs</b> on some of the additional challenges women farmers may face and the best approaches to recruit and support them e.g. how best to engage gatekeepers e.g. husbands</li> <li>• <b>Create a standardized onboarding checklist or DVA toolkit</b> of all the items that the DVA needs to go through with farmers to onboard them, have a distinct version for interaction with women farmers. Offering incentives to DVAs can also motivate better engagement with women.</li> </ul> </li> <li>• <b>Adapt training for women's need and convenience</b> <ul style="list-style-type: none"> <li>• <b>Leverage commonly-watched farming shows</b> to demonstrate how to navigate the DigiFarm platform e.g. Shamba Shape-up</li> <li>• <b>Provide SMS and voice-based reminders/pre-recorded calls to women farmers</b> with tips of what more they can do with DigiFarm and products available on the platform.</li> </ul> </li> </ul>

# Recommendations

The following are emerging as key opportunity areas for DigiFarm to support women users in their product use and experience

Product use	Recommendations	
<p>Inputs</p> 		<ul style="list-style-type: none"> <li>• <b>Expand the inputs delivery network</b> to increase coverage of rural areas by enrolling more agrovets and input stores, to reduce some of the mobility issues faced by women</li> <li>• <b>Incentivize DVAs to deliver inputs needed to women farmers</b> either directly or through partnerships with transport services such as boda bodas</li> </ul>
<p>Learning</p> 		<ul style="list-style-type: none"> <li>• <b>Incorporate more IVR</b> (Interactive Voice Response) features in the learning which can enable women to learn while doing other tasks e.g. cooking</li> <li>• <b>Increase language options available on DigiFarm to address language barriers</b></li> <li>• <b>Increase learning modules that are of most interest to women farmers</b> e.g. in value chains they are most involved in such as maize and poultry, and in stages they are engaged in (planting and cultivation)</li> <li>• <b>Offer more in-person DigiFarm trainings</b>, since women are more likely to attend these, and use them as a tool for both training and encouraging women farmers to engage with the digital learning platform</li> </ul>
<p>Insurance</p> 		<ul style="list-style-type: none"> <li>• <b>Increase training on insurance to enhance awareness and understanding of insurance and shift negative perceptions for both DVAs and farmers</b> e.g. through sensitization campaigns, SMS, and sharing positive stories from farmers who have benefitted from insurance</li> </ul>
<p>Access to markets</p> 		<ul style="list-style-type: none"> <li>• <b>Expand value chains that DigiFarm works with, particularly those engaging women farmers</b> e.g. poultry</li> <li>• <b>Provide harvest collection services as additional support for women farmers</b> to address their financial, time, and mobility constraints from accessing markets.</li> </ul>



# Appendix

# We have interviewed 14 farmers and 3 DVAs (agents), of various ages, education levels and locations

## Farmer + Agent interviews

	Gender	Age	Education	Location	Phone type
We have conducted 14 farmer interviews	Female	25	Degree	Makueni	Smartphone
	Female	26	High school	Makueni	Smartphone
	Female	30	College (Training beyond high school)	Makueni	Smartphone
	Female	40	High school	Bomet	Smartphone
	Female	42	College (Training beyond high school)	Makueni	Smartphone
	Female	42	Diploma	Migori	Feature phone & Smartphone
	Female	46	Diploma	Migori	Smartphone
	Female	52	Diploma	Migori	Smartphone
	Male	24	Degree	Bomet	Smartphone
	Male	26	Not Answered	Makueni	Feature phone
	Male	29	Degree	Makueni	Smartphone
	Male	38	Diploma	Bomet	Feature phone & Smartphone
	Male	38	Diploma	Migori	Feature phone
	Male	42	Not Answered	Bomet	Smartphone
We have conducted 3 agent interviews	Female	41	High school	Tharaka Nithi	Smartphone
	Male	45	High school	Bomet	Smartphone
	Male	26	Degree	Migori	Smartphone

# CONTACT

---

## Leesa Shrader

### Program Director

Mercy Corps AgriFin

lshrader@mercycorps.org

## Connect

 [www.mercycorpsagrifin.org](http://www.mercycorpsagrifin.org)

 [www.linkedin.com/company/mercy-corps-agrifin](http://www.linkedin.com/company/mercy-corps-agrifin)

 [@mercycorpsafa](https://twitter.com/mercycorpsafa)