



Uganda

# Digital Financial Services in Uganda

2015

## Facts and figures

## Dairy agro-value chain research: Untapped opportunities for digital financial services

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Dairy farming represents 9 percent of agricultural GDP and about 3 percent of total GDP in Uganda. Uganda's dairy sector has registered commendable growth, averaging 8 to 10 percent since 1991, and continues to grow. Milk production is predominant in the 'cattle corridor,' which comprises 42 districts stretching from the south-western region through the central to north-eastern regions. On average, 60 percent of households in the cattle corridor keep livestock.

The Mobile Money for the Poor (MM4P) Uganda programme commissioned *MicroSave* to carry out agro-value chain research in December 2014. The research goal was to identify opportunities for using digital financial services (DFS) in the coffee, fish and dairy value chains by achieving the following broad research objectives:

1. Identify dairy agro-value chain actors' activities and financial transactions.
2. Identify current and/or potential DFS touch points along the dairy agro-value chain.
3. Analyse dairy value chain actors' usage, preferences and concerns about mobile money and other DFS channels.
4. Identify barriers, enablers and solutions to adoption of digital financial transactions along the dairy agro-value chain.

Qualitative research targeted dairy farming actors in the districts of Ibanda, Isingiro, Kiruhura and Mbarara. Individual interviews and focus-group discussions included 67 respondents.

**37.6 million**

Total population

**19%**

Mobile phone penetration rate

**1.6 billion**

Annual milk production (litres)

**32**

Number of digital financial service players  
(7 mobile money providers + 25 commercial banks)



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## Key research findings



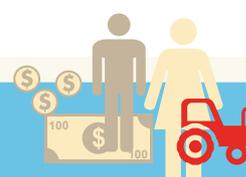
Dairy is a source of income for most households in the greater Mbarara region.



Most farmers are traditionally involved in cattle rearing as a long-term business.



Efforts to stimulate DFS in the sector need to consider periods of high production and high costs before school terms and festivities (i.e., February, May, September and December).



Women are mostly engaged in production while men are engaged in marketing and sales activities, with men typically making the major financial decisions.



Cooperatives and processors are anchor actors and decisive touch points for DFS players interested in encouraging DFS.



Over 80 percent of transactions in dairy production are in cash, providing multiple opportunities for DFS.



Savings and credit cooperatives (SACCOs) are ubiquitous financial institutions within the dairy corridor that could be considered as potential agents, but challenges identified in the management of sampled SACCOs could create challenges in DFS adoption.

## Dairy agro-value chain actors' activities and financial transactions

The research found that the main dairy value chain actors are farmers, transporters, cooperatives and processors. Farmers<sup>1</sup> are involved in milk production and make payments for labour, purchase of cans, animal health, and milk transportation to cooperatives and processors' collection centres. Cooperatives<sup>2</sup> are involved in milk chilling and bulking and normally make payments to farmers for milk delivered to them. Processors are involved in transforming milk into different products such as milk powder and cheese. They make payments to farmers for milk the farmers deliver to their collection centres, and to cooperatives for milk cooperatives deliver to them directly. Cooperatives and processors were identified as anchor actors as they interact with farmers on various occasions such as farmers' forums, annual and village meetings, and when paying farmers. Being payment points, cooperatives and processors can easily influence DFS adoption.

## Current and/or potential touch points for digital financial services

The research revealed that most payments are made in cash, with the exception of processors that pay cooperatives by cheque. Farmers make cash payments for labour, purchase of cans, animal health, and milk transportation to cooperatives and processors' collection centres. Cooperatives and processors pay farmers in cash for milk delivered (typically, farmers deliver milk daily but are paid fortnightly). For example, a cooperative in Mbarara completes UGX 50 million–UGX 100 million in cash payments every pay day, physically carrying that cash to primary societies and collection centres. Processors, which also physically carry cash to pay farmers on a fortnightly basis,

complete UGX 100 million–UGX 200 million in cash payments each pay day. Since most cooperatives and primary societies are over 40 kilometres away from a bank, they withdraw cash the previous day and keep it overnight at their office before paying farmers the next day. High value payments averaging UGX 3.5 million are also being made to transporters who typically have several farmers registered under them. Once a transporter is paid, he/she travels with the money to the villages and distributes it to his/her registered farmers each pay day. Farmers who register under a transporter are small scale, live over 40 kilometres from a cooperative and often cannot afford to interact frequently with cooperatives and collections centres; hence, transporters bridge this gap at a small cost, charging farmers for transporting the milk and delivering payments.

The wide geographic distribution of farmers means that participation of anchor actors—cooperatives and processors—will be vital in promoting DFS usage at the farmer level. These actors have daily interactions with dairy farmers, and therefore have significant influence on their activities.

Using DFS as a cash alternative is considered by all actors as attractive given reported cases of fraud, loss of cash in transit, long queues on pay days and long distance some farmers travel to be paid. However, some farmers, especially those delivering small quantities of milk, report a preference for continuing with cash as it still is commonly used.

Farmers who receive payments via cheque are mostly those delivering large quantities of milk to processors. They are open to other options, as cheques can take four days to clear and some respondents reside more than 20 kilometres from a bank branch.

Use of mobile money is very limited. Cited reasons include, in order of priority, poor connectivity, unstable network, high transaction charges, few agents and dishonest agents.

## Potential barriers, enablers and solutions for digital financial services

The research recommends that DFS players use anchor actors for ease of DFS adoption along the value chain.

- **Cooperatives:** On receipt of payment by processors, cooperative staff carry cash from the bank to make payments at the cooperatives as well as at their collection centres. Their strength is their ability to encourage farmers to accept DFS payments. Earlier attempts by some cooperatives to use mobile money to pay farmers revealed some anticipated adoption challenges. The first is transaction costs (i.e., who bears the costs for sending money to farmers). The second is agent liquidity, as a result of large payments (about UGX 3.0 million) every fortnight. Though they may not withdraw the whole amount at once, the few agents available within 20 kilometres are reported to have less than UGX 150,000 at any time. Respondents also noted that they experienced unstable networks coupled with unavailability of grid power with most DFS.

DFS providers should pilot, with a few cooperatives, a system that interfaces at the cooperative level to facilitate direct, multiple mobile-money payments from the cooperative's bank account to individual farmers. To address poor network coverage and power, providers can improve the network within the agro-value chain's coverage areas as well as provide and/or promote the use of solar power by agents to enable DFS adoption.

<sup>1</sup> There are over 1.2 million farmers engaged in dairy farming in Uganda.

<sup>2</sup> There are over 214 active primary dairy cooperatives/collection centres, 128 of which are in south-western Uganda.



- **Processors:** Processors have significant influence over farmers and can encourage, or after testing even compel, them to migrate to digital payments. Expected adoption barriers are any form of digital-platform failure or lack of agents with liquidity.

Mitigation strategies for these challenges include conducting careful pilot testing, followed by a phased rollout; encouraging other value chain actors to accept payments or, in cases of more established retailers, to become agents; and being part of sensitisation drives to encourage farmers to use DFS.

Migrating cash transactions in the dairy value chain will enable processors, cooperatives and farmers to reduce risks associated with cash and enable farmers to receive payments more conveniently.

Dairy cooperatives such as Abesigana, Dyaniro and Pearl are willing to pilot and start making payments via digital channels.

The opportunities for DFS in the dairy value chain cannot be overemphasised. Lessons can be learned from a case in rural Uganda in which Mcash makes payments on behalf of Amos Dairies. Farmers can access their funds through Mcash agents,

who help them open an Mcash account, deposit, withdraw and transfer mobile money that is independent of the farmer's mobile network. The project, currently in pilot phase, is saving Amos Dairies the burden of storing cash overnight and withdrawing it from the bank.

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