

Case study:

How a microfinance institution is reaping the rewards of going paperless in Senegal

It is village bank (VB) day in Niaguisse, a village 400 km from Dakar. Women are seated in a circle around a credit officer. One by one, they make their loan repayments and deposit their savings in the village fund, which they use to subsidize their activities. Unusually, it is a full house at today's session.

"Since the officers started using tablets, we've seen a real spike in engagement among local women," explained VB member Rosalie Dhiédhiou. "The sessions now last for less than three hours, so we can get back to our business. I'm going straight to the market with the money I've borrowed at today's meeting to buy more goods for my business, before going home. In the past, these sessions sometimes lasted five hours."

The change that Ms. Dhiédhiou describes has come about through a partnership between the microfinance institution behind the VB and the UN Capital Development Fund (UNCDF) MM4P programme.



Rosalie Dhiédhiou

Village bank member in Niaguiss, Ziguinchor



Project partners

1. Caisse Autonome pour le Renforcement des Initiatives Economiques par la Microfinance (Autonomous Cooperative for the Strengthening of Economic Initiatives by Microfinance, or CAURIE-MF)

CAURIE-MF is the culmination of a dynamic, productive, 20-year partnership between Catholic Relief Services and Caritas Senegal, including its local diocesan groups. CAURIE-MF was founded in October 2005 with a mission to 'contribute sustainably to the social and economic promotion of poor micro-entrepreneurs, especially women, by providing them with appropriate financial products and services.'¹

It has around **90,000 customers**, **98 percent** of whom are **women**. CAURIE-MF runs about **1,500 VBs**, the vast majority in **rural areas**.

2. MM4P

The UNCDF MM4P programme, in partnership with Mastercard Foundation, is a prime example of how financial, technical and institutional support can foster the development of a digital finance ecosystem, bringing financial services to poor people in the countries where it works and helping drive progress towards financial inclusion—one of the targets of the UN Sustainable Development Goals. The programme was launched in Senegal in 2015, where it provides comprehensive support for the digital finance sector and helps grow the market.

It was this approach that drew the two institutions together at a workshop on digital microfinance, organized by MM4P and attended by players from across the Senegalese microfinance sector. At the workshop, CAURIE-MF made clear its interest in digital finance and was selected by MM4P to undergo a three-day, on-premise institutional audit in 2016. The audit sowed the seeds of a digitization project, with the aim of helping the institution streamline its running costs. After a deliberation period, the project, which focused on the digitization of the VB fund collection process, came to light in 2017.

¹ CAURIE Microfinance, 'Mission - Vision.' Available from <http://caurie-mf.com/> (accessed February 2018).



Project context and objectives

1. Addressing rudimentary procedures

CAURIE-MF offers 10 financial products (6 loan products and 4 savings products) via a network of nine regional branches in Diourbel, Kaolack, Kolda, Louga, Saint-Louis, Sédhiou, Tambacounda, Thiès and Ziguinchor.



Every day, the institution's officers travel around remote areas collecting savings and loan repayments. The officers record transactions on paper, inputting them into the system each evening when they return from their rounds—a costly, logistically complex and labour-intensive process. Consequently, CAURIE-MF decided to go paperless in an effort to cut its running costs and boost operational efficiency.

These days, more and more providers are using digital technologies to deliver mobile banking and mobile financial services. For institutions like CAURIE-MF, which specialize in bringing financial services to rural areas, going digital can be an effective way to remain competitive and reach even more remote communities.



2. Making the most of digital finance

The project aimed to find ways of bringing financial products and services to communities outside the reach of conventional channels by using mobile technology. It required a review of how data from non-branch operations (especially VB meetings) could be inputted into the CAURIE-MF management information system in real time or, if connection issues were to arise, on a deferred basis. The chosen solution was to purchase tablets, using MM4P funding, that credit officers could use to manage VB meetings.

The decision to replace manual data input with a tablet-based system was made with several goals in mind:

- Shorten VB (women's group) meetings.
- Lighten credit officers' workload.
- Reduce fraud risk.
- Enhance data security.
- Boost operational performance.
- Cut running costs.

These operational improvements are expected to unlock new opportunities for CAURIE-MF to invest in service quality and innovative new products and, ultimately, to drive greater customer loyalty. The institution sees paperless VB collection procedures as a way to boost financial performance and achieve lasting growth.



A five-phase project implementation process

A pilot was launched at the Louga and Ziguinchor branches in March 2017. Officers were given tablets with a pre-installed mobile app, so that they could record customers' transactions at VB sessions. The pilot was divided into five phases (see bullets below as well as figures I–IV for more detail):

1. **Baseline analysis of officers' and customers' needs, and development of an app with features that addressed those needs.**
2. **Training for pilot branch staff:** Credit officers at the Louga and Ziguinchor branches received training to coincide with deployment of the tablets.
3. **Pilot kick-off:** Once the training was complete, the officers began using the tablets at VB meetings. To ensure a seamless transition to paperless processes, the first few VB sessions were run in a hybrid format, using a combination of traditional paper forms and the new tablets.
4. **Support and monitoring on the ground:** Throughout the pilot, the officers reported any issues encountered with the tablets in the field. The system was then adjusted accordingly, to make sure it catered to their needs. The officers also received ongoing training.
5. **Update of procedures:** The procedures and operations manuals were revised, and new cash and meeting reports were created. The new procedures will be deployed gradually so that, eventually, officers will run VB meetings using only their tablets.

Figure I: Phases of support

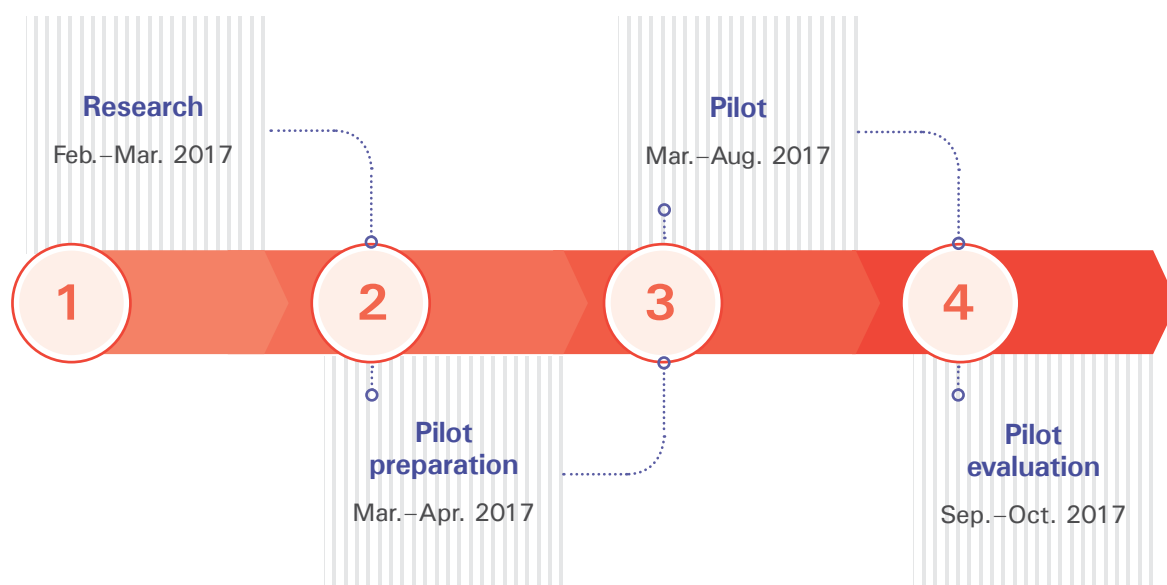




Figure II: Research (Feb.–Mar. 2017)

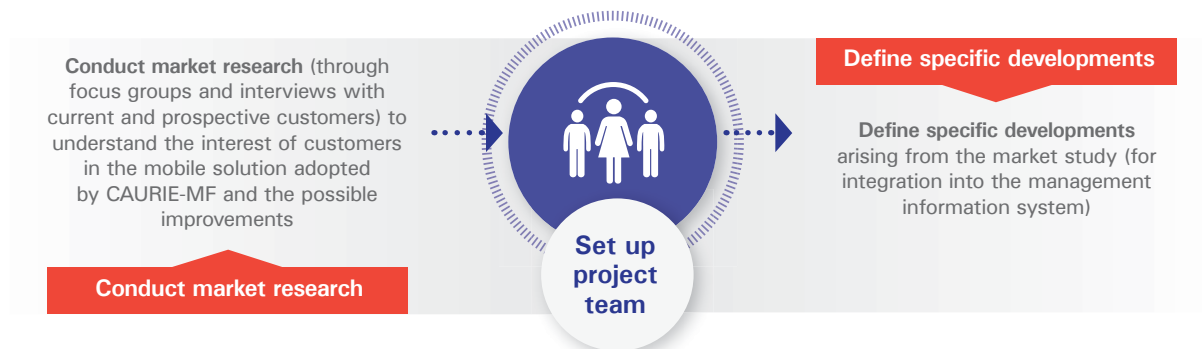
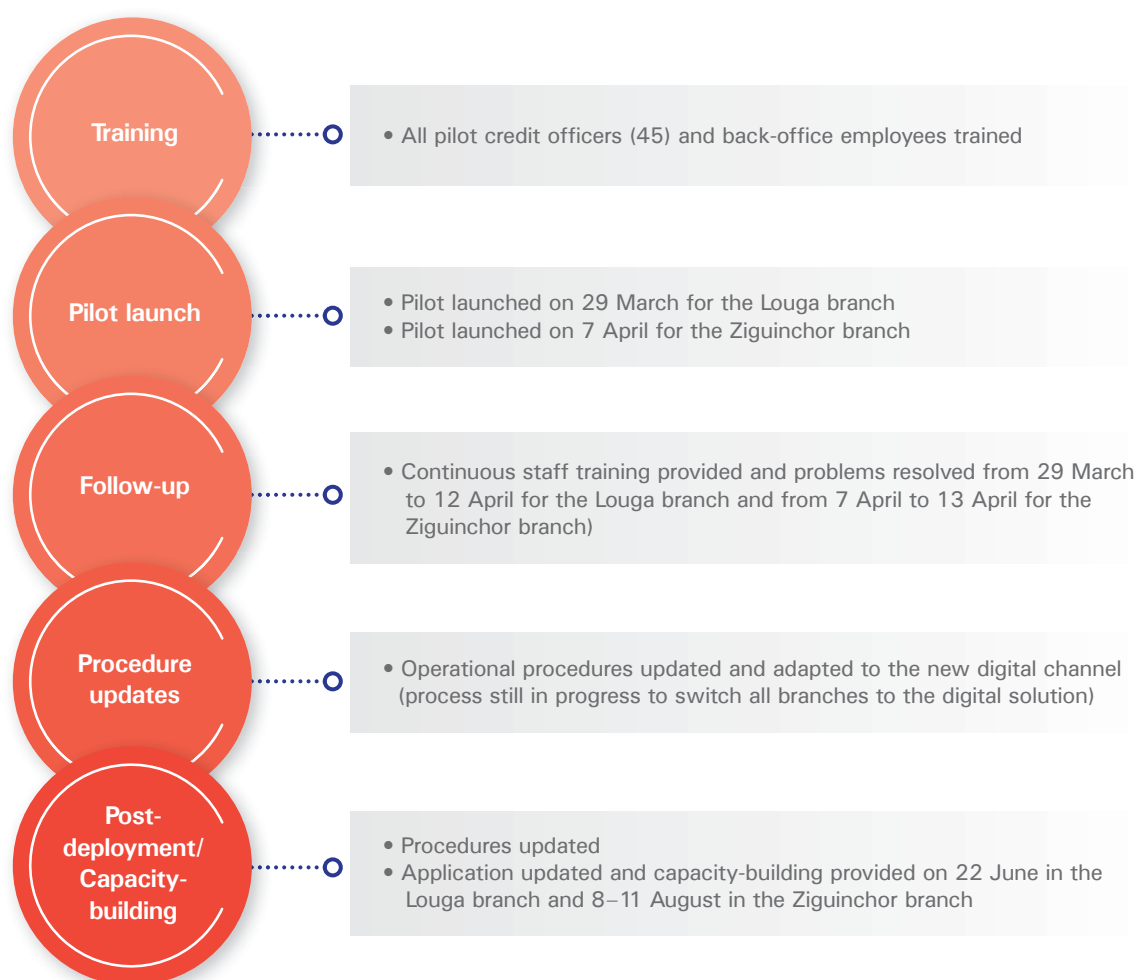


Figure III: Pilot preparation (Mar.–Apr. 2017)





Figure IV: Pilot (Mar.–Aug. 2017)



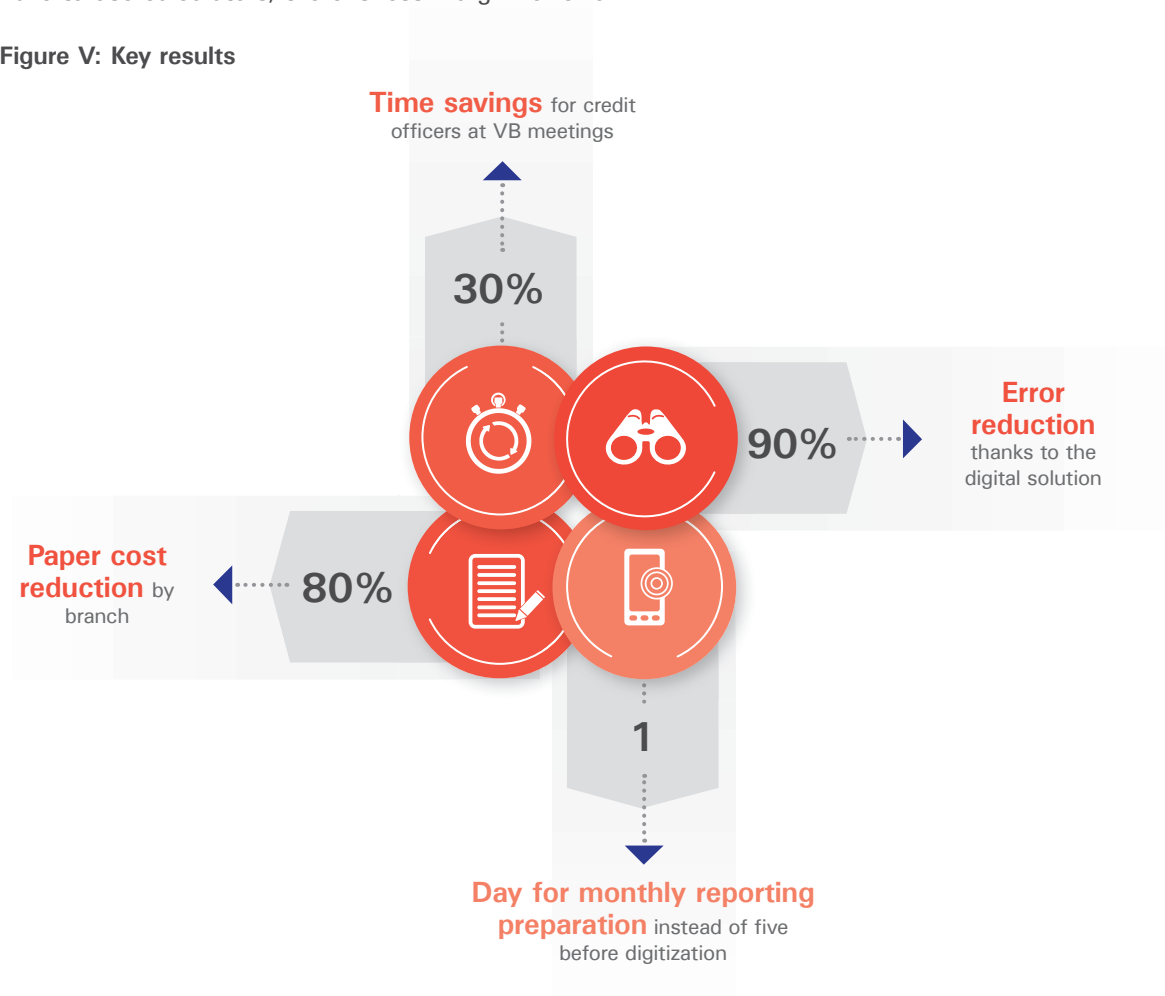


Outcomes of the successful pilot

1. Time-saver for credit officers

The consulting firm PHB Development interviewed 10 credit officers from the pilot branches and one branch manager as part of the pilot phase evaluation (see figure V for a summary of the findings). The officers shared that, before the tablets were introduced, VB sessions tended to last three or four hours on average, depending on the number of members. The average meeting length was considerably shorter during the pilot phase, down to two and a half or even just two hours. Some officers said they were confident that, once the meetings were run using only the tablets, some would only last 90 minutes. The time savings are largely the result of quicker, easier access to information and automated calculation of account balances. Moreover, because officers no longer have to use calculators, there is less margin for error.

Figure V: Key results





Victorine Mbayépal,
Credit Officer:

“Managing the VBs manually is fairly time-consuming. I worked long, tiring days. I had to go back to the office after the meetings to input the data, so I didn’t get home until late and that caused problems for my family. The new tablets have been a game-changer. I can go straight home after the VB sessions.”



Limane Dhiedhiou,
Credit Officer:

“I used to spend ages tapping away on my calculator. I had to check the total repayments received from each VB, then deduct each woman’s repayment from the outstanding capital and calculate the interest. I had to double-check everything to make sure I hadn’t made any mistakes. It was a really time-consuming process. These days, I just input the data and the app does the legwork for me. It’s made my job a lot easier.”

2. Secure, reliable transactions

CAURIE-MF staff—especially branch managers, accountants and cashiers at the pilot branches—reported a significant reduction in accounting errors during the pilot. The use of tablets means that data are inputted in real time at VB meetings. The app is synchronized with the institution’s management information system each evening, so the accounting day can be closed. In the past, credit officers had to bring their reports (in hard copy) and the money they had collected (savings and loan interest) back to the branch, hand over the funds at the cash desk, and then input the records into the system on the same day or, if the officer was tired, the next day or even several days later.



The use of tablets also makes life easier for cashiers, who can now check the money they receive against the officer's report, a process that improves data reliability and security and makes it easier to detect errors and fraud.

Accountant at the Louga branch: “The number of errors has reduced considerably—we estimate tenfold—now that officers are using the tablets. It's much easier to pick up mistakes because the data are input[ted] immediately.”

Additionally, it is much quicker to produce daily and monthly reports because reliable data are available instantly. **It now takes just one day to generate a monthly report, as opposed to five days.**

3. Greater productivity among credit officers

Credit officers spend less time on administrative tasks at VB meetings, so they can focus more of their resources on catering to customers' needs—helping women better manage their loans and income-generating activities and explaining the products and services available from CAURIE-MF in more detail. They also have more time to deliver financial education and raise awareness about the risks of poor financial management, debt and over-indebtedness. At present, officers are only able to run one VB session per day. Over time, this frequency could increase to two or even three daily sessions.

Connectivity issues are an obstacle. Before attending VB meetings, officers have to export the data that they will need while at the office, where the Internet connection is more reliable. This situation means that, in most cases, they run the sessions 'offline' and then go back to the branch afterwards to upload the data to the system because Internet access is patchy in most villages. Yet, this process only takes a few minutes to complete and the risks are minimal.

Officers suggest that the new tablet system could also be used to manage loan applications, a move that would represent a vast improvement to the existing paper-based process.

4. Greater efficiency and cost savings for the institution

The tablet-based system has boosted efficiency and delivered cost savings for CAURIE-MF on several fronts.



Previously, branches often hired data input clerks or left data input work to credit officers. However, they are no longer necessary under the new system, because the data are inputted in real time and then synchronized with the system.

Branches can now close the accounting day in the system once the synchronization is complete, so reconciliation can be done on a daily basis. In terms of month-end processing, it used to take five days to complete but has been reduced to just one day. Accountants can check and approve transactions and digital reports, and the reliability of the data means they can produce their own reports in good time.

Staff have also reported a reduction in consumables, especially paper. Typically, dozens of sheets of paper were used at each meeting. As CAURIE-MF runs some 1,500 VBs, the introduction of tablets has cut paper costs significantly.

What's more, the tablets can be used to take photos, which can then be appended to loan applications as additional supporting documentation.

5. Improved customer insights—women are enthusiastic about digital solutions

While growing customers' businesses was not one of the project's objectives, the baseline analysis provided useful insights into customers' needs and supported the institution's decision to include direct customers in its digitization drive. One of the unexpected, but promising, findings was the enthusiasm among women for services such as text-message notifications of upcoming meetings and the option to top up their accounts using e-wallets.

6. Summary of key benefits of digitization

- 1 Officers input data in real time at the VB session, so officers do not need to enter the data manually back at the branch.
- 2 Branch managers receive electronic reports, which they can approve on their tablet, even if they are not physically in the branch.
- 3 Accountants receive reliable data and can generate accounting reports promptly, meaning decisions can be made using up-to-date information.
- 4 Cashiers can compare the cash they receive against the reports submitted on the tablets, which reduces the margin for error and the risk of fraud among officers.



Conclusion

Next steps towards 'M-Dorado,' a digital financial services paradise

The pilot phase ended in December 2017. CAURIE-MF is now firmly on the path towards digitization, and it will switch all branches over to paperless procedures in 2018. Going digital has already had observable effects across the institution:

The CAURIE-MF pilot confirms that microfinance institutions have plenty to gain by going digital. Using digital technologies makes it cheaper for institutions to reach more customers in remote areas, while improving transaction security and transparency. Additionally, for institutions that have a predominantly social purpose (i.e., bringing financial products to people excluded from the mainstream financial system), making the digital switch can benefit society as a whole.

"Microfinance institutions that don't embrace digital finance will be left by the wayside," said the Director of CAURIE-MF, Mamadou Lamine Gueye. "We realize that at CAURIE-MF. That's why we're so keen to use digital technologies wherever we can. We think this initial trial has been a real success. It's proven that we're on the right track. We've got plenty of innovative ideas in the pipeline. First, we're going to roll out the tablet system across all our branches. Next, we want to step up a gear with our 'Bank to Wallet' project. In fact, that process has already started. Some village bank customers can now make CAURIE-MF withdrawals and deposits using their e-wallet. We're also planning to set up a new branch network to bring us closer to our customers—an idea we had after attending a UNCDF-funded training course. We have a clear vision for digital finance going forward. We plan to seize the opportunities that our partnership with the MM4P programme brings to turn this vision into a reality."

ABOUT UNCDF

UNCDF is the UN's capital investment agency for the world's 47 least developed countries (LDCs). With its capital mandate and instruments, UNCDF offers "last mile" finance models that unlock public and private resources, especially at the domestic level, to reduce poverty and support local economic development. This last mile is where available resources for development are scarcest; where market failures are most pronounced; and where benefits from national growth tend to leave people excluded.

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