FOCUS NOTE

CGAP

BUILDING VALUE IN MICROFINANCE THROUGH DIGITIZATION

A role for funders

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Acknowledgements

The authors thank the following CGAP colleagues: Xavier Faz for oversight; Maria Fernandez Vidal, Petter Zetterli and Alice Negre for peer review; and Alexander Sotiriou for supporting this work.

This focus note would not be possible without the time and dedication of the teams from the firms: Accion, Accion Microfinance Bank (Nigeria), Advans International, Affinity (Ghana), AMRET (Cambodia), Banco Adopem (Dominican Republic), BRAC Bangladesh (Bangladesh), BRAC International Holdings B.V., BRAC Tanzania (Tanzania), Crystal (Georgia), Enda Tamweel (Tunisia), FINCA DRC (Democratic Republic of Congo), FINCA Impact Finance, FINCA Uganda (Uganda), FMO, Fortune Credit (Kenya), Fundacion delamujer (Colombia), Fundenuse (Nicaragua), GIZ, Gojo & Company, Inc., Humo (Tajikistan), IDB Invest, IFC, Inuka Africa (Kenya), Kashf Foundation (Pakistan), Microfund for Women (Jordan), Première Agence de Microfinance (Madagascar), PT Nusantara Bina Artha (Indonesia), SAFCO Microfinance Company Pvt. Ltd (Pakistan), Satya Microcapital (India), Shakti Foundation (Bangladesh), SHARE Microfin Limited (India), Social Performance Task Force (SPTF), Sub-K (India), Svamaan Financial Services (India), Triple Jump BV, VisionFund International, VisionFund Kenya (Kenya), VisionFund Myanmar (Myanmar), Women's World Banking, World Council of Credit Unions (WOCCU). Thanks also go to many other stakeholders who shared their experience and valuable insights.

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INTRODUCTION

MICROFINANCE FUNDERS[1] HAVE INVESTED SIGNIFICANT RESOURCES over the past decade to support the digital transformation of microfinance institutions (MFIs). These efforts signal the enduring belief in the potential for digitization[2] to address the challenges of inefficiency and limited scale facing the industry, and the important role that MFIs still have to play in serving low-income people (Bull, Greta 2020). Cases of successful digital transformation are still rare, however (Flaming and Jeník 2021), leaving many funders and MFI managers with a sense of frustration at the slow pace of measurable progress.

In earlier research, CGAP identified pitfalls to successful digitization (CGAP 2022a) and developed five core principles of successful MFI digitization implementations (see Box 1). The team then tested those principles by using them with 27 MFIs, working for almost two years on implementing and measuring the value of digital implementations (report forthcoming).

We believe that the results validate the five core principles, reinforce the critical importance of business intelligence as the bedrock of digitization (Flaming, Jeník and Nyein 2023), and highlight the skills MFIs need to build value with their digital implementations.

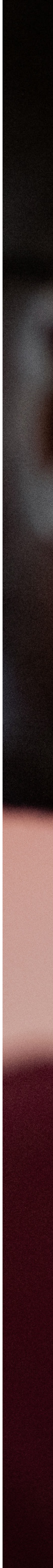
BOX 1. **Core principles of successful digitization**

1. **Deploy agile product development teams to drive the digital implementation.**
2. **Define and measure the expected value to be generated from the digital implementation.**
3. **Prioritize the product features that create value.**
4. **Prototype and test solutions with simple technology.**
5. **Design for a good user experience for staff and customers.**

This note is a summary of the effort, describing the project design, implementation, results, and the role played by CGAP in supporting the MFIs. Our aim is to inform and inspire funders who are supporting, or planning to support, MFIs through a digital implementation.

1 In this note, we use the term microfinance funders loosely. "Microfinance funders" refers to a broad range of regional and global organizations that aim to strengthen the outreach, quality of service and sustainability of MFIs. These funders provide MFIs with diverse types of support: refinancing loans, equity, grants, knowledge, networking opportunities, advocacy, and direct technical assistance. They include bilateral and multilateral agencies, development finance institutions, private foundations, and other private funders. Findings are relevant to other organizations that similarly support MFIs, especially non-governmental organizations (NGOs) and consulting firms that implement funders' programs.

2 For this work and report, we have defined 'digitization' as a broad and fluid concept where design and delivery of financial services is to a significant extent assisted by technology. The broad definition allowed the necessary flexibility to work with a variety of MFIs with their own, often distinct definitions.



SECTION 1

WHAT CGAP DID: TESTING AN APPROACH TO VALUE-DRIVEN DIGITIZATION

CGAP'S PREVIOUS WORK IDENTIFIED TWO DIGITAL IMPLEMENTATIONS with significant potential for value creation: (1) a business intelligence practice; and (2) credit renewal automation. We piloted one or both with 27 MFIs, organized around a community of practice (CoP).[3] The pilots validated the value of both use cases; revealed the challenges that MFIs face in implementation; and tested out an approach that funders can use in supporting the MFIs in their portfolio. We believe that the two use cases described below bear relevance to a significant part of the industry and illustrate the approach to digitization that can be applied to other use cases as well.

1.1 Business Intelligence

Business intelligence[4] is critical for understanding where value can be created, and then measuring how it is being created throughout an implementation. CGAP launched the business intelligence pilots with one-on-one support to a cohort of six MFIs, to produce a set of customer behavior dashboards (Flaming, Nyein and Barrès 2023).

The dashboards revealed patterns of historical customer behavior that pointed to significant opportunities for building customer and business value with the digital implementation. For example, the dashboard in Figure 1 shows a drop in the loan renewal rate in 2019. This indicates a significant decline in customer demand for follow-up loans and warrants further investigation to understand the cause.

3 Out of the 29 partner MFIs, two dropped out.
4 Business intelligence refers to the practice of generating actionable insights for MFI decision-makers. Results from data analytics are "pieced together, enhanced with additional segmentation, and supplemented with qualitative research." A business intelligence practice requires "competencies in data management, data analysis, and business/product ownership." (Flaming, Jeník and Nyein 2023).

FIGURE 1. **Follow-up loan rate (6 months)**

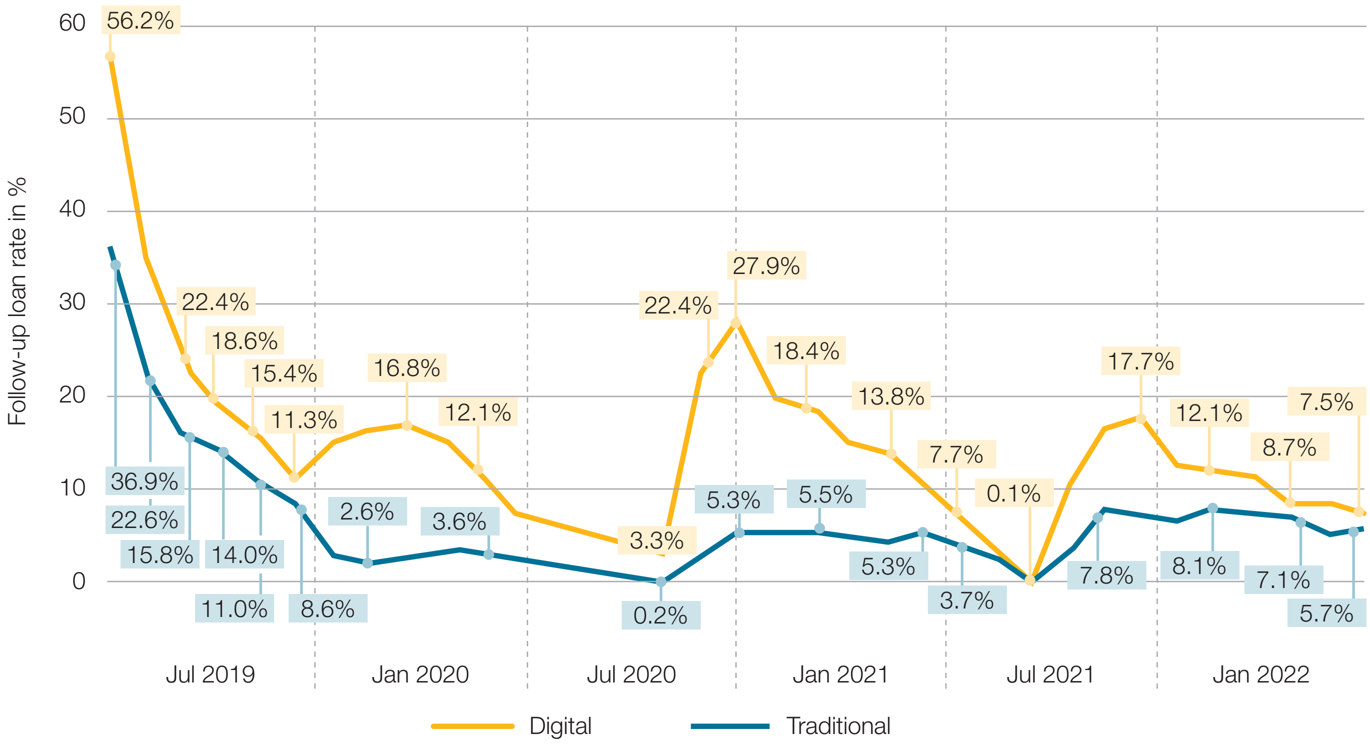
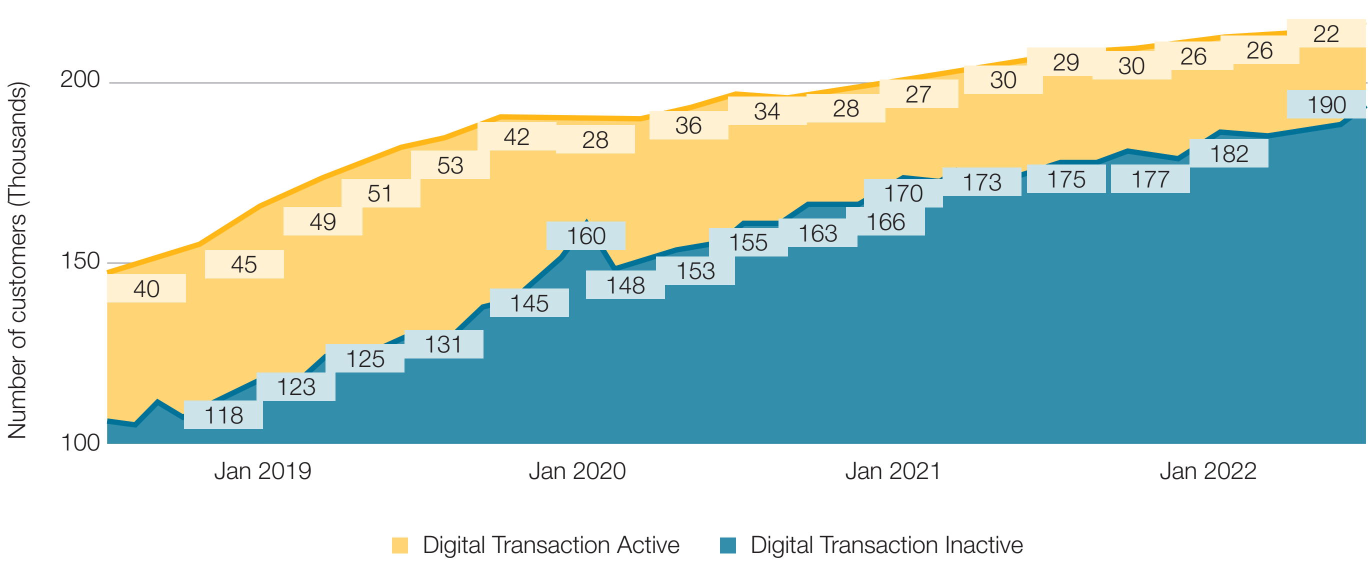


Figure 2 shows an MFI with a growing inactive customer segment. The customer journey graph in Figure 3 drills down on the same customer behavior to show that 80% of customers are not making transactions by their twelfth month with the MFI. This investigation further revealed that the MFI has a small segment of super users that drive the business, while most customers are inactive.

FIGURE 2. **Active versus inactive customers**



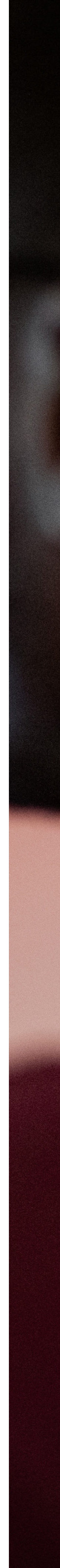
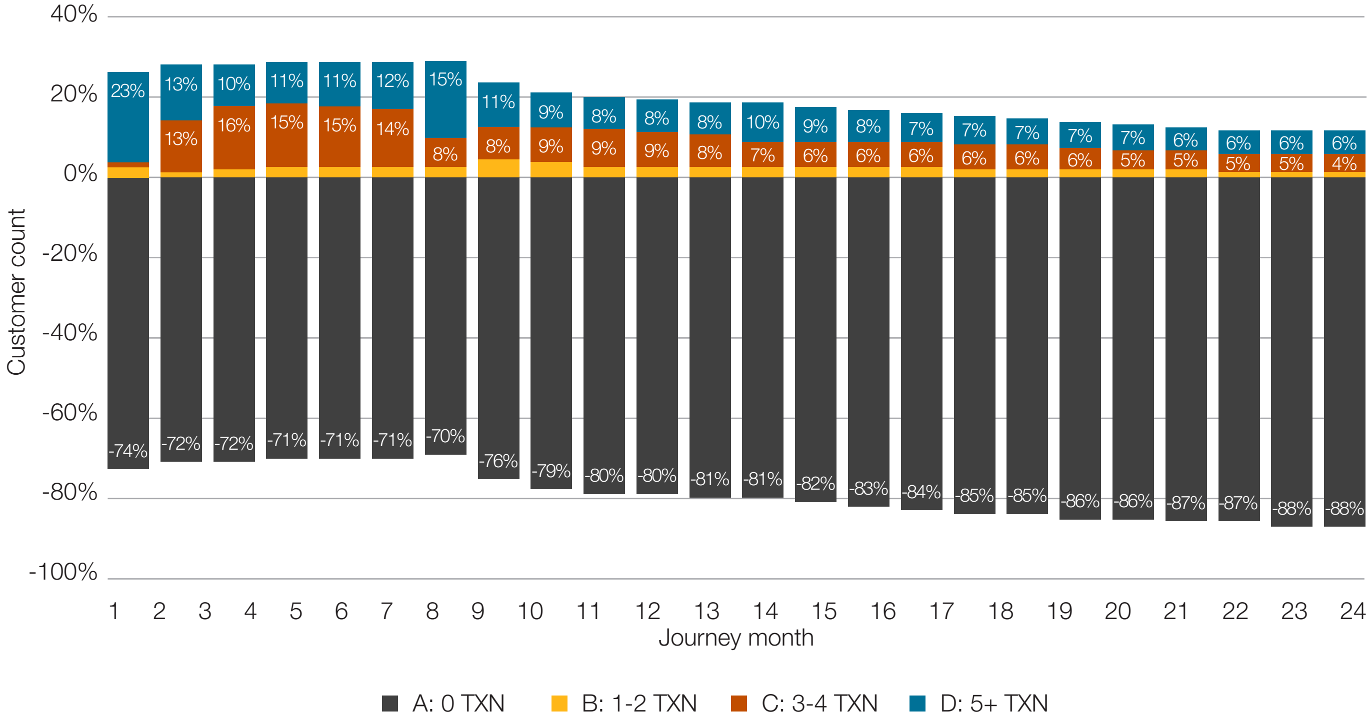


FIGURE 3. **Transaction behavior by journey month**



Building a data analytics practice into a fully-fledged business intelligence practice involves technical infrastructure such as cloud-based data warehouse, data visualization tools, and human resources including data engineers and data analysts, as well as the shift to a data-driven culture (see the Data Analytics Journey video).

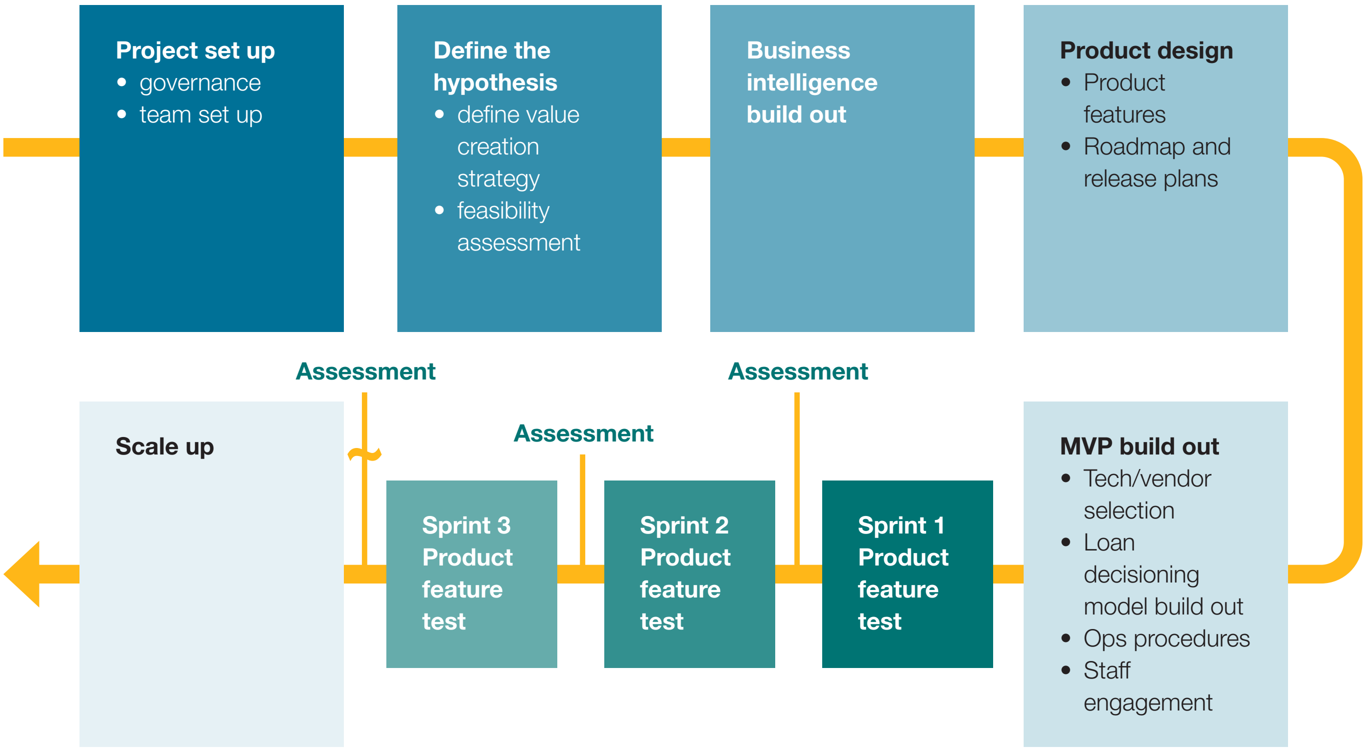
CGAP created a data bootcamp program to build baseline business intelligence capabilities of 22 CoP participants through four intense, 90-minute sessions, and supporting materials. The MFIs were able to generate over 90 dashboards in a few months, and this enabled group discussions about what initiatives were leading to positive customer response. The topics spanned a wide range of digital implementations including use of mobile banking, mobile savings officers, agents for cash deposit, digital loan disbursements and repayments. The discussions that followed were equally diverse. They ranged from analyzing individual MFI dashboards and reflecting on reasons behind the variation in customer acquisition or transaction rates across channels, to comparing the very different customer behavior results for MFIs with similar digital implementations. These discussions further demonstrated the value of data analytics and business intelligence.

1.2 Credit Renewal Automation

Credit renewals are a dominant source of revenue for most MFIs. Based on our evaluation, though, it is a common practice to underwrite follow-up loans through the same process as first-time loans when the customer is unknown risk. This mere fact indicates the potential to streamline, automate, and increase efficiency gains. From the customer perspective, a more attractive and efficient follow-up loan brings convenience, timeliness, and accessibility:

particularly important in the case of working capital loans. CGAP supported five MFIs through a pilot of an automated loan decisioning model. The MFIs completed the pilots within 12 months and achieved superior loan repayment performance on their automated loans. After the pilots, most of the MFIs are continuing to work towards scaling the automated solution. These results were possible due to the adoption of an agile product development roadmap (see Figure 4) organized around a rapid prototype buildout and a single product test sprint.

FIGURE 4. Product digitization roadmap



The loan automation pilots provided a broader laboratory for the five principles. In particular, the results validated the importance of simplifying the technology during the testing phase and allowing MFIs to focus on product development and creating a good customer experience. In all the pilots, we opted for a Software-as-a-Service (SaaS) provider, thus limiting the need for upfront investment in technology and skills, enabling CGAP to support a group of MFIs in a short timeframe.

We discovered that risk aversion can be a significant impediment to building value through digitization. In the pilot design and implementation, the MFIs focused a lot of attention on mitigating the risk of arrears in the test portfolio, rather than testing new product features that would create customer and business value. Specifically, MFIs spent most of the first pilot on verifying that the SaaS decisioning model was reliable, rather than testing how the efficiency gains can be leveraged into customer retention, credit officer productivity or portfolio growth.

1.3 Replicating the Approach at Scale

In addition to piloting the digital implementations, CGAP also tested ways to support multiple MFIs at once, more efficiently. Working with a SaaS provider allowed us to do so in the automation of credit renewals implementation.

For the business intelligence implementation, CGAP started with a one-on-one approach to support MFIs with the development of an extensive dashboard library to analyze customer behavior. With the second cohort, we explored how to scale this work and support a larger number of institutions with a reduced level of resources. This entailed changes to the pilot design, with a reliance on collective, rather than individualized resources, and working with a smaller and simpler set of dashboards.

Based on the experience of the first cohort, CGAP developed a Customer Dashboard Library and a tutorial video Data Analytics Journey. These tools complemented the data boot camp. CGAP's support took place on an open platform so that all participants could benefit from each other's discovery journey. The creation of dashboards was followed by curated insights and group discussions through the CoP.

While institution-level insights were not as detailed as for the first cohort, the scaled approach was useful: (1) as a discovery process, as it generated insights about the state of the business intelligence practice and the level of effort needed to strengthen it across many institutions; (2) as a means to raise the awareness of MFIs and funders about the value of business intelligence; and (3) as a test of the method that could be replicated by MFI funders with their own portfolios.

Table 1 provides a comparative analysis of the approaches to cohorts 1 and 2, and highlights the differences in resources and outputs between the two.

TABLE 1. **Cohort 1 and cohort 2 pilots – operational considerations**

	Cohort 1	Cohort 2
Outputs		
No. MFIs[5]	6	22
Scope of digital implementation (No. of dashboards per MFI)	Extensive: 15 dashboards	Limited: 5 core dashboards
Results	56 core and advanced dashboards by 4 MFIs	90 core dashboards by 17 MFIs
Selection		
Capability screening	Medium: Self-reported	High: Assignment completion
Resources		
Project staff	1 staff + 3 consultants	1 staff + 3 consultants
Data Analyst level of effort (LoE) – MFIs + CoP	65 days	20 days
Time	6 months	3 months

5 One MFI, Microfund for Women (MFW), participated in both Cohorts.

SECTION 2

INSIGHTS FOR FUNDERS

CGAP'S EXPERIENCE IS ENCOURAGING. OVER THE PROJECT lifespan, most of the participating MFIs experienced progress in their digitization implementations and improved capacity to advance further. In only 12 months, the pilot MFIs achieved impressive results: five concluded a loan renewal automation pilot and 17 enriched their business intelligence, segmenting their digital clients and producing over 90 customer behavior dashboards. Many of those MFIs continue these efforts, with a focus on creating value for their clients and organization.

This should encourage funders in their efforts (continued or renewed) to support digitization of their portfolio MFIs, ideally embracing the five principles and testing some of the following practices:

1. Conduct a business intelligence exercise with MFIs in their portfolio to help MFI leaders identify opportunities for value creation.

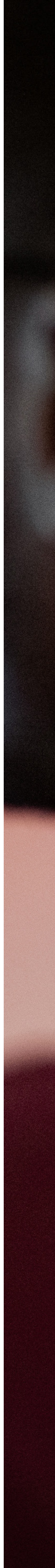
Developing a business intelligence capacity represents a heavy investment for MFIs, in terms of resources, time, commitment. To rank this investment among their various priorities, MFI managers need to better understand the value of these tools. The pilots revealed several use cases for performance dashboards that were unknown to MFI leaders, and quickly generated recommendations that could drive business and customer value. Funders can benefit from conducting some version of this data analytics exercise with MFIs, not only as a one-off exercise to generate strategic insights, but also as an incentive to invest in more business intelligence capabilities.

2. Make better strategic decisions by defining and measuring the value of digital implementations.

Our experience highlights the importance of defining and measuring value to be created with digital implementation and focusing on the value drivers in the product development process. The dashboards reveal trends in customer behavior that drive business value and are an indication of customer value. This is not only useful for MFI leaders for routine performance monitoring, but it is also critical for strategic planning. Again, replicating the business intelligence exercise with the MFIs in their portfolio would help funders to identify and define that value.

3. Improve the success rate of MFI digitization by building the needed core competencies.

The pilots confirmed the validity of the five principles of successful digital implementation. For funders, the principles related to resourcing and empowering the product team and the



business intelligence function (heavily reliant on data analytics). Given the high-risk aversion, empowering the product team may also mean encouraging more risk taking or de-risking experimentation, for example through grants, guarantees and loss-absorbing vehicles.

4. Encourage MFIs to simplify the underlying technology and test quickly.

There is a need to demystify the notion that digital transformation entails complex technology. Our pilots show that it is not the sophistication, price or complexity of technology that determine the success and its scale. Encouraging an agile, minimum viable product (MVP)-based approach is likely to naturally lead to better choices of technology with strong prioritization of the value-creating solutions.

5. Create a platform for MFIs to share and learn with peers.

The CGAP CoP allowed the MFIs to learn from their peers, who often face similar challenges or are also looking for solutions. The CoP revealed appetite for peer exchange and mutual learning that can be perhaps easier satisfied within a network of non-competing organizations. Holding companies and investment funds are particularly well positioned to leverage the benefits of peer learning among their portfolio companies. The inclusion of 14 funders in the project allowed us to get insights into how this work is relevant to their own operations (CGAP 2022b).

CGAP argues that digitization is a process of building value-generating use cases. Funders can support an incremental approach to microfinance digitization and increase the number of MFI digitization success stories by focusing on business intelligence and credit renewal automation. Whatever course of support they take, funders play a key role in deciding whether MFIs will continue serving the most excluded and underserved customers in the future – a role uncontested by other providers so far.

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