

FUNDING MICROFINANCE TECHNOLOGY

A wide range of technologies are available to help microfinance providers improve efficiency, track operations more accurately, increase transparency, and reach new customers. Yet the majority of microfinance institutions struggle to select the right technologies and get the most from their investments. Donors should be realistic about what technology can achieve. In addition to providing funds, donors should ensure that microfinance providers follow good investment and management principles when choosing and implementing new technologies.

What technologies are used in microfinance?

Information systems (IS) technology helps microfinance institutions (MFIs) track, analyze, and report on their operations. Small MFIs may manage with manual ledgers or spreadsheets, but most MFIs eventually need custom-built or commercially-available IS software to track financial transactions and create reports for management, donors, and regulators. IS technology can also include handheld computers that record client information, scoring techniques that analyze data to predict customer behavior, and connectivity technologies that transmit data among staff and branches, such as broadband or VSAT (a wireless data connection via satellite).

Large MFIs and banks sometimes use non-traditional **delivery technologies**, such as automated teller machines (ATMs), point-of-sale (POS) networks (devices in retail outlets which use debit/credit cards to facilitate electronic payments and transactions), and mobile phone banking. These technologies allow customers to make payments, transfers, cash withdrawals, and cash deposits outside branch offices. Although new delivery technologies have the potential to reduce the cost of serving the poor, in many countries they have not yet proven as cost-effective as more conventional operations.

How Technology Benefits Microfinance Providers

More informed decisions. An IS that produces timely, accurate data enables managers to continually evaluate performance, better predict cash needs, and anticipate and respond to crises rapidly. By upgrading its IS, Spandana (India) management was able to compile timely, reliable data and monitor performance across the MFI's 45-branch network.

Increased flexibility. Cooperativa 23 de Julio (Ecuador) transmits data instantaneously throughout its branch network using dial-up and VSAT connections, which are faster and cheaper than physically transferring data, and allows customers to bank at any branch.

Lower operating costs. Mibanco (Peru) reduced loan origination costs by 10 percent by streamlining its loan approval process with a scorecard to predict client repayment behavior.

Better reporting. First Microfinance Bank (Pakistan) developed an IS system that allows managers to produce reliable, standardized reports which follow accounting industry and national standards.

Increased deposits. By placing easy-to-use ATMs in well-trafficked areas, Prodem (Bolivia) gave its clients the ability to save more often, and in smaller amounts, when they had cash available.

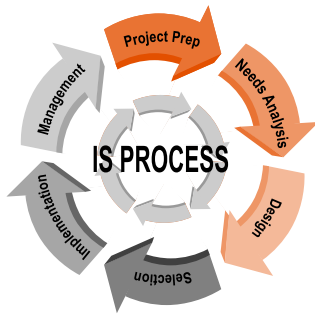
Improved customer convenience. Cerudeb (Uganda) is experimenting with POS devices that enable clients to use their bank cards to withdraw cash at local retail outlets, instead of waiting in line at the branch.

More rural customers. Standard Bank's (South Africa) low minimum-balance, easy-to-use "ePlan" account can be opened at manned ATMs in rural areas where it would be too expensive to open branches.

What principles should MFIs follow when implementing technology?

Implementing a new system or delivery technology usually requires fundamental changes in the MFI's business and significant planning.

Start with a business strategy. Technology will not solve deficiencies in an MFI's business strategy or operational processes. Before beginning any technology planning, the organization must be clear on its mission, goals, and especially operational procedures.



Follow the sequenced implementation process. Selecting or improving any technology system requires six distinct phases: project preparation, needs analysis, design, selection, implementation and management. Careful work on each phase is crucial.

Remember business fundamentals. MFIs should treat technology like any other investment: returns on investment should be calculated and measured against complete costs. The technology must deliver clear value added to all users, including customers, staff and management.

Management is key. Like any other project, technology implementation should enjoy clear management support, involve stakeholders at all levels, be planned meticulously (with milestones and performance targets), and include a budget for ongoing costs as well as any unexpected additional costs. Specialized consultants can be valuable in helping to manage the project and acting as an intermediary with vendors.

How should donors support MFIs that are using technology to improve operations?

Donors supporting **individual** MFI technology initiatives should follow these principles:

- **Get specialized, independent advice.** Donors and MFIs are sometimes seduced by technologies that may not be right for the MFI at a given time. Specialized, independent consultants can bring an objective perspective and help MFIs set strategic priorities, assess technology requirements, and manage technology vendors.
- **Ask tough questions.** Discuss the requirements of the proposed technology with management and make sure that the MFI has thoroughly evaluated the investment. Donors should urge MFIs to stabilize their core IS software before considering more advanced tools, such as hand-held computers and new delivery technologies.
- **Be realistic about upfront and ongoing costs.** Systems that will support an MFI over the long term can be expensive. The purchase price of hardware and software usually accounts for only 15 percent of total cost of implementation. The majority of IS expenses are incurred in staff time, training, and adapting operations to the new system. Technology will also be an ongoing expense as an MFI’s operations respond to changing client needs and regulatory and economic environments. An annual budget for information technology maintenance should not exceed 12–15 percent of an MFI’s revenues.
- **Consider what has already been tried.** Donors should avoid funding “innovations” unless an MFI has investigated whether the technology has been tested, and understands what did and did not work.
- **Ensure comprehensive capacity building.** Most MFIs lack the capacity to scale up a successful technology project. Nearly all are vulnerable to crises such as the departure of key staff. Technology does not substitute for strong teams with the right mix of skills, commitment, and vision. Donors should ensure that funding for technology is complemented by corresponding capacity building in human resources, risk management, and governance.

Selected CGAP Resources on Technology
available at www.cgap.org/iss_site

- “Technology Investment Decisions: 10 Key Questions”
- IT Innovation Series: reviews technologies such as ATMs, smart cards, and biometrics
- IS Process Guidelines
- MIS Handbook and training module
- IS Fund: co-finances consultants to advise on IS development (www.isfund.org)

In some microfinance markets, the best way for donors to support the use of technology may be to fund **industry-level technology initiatives**, such as building the capacity of local IT firms or programs that teach the poor how to use ATM, debit, and credit cards. Subsidizing the public good aspects of technology for microfinance distributes benefits among all MFIs in the market and can advance the goal of integrating the poor into mainstream financial systems.

Author: Gautam Ivatury and Nicole Pasricha, with input from CGAP staff. **Where to go for more information:** Andrew Mainhart, “Management Information Systems for Microfinance: An Evaluation Framework” (Washington, DC: USAID Microenterprise Best Practices Project, 1999); Normand Arsenaault, “Answering the Top Five Myths about Selecting Software for Microfinance Institutions,” <http://www.microfinancegateway.org/content/article/detail/3812>; Charles Waterfield and Nick Ramsing, “Management Information Systems for Microfinance Institutions: A Handbook,” *CGAP Technical Tool No. 1* (Washington, DC: CGAP, 1998); CGAP Microfinance Technology Program, “Technology Investment Decisions: 10 Key Questions” (www.cgap.org/iss_site/documents.html), CGAP “IT Innovation Series” (www.cgap.org/publications/microfinance_technology.html), and “CGAP IS Process Guidelines” (www.cgap.org/iss_site/helpdesk/is_process_overview.html). **Web sites:** www.cgap.org/iss_site; www.isfund.org.