Improving Operational Efficiency of MFIs through Tablet Banking

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I. Introduction

Micro Finance Institutions (MFIs) provide a range of financial and non-financial services to low-income households around the globe as it is costly for mainstream financial institutions to provide the same services. MFIs have been offering these services to unserved and underserved population but they are also struggling to balance outreach with costs. Use of technology, to a large extent, decreases the cost of service delivery and increases the quality of services.

Use of innovative technology, however, is still at a nascent stage in Nepal. Many MFIs are still relying on manual, paper-based transactions which takes longer to document transactions at centre meetings and also in uploading data to systems in the office.

Use of modern technology such as tablets can improve the operational efficiency of MFIs as they are swift, accurate and hence cost-effective. Technology can ultimately support MFIs to make their services reach the poor and ultra-poor segments of the population by reducing the cost and simplifying operation. As a result, in the long run, this may help MFIs to reduce the interest rate and other service charges for their clients. MFIs are becoming subject to tight scrutiny from clients, public and regulators because of its higher interest rate compared to mainstream commercial banks. It is thus essential for MFIs to streamline operation and bring efficient practices.

II. Sakchyam’s Support in Automation of Microfinance Industry in Nepal

UKaid Sakchyam Access to Finance Program (Sakchyam) is closely working with financial service providers and other relevant stakeholders to expand access to financial services among the rural population. One significant initiative has been automating the MFIs’ centre meeting by replacing manual transaction recording with tablet-based applications. Sakchyam has supported nine MFIs in introducing tablets to streamline their operations.

A total of 10 MFIs are using more than 2,300 tablets to automate their operation with the support of Sakchyam

![Figure 1: MFI wise tablet distribution](image-url)
As of August 2019, more than 2,300 tablets have been deployed by 10 partner financial institutions. (Figure 1)

As of August 2019, tablet banking has been in operation in 486 partner branches supported by Sakchyam for the tablet deployment.

III. Modality of Tablet Operation

Before introducing digital technology, MFIs need to understand the technicalities involved in the digitization process. Based on the experience of Sakchyam partners, some of the technical aspects that need to be understood by the implementing organization are summarized below.

1. Process Flow

Tablets are used to record savings and loan collection installment digitally through an online or offline application. Information can then be uploaded to the MFI’s server instantly at the centre meeting (if the tablet is online) or at the branch office after the meeting (if the tablet is offline). Once the accountant and the branch manager of the MFI reviews and approves the transactions that took place at the centre meeting, the transactions will sync with the Core Banking System (CBS) which is also shown in Figure 2. In the manual system, the loan officers would make multiple entries of the transactions manually; first at the centre meeting and then in the core system once they reached the branch office. Tablet banking has helped digitalize the field transactions thus saving time of the loan officer and the cost spent in performing the tasks. Now, the loan officer can focus more on business development, client engagement and financial-literacy related activities.

![Figure 2: Process Flow of Tablet](image-url)
A study commissioned by Sakchym showed that the use of tablets reduced the time spent at the centre meeting by 33 percent.

II. Features of Tablet

MFIs can use tablets with different features catering to their need. In addition to tablets which support a basic application, MFIs can also use thumb scanner, printer, card reader, etc. Based on the need and strategy of MFIs, they can choose tablets that fit their requirement.

III. Modules Used in Tablet

Tablet banking was introduced in Nepal through the intervention of Sakchym Access to Finance Programme. MFIs started with the module of collection sheet in automating their transaction. In addition, a few MFIs have also developed other modules such as collection of KYC information, loan transaction, and mini statement. General content of the module used in tablet application are as follows:

- Know Your Customer (KYC)
- Saving Transaction
- Loan Transaction
- Collection Sheet Transaction
- Mini Statement

II. Modality of Digitization of Microfinance Institution

An MFI has to make the tablet’s module as per its modality of operation. Most of the MFIs use Grameen model while a few operate on the self-help group model. In some instances, the staff of the MFI uses the tablet while in some cases MFI recruits agents to conduct the centre meetings.

In the first model, MFI staff uses a tablet device to record their transactions. This is the model most of the Sakchym partners are employing to digitalize collection sheet entry, saving collection, withdrawal and loan demand, etc.

In the second model, agents recruited by the MFIs perform transactions -- Savings deposits, loan disbursement, loan repayment, etc. -- if needed. Clients can also perform transactions themselves except for deposits/cash in and withdrawals/cash out where an agent is needed as an intermediary.

An MFI can also develop a mobile application for clients to facilitate the digitalization process. So far, MFIs in Nepal have not used a mobile application to replace their centre meetings and regular operations, the application is used to inform clients on savings balance, loan outstanding, date of the next centre meeting, etc.

In Sakchym partnership, all partners have used the first model. A few MFIs have tried the agent banking model but it hasn’t gone full-scale.
III. The Rationale for using Tablet and Transaction Automation by MFI

Before using tablet, it used to take us up to 2 hours to complete a centre meeting. Now with the use of a tablet our meetings take less time and we can use the time to share financial literacy, product information to our members. We are also starting office from 8:00 am instead of 7:00 am because of the time saved by tablet. Members are also excited because of the use of modern technology. “

Narendra Bhandari, Loan Officer, Lamki Branch, Kisan Cooperative

Digitization would help both the financial institution and the clients. Digitalized microfinance operation offers more convenience to the customers and opens access to a broader range of financial services such as credit, savings, insurance and payment at their doorsteps, even in the remote areas thus eliminating the need to travel to physical branches. MFI staff/agent visiting costumers with digital devices to collect savings or loan payment, loan application or limited loan disbursement or withdrawal will offer convenience and proximity to MFI clients. It will reduce the cost of access to financial service as MFI clients need not travel to the branch offices to withdraw cash or for loan disbursement.

MFIs equally benefit from the use of tablet/digitalization. Use of tablet will help improve the efficiency and quality of financial services. It will bring efficiency in terms of a reduced time to conduct centre meeting and the time required to sync with its core banking system. It will also reduce the possibilities of staff fraud. Digitization will increase the capacity of the loan officer to handle more clients and will make it possible for him/her to focus on business development services, literacy initiative thus creating more customer engagement. A study commissioned by Sakchyam showed that the use of tablets reduced the time spent at the centre meeting by 33 percent. Use of digital channel will help provide value-added services, issue reminders and updates on account information and payment due, and to promote new products and services thus increasing clients’ loyalty to the institution. The tablets can be utilized to disseminate financial and business literacy messages thus increasing clients’ capabilities to access prudent financial services, increase their capability of money management technique thus deepening financial services access. A

Figure 3: Use of Tablet in Centre Meeting for Automating Transaction and Financial Literacy
collage of use of tablet during the centre meeting and financial literacy session by Sakchym partners is shown in Figure 3.

IV. Prerequisite and Steps in Implementing Tablet Banking

Before launching tablet banking, an organization should assess different factors to know their capacity to implement tablet banking and external environment. The dimensions the institution would assess is in terms of financial capacity, technical capacity, regulatory requirement and other external environments.

**Financial Capacity:** MFIs need to incur different costs while introducing tablet banking. Some of the costs are capital expenditure (Capex) to the financial institution while other costs are operating expenditure (Opex). Major costs that an institution needs to incur while digitizing its operation: cost of the device, cost of development and maintenance of the application, internet connectivity as well as regular operating costs. Cost and benefit analysis of digitalization needs to be done to understand whether digitization will make good financial sense or not.

**Technical capacity:** MFIs also need to ascertain whether the current CBS is capable of accommodating other third-party application digital channel (third-party application like POS/ ATM/MPOS/Tablet/phone, etc). The requirement of the system integration and the cost of integration need to be well thought of and considered. Similarly, the capacity of the current server to accommodate additional data also needs to be taken into account. The MFI Institution also needs to have a disaster recovery in place of this alternative channel components.

MFIs also need to assess the external environment before going digital. They need to ascertain whether there is regulatory permission to adopt this alternative delivery channel. The organizations need to take necessary approval from the regulatory bodies to digitize their operations. MFIs also need to find out if their competitor is using similar or better services. They need to offer better value addition to the clients to differentiate themselves from other competitors. Availability of adequate infrastructures such as connectivity, internet connection, technology service providers, and electricity is also essential for smooth implementation.

**Steps in introducing tablet banking in a Financial Institution**

Based on the experience of implementation of tablet banking by Sakchym partners, the following steps have been identified (also presented in Figure 4) for the financial institutions to follow while implementing tablet banking:
It is important to have a buy-in of management as well as the board for the smooth implementation of digitalization.

Step 1: Buy-in of management

In order to implement tablet banking in any financial institution, a strong buy-in of management and the board of directors is required. Management needs to understand the potential benefits and costs of using tablets and how it can help the organization as well as the clients. Management needs to have a clear strategy for going digital. Once the management is convinced and has the dedication to implement tablet banking, it will be easier to implement.

Step 2: Formation of Team

Once the management is convinced, a dedicated cross-functional team representing IT, Operation, Credit and Risk Management departments need to be set up. It is important to form a cross-functional team to align the operational requirement as well as the IT capability to make the introduction of the technology seamless.

**Figure 4: Steps in implementing tablet banking**
Step 3: Selection of Tablet

Selection of the tablet is one of the critical steps in implementing tablet banking. The tablet’s model/type needs to be chosen to align with the vision of the services the organization wants to offer. Different additional features such as the use of biometric, card reading facility, printers can be integrated into the tablets based on the plan to offer services immediately or in the future. The immediate cost of the tablets and operation increases as the organization adds other features. A sample of a tablet used by Sakchyam partners is shown in Figure 5.

Step 4: Development of Software

This activity can be done in parallel with the step 3 as well. Before developing the software, the management should determine key features of the software that needs to be developed. Some of the commonly used features by MFIs are mentioned in modules of tablet in the earlier section. Based on the status of connectivity in the location the MFI is operating, both online and offline features might need to be developed. If there is no proper connectivity, offline features should also be developed. Software development/improvement will become an ongoing process to incorporate the feedback of staff/clients and align with the developing market.

Currently, there are five different software vendors supplying tablet solutions to these MFIs.

Step 5: Mode of information sharing

The objective of introducing tablets is to bring efficiency in the operation. In order to reduce the meeting time, the use of collection sheets and passbooks should be discouraged. While MFI can immediately remove the use of collection sheets, a proper method of information sharing with the clients related to their transaction has to be developed and tested before discontinuing the use of the passbooks. How can an MFI notify all the clients about the change? Different alternatives such as SMS, mobile application can be used to notify the clients. While developing an information sharing mechanism, MFI should develop a mechanism to use local language so that the client can understand the messages. There might be initial resistance from the clients’ side to stop using passbooks as they are used to that format. Therefore, it should be transitioned in such a way that clients will adopt the system. In the initial phase, both passbooks and the alternative method could be used to notify clients and then gradually shift to discontinuing passbook usage.
Step 6: Pilot the use of tablet from a few branches

Once the selection of the tablet and preparation is complete, it should be piloted in a few branches. Staff training and awareness among clients also need to be done before the piloting. Based on the feedback of staff and clients during the pilot, amendments on software and modality has to be done.

Step 7: Staff Training

Once the pilot is completed, preparation for the full-scale launch has to be carried out. One of the major preparatory work will be to train MFIs' staff on the use of tablet. While providing training, both theoretical and practical aspects of using a tablet to automate transactions need to be covered. Video tutorial to train staff on the use of tablet will help the staff learn of potential difficulties that might arise beforehand. It has been observed that untrained or insufficiently trained staff leads to failure in implementation. Regular refresher training and other support also needs to be provided.

Step 8: Launching tablet in full scale

After the necessary completion of the rollout activity, tablets can be launched on a full scale. While launching the tablet through the branches/other contact points, preparation of awareness materials to educate the clients need to be finalized to reduce potential resistance from them.

VI. Conclusion

Use of tablets has helped MFIs improve their work efficiency. Both MFI and the clients have benefitted from the efficiency tablet has brought to the work process. It also gives room to the MFI staff to focus on other services such as financial literacy. After Sakchyam’s support to a few MFIs, other MFIs have also started using/planning to use the similar technology.

Although, in the beginning it is difficult to make the clients/staff use the new system, they will gradually adapt to the new technology. Commitment of senior management, strong IT team, robust core banking system are some of the essential components for the successful implementation of tablet banking.