

## **MOBILE BANKING AND RURAL OUTREACH**

Posted by Ralph Houtman in Devfinance on Friday 28 October, 2005  
in response to a question from Jessica Jacobson

Your question is very relevant for many of us in the rural finance industry. In many rural areas population densities are too low to justify an extensive branch network. One of the methodologies to overcome that are mobile staff, or mobile branches.

There are many ways to design and implement mobile banks, mobile branches or mobile field staff. To have a cashier out in the field you need in principle only one person, assuming security isn't an issue. The typical Grameen approach, whereby a field worker visits a location (let's call it a "center") on a weekly basis to do disbursements and collections is one of them. The decisions that you have to take in setting up such a mobile network include the following:

1. What is going to be the frequency of visits, i.e. what is the frequency and duration of the opening hours of the "branch" to a particular location?
2. How far, in terms of travelling hours, are you going to reach out from your (non-mobile) permanent offices?
3. Are your mobile staff going to return to the permanent offices daily or with lesser frequency?
4. Is the security situation good enough to allow field staff to transport cash and to transact in cash?
5. Is your permanent office going to have also front-office transactions, in parallel with transactions in the field, or is it only operating as a backoffice, i.e. as a base for the field staff and without clients coming to the counter to transact?

The right answers to the above questions, and a number of others, are primarily determined by the population density (or at least those among them you are targeting as clients) and infrastructure in your area of operation and by the security situation.

On the one end of the scale, there is the model whereby your field staff use the permanent office as a base from where they leave every morning with a number of savings and loan collection sheets and disbursement lists, and with an amount of cash which should be sufficient for disbursements that need to be done in excess of expected collections. The field staff returns in the evening, surrenders to net cash to the cashier in the permanent office, after which the client accounts are updated. For the field staff this is a daily cycle. There is a different cycle for their visits to each center. Common cycles are weekly or monthly. This center frequency is determined by the potential volume of business in the catchment area of the center, and by the cost of travelling to the centers.

Population density and infrastructure are going to determine: a. The size of your centers, in terms of number of clients; b. How many centers your field staff are going to visit per day; c. The center visit frequency: weekly, two-weekly, monthly or less frequent.

A center size of 25, visiting four centers per day, a weekly frequency and a five day work week would mean that you will have 400 clients per field staff.

But not all of these variables may be feasible. The center size may be unrealistic if the population density, or the potential clientele among them, is insufficient. Visiting four centers per day may not be feasible if the infrastructure is poor, or if the centers are located far from one another (which again, may be due to low population density). And the weekly center-visit cycle may not be feasible if the previous two parameters are unfavourable, and this may force you to a two-weekly or monthly visit cycle so as to still achieve a sufficient ratio of clients per field staff.

In this model, the maximum travel time between centers, and between centers and the permanent office, should probably not be much more than an hour or so.

In this scenario, the permanent office would have an IT infrastructure for data entry, record keeping and data backup, a person in place to appraise and approve loans, and a facility to keep cash in a vault overnight. This model can work well in areas with a relatively high population density and reasonable

infrastructure which will allow one field staff to serve such a number of clients that the operation can be profitable. Bangladesh is such a case as it has both the high population density and the reasonably infrastructure for the field staff to get around on a bike, and reach 300 to 600 clients depending on the center cycle. The number of 300 is sometimes used as a sort of "best practices" standard for ratio of clients per field staff.

On the other end of the scale there are areas where the population densities are very low, and/or where the infrastructure is poor. In such places, Bhutan is one example, it is not possible for field staff to return to the permanent office on a daily basis, and it is not possible to have a weekly cycle and not even a monthly cycle (such as in wintertime). It may not be possible to have a fixed "center cycle" because the travel time cannot be controlled. In Bhutan, the visit frequency for remote areas can be as low as twice, or even once per year, while the time for the field staff to return to the permanent branch office can be as long as two weeks, most of which time he is trekking by foot through the mountains from village to village and house to house.

Bhutan is an extreme case, but it well illustrates that your choice of model and methodology are primarily determined by the population density and the infrastructure.

You need to design your savings and loan products (and other aspects of your methodology) according to the parameters you choose for center-frequencies and the frequency of your field staff returning to the permanent office. It will be obvious that in the remote areas of Bhutan you are not going to have a loan product with a weekly, or monthly, repayment frequency. And also, in the case of a weekly or two weekly center-visit cycle, you should not schedule monthly loan repayments because the installments will never synchronize with the weekly or two weekly visits of your field staff.

If I have bored you till here because this is not the type of mobile banks that you had in mind, then I am sorry, and then now we can move to the mobile bank whereby you perhaps have more sophisticated transport for your field staff than foot or bicycle. I saw from your email address that you are based in Russia and if you are going to do mobile banking in Siberia then you would probably want to use a car or at least a motorcycle.

In this scenario you may perhaps not need a permanent office at all, because your car is your office and is equipped with a notebook computer which not only serves the purpose of data entry in the field, but which also does interest calculations, updates the client records, and maintains the general ledger for you, does reports and everything else a normal computer system does. The car would probably also have some sort of a cash box and you need to have some procedure for loan appraisal in place. In other words, you have a completely self-contained mobile branch, probably with more than one staff. The only thing you need besides the car, is a gas station and a place to transfer your data once in a while to head office for consolidation with other mobile (and permanent) branches. In this model, the transactions are entered real time in the center itself and it would be good if the center could have electricity so that you can carry a printer to print receipts and client statements.

Both of the above models can be enhanced with technologies and refined methodologies. The mobile field staff model can be enhanced by equipping the field staff with a PDA to supplement the hardcopy collection and disbursement lists. But note that you will need hardcopy, and signed, receipts for the field transactions and that a PDA cannot produce these so you may still need to continue using the hard copy collection and disbursement lists and those transactions need to be identical to the PDA information. In certain scenarios the PDA may be useful, in others not. Basically, a PDA just shifts the task of data entry from the branch to the field, that's all.

Regardless which of the models you use, you have to ensure that your IT system, both hardware and software, supports what you are going to do. Ideally it should be able to ensure (or validate) that loan disbursements and loan repayments are scheduled on center-visit dates. If, in conjunction with the above mobility approaches, you are using group methodologies your systems should support that and ideally have a facility for exception posting of loan repayments and recurring (or contract) savings deposits. And your system should probably allow for a customer account to which excess payments (excess amount paid to close a loan) are automatically posted because it often happens that field staff may not have small change with them (in my office we call this a "surplus account"). And because passbooks cannot be conveniently maintained in the mobile models, perhaps they should be replaced by regular savings

account statements (it is easier to print these out on A4 paper from a portable printer than to print passbooks on such a printer). And in order to prevent the creation of phantom clients and phantom loan accounts (for the newcomers to microfinance: these are non-existing clients and loans that are dreamt-up by your field staff to pocket the loan themselves), your group-trainers should train borrowers to demand a weekly group statement, which shows exactly who are recorded in the system as members of the group (to prevent phantom members), which loans they hold (to prevent phantom loans) and what the loan and savings balances are (as a check that previous week's payments were deposited at the branch properly). And your IT system should be able to produce that statement too.

In quite a few countries with high crime or robbery rates, cash transactions in the field and cash in transit are considered too risky. Varying procedures are being used to cater for non-cash-in-the-field scenarios. Invariably the methodologies end up with shifting the risk of being robbed from the MFI to its clients. Disbursements are usually done by cheque, drawn on a local bank, while clients may be required to repay loans at the same bank, either themselves, or through their group leader. In such scenarios a huge number of transactions will be posted to the MFI's account in that bank, and the software of both the bank and the MFI need to have the required statements, or reports, or data export/import, or on-line facilities to promptly update the client's loan (and savings) accounts and to reconcile the MFI's bank account with its own records on the basis of a predetermined key. It is often not easy to implement this.

Whether you use paper collection and disbursement lists or PDA's it may be necessary to block transactions into the corresponding loans and savings accounts to prevent the status and balances of these accounts changing while the field staff operates on them in the center. This in particular for loan disbursements and savings withdrawals. If field staff do not return of daily basis to their permanent office then, depending on the design of your products, your system may require facilities for backdating of transactions. Most systems can do this automatically but within limits.

Future technological developments will create more options. In certain parts of Cambodia there is WIFI internet access available and in theory you could carry a notebook computer which is online with a main computer in the branch so accounts can be operated real time from the field and do not need to be blocked. Improving internet access will in future allow field staff to synchronise PDAs with the branch computer at least once a day, sending the transactions of that day for centralized processing, and then downloading the updated accounts from the branch for collection or disbursement the next day, without returning to the branch. A convenient and reliable way to print receipts and transaction slips in the field may become possible with low-power and low cost portable printers.

So, basically, yes, there is a lot of potential for mobile banking, but there are hurdles and it requires careful planning and the use of the appropriate methodology for the particular rural environment. You are right in assuming that the methodology for disbursements and repayments in the field is very important. If the security environment is good enough then I think it is easier to do cash transactions in the field, rather than channeling the transactions through a bank.

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