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**Improving MIS in Indian MFIs:
An assessment with suggestions for active engagement**

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June 2008

Executive Summary

Although microfinance and IT sectors in India have demonstrated explosive growth, there is strong indication that IT has had little impact on most microfinance institutions. During a fact finding trip, discussions with a variety of stakeholders were held. Large microfinance institutions are well aware of the benefits of technology but many medium-sized ones are not. It seems that MFI managers do not fully appreciate the central importance of IT in product innovation and defining new delivery channels – indicating that there is much scope for improvement. There are numerous software suppliers, and an excessive reliance on poorly designed software by small-small suppliers. However, with several new entrants into the software provision sector, and some interest in applying the application service provider approach, potential institutions are gaining access to a wider selection of well designed, though more expensive, software. Technical providers, some with strong social engagement agendas, are available to help MFIs. There is much scope for an improved training offer, with a variety of courses targeted towards different levels of management. Investors in general seem happy to include technology investment as part of their overall engagement, and several also offer technical assistance.

As well as giving an overview of the main stakeholder issues, this report also summarises a range of project areas that can be developed further, in order to improve the effective usage of IT in MFIs. The projects cover the following areas: information dissemination, awareness building, tool development and capacity building. Projects include improving usage of electronically available resources by establishing a site that digests and regurgitates information in an easily access manner, generating shorter MIS courses for management on issues like innovation, developing new tools to help MFIs cost IT investment, and spreading the open source message.

Effective implementation of any of these project ideas will involve several partners – some are suggested, as is the requirement for a dedicated project manager to oversee these IT initiatives.

1. Introduction

In many parts of Africa and Brazil, financial institutions are innovating using technology to create new delivery channels, drive down their costs, and provide services to more poor people. In South Africa for example, Wizzit has been expanding outreach using mobile phone technology to reach low-income customers. In Brazil, the correspondent banking model used by various banks is highly dependent on technology, and has contributed to the growth of banked customers by 20% in 6 years.

India, with its 1.1 billion people (about 15% of the world's population) represents a huge market with tremendous opportunities for expanding financial access, especially among its poor. Access estimates that borrowers served by microfinance institutions grew by 40% (up from 7.5 million to 10.5 million) during the period 2006-7.

In addition, India boasts of a world-class Information Technology (IT) sector. A recent NASSCOM report says "Continuing on its established track-record, the overall Indian IT-BPO revenue aggregate is expected to grow by over 33 per cent and reach $64 billion by the end of the current fiscal year (FY2008). Over the same period, direct employment in the sector is expected to reach nearly 2 million, an increase of about 375,000 professionals over the previous year. "

Both microfinance and technology sectors seem poised for continued growth. Banks have been using technology for years, as a core component of their operations. Microfinance, on the other hand, with its roots in the NGO world has been slower to catch up. One reason for this may indeed be the cost of the acquiring and implementing technology required, but another might be that the management of many microfinance institutions (MFIs) do not yet recognise the value, importance and strategic advantage that can be leveraged using technology.

The Consultative Group to Assist the Poor (CGAP) have recently, with funding from the Gates Foundation, spearheaded a series of technology-based experiments, seeking examples of successful initiatives that can fundamentally expand access. None of these new innovations (for example, the use of Point Of Sale devices) are possible without a core, dependable back-office system that ensures records are up to date and strategic and operational reports are available on demand.

Indian MFIs can probably be divided into three types of institutions. Only one or two of the large Indian MFIs are ahead of the pack, with technology driving the nature of their product or of new delivery channels. In the second layer, of medium-sized institutions, there remain many more that are not using technology as effectively as they could. The final layer contains the remainder, characterised by small institutions which intend to stay small or to grow organically.

The State of the Sector Report 2006 estimated that India has around 800 MFIs, with membership concentrated in the top three institutions (at 55%). A lot of MFIs offer standard joint liability group (JLG) products, with little diversification in product offering.

MFIs are often constrained in their growth by the lack of money for on-lending. From 2004, it became increasingly easy for MFIs to borrow from banks. ICICI Bank in particular used a partnership model to lend to MFIs. However, in 2007, the Reserve Bank of India (RBI) expressed reservations about ICICI's ability to apply Know Your Customer (KYC) rules. This prompted both a dramatic reduction in the amount lent to the MFI sector, and to a new MIS package – FINO – being specified as a basic requirement for MFIs requiring loans.

The need for MFIs to be able to adhere to regulatory rules is only one pressure point. As new investors offer equity capital, they also insist on up-to-date reporting and operational transparency.

For many institutions, it is becoming imperative that they adopt technology, and use it well.

What are the issues concerning technology usage? How can MFIs prepare for growth and expansion? What resources are required but scarce?

This report, commissioned by *MicroSave* India, summarises the key findings gleaned during a field trip to India in March 2008, visiting and interviewing representatives from MFIs, technical providers, software providers, investors and associations.

The goal is to use these findings to design a basket of technology initiatives that aim to counter some of the challenges faced in the sector. *MicroSave* has market recognition and comparative advantages in dissemination and capacity building. The ideal project design will combine these strengths with the interests of other potential collaborators and funders in the sector to produce a practical two year plan of action, with demonstrable measures to test the effectiveness of the intervention.

2. Research Approach
The main method used for collecting information was to meet and discuss with individuals within four different types of organisations:

- ➢ Microfinance institutions – to understand how they are using technology and the issues faced during implementation
- ➢ Software providers – to understand how they develop software and their plans for future development
- ➢ Technical providers – to explore the skill sets available for independent consultants to act as bridge between providers and MFIs
- ➢ Investors – their concerns about the use of technology in their investees and any special initiatives to support technology implementations

Various representatives were met during eight working days, which also included a field trip to give insight into the conditions under which technology is used in rural MFI branches.

Some conversations were conducted over the phone.

It was also planned to talk to representatives of the biggest microfinance networks in India – Access and SaDhan. This was not possible, but email communication yielded a few reports that summarised the organisations' work in microfinance and technology.

Various websites were also consulted:
- ➢ NASSCOM – summary information about the software/tech sector in India
- ➢ CGAP – the technology programme which includes some innovation projects in India
- ➢ MFMI – materials on IS in MFIs
- ➢ The Economist – country report on India, with some discussion of its IT sector

3. Findings
3.1 Microfinance Institutions
We spoke to staff representing a variety of different financial institutions – a federation of SHGs (one private, the other a large state-supported initiative), a start-up with a technology focused product, an urban-based co-operative, and a strict JLG model.

The institutions varied a great deal in their approach to technology, the way they set about choosing a software package, the extent of innovation, the level of staff competence, and satisfaction with their current solution. In fact, if all these issues are taken into account, each institution contacted would present a unique case. However, they illustrate problems within the sector that is confirmed by other surveys and reports.

The co-operative in Mumbai, for example, ended up doing in-house development through a company set up by the manager. Although the company invested a great deal in developing a two-line PDA with integrated printer that would work in the field, the end-product is expensive (at Rs. 11,000 per unit i.e. US$ 275 approximately) and of limited functionality. The desktop software to which the device is connected is operational but still displayed several bugs as it was being demonstrated.

The CGAP survey in 2004 found that 40% of institutions were using a proprietary solution. In an IT survey by Sa-Dhan, it found that 40% of institutions still opted for an in-house solution. Given the lack of synergy between the business of finance and that of software development, it is not surprising that most efforts to develop tailored software outsource the development to an IT firm.

In the current marketplace of software providers, it is hard to put forward a strong case for developing yet another MFI operations management software from scratch. The difficulties of managing such a process are enormous, and the time required lengthy. Yet, this is precisely the option selected by at least one partner of Opportunity International (OI) and one from Accion recently.

An interesting approach is that taken by Eko, a new mobile phone based company that needed a rigorous platform to support their innovative product. They selected miFOS as a software base, but required so many changes that they separately sourced additional modification by a third party company. Their hybrid solution was built on the open source (and essentially free) software core provided by miFOS, so was not built from scratch, and profited from the strong software design stages that had preceded the miFOS development.

The 2006 Sa-Dhan IT report summarised what MFIs reported as their most important IT related issue.

Main IT issue	% agreeing
No comprehensive system in the market	12
Stand-alone products and customisation	11
Not enough investment into new technologies	11
Post-services by IT vendor	10
Lack of information about software	8
Branch and head office integration	8
Integration of operations and accounts	8
Changing needs with growth	7
Migrating from one software to another is very difficult	7
Continuous training of staff	6
Costs	6
Technical human resources – retention is very low	6

The issues reported indicate that there is still a tendency for MFIs to regard their operations as unique, with no existing off-the-shelf system being suitable for their requirements. However, there are examples in the market of institutions that have implemented their own work-around for software that does not do everything – a common approach is to handle additional processing and reporting requirements in Excel.

When OI asked their partners to rank their IT issues alongside their other immediate concerns, IT was ranked fourth – behind human resources, governance and financial management. While IT cannot substitute for poor organisational structure and management, it's potential to support up-scaling and innovation should not be under-estimated.

CGAP have a number of technical resources available on their website. In particular, the software reviews seem to be widely known in India. It does seem though that in order to effect some changes in how MFIs both perceive and manage technology within their organisations, a concerted awareness building effort is required.

There have been some efforts by other organisations to generate training materials. CGAP developed an excellent course – IS for MFIs – which uses a variety of adult learning techniques – mini lectures, guided discussions, case studies and group exercises - to expose participants to a conceptual framework for IT needs analysis and software selection. This course should be more widely offered in India. In addition, it may be possible to reduce its contents to a one-day course for busy managers – who will nevertheless acquire an appreciation for the need for process.

Under the aegis of the MFMI, materials for an MBA in microfinance were developed by the University of Pretoria, South Africa. One module on innovation and technology in microfinance may be particularly useful for managers as it gives real-life examples of technology being used to innovate in microfinance. This course could be adapted, and some Indian examples selected for inclusion.

MFI managers will also benefit from a costing based tool that will help them calculate and compare costs for technology implementation, and project how they may change over time as the institution grows. This will help to ensure that technology planning involves thinking through the expected return on their investment, and will co-opt the finance and operations team, as well as make liberal use of the organisation's strategy to assess the level of investment required.

MicroSave's own MIS toolkit initiative is an effort to simplify the process of MIS selection and implementation, in a concise form, with easy to use checklists.

3.2 Software Providers
A variety of software firms were also consulted. They differ in the cost of their solution, the rigor of their processes, their support network in India, and whether they are associated with an MFI or not.

Several mid to large MFIs have developed software for their own use, which they now sell to other institutions. One of the best known in this category is BASIX, who developed Famis Plus and then upgraded it to Delphix. Software development was done by a third-party company, but is being supported by BASIX staff, who market and implement the software product. Basix's IT division experience high staff turnover, as they are essentially competing with the Indian software sector, and find that they do not have the resources to implement and support all the institutions which approach them. They face the problem of not having a clear company structure separate from BASIX the MFI, though this may change in the future.

There are a number of new entrants in the software provision space – Craft Silicon's Banker's Realm, Kredits, and miFOS. Banker's Realm claim to have sold 8 new licenses in India; Kredits is now implementing the second of its Indian installations. miFOS has completed one large installation and is in the process of other mid-sized efforts. At least two software developers – Gradatim and Data Vision have not yet completed their software solutions for microfinance. These last two companies are working with a selected number of MFIs to field test their software. Both have experience in the software development industry. Gradatim was founded by a serial entrepreneur with experience in organisational flow management. It has used an interesting approach of buying in components (such as IBM's workflow and Intrasoft's core banking solutions) that are bolted into its software solution. Data Vision is certified to CMM Level 5 and has installed its new banking software in 19 institutions around India, with around 500 branch installations. It claims to have support teams in several locations over India.

Several small software developers are active in the market. Jayam and Safal are two providers which are surprisingly popular, with over a hundred installations claimed between them. Popularity in this case is linked to price, and the software (with implementation) is provided at a cost of around Rs. 2 lakh (i.e. US$ 5000 approximately). Unfortunately, these companies have no internal processes to control the software development life cycle. Documentation, formal testing and project planning are weak.

Many indigenous banking software applications exist in India. One of these, i-Flex was adopted by the FINO solution to provide an Application Service Provider (ASP) model to partners of ICICI bank. The back-end is functionally sophisticated, as is the front-end (which uses Personal Digital Assistants (PDAs), biometric identification and smart cards). However, their approach seems to have several problems. MFIs find it costly – it is charged on a per account basis per year. Apparently, MFIs also find that they cannot completely match their processes with the requirements of the software, which the providers claim can only be profitably adapted for institutions with large numbers of clients. It seems that the ASP model is setup as a single tenant model, with each MFI functioning as a different 'branch' and that therefore some setup options that are to apply to an entire organisation also have to be applied to each of the 'branches'.

Salesforce.com is an organisation that has pioneered the use of multi-tenant ASP provision. In Access' State of the Sector 2007 report, it was mentioned that they might be interested in moving into the microfinance ASP model. Several new entrants - Gradatim, Data Vision, miFOS - all indicate that their software can be deployed in a similar fashion. This is yet to be proved on a sustainable and efficient way.

The ASP model provides such a good IT principle, it is difficult to imagine why it isn't more widespread. As mentioned above, not all software was developed explicitly to support several institutions independently. In addition, some MFIs find it uncomfortable to delegate the management of their data repository and the heart of their business model to a third–party.

Another option is the potential of hosting the application off-site rather than to pay per transaction or per account. This is essentially the same concept as hosting a data-driven website, with the interface available to users wherever they are. The only limitation to this approach is the lack of reliable landlines throughout the year. A miFOS test site in Assam found that their hosted option was still impossible to use on the national fixed line grid, which regularly failed to work during the rainy season.

Implementation is a weak point for many software companies. Requirements definition, for example is a problem for many. *MicroSave* currently provides process mapping consulting services to several of its Action Research Partners. It is therefore well-placed to help MFIs document their existing processes, making it easier to evaluate the suitability of software options to internal requirements as well as identify which processes need to be refined before computerisation.

The Kredits team exceptionally appears to be strong in project planning with an emphasis of ensuring data migration works smoothly. miFOS has developed an excellent set of planning tools online, which may be useful to the industry in general. It may be possible to encourage miFOS to co-brand modified versions of their tools.

The smaller software companies should be encouraged, if only for their existing client base, to migrate towards the open source movement. Mahiti, a local open source development house, is keen on spreading the gospel of free software. If these companies adopt the miFOS approach, it could result in a strong improvement in the core of their software, some in-house skill enhancement, and a gradual move in focus away from the software itself towards the services needed to support its effective use. This could only be a good thing.

3.3 Technical Providers

MFI managers tend to be weak in their capacity to understand technology. This is not always their fault, as computer specialists do tend to techno-speak, with little appreciation of the business angles to technological innovation. Independent consultants who act as technical go-betweens can therefore be invaluable in translating the technical language into business or operational language and vice versa.

We met a few technical providers who are able to provide software selection, project planning, training, and software implementation. Akshara for example, is a non-profit development support organisation that aims to introduce professionalism in the NGO sector. One of its skill sets is in information technology. Mahiti specialise in open source software and have a dual business model of providing commercial services to commercial clients, and subsidised services to the NGO sector. They plan to expand significantly over the next year, and have skills in developing multimedia computer-based training programmes.

MiFOS selected Profound Infotech - who also provides banking software - to manage implementation in an institution in Assam. Although they expressed interest in taking on further technical provider roles, it is hard to see how a company that is so focused towards software development can do this without setting up a new business unit and devoting some resources to marketing its skills.

CGAPs IS Fund initiative was started to help bridge this gap by co-funding the costs of independent IT consultants, but there has been limited uptake in India. *MicroSave* could help in disseminating material about this, and could also actively attempt to identify and recruit Indian consultants with the required

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skills. An increased usage of technical providers could add a layer of structured process that will lead to more successful technology implementations.

A couple of the people we met had significant experience in the corporate world and migrated to microfinance so they could do something they perceived as more meaningful. In terms of a marketing approach, this could be a way of engaging with some of the larger commercial software and consulting companies in India (e.g. MindTree, TCS, and Wipro), to possibly sell the concept of a sabbatical period for their staff who wish to do something with a developmental impact. Their rigorous approach to software and technology could have immense value in the microfinance sector. As part of this approach, it would be useful to fully develop some project concept ideas which could help to illustrate the kinds of problems to be addressed.

3.4 Investors
One of the most interesting trends in contemporary finance is the increasing number of socially minded venture capital and private equity firms willing to take equity stakes in microfinance institutions. Also interesting in India is the ready availability of bank-funded debt; also recently, this route has been constricted by central bank Know Your Customer rules.

In general, investors and funders are interested in good quality information that is readily available from their investees. This increases transparency and allows them the opportunity to identify trends, either positive (as in new markets) or negative (as in decreasing portfolio quality). Several of the investors met during the field visits provide tech assistance as part of their engagement with institutions, and this may include software selection. Many investors see technology as critical and are open to their funds being used to acquire and implement management information systems.

Many investors/ funders are starting small in-house initiatives for their own partners, and may be inadvertently duplicating effort. While not seeking to diffuse some of the particular benefits that each investor may bring to their partners, it will be useful to document these efforts, some of which may be applicable to a wider audience.

Although investors do have some funds available for co-ordinated initiatives, they are hesitant to provide significant funding except if can be of direct (and demonstrable) benefit to their partners or their core mission.

3.5 Associations and Networks
Networks are excellently placed for dissemination as well as for building support structures. The field team were not able to meet staff from associations or networks during the mission. However, from discussions over the phone and email, as well as from the background materials (presentations and reports) we have gathered, we present some issues below that may overlap with *MicroSave*'s goals.

Both Sa-Dhan and Access have initiated IT related activities in India. Sa-Dhan commissioned a survey of IT in microfinance in 2006. Access included a chapter on technology in their State of the Sector 2007 report.

The immediate requirement is to assemble the various materials produced by these Indian networks and any others that may be sourced elsewhere, and attempt to generate and manage an IT sourcebook for Indian microfinance.

4. Possible Project Areas

Supporting IT in microfinance can seem like an intractable problem. CGAP has sponsored lots of initiatives, see cgap.org/technology, that cover a range of IT implementation issues. Institutions do seem familiar with the CGAP software reviews, but seem to repeat the errors that are signposted in the other material that is available on their technology website. It therefore seems that the availability of these resources have made little impact on the way Indian microfinance institutions select their software. Some fresh thinking is required to pursue initiatives that do much more to deepen awareness as well as to equip institutions with the skills they need to use IT effectively. Existing tools could be improved upon, and new ways of disseminating the information explored. The options discussed in this section are based on the issues raised during discussions.

4.1 Information Dissemination

The right kind of information about effective IT use within MFIs is not getting to the people who matter within the institutions. There is a need to ensure that the information that currently exists is presented in a format that is easily accessible by individuals filling key positions within Indian institutions, and this includes senior managers in operational and financial roles.

The objective of this project area would be to make information about IT use in MFIs more widely available through more varied and inventive dissemination channels.

Information dissemination is already one of *MicroSave*'s key roles, and this project area will fit neatly with existing in-house efforts. *MicroSave* will need to collaborate with other organisations that have generated relevant material, and consider ways that the material could be repackaged or represented in interesting ways for senior management. Some possibilities are to include alternative electronic means of presentation such as multimedia clips, which can be disseminated through websites. However, it will also be beneficial to produce printed versions of documents through low-cost means that can be made available at national or regional fora such as conferences and workshops by creating attractive displays where *MicroSave* and its partners can collectively market these initiatives.

Some activities that could be done around this initiative are:
1. Online technology resource
   Compile published information on IT in MFIs, with particular relevance to India, with a list of links to websites. Establish a new technology for India website, co-branded with partners, with easy navigation and interesting presentation of material. The site should regularly (perhaps weekly) highlight an IT issue, a roundup of news, an innovation, or review of a document.
2. Quarterly technology review
   Commission a quarterly 'in-depth' multi-media review of a software package. It is hard for users to get a sense of the software from the dry material which is available and the goal would be to produce something that will show the 'softer' side of the software by including short clips of interviews with different kinds of users about issues from implementation problems to backups. The review should use a mix of text, graphics and pictures, audio and video and to be made available online or on DVD.
3. Produce printed material
   The electronic material should also be printed on low-cost paper but with a well-designed layout, and this printed material should be made available at conferences and workshops.

These activities might be particularly appropriate for the MFI associations (Like Sa-Dhan), which might want to provide a new service for their members. Akshara have some experience with generating dissemination material and may be able to manage aspects of this product area.

4.2 Awareness Building

Getting information together is one thing, making the intended recipients use and value its content is quite another. MFI management do not necessarily understand how to apply the accumulated knowledge within their own institutions. One possible way is to offer courses that use an experiential learning approach. CGAP for example, developed a course on Information Systems for Microfinance Institutions

which is aimed at senior managers, and uses adult training techniques to deepen understanding of the issues and equip participants with skills that can be directly applied within their institutions.

In addition, these awareness building activities should stress the ability to temporarily buy in additional skills when these are lacking within an institution. Some of the larger networks such as Accion and Opportunity International provide technical assistance for IT, using skilled resources generally based at their headquarters. It will be important to develop an understanding of the roles technical providers can play and encourage MFIs to employ them as intermediaries. The cost of these assignments can be subsidised using CGAPs IS Fund, or by recommending alternative local providers for networks currently providing these skills from abroad.

The objective of this project initiative is to make MFI staff more knowledgeable about technology, and to cultivate a culture within institutions of using independent help when in-house resources are inadequate.

The suggested activities are aimed at providing a range of workshops for managers facilitated by skilled trainers, and also at encouraging the use of technical providers. They are listed below:
1. Design new one day workshops for MFI managers
    Modify existing course material so that one-day workshops can be delivered on selected topics. For example, one on Technology and Innovation based on material developed by MFMI, one on implementing MIS in MFIs based on the existing CGAP course. These will therefore become more attractive to managers who cannot afford to devote several days away from the office.
2. Offer IT courses
    Identify trainers around India who can learn how to deliver both existing and the new courses during TOTs (Training of Trainer courses). Schedule workshops in a number of key cities regularly, so that different cadres of staff within MFIs can attend.
3. Develop database of technical providers
    Indian MFIs have not made much use of initiatives such as the IS Fund, and can be encouraged to do so. The first step would be to identify individuals or consulting firms able to take on this role of an intermediary. It may be possible to create linkages with technology firms, who may offer their staff at subsidised consulting rates, or pro bono to mentor technical providers who need additional on-the-job experience.

These activities can be closely linked to existing initiatives to develop training material or provide technical assistance. Potential partners include CGAP, Microfinance Management Institute (MFMI), and Opportunity International.

4.3 Tool Development
Although there are many resources available online, there is some evidence that some of these may prove too abstract, too technical or simply too involved for senior management in MFIs. The Unitus approach of understanding some of the logic behind software selection is a notable initiative that should continue to be supported, so they can include additional software reviews. Tools to help MFIs cost technology or to manage the implementation process will also be useful.

The objective of this project initiative is to identify practical tools that can enable MFIs to be more structured and systematic in their approaches to implementing information systems.

Possible activities include:
1. Software review updates
    Although CGAP have conducted several software reviews, there are many more packages that have not yet been subjected to formal assessment. It may be that some of these packages available in India are simply not up to structured scrutiny. However, those that are should be reviewed in existing formats similar to those Unitus and CGAP have already developed. The Unitus tool in particular offers a significant advantage by being able to rank the software by fit to the organisation's processes.

2. Develop a total cost of ownership tool
    There are significant costs attached to IT implementations which are often overlooked. In order to help MFIs assess the relative costs of an in-house implementation, a hosted solution and an outsourced ASP model, a costing tool that allows them to estimate the full costs will be useful. This will include not only software acquisition costs, but also setting up computer rooms with adequate backup procedures, staff support and training. In particular, the tool should enable MFIs to determine how much it costs them to operate a single account or customer. Unitus have developed a tool which incorporates software acquisition and maintenance costs. *MicroSave* already has existing skills in costing, so this is a good fit.

3. Develop project management tools
    miFOS have developed a host of tools to support their implementations. As these have been developed using an open source approach and are available on the internet, it should be possible to adapt them so they become generic tools that can be used for non-miFOS implementations.

Potential partners include investors such as Unitus and Bellwether. In addition, Grameen Foundation and Mahiti have considerable experience in open source development and the design of planning tools.

4.4 Capacity Building

Although there is a wealth of experience about successful software design and implementation in India, these skills are generally not available to the MFI sector. Where investors or networks offer capacity building skills, the benefits are limited to a specific institution; enabling other institutions to see inside a real-life implementation process will help them make more realistic assessments of software requirements and demonstrate the need for a systematic approach. Some of the small software providers have such poor documentation and planning skills that their solutions cannot easily be maintained, supported or implemented. However, their existing customer bases seem strong enough to encourage a change of direction; an open source miFOS direction will remove some of the burden of software design, contribute towards more robust code and result in stronger implementation processes.

The objective here is to build skills within the sector by supporting an in-depth engagement with a few MFIs and a few software providers, to improve their ability to manage and deliver the required IT solution.

Possible activities include:

1. Document some IS implementations
    Identify and select two or three MFIs about to do technology implementations, which will agree to their costs/resources being measured and their implementation process being documented, not only to deepen their understanding of what needs to be done, but also to provide resource material for similar organisations about to embark on the same exercise

2. Improve technical capacity among small software providers
    Initiate capacity building amongst small software companies, which are lacking in process and skill. The ultimate aim is to encourage them to migrate towards open-source software, and become more service driven rather than being dominated by programming teams. In this way they could leverage their existing market positions in terms of client base, but become more professional in their approach to both software development (by having their code open to outside scrutiny) and also to implementation (by using tools already developed by miFOS). Mahiti have strong training skills and will be able to evangelise and spread the word.

3. Partnerships with technology firms
    Approach some big tech firms with invitations to contribute staff to these initiatives by enabling them to take on such projects as sabbaticals or subsidised consulting assignments. If possible, these resources could also offer mentoring or training within MFIs or software providers.

These activities are closely matched with initiatives by Opportunity International and miFOS, and can be supported by Mahiti – a local firm specialising in open source development.

5. Summary
5.1 Activity Summary
The table below summarises the activities and includes a subjective assessment of cost and effort; effort in this case consists of both the number of people required to design/implement the activity as well as the time it will take to do it effectively.

Activity	Possible Partners	Effort	Cost
Compile information on new technology for India website	OI	*	$
Commission modification of training materials on selected topics	MFMI CGAP	*	$$
Schedule quarterly workshops with skilled trainers	Sa-Dhan	*	$
Quarterly technology review, including software "up close" feature	Akshara Sa-Dhan	**	$$
Document technology implementation process in selected MFIs	OI Unitus Accion	***	$$$
Update of software reviews to integrate into Unitus tech advisor web-based tool	CGAP Unitus OI	***	$$$
Commission technology costing tool	Bellwether Unitus CGAP	**	$$
Adapt miFOS implementation cycle tools for generic IT projects	miFOS/Grameen CGAP	**	$$
Capacity building amongst small software providers, open-source focus	miFOS/Grameen Mahiti	**	$$
Invite tech firms to contribute staff to initiative	Tata Consulting Wipro MindTree	*	$

Effort scale:
*: single institution, one person to design, possibly another to implement; can be achieved within 3 months
**: two to three institutions, 3-4 people to design and implement; can take up to nine months to achieve
***: three or more institutions, more than 5 people to design and implement; project will run for over a year

Cost scale:
$: < $10,000
$$: $10,000-$50,000
$$$: over $50,000

5.2 Recommended Next Steps
1. Set up a small working group with a limited number of members (networks – Opp Int; associations – Sa-Dhan; investors – Unitus, Bellwether; capacity builders – CGAP)
2. Initially, in order to drive the initiative forward faster, it might be beneficial to employ someone who has skills in marketing and generating excitement around an idea, on a six-month contract, with the aim to exploring and firming up the best of the ideas suggested in this document.

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3. Employ a *MicroSave* based technology co-ordinator whose salary could be part-paid by a network such as Opportunity International, to co-ordinate the activities required to implement the initiative, once the preliminary contacts have been made.

Appendix I

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Appendix II

MIS Scoping Study – Schedule

S.No.	Location	Organisation/Contact	Date of Visit	Introduction	Possible role in IT Project
1	**Mumbai**	Hindusthan MFI Mr Anil Jadhav [aniljadhav@hindusthan.org, hindusthan.anil@gmail.com] Mob: 09223362244	26 February 2008	A Cooperative Society in Mumbai also doing microfinance. They started microfinance in 2005. Till March-2008 Portfolio Outstanding – 193 million No. of clients- 40,000 They have developed software which is being used by 500 cooperative societies in Mumbai. They are using hand held devices for collection. Transactions are recorded on these hand held devices in field and then uploaded on to MIS on the same day.	
2	**Pune**	Data Vision Ameet Uchil auchil@datavsn.com 09823207645	25 February 2008	This is a software development company with considerable experience in software development for banks. They have done installations in Cooperative banks across 2500 branches. It's a CMM level 5 certification company. They have just developed an MIS for Microfinance. They are trying to create an end-to-end solution, with PDAs/windows enabled mobiles at the front end, and a full-scale banking solution at the back end. At present the MIS designed can support SHG base organisations. To start with they are planning to do a pilot in Chaitanya, Pune.	Software Provider or technical service provider.

S.No.	Location	Organisation/Contact	Date of Visit	Introduction	Possible role in IT Project
3	**Delhi (by phone)**	Eko Abhishek Sinha abhishek@eko.co.in anupam@eko.co.in Cell: +91 98114 29394 Or Abhinav Sinha who is their Technical head.		Eko is involved in Mobile banking. They are at present doing pilot in New Delhi. They used MIFOS but experienced some problems. They managed to do some customisation in MIFOS with the help of a local software company and are using it.	
4	**Hyderabad**	LB Prakash *MicroSave*	27 February 2008	LB Prakash has worked with lot of microfinance institutions on MIS issues. He has also designed excel based MIS systems for many MFIs.	
5		Safal Solutions Subodh Gupta Mob No. : +91-94400-61504 Tel: (040) 2774-3258/3268	27 February 2008	Safal Solutions provide software for SHGs.	Software Provider
6		Jayam Solutions Pratap	28 February 2008	This software is being used by many JLG based institutions. They are facing support issues. Many of their clients are not very satisfied with the support. Also the software has limitations with regards to volumes it can handle.	Software Provider
7		Maxwell Trust K.Sanjeeva Reddy 09912111207 maxwealthtrust@icfai.org	28 February 2008	A start up MFI started two years back. It is promoted by ICFAI group. At present it has 40000 clients. We visited the institution as they are using Jayam Solution's software.	Microfinance Institution
8		Bellwether Ravi Narsimhan 91-40-66460505 ravinarsimhan@bellwetherfund.com	28 February 2008	An equity investor in microfinance. Have considerable investments in sector.	Investors

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S.No.	Location	Organisation/Contact	Date of Visit	Introduction	Possible role in IT Project
9		Basix Mr Vijay Mahajan vijaymahajan@basixindia.com Mr Ramana NV nvramana@basixindia.com	29 February 2008	A well known microfinance institution. They have developed a software FAMIS plus which is being used by many MFIs.	Software Provider or Technical service provider
10		Indur Intideepam Macs Federation Ltd. B. Umamaheshwara Rao burao@rediffmail.com 09848049825	29 February 2008	A SHG federation using FAMIS plus in Nizamabad. Approx 40,000 women in 20 MACs, each with 150 SHGs	Microfinance Institution
11		Profound Infotech Ramesh 9885173478 ramesh@profoundinfotech.com	1 March 2008	A software company. They have got expertise in banking software. They have some installation for co-operative banks. They did MIFOS implementation in IIRM.	Technical Service Provider
12		FINO Chander Chandar.rao@fino.co.in 09849299971	1 March 2008	An ICICI initiative. An end to end solution with biometric handheld devices at the front end and banking solution by IBM at the back end. This is an ASP model. More suited for saving based institutions.	Technical Service Provider
13		Akshara Niramala and Murali 09848930031 (Nirmala) Muralidhar@aksharakriti.org nirmala.tammineni@gmail.com	1 March 2008	A Hyderabad based consultancy involved in institutional development of NGO's and MFI's.	Technical Service Provider
14		Thinksoft Lalitha 9989233023 23449193/94/95	1 March 2008	A Hyderabad based consultancy basically involved in soft skills trainings for NGO's, MFI's and corporate sector.	Technical Service Provider

S.No.	Location	Organisation/Contact	Date of Visit	Introduction	Possible role in IT Project
15		Society for elimination of Rural poverty IKP Raghunath Reddy Y.V. raghu@velugu.com 09849912711		IKP is implemented by the Society for Elimination of Rural Poverty (SERP), an autonomous society under Public Societies Act. This is a state government assisted program. **Overall performance of IKP** No. of SHG's under the project 699056 No. of Members 8752540 No. of Village organisations 33907 No. of Mandal Samakhyas 1100 Amount of Bank Linkage 4645.15 Crores. **Technology Initiative:** IKP plans to introduce hand held devices at Village Organisation (VO) level to record all transactions taking place at SHG's level. Back end is being developed by Tata Consultancy Services (TCS) To start with IKP plans to do a pilot test with 20,000 SHG's in 120 villages. CGAP has given grant for the pilot.	
15		Stephen Opportunity International Melbourne, Australia (By Phone)	1 or 2 March 2008	Equity investors for Microfinance. Have considerable investments in MFI's.	Investors
16	**Bangalore**	Grameen Foundation Liz Tunnel Mifos Business Development Consultant- India		3 March 2008	Grameen Foundation has developed an open source MIFOS for microfinance institutions. The only cost that MFI has to pay is the cost of	Software Provider

S.No.	Location	Organisation/Contact	Date of Visit	Introduction	Possible role in IT Project
		Mobile: 98.4566.2686 | ltunnell@grameenfoundation.org		implementation. MIFOS looks good and has lot of options. The strength of MIFOS is flexibility. But it does not have an accounting module. MIFOS said they are working on new version which might have accounting module also.	
17		Unitus Mr. Vikas Jhunjhunwala [vikas@unitus.com] 09886776462	3 March 2008	They are in twin roles of both investors and consultants. Vikas has done a lot of work on MIS for Microfinance. He has made a tool on MIS review. It tells for what size and type of organisation, which MIS can be suitable. It has more than 250 decision points on which each of the MIS is judged.	Technical Service Provider
18		Gradatim C.V prakash prakash@gradatimin.com 09886129905	3 March 2008	A start up software company. What makes them different from others is their process driven approach. They have tried to build congruence between work flow and MIS. Their MIS looked different from others.	Technical Service Provider or Software provider
19		IIRM, Tezpur Dattatreya 09435744444 Assam		An MFI in Assam. They have tried Jayam softwares, MIFOS and are now finally implementing Kredits.	Microfinance Institution
20		Access Vipin		Extension of CARE. They have already done some work on MIS in India.	
21		Crane Software Venkat Bharadwaj [Venkat.B@cranessoftware.com] 09844119874	4 March 2008	Software company in Bangalore which is responsible for distributing Banker's realm in India.	Technical service provider or software provider
22		Accion Siddharta 080-41120008 09886759587	4 March 2008	Involved in capacity building of microfinance institutions. At present they have no investments in India. They are working with Yes bank, Swadhaar, BSS and Grameen Koota.	

S.No.	Location	Organisation/Contact	Date of Visit	Introduction	Possible role in IT Project
23		Mahiti Softwares Sreekanth S Rameshaiah sree@mahiti.org 09845512611	5 March 2008	A software company based in Bangalore. They are already working on IT in Social sector (i.e. for NGO's). It was suggested by MIFOS, they have identified Mahiti as technical service provider. They are working on training on MIS systems for Ngo. Beside that they are working on *NGO In A Box* They have an expertise on other open source systems.	Technical Service Provider

Appendix III

Terms of Reference for MIS in Indian Microfinance Initiative

Background
Anecdotally, many MFIs in India lack information systems that can support their operations and manage strong growth. Often, the problem is perceived as centering on the difficulty of selecting the right software. In reality, however, the lack of internal capacity within MFIs to understand the issues behind technology investment, and the impact it can have on their business is a greater hindrance to successful implementation of information systems.

It is important that MFIs have a solid enough technology platform that can support new innovations in product delivery. CGAP have recently, with funding from the Gates Foundation, spearheaded a series of technology-based experiments, seeking examples of successful initiatives that can fundamentally expand access. None of these new innovations - such as the use of POS devices - are possible without a core, dependable back-office system that ensures records are up to date and strategic and operational reports are available on demand.

MicroSave recently commissioned a consulting assignment to look at the technology related problems in Indian MFIs. Discussions were held with various stakeholders in Indian microfinance - microfinance institutions, software vendors, technical providers and investors - in order to understand the problem better, and identify possible solutions. Several initiatives have been suggested:
- ➢ Information dissemination
- ➢ Awareness building
- ➢ Tool development
- ➢ Capacity building

MicroSave's core mission is focused around offering unique tools and practical solutions that empower financial institutions and their customers. It is therefore well placed to harness the various activities already been done in this area by various stakeholders, and leverage its strong information dissemination and capacity building focus to achieve further progress.

The assignment this TOR covers will contribute towards a specific project within this new initiative, which is expected to make a measurable impact within two years.

Tasks and Deliverables by Initiative

Information Dissemination
The right kind of information about effective IT use within MFIs is not getting to the people who matter within the institutions. There is a need to ensure that the information that currently exists is presented in a format that is easily accessible by individuals filling key positions within Indian institutions, and this includes senior managers in operational and financial roles.

The objective of this project area would be to make information about IT use in MFIs more widely available through more varied and inventive dissemination channels.

Information dissemination is already one of *MicroSave*'s key roles, and this project area will fit neatly with existing in-house efforts. *MicroSave* will need to collaborate with other organisations that have generated relevant material, and consider ways that the material could be repackaged or represented in interesting ways for senior management.

These activities might be particularly appropriate for the MFI associations (Access and Sa-Dhan), which might want to provide a new service for their members. Akshara have some experience with generating dissemination material and may be able to manage aspects of this product area.

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To Create an Online Technology Resource

A number of online resources already exist to support the usage of technology in microfinance. Of particular note is the CGAP website (www.cgap.org/technology) which also has links to the Microfinance Gateway and its repository of electronic documents.

Various associations and networks within India have also published or commissioned work on technology, or have begun initiatives in this area, but these are generally not widely known. Both Sa-Dhan and Access have produced technology related documents in the recent past. Unitus have launched the software comparison tool online. Mahiti have some material on the open source movement.

It will be useful to collate linkages to online resources that will be of particular relevance to India, and to also assemble information that is currently not available electronically. The website should allow easy navigation and interesting presentation of material. It should be co-branded with other organisations involved in this area, and the goal should be a website that is regularly updated. Too many sites are static, with a host of documents that are hard to find, a website that is difficult to navigate, and that has too little user interaction.

The suggested website should be updated weekly. Each update should include at least one of the following: highlight an IT issue with links to existing or new online resources, a roundup of technology-related news, discussion about an innovation, or a review of a relevant document or book.

Deliverables
> ➢ A website design with a schedule of updates and issues to be covered
> ➢ A list of existing sources of technology information for MFIs, particularly those relevant to India
> ➢ A suggested list of new information that could be commissioned for the website
> ➢ Suggestions for how to encourage usage of the website, and regular monitoring reports of actual usage

To Conduct a Quarterly Multi-media Technology Review

It is hard for users to get a sense of the software from the 'dry' material which is available. The goal here is to select some of the most popular or promising software solutions and show the 'softer' side of the software selection and implementation process. Each software selected will have in-depth multi-media coverage using a mix of text, graphics and pictures, audio and video. The product can be made available online or on DVD.

The material could be generated in one of two ways. One possibility is to work with an institution in the process of selecting software, and track their decision making and planning processes over time. It could also be done by conducting a set of retrospective interviews, with some filming or audio recording in the field.

The intended purpose is that the audience will understand more about compromises are made in real-life decision making; and the impact of head office decisions at the field level. They should also be able to note how and why schedules slip.

Deliverables
> ➢ A schedule of 6-8 software packages suggested for in-depth reviews, with reasons for why they have been selected – and possible institutions that can be interviewed
> ➢ A set of questions that will be asked, covering the software implementation cycle
> ➢ A mock-up of the final presentation format
> ➢ Complete in-depth interviews of the selection software packages, delivered every quarter according to an agreed timetable

Produce Printed Material

Although electronic material will be a key focus of this initiative, many members of the potential audience still rely on printouts in order to read the material. India happens to have a vibrant printing industry and is able to produce printed material at relatively low cost.

Although some material can be provided free of charge, wherever possible, these materials need to be priced so that at the minimum, the cost of printing can be recovered. This implies that the material produced must be in demand, and must be packaged and promoted in a way that encourages institutions to buy it, preferably in bulk.

The goal is therefore to review the electronic material produced, and to commission printed copies that can be made available at conferences and workshops. Attractive displays at national or regional fora can help *MicroSave* and its partners collectively market these initiatives.

The consultant will be expected to generate a list of material that should be printed, at the rate of approximately one per month over a two year period. For each document, the consultant should obtain permissions for reprinting, in writing. A unifying theme for all documents should be designed, so that all the printed material can be readily identifiable as part of a series. Quotations for different document lengths should be obtained from printers, and the best deal selected. Based on the probable printing schedule, a detailed budget should be made.

The consultant should also select a method for taking and delivering orders. This may be outsourced if this is deemed more efficient. Order lists should be inserted into all printed documents, and should be made available online.

Deliverables
  ➢ Quarterly lists of material that should be printed, with copyright holders, suggested print runs, retail prices, and ideas for marketing
  ➢ Low cost high quality printed documents, as per proposed publication list, with ordering and processing facility in place

Awareness Building

Getting information together is one thing, making the intended recipients use and value its content is quite another. MFI management do not necessarily understand how to apply the accumulated knowledge within their own institutions. One possible way is to offer courses that use an experiential learning approach. CGAP for example, has developed a course on Information Systems for Microfinance Institutions which is aimed at senior managers, and uses adult training techniques to deepen understanding of the issues and equip participants with skills that can be directly applied within their institutions. However, this course is not widely available in India.

In addition, these awareness building activities should stress the ability to temporarily buy in additional skills when these are lacking within an institution. Some of the larger networks such as Accion and Opportunity International provide technical assistance for IT, using skilled resources generally based at their headquarters. It will be important to develop an understanding of the roles technical providers can play and encourage MFIs to employ them as intermediaries. The cost of these assignments can be subsidised using CGAPs IS Fund, or by recommending alternative local providers for networks currently providing these skills from abroad.

The objective of this project initiative is to make MFI staff more knowledgeable about technology, and to cultivate a culture within institutions of using independent help when in-house resources are inadequate.

The suggested activities are aimed at providing a range of workshops for managers facilitated by skilled trainers, and also at encouraging the use of technical providers.

Design New One-day Technology Workshops for MFI Managers
CGAP spearheaded the delivery of courses for microfinance managers, most of which are 3-5 days long (http://www.cgap.org/projects/SMM_curriculum.html). One of these is the IT for Microfinance managers course, which aims to teach participants how to:
> ➢ Define an information system and which components are necessary for MFIs
> ➢ Analyze an MFI's present and future information needs and flows
> ➢ Assess IS options and select vendors
> ➢ Implement, install and maintain an IS

The MFMI (www.themfmi.org) is working with several institutions around the world to develop MBA or diploma courses with microfinance as a specialist subject. One such module, the Technology and Innovation module developed by the University of Pretoria's Centre for Microfinance, addresses an important area, and seems promising as a topic for a one-day course. Other initiatives on IT are embedded in longer term courses, such as the Boulder Course (now held in Turin) and the SAM course (held in Kenya). It will be useful to investigate what the technology component of each of these courses is, and to identify which of their key objectives and messages can be appropriated for the Indian context.

Many managers are busy and may not have time available for the standard course. It is suggested that two of the course materials currently available can be adapted, each to be delivered over a single day, which will be more attractive to managers who cannot afford to devote several days away from the office. A new one-day Technology and Innovation course can be based on material developed by MFMI. Another, on implementing MIS in MFIs, can be based on the existing CGAP IT for MF managers' course.

It will be important to set up linkages with organisations around the world which are already involved in such capacity building initiatives, and to investigate how to share resources and leverage their prior experience in order to design more effective courses for the Indian microfinance market.

Deliverables
> ➢ A list of technology related course material already available for MFIs, a summary of their main objectives and content, and a review of their relevance for India
> ➢ Identify which of these courses can be delivered with very little modification in India, and obtain permissions for doing so, and the materials for delivery
> ➢ Design two one-day IT workshops for MFI managers, one based on the concept of the software implementation lifecycle as promoted in the CGAP 4-day course for microfinance managers, the other based on the MFMI course on technology and innovation

Schedule and Deliver Technology Related Courses over India
In order to effect change, a higher number of training workshops should be delivered throughout India. The aim of this activity is to identify two fold. Firstly, to identify trainers around India who can learn how to deliver both existing and the new courses during TOTs (Training of Trainer courses). Secondly, to schedule and market workshops in a number of key cities regularly, so that different cadres of staff within MFIs can attend.

EDA Rural Systems (http://www.edarural.com) is one organisation that has been engaged in microfinance capacity building, promotion, research and assessments in India and Asia over the past 18 years. It has trainers who have delivered the CGAP IS course, amongst others, to microfinance institutions in the region. They may also have the capability to deliver TOT courses to new trainers. There may also be other organisations able to do likewise.

This assignment will require much networking to identify suitable institutions and trainers which are willing to make a commitment to capacity building in technology. To be effective at a national scale, they should be physically located all over India.

Deliverables
> ➢ A list of training institutions that may be willing to add technology for microfinance courses to their portfolio of training courses

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> ➢ A list of trainers who have demonstrated adult training skills and are willing to learn to deliver new courses
> ➢ A schedule of TOTs to be conducted to train trainers
> ➢ A schedule of courses to be delivered in various institutions around the country

Develop Database of Technical Providers

Microfinance institutions managers tend to be weak in their capacity to understand technology. This isn't always their fault, as computer specialists do tend to techno-speak, with little appreciation of the business angles to technological innovation. Independent consultants who act as technical go-betweens can therefore be invaluable in translating the technical language into business or operational language and vice versa.

Some technical providers exist, who are able to provide software selection, project planning, training, and software implementation. Akshara for example, is a non-profit development support organisation that aims to introduce professionalism in the NGO sector. One of its skill sets is in information technology. Mahiti specialise in open source software and have a dual business model of providing commercial services to commercial clients, and subsidised services to the NGO sector. They plan to expand significantly over the next year, and have skills in developing multimedia computer-based training programmes.

CGAPs IS Fund initiative was started to help bridge this gap by co-funding the costs of independent IT consultants, but there has been limited uptake in India. This initiative could be marketed aggressively in India, and *MicroSave* can disseminate information about the IS Fund, and also actively attempt to identify and recruit Indian consultants with the required skills. An increased usage of technical providers could add a layer of structured process that will lead to more successful technology implementations.

There may be people currently in the corporate world who wish to migrate to an industry they perceive as more meaningful. In terms of a marketing approach, this could be a way of engaging with some of the larger commercial software and consulting companies in India (e.g. MindTree, TCS, and Wipro), to possibly sell the concept of a sabbatical period for their staff who wish to do something with a developmental impact. Their rigorous approach to software and technology could have immense value in the microfinance sector.

The first step would be to identify individuals or consulting firms able to take on this role of an intermediary. It may be possible to create linkages with technology firms, who may offer their staff at subsidised rates, or may be encouraged to mentor technical providers who need additional on-the-job experience.

Deliverables
> ➢ A marketing document that can be used to solicit staff skills from commercial technology firms in India
> ➢ A list of commercial technology firms willing to encourage staff to engage in microfinance sector work
> ➢ A list of technical providers capable and willing to take on IS in microfinance assignments, with CVs and summaries of their skill sets

Tool Development

Although there are many resources available online, there is some evidence that some of these may prove too abstract, too technical or simply too involved for senior management in MFIs. The Unitus approach (http://tech.unitus.com/) of hiding some of the logic behind software selection is a notable initiative that should continue to be supported, so they can include additional software reviews. Tools to help MFIs cost technology or to manage the implementation process will also be useful.

The objective of this project initiative is to identify and deliver practical tools that can enable MFIs to be more structured and systematic in their approaches to implementing information systems.

Software Review Updates

Software reviews provide an extremely useful preview of existing software applications which MFIs can use to narrow down their pool of possible software solutions. They help to reduce the amount of work each individual MFI has to do in order to narrow down packages to a shortlist of candidates that require closer scrutiny.

Although CGAP have conducted several software reviews (http://www.microfinancegateway.org/resource_centers/technology/_about_reviews), there are many more packages that have not yet been subjected to formal assessment. It may be that some of these packages available in India are simply not up to structured scrutiny. However, those that are should be reviewed using a methodology that is already in use – e.g. that of Unitus or CGAP has also developed. The Unitus tool in particular offers a significant advantage by being able to rank the software by fit to the organisation's processes.

There is an obvious advantage in leveraging previous software review work, and the approaches that have been taken to provide unbiased assessments of a software package's usefulness. This assignment will involve listing all software mentioned on the CGAP website, with an indication of what review process it has been subjected to, and its relative ranking. Additional software available in India but not listed should also be indicated. A software summary should indicate where the vendor is located, whether they have representation in India, number of installations worldwide and some basic outline of the types of installations in India if any.

These software should then be ranked in terms of its potential importance to the sector, and the need to produce a new review. Discussions should be held with both Unitus and CGAP to agree on a way of working together, and generating further information that will be useful for India, and perhaps worldwide too.

Deliverables
- ➤ A software summary sheet detailing software available for microfinance, and an assessment of whether it needs to be reviewed for the Indian market
- ➤ A schedule of reviews agreed with both Unitus and CGAP that will supplement their existing initiatives
- ➤ Software reviews commissioned, written up and published electronically

Develop a Total Cost of Ownership Tool

There are significant costs attached to IT implementations which are often overlooked. In order to help MFIs assess the relative costs of an in-house implementation, a hosted solution and an outsourced ASP model, a costing tool that allows them to estimate the full costs will be useful. This will include not only software acquisition costs, but also setting up computer rooms with adequate backup procedures, staff support and training. In particular, the tool should enable MFIs to determine how much it costs them to operate a single account or customer.

Unitus have developed a tool which incorporates software acquisition and maintenance costs. This is provided online at a fee. Costing is also an area in which *MicroSave* has a skill base, so existing approaches for assessing options should be used to inform the development of such a tool.

During this assignment, the consultant should review the tools currently available and assess their utility, and suggest improvements in how they should be structured. An Excel spreadsheet should be developed that is simple to use, and that generates an easy to understand comparative costing model.

Deliverables
- ➤ A report summarising various approaches to costing technology-based product and service delivery, and proposes an easy to use approach
- ➤ An Excel-based tool that implements the proposed approach

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Develop Project Management Tools

Project management – the ability to break down a big project into its component tasks and activities, to allocate required resources and track progress over time – is an essential element for effective software implementation. Many MFIs do not approach this from a rigorous angle, and a tool to support them in this will be useful.

miFOS have developed online tools to support their implementations (www.mifos.org). As these have been developed using an open source approach and are available on the internet, it should be possible to adapt them so they become generic tools that can be used for non-miFOS implementations.

Potential partners include investors such as Unitus and Bellwether. In addition, Grameen Foundation and Mahiti have considerable experience in open source development and the design of planning tools.

Deliverables
  ➢ Review the mifos project management toolset against generally accepted project management methodologies and report on its suitability for non-mifos projects
  ➢ Revise mifos tool or devise alternative approach that can be implemented as an Excel based tool for any technology project implementation in MFIs

Capacity Building

Although there is a wealth of experience about successful software design and implementation in India, these skills are generally not available to the MFI sector. Where investors or networks offer capacity building skills, the benefits are limited to a specific institution; enabling other institutions to see inside a real-life implementation process will help them make more realistic assessments of software requirements and demonstrate the need for a systematic approach. Some of the small software providers have such poor documentation and planning skills that their solutions cannot easily be maintained, supported or implemented. However, their existing customer bases seem strong enough to encourage a change of direction, hopefully the open source miFOS route, which will remove some of the burden of software design, contribute towards more robust code and result in stronger implementation processes.

The objective here is to build skills within the sector by supporting an in-depth engagement with a few MFIs and a few software providers, to improve their ability to manage and deliver the required IT solution.

Document Some IS Implementations

This assignment aims to document the implementation of technology in two or three MFIs. The idea behind this is two-fold. By being forced to think through each stage of the software implementation process, there will be deeper learning within the MFI. Documenting the process will make this learning available to others, either as a case study or simply an informative document that offers real-life insight.

The MFIs selected should be about to embark on technology implementations, and will agree to their costs/resources being measured and their implementation process being documented, not only to deepen their understanding of what needs to be done, but also to provide resource material for similar organisations about to embark on the same exercise.

The MFIs selected should be of different sizes and at different stages of growth. Three kinds that come to mind are: (a) an established MFI with functioning manual systems starting to computerise for the first time – it should have a number of branches which need to communicate with the central head office; (b) a start-up MFI – what it means to have a clean slate and set up new procedures – how does technology influence contemporary approaches to product delivery; (c) an institution with a functioning information system that wants to innovate – how easy is it to build on new functionality and process.

This assignment will build on the approaches used in the information dissemination activity area, and will produce some materials that can be used for the same purpose.

<u>Deliverables</u>
- ➢ Detailed documentation about each step of the implementation cycle: preparation, selection, implementation, optimisation in two or three institutions
- ➢ The information should be reformatted as case studies, which can be used to reinforce learning, either self-directed or through a workshop

Improve Technical Capacity among Small Software Providers
A variety of software solutions exists in India. They differ in the cost of their solution, the rigor of their processes, their support network in India, whether they are associated with an MFI or not.

Several mid to large MFIs have developed software for their own use, which they now sell to other institutions. One of the best known in this category is BASIX, who developed Famis Plus and then upgraded it to Delphix.

There are a number of new entrants in the software provision space – Craft Silicon's Banker's Realm, Kredits, and miFOS. At least two software developers – Gradatim and Data Vision have not yet completed their development. Both of these latter companies are looking to providing their software as an ASP model (although this is yet to be proved on a sustainable and efficient way) in a manner similar to that adopted by FINO to partners of ICICI bank.

Several small software developers are active in the market. Jayam and Safal are two providers which are surprisingly popular, with over a hundred installations claimed between them, although it is unclear whether these remain active installations. Popularity in this case is linked to price, and the software (with implementation) is provided at a cost of around Rps. 2 lakh. Unfortunately, these companies have no internal processes to control the software development life cycle. Documentation, formal testing, project planning are weak. Surprisingly they seem to have a loyal following, nevertheless, among small institutions with limited budgets.

The smaller software companies should be encouraged, if only for the sake of their existing client base, to migrate towards the open source movement. Mahiti, a local open source development house, is keen on spreading the gospel of free software. If these companies adopt the mifos approach, there will be a strong improvement in the core of their software, some in-house skill enhancement, and a gradual move in focus away from the software itself towards the services needed to support its effective use. This could only be a good thing.

The ultimate aim is to encourage them to migrate towards open-source software, and become more service driven rather than being dominated by programming teams. In this way they could leverage their existing market positions in terms of client base, but become more professional in their approach to both software development (by having their code open to outside scrutiny) and also to implementation (by using tools already developed by miFOS). Mahiti have strong training skills and will be able to evangelise and spread the word.

<u>Deliverables</u>
- ➢ Convene a workshop where open source ideals are explained, and software firms are encouraged to find out more
- ➢ Devise a training program in open source development in association with Mahiti
- ➢ Enrol staff of the small software firms in the training program, and devise an incentive scheme to encourage them to compete in upgrading their software to an open source approach

Partnerships with Technology Firms
This assignment will be linked with a previous one under technical providers, which also aimed to encourage some big tech firms to contribute staff time to microfinance technology initiatives. There are many areas such skilled staff could assist in microfinance: by volunteering to work directly with institutions under a sabbatical arrangement, by mentoring consultants wanting to work in this area in their free time, by offering customised technical training to IT consultants who may not have similar exposure to commercial approaches.

MicroSave – Market-led solutions for financial services

Under this assignment, the consultant will identify specific pieces of work that could be delivered under any of the other technology initiatives *MicroSave* is involved in, and will also solicit project ideas from MFIs which detail the kind of help they need.

<u>Deliverable</u>
  ➢ An online resource where MFIs can state their technology related problems and be matched to suitable consultants from the commercial world who are offering their time or skills at a subsidised rate