Chapter VI

Qualitative Data Analysis and Interpretation

Chapter Introduction

ICTs have the potential to support development initiatives in developing countries. Micro-finance programs initiated by non-governmental organization provide an important opportunity to examine the link between ICTs, intermediary institutions and development. Micro-finance initiatives can extend opportunities for using ICTs in ways that are responsive to the needs of the marginalized.

This chapter seeks to address the issue in depth. The guiding research questions are:

How do users perceive computers as a developmental tool in the context of micro-finance initiatives?

What factors support or hinder use of computers as a pro-development tool in the context of micro-finance initiative?

To find answers to this question, qualitative research approach was adopted.
Justification of Qualitative Approach

One of the first and fundamental choices in selecting an appropriate research technique is whether to use quantitative or qualitative approach. Each approach has its merits and demerits (Miller and Salkind, 2002). Quantitative approach focuses on gathering data that can be measured in numbers and can be aggregated to gain an understanding of the phenomenon under investigation. Last chapter summarized the results of such an effort in this study. A Qualitative approach seeks to collect data consisting of respondents' own language or direct observations of their actions to allow an in-depth understanding of their experiences and perceptions. To examine the research questions raised, there are certainly valid measures developed from previous research (for example Rao, 1993). However, qualitative research approach was found appropriate because of number of reasons.

It is now commonly accepted that computers have the potential to be used as both pro and anti development tool. Much of its actual use depends on the context. Qualitative research has the unique advantage of examining the contextual factors that influence users perceptions.

Lack of previous literature on role of computers in micro-finance institutions suggests that an open-ended approach might be fruitful. Qualitative approaches are generally flexible, adaptable to different context and provide insights that might otherwise be lost in a more general quantitative approaches.
MFIs in Tamil Nadu (the Research Setting) are usually small grassroots level organizations working in remote rural areas. They are few in numbers compared to total number of NGOs in the region (though exact reliable figures are hard to come by). This issue posed a problem with sampling in the survey method. Qualitative approach's flexible structure makes it suitable to adopt the research method to the context, rather than depending on a rigid structured procedures demanded by quantitative methods.

Qualitative approach also allows room for the researchers to depend on multiple sources of data, rather than single source as was done in the survey. This enables the researchers to construct a coherent and contextual analysis of the phenomenon under investigation.

Also there are only limited factors that can be studied by survey methods. These factors have to be predetermined. In contrast, qualitative research lets the respondent define the factors and issues and also the interpretation. This implies that potentially, the research has opportunity to examine unlimited factors. Even though factors/issues identified might all not be significant, at least the approach would have arrived at key issues to be considered for future research.

Number of recent research work carried out in the field of information systems (the field that has been most systematically addressing issues raised in this thesis) are summarized in a recent book by Myers and David Avison (Eds., 2002). They provide a very convincing critique of positivist approach to studying computer systems (which includes survey, experimental research an descriptive studies). Orlowski and Baroudi (2002)
studied about 155 journal articles on information systems and reported that a
overwhelming majority (96.8%) of them worked from positivist epistemology, even
though its limitations have long been recognized. The study also reported that about 78.8
% of the total articles were based on quantitative research such as survey, experiments,
instrument development etc. This researcher has taken cognizance of these issues hence
sought to adopt a qualitative approach. such an approach would enable us to compare the
results of survey and the qualitative methods to enrich the analysis and interpretation

For the above reasons qualitative approach was preferred to as an ideal method for
investigating the role of computers as development tool.

Qualitative Research Design

Within qualitative research there are number of interpretive paradigms and procedures to
choose from (Miles and Huberman, 1994). Despite these differences, most qualitative
research share some characteristics (Lindlof, 1995)

They all have theoretical interest in human interpretation processes

They all are concerned with the study of socially situated human action and artifacts

They all use human investigators as the primary research instruments (and all involve
application of reflexive analysis)

The all rely primarily on narrative forms for coding data and writing the texts to be
presented to the audience
Qualitative researcher usually begin their study out of a personal and scholarly interest with the phenomenon, and continue to respect its integrity while carrying out field activities (Lindlof, 1995)

Mouly and Sankaran (1995) outlines an ethnographic approach to study organizations. Their research served as a model for the present study. In-depth and informal interviews served as a main method of data collection. In addition, the researcher employed observation method for further insights. Observing the actual working conditions of the MFIs provided an “intimate” view of the phenomenon under study. It gave a clear picture of the computers in actual use, their state and problems associated with them. A interview and observation Schedule was prepared based on the available literature (See chapter III). The schedule served only as a point for further. Initial questions were followed up (with probes, clarifications, illustration etc.) as the interviewer and interviewee engaged in “a kind of conversations”. Observations and interview data was maintained as field notes. In addition to the above, the researcher also examined few documents that dealt with the development of software applications for micro-finance institutions. In qualitative research data collection, analysis and writing proceeds in an iterative manner, each informing the other at every stage of the research process (Mills and Huberman, 1994).
Development of the Interview Schedules

As mentioned earlier, the principle method employed in this study was depth interview and observations. To give more focus to the broad research question, the questions were further broken down into sub questions and critical themes. These questions were refined during the pilot project and was improvised throughout the field work. The Interview Schedule and the Framework for Qualitative Data Collection is provided in the Annexure.

Research Setting and Field work

The actual fieldwork was conducted for a period of three months from May to July, 2001. Number of short visits were made before to that both for pilot testing of the survey instrument and as a rapport building exercises. The research setting was NGOs with a clear micro-finance program as their objective. Interviews was conducted with 25 personals belonging to various positions in the MFI. Out of the 25, five were of board members or directors, 10 held the post of project managers or were from the administrative divisions. The remaining 15 were fieldworkers or animators. These respondents were from the same organizations in which the survey was conducted. Apart from answering the survey, these 25 respondent also expressed interest in discussing the role of computers in their work and organizations in detail. They also allowed access to their computer facilities and showed number of documents that they have prepared. Thus the 25 acted as both key respondent for the interview and as a key informant about the organizations activities. All these provide a rich source “naturally occurring” of data.
However a caution is required. Most the interviewee for this study were deeply interested in computer applications of micro-finance and also acted as Key Informants for information about their organization, there is a clear possibility of “articulation bias”—i.e less powerful voices are unlikely to be heard in data. Its obvious that quantitative research has to be as inclusive of different voices as possible. So in order to minimize this articulation bias, the researcher also conducted informal interviews with titled workers, animators, organizers. Their views are also incorporated in this study (they however did not want to be quoted)

Data Analysis Procedure

Data Analysis is a complicated issue in qualitative approach. Miles and Huberman (1996) titled Qualitative Data Analysis—An Expanded Source book is one of the classic work that directly address the issue. Further Grounded theory approach is another important contribution to qualitative research, because it provides a practical way to code, organize, re-code, reduce and carry out thematic analysis of the field data (Strauss and Corbin, 1990). Strauss and Corbin suggest a simple “open coding procedure, which has been Open coding refers to the process of breaking down, examining, comparing, conceptualizing, and categorizing data adopted for this study. The open coding process adopted in this study, involves the following steps

First Step: The raw field notes were coded in such a way that key concepts and categories emerge at the early stage. This step represents the conceptualization of the data. This process involves labeling a given data set into concepts. The same data set were coded
into multiple concepts, if found necessary, because the concepts are not mutually exclusive.

Step 2: Discovering Categories. In the first level of analysis researcher might have encountered number of conceptual labels. This is done by grouping of concepts representing similar phenomenon and is called Categorization.

Step 3: To identify names for the category, the researcher depended simply on his common sense logic. The naming was done by the researcher, because Strauss and Corbin warn that the use of borrowed names and categories might lead to grave danger. Borrowed concepts bring with them commonly held meanings and association

Step 4: Developing Categories in Terms of Their Properties and Dimensions.

Properties refers to the attributes or characteristics pertaining to a category. Dimension refers to the location of properties along a continuum. Dimensionalization is the process of breaking a property down into its dimensions.

Thus the above open-coding procedures were adopted in this study to arrive at a set of themes. These Themes, then are the product of qualitative data analysis. They can be further analyzed using alternative paradigms and the whole process of open coding can be carried to gain alternative perspective on the same set of data. In this study, given the focus provided by the research question the following main themes were identified —
Table 62: Organizational Profile

<table>
<thead>
<tr>
<th>Name</th>
<th>No. Interviewed</th>
<th>No of Employees</th>
<th>No of SHG</th>
<th>Total Number of Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSSI</td>
<td>1</td>
<td>202</td>
<td>1432</td>
<td>21557</td>
</tr>
<tr>
<td>READ</td>
<td>1</td>
<td>165</td>
<td>159</td>
<td>2670</td>
</tr>
<tr>
<td>ICCW</td>
<td>1</td>
<td>78</td>
<td>125</td>
<td>2050</td>
</tr>
<tr>
<td>ORE</td>
<td>2</td>
<td>36</td>
<td>200</td>
<td>4000</td>
</tr>
<tr>
<td>RUSHA</td>
<td>1</td>
<td>240</td>
<td>282</td>
<td>5468</td>
</tr>
<tr>
<td>KCDC</td>
<td>1</td>
<td>16</td>
<td>278</td>
<td>5363</td>
</tr>
<tr>
<td>POETS</td>
<td>1</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DMI</td>
<td>1</td>
<td></td>
<td>300</td>
<td>5500</td>
</tr>
<tr>
<td>MSDS</td>
<td>1</td>
<td>12</td>
<td>274</td>
<td>3000</td>
</tr>
<tr>
<td>BMGMR</td>
<td>1</td>
<td>79</td>
<td>75</td>
<td>1275</td>
</tr>
<tr>
<td>SCOPE</td>
<td>1</td>
<td>41</td>
<td>189</td>
<td>3024</td>
</tr>
<tr>
<td>PCTC</td>
<td>1</td>
<td>278</td>
<td>212</td>
<td>2968</td>
</tr>
<tr>
<td>SDMIC</td>
<td>1</td>
<td>920</td>
<td>1200</td>
<td>21000</td>
</tr>
<tr>
<td>SEED Trust</td>
<td>2</td>
<td>42</td>
<td>850</td>
<td>5300</td>
</tr>
<tr>
<td>CRDS</td>
<td>1</td>
<td>98</td>
<td>900</td>
<td>15500</td>
</tr>
<tr>
<td>St. MES</td>
<td>1</td>
<td>48</td>
<td>13</td>
<td>200</td>
</tr>
<tr>
<td>MGSSSES</td>
<td>1</td>
<td>37</td>
<td>325</td>
<td>6000</td>
</tr>
<tr>
<td>ATSSS</td>
<td>1</td>
<td>13</td>
<td>110</td>
<td>2008</td>
</tr>
<tr>
<td>CODIAC</td>
<td>1</td>
<td>29</td>
<td>60</td>
<td>917</td>
</tr>
<tr>
<td>20. WV</td>
<td>1</td>
<td>NA</td>
<td>100</td>
<td>1800</td>
</tr>
</tbody>
</table>
Programs and activities carried out by the your organization at this location

All the MFIs under study saw micro-finance program as one of the most import part of their activities. They find micro-finance strategy as a means to address the twin issues of women’s empowerment and poverty reduction. The widely adopted micro-finance model is that of SHG approach (See Annexure for details of how SHG model of micro-finance programs work).

Table 63: Programs and activities carried out by the your organization at this location

<table>
<thead>
<tr>
<th>Programme</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational/Adult Education</td>
<td>20</td>
</tr>
<tr>
<td>Micro-credit and micro finance</td>
<td>20</td>
</tr>
<tr>
<td>Training—vocational and Income generating, Skill training.</td>
<td>19</td>
</tr>
<tr>
<td>Self-help, mobilization of the groups, co-operative function.</td>
<td>19</td>
</tr>
<tr>
<td>Relief and Welfare</td>
<td>2</td>
</tr>
<tr>
<td>Area Development</td>
<td>4</td>
</tr>
<tr>
<td>Health, Family Planning, Nutritional programs</td>
<td>19</td>
</tr>
<tr>
<td>Advocacy, Political action</td>
<td>2</td>
</tr>
<tr>
<td>Cultural and Sport</td>
<td>00</td>
</tr>
<tr>
<td>Conscientization</td>
<td>19</td>
</tr>
</tbody>
</table>
Profile of Computers in MFI

The following information can be gathered. All the organizations are connected to telephone and do own a fax machine and have a website. Four MFI did not have a PC at all, while 7 organizations had just one PC, another 4 organizations had 4-5 PCs. The maximum number of PC ranged from 6-8 (4 MFI). Five Organizations have a separate Computer personal staff, while in seven organizations the accounting department dealt with computer systems and rest of the organizations did not have any person dedicated to deal with computers.

Thematic Analysis

Analysis of qualitative data was carried out on the basis of procedure outlined above. Based on the categories identified, number of themes emerged during the analysis. This section provides the key themes that emerged during the data analysis along with the interpretation. The results are presented in a narrative form.

Challenges facing MFIs

Micro-finance institutions are chiefly concerned about three strategic goals: *sustainability, outreach and accountability*. Computer applications are sought to enable the NGO reach these three goals.
Sustainability

Sustainability in the context of environment is well recognized as a key development priority. In the context of NGO-MFI sustainability can be defined as “the capacity to ensure that project benefits continue after the end of the project implementation period.” Sustainability is concerned with two elements viz. The final benefits which people experience because of project and the means through which impacts are continually generated. NGOs have consistently failed in being sustainable in these terms. Now there is a clear drive for cost effectiveness in the use of donor funds and greater direct funding of NGOs by officials of aid agencies. For donors, sustainability is a key issue. Christen, Rhyne and Vogen (1994) carried out a study of 11 large established micro-finance institutions and have identified three levels of sustainability.

Level 1: subsidy dependent: the costs of the organization are funded through grants and subsidies from donors

Level 2: Operational Efficiency: the non-financial costs of operations (salaries and other administrative costs) are covered out of program revenue (interest on loans and fees)

Level 3: fully self sufficient or profitable: the institution is generating positive (inflation adjusted) returns on assets. The financial costs of operations are also covered: capital for on—lending is raised through commercial loans and income is enough to cover the costs of these loans.

So one of the key strategic goals of MFIs is to become sustainable within a specific time frame.
Outreach and Impact Assessment

The second strategic goal of MFLs is to increase outreach and impact of the project/program. Outreach encompasses the number of beneficiaries and their quality including the outcome of intervention. It refers to how micro-finance intervention can be measured and attributed. If the intervention pertains to poverty reduction, it is important to know whether, by how much and for whom poverty has reduced (or increased) and the extent to which these changes have occurred as a result of micro-finance intervention. 

Extending outreach and continuously assessing impact is one of the key strategic goal of an MFI. However, outcome and impact over time are very difficult to measure. Susan and Rogaly (1997, p 73) identify three ways of defining poverty which may give rise to different measures of impact: “Intervention could attempt to reduce poverty by raising incomes (income protection); increasing income and livelihood security (protection); or empowering people who lack control and choice in their lives.” Traditional impact assessment has focused on income promotion. But the approach has many methodological problems (ibid.). Susan and Rogaly (1997) suggest some innovative alternative approaches for assessing impact—both in qualitative and quantitative terms. Arguing that computerized management systems are vital for efficient and timely generation of quantitative data, they identify some possible indicators of impact such as:

- **Savings behavior**: size, frequency and timing of deposits and withdrawals

- **Savings balances**: size of balance held by different categories of people—women, men, better-off, poorer etc.

- **Loan sizes and types** taken, when and by whom

- **Repayment performance** of different categories of people
Accountability

Stufflebeam (1971, p20) defines accountability as the ability to account for past actions in relationship to the decisions which precipitate the actions, the wisdom of those decisions, the extent to which they were adequately and efficiently implemented, and the value of their effects. But there is no clear definition of what exactly an NGO should be accountable for. NGOs are accountable to donors, government, staff and beneficiaries.

Smith-Sreen (1995) has identified three levels of accountability:

- **Financial accountability**—accounting for the funds received by the NGO
- **Project accountability**—need for NGOs to deliver and be accountable for outcomes of their development efforts—being held accountable for the products delivered by them be answerable if some of their stated goals and objectives are not achieved
- **Social accountability**—the responsibility to provide feedback concerning the needs and problems of their members to policy makers, government organizations and general public at large

Smith-Sreen points out that member-accountability is one of the key areas of concern for grass root level organizations. NGOs are expected to have a high level of accountability to its members i.e. beneficiaries. She defines a member-accountable organization as “one which works with its members to continuously attempt to meet the current and potential expectations of those members.” So different stake holders have different demands.
for accountability and these are likely to be reflected in the design of ICT based information system

Computer System in Use

None of the organizations under study had a dedicated computer based information system for dealing with micro-finance activities. However they had the standard popular PCs, which were not connected to the net or via Local Area Network (LAN). Only one organization had 4 of its 8 PCs connected via LAN and had access to the Internet. The access was however restricted to Top management and Project Managers. The standard computer application they worked on was Office automation software like MS Office. MS Word is a popular word processing software used and MS Excel is usually used for processing financial data. 12 organizations had a accounting software, called Tally to carry out routine accounting work. In most cases the computer systems are under the direct control of the director or are used by administrative/accounting departments. Access to computer system by other staff member is practically not possible because of location of the system, which is usually in the directors room or in the accounting department (which has some rules for entry and exit).

Need for Software for micro-finance programs

Almost all of the respondents felt that there is a need to have a reliable software application for micro-finance programs. The reasons given are as follows:

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In keeping with the macro-level growth of micro-finance industry in India, MFIs are under pressure to scale-up their operations. This means forming more SHGs, mobilizing larger financial resources to meet these costs. MFIs are now forced to borrow money from banks (government and private) to on-lend them to the groups. This requires them to keep up-to-date all information pertaining to their operations. They should be available on time and should be very accurate. Further MFIs are now relying on multi sources of finance to sustain their organization. This requires them to prepare reports and statements specific to the requirements of the donor agency.

Existing information system, whether computer based or not, do not provide them with consistent information. Also the process of entering the data and preparing the standard financial reports is very time consuming. Even though some organizations had accounting packages, these general purpose software did not meet the requirements of the users.

To summarize, the following are the key driving forces for the demand for computers in micro-finance sector

- Dissatisfaction with the existing system
- Scaling-up of operations
- The demand to need the strategic goals of sustainability, Profitability, Outreach and Accountability
Potential Application Areas in Micro-finance

Computers are seen by top management and project managers as strategic tool for enabling the organizing NGO to gain greater control over variables that determine their performance as well as the performance of the SHGs they promote. From literature review on ICTs in organizational context it is clear that implications of ICTs extend from strategies of management rather than characteristics of the technology (Child, 1987). This holds true for MFIs. Despite being in development sector the operational and procedural strategies resemble computer applications for managerial effectiveness in corporate sector. Information-communication resources and the enabling technologies are seen both a potential management and a transformative tool. Needs assessment of MFIs in terms of their requirement for computer applications clearly reflect these traditional “business like” concerns. This is not surprising considering the fact that many NGOs are moving from charity-based social intermediation to profit-based financial intermediation.
Perceived opportunities for using computers for Micro-finance Initiatives

- As a decision support system—project level
- As a tool for resource planning (e.g. Revolving Loan Fund (RLF) estimation)
- To manage risk e.g. delinquency management, credit history tracking
- Reduction in transaction cost—for the institution and the borrowers
- Improve operational efficiency through lowering of administrative cost
- Internal controls—audit trails
- For gathering baseline data, process documentation (preparation case studies)
- To manage growth scaling up of activities—ability to handle large volume of data
- Networking, mostly with other NGOs working in micro-finance
- Linkages with outside agencies—donors, banks etc.
Major Challenges facing application of Computers for micro-finance initiatives

- Too many models and approaches—no standardization—Too many local variations in the models of Micro-finance
- The problem of segregating social Vs financial Intermediation costs
- Informal Vs formal systems of transaction—what goes on inside the groups?
- Huge volume of data—but of small numbers
- Data flow from the SHG to the HQ of NGO
- Lack of prudential norms and unclear accounting systems and standards
- Legal status and its implications for ICT
- Disciplining the poor to maintain records properly in the form that information systems can accept
- Sometime NGOs themselves are unclear about what they could get out of ICT based services. This could lead to poor communication gap between the system developers and the users of the system
- Local language familiar to the animators and fieldworkers and SHG members
- Risk of natural disasters—need for back-up
ICT strategy for micro-finance initiatives

The three above mentioned principles can in turn be related to three basic information-intensive activities of NGO-MFIs. These activities form the core of the “operational” ICT strategy of an MFI.

*Monitoring* refers to “frequently largely routine collection and analysis of reporting on information about the performance of the work in a program or project, comparison of this with the program or project plans and connected discussions about and proposals for corrective action.” (Dale, 1998) It involves information from and about the intermediary institutions (at say NGO level, SHG level, project-level and program level).

*Evaluation* refers a “more through examination, at specified points in time, of program or projects, usually with emphasis on impacts and additionally commonly on efficiency, effectiveness, relevance, replicability and sustainability” (ibid) It involves collecting information from and about the poor such as baseline data.

*Transparency* refers to open sharing of information about the organization and its activities with different stakeholders involved (viz. donors, government, SHGs and its members, staff etc.). A key to sharing power is sharing information. Already there is a commitment to transparency at the SHG level. (all SHG-level transactions are conducted openly). An accountable NGO is expected to disseminate information about its activities regularly. ICT system can facilitate transparency at organizational (or project-level)
All the three (above) "strategic goals" of ICTs involve acquisition, processing and sharing of information in a rapid and timely fashion. ICTs have a potential to permit such information-based activities to be carried out effectively and efficiently. MLTs having extensive information detailing portfolio quality, resources expended, organizational and SHG performance, program output etc. would enable persons with management responsibilities at all levels to engage more knowledgeably in monitoring and evaluation. Sustainability can be linked to monitoring (e.g. monitoring portfolio quality, delinquency management, cash flow). Outreach and impact can be linked to evaluation (e.g. collecting baseline data such as asset base, income-level etc.). Accountability can be linked to transparency (e.g. allowing scrutiny of utilization of funds, allowing members and staff to access information in a timely manner). These inter-related goals could lay the foundation for systematic utilization of information. They provide feedback to different stakeholders relevant information on progress, performance and problems.

**Resource constraints**

The outlays on many micro-finance programs is high given the donor preference for it. Yet the allocated funds always seem to be inadequate given the enormity of the development tasks. Most available funds are earmarked for financial and social intermediation activity (like staff salary, training costs, revolving loan funds). Should the limited resource for capacity building be applied to developing ICT capacities or are they better used for other high priorities such as social mobilization of additional groups? One dominant argument is that the cost of investing in ICT might be high, but the cost of not
doing so might be higher. So if the NGO decides to go ahead with ICT strategy, who should absorb the cost? The government, donor or the NGO themselves? Can private initiatives help in this stage? There is clearly a grave concern here because the resources might be wasted or poorly utilized. Can MFIs be profitable (sustainable) enough to cover ICT expenses too?

Summary of Strategy ICT and Micro-Finance Initiatives

**Micro-finance strategic goals for development**

- **Sustainability**
- **Reach & Impact**
- **Transparency**

**ICT strategic goals for Micro-finance**

- **Monitoring**
- **Evaluation**
Summary

MFI are characterized by high level of information use. Micro finance administration is an information-intensive activity to which applications of ICTs have long been recognized as having enormous potential (Waterfield and Ramsing). NGOs working in micro-finance sector have strongly felt the need for a comprehensive ICT products and services, since they are basically involved in providing need based financial services to the poor (finance is one area most easily amenable to ICT application, because of its information-intensive nature). Yet such applications are few and existing solutions are considered inadequate for the demands of the sector. There are several factors that can account for this gap.

Micro-finance institutions have traditionally been relatively small in size and scope of their activities. This has made the sector unattractive for systems developers to develop software and hardware “solutions” suitable for the sector.

The systems, procedures and practices have not been well developed. MFI's are also characterized by a comparative flexibility of its organizational structure and mission. This rather informal traditional approach had made development of the system a particularly difficult task.
MFIs follow two simultaneous goals: institutional sustainability and developmental goals, which gives them the legitimacy. These parallel goals are likely to create incompatibility with existing systems.

Further, micro-finance sector is characterized as one filled with change and uncertainty. They are constantly forced to examine their strategies and procedures in the light of experience of other micro-finance institutions and other kinds of development intervention strategies. Macro-level changes in financial and legal system of the country also adds to the growing uncertainty. Such changes are likely to lead to changing information needs and demands on the system.

But most importantly, MFIs are run by personnel who come from diverse social, cultural and economic background and are motivated by diverse reasons for taking part in micro-finance activities. By and large these personnel lack technological and social competencies to apply ICTs for their organizations.

These and several other factors have delayed attempts to apply ICTs.

MFIs are faced with a need to scale up their operations. They also face an imperative to adopt professional management practices and sophisticated management information systems to handle emerging organizational and development demands (such as sustainability, out reach and accountability). These factors are forcing MFIs to develop a deeper understanding of process of accumulation and dissemination of information and
the technologies that enable them. MFIs are becoming more complex mechanisms for reducing ‘information problems’ (as defined by World Development Report on Knowledge for Development, 1998/99), such as accounting standards, disclosure requirements, credit rating and constant monitoring & evaluation. This is accompanied by rapid advancements in new information and communication technologies are making MFIs (as the case with many NGOs) rethink their development strategies and explore potential of ICTs for their capacity building. There is clearly a growing realization amongst MFIs that ICTs are going to be a critical variable in their development strategy. This “technological imperative” is making MFIs evaluate the opportunities provided by new ICTs.

The demands of computers and the expectations of many stakeholders have resulted in a frenzy to invest time and money in ICTs. This pressure pushes various organizations to embrace these technologies in an effort to stay up-to-date and relevant in their special area. MFIs are now beginning to invest in computer based information systems in order to promote their ends, sometimes with positive results and sometimes with negative results. While there is a general realization that costs of investing in ICT solutions might be high, there is also a growing perception that the cost of not doing so is even higher.

These condition are primary factors in the demand for computer based information system. But it also makes top management hesitant to commit scarce financial resources without justification.
But what kind of impact is in store for MFIs seeking to adopt computer systems—large in aggregate, yet mostly made up of small organizations like MFIs? Can ICTs advance the cause of NGOs in general and micro-finance institutions in particular and their developmental goals? What will mark and distinguish the organizations that leverage the new technology effectively from those that do not? It remains to be examined how NGOs adopt these technologies and with what consequences.

Context-based information and social capability

Computer applications in this area would provide opportunity for the poor to develop knowledge “to access, assess and apply existing information” rather than new information. The basic data-set for the system comes from the SHGs. They already maintain a range of financial and social accounting systems at group level. Further such information is, at least partially, locally contextualized. It could supplement an existing “organic” information system. But the community intermediaries like the SHGs need resources, social capabilities, skills and knowledge base to use these technologies. Presently it is more realistic to provide ICT capacity building to the promoting NGO-MFIs to enable them to use the technology and the information generated by them. Micro-finance initiatives provide a clear opportunity to transform local resources of information into socially and economically useful knowledge. NGO-MFIs should develop technical and social capabilities to use ICTs if they do not want to marginalize themselves and the people they serve.