Risk Management for Microfinance Institutions Toolkit

Practitioner Manual

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Version 1
Acknowledgements

This toolkit is primarily built on the key concepts of risk management and internal control from the commonly accepted frameworks, from the MicroSave “Institutional and Product Development Risk Management Toolkit” (Pkholtz, 2005) and MicroSave “Internal Audit and Control Toolkit” (Ruth, 2007). It also references resources and samples from MicroSave’s “Toolkit for Process Mapping for MFIs” (Champagne 2006) and the “Toolkit for Loan Portfolio Audit of Micro Finance Institutions” (Wright 2006).

GENERAL COMMENTS:

Content:

• I really can’t tell if this is a practitioner’s manual or a trainer’s manual. It seems like a practitioner’s manual and then random exercises pop-up without any transition or identification. At least try to use headings to demarcate where exercises are taking place.

For example, page 81 – after #4 Performance Measures – this is one sentence describing an exercise. There is no transition or any identification that this is something different. Left in the original state, it seems very random. Also, these types of exercises or passages do not show up consistently throughout the manual but seem to appear without a formal format that a normal trainer’s manual would have.

• I’d really like this toolkit to flow better – it has all of the needed content but does not flow well – you have a basic Risk Management process in the feedback loop – why can’t the toolkit follow that in a better flowing way. It just seems disjointed and as if you forgot to talk about something and so it was inserted at the end without thought as to how it fits the overall structure. (sorry to be harsh here)

  o In the section for liquidity risk management, on page 94 – you describe the process using the Risk Management feedback loop. I really like that idea and think it would be good to use the same format for all the major risks. This would help with the overall flow, helps people remember the model and helps people feel like this is a well thought-out, cohesive/integrated manual. Remember – tell them what you are going to tell them, tell them, tell them what you told them…then it may sink in.

  o There are a lot of repeats when talking about the risk management and internal controls sections. I recommend trying to integrate them better, keep the best bits of each and delete the repeats. (I’m guessing these were done by different people…)

    ▪ As suggested on page 76, I propose that IA&C is a form of risk management that covers operational risks (including credit risk – as described in the first section of this manual. Therefore – the IA&C practices can be best described under that section (operational risks). But still get rid of the unnecessary repeats!!!

• As this is a guide, there does not need to be an Executive Summary – but a guide (1-2 paragraphs) on how it flows and how to use it would really help: How do all the sections relate to each other? If I care about one particular topic, can I skip the other pieces or do I have to read the whole thing (i.e. is it modular?)

• The financial risk management section is very tricky and technical – we need to make sure we have it 100% correct!!! (might want to have an expert review that section once more)
I think since we could not possibly cover everything – we may want to create a resource section for further information such as on:

Financial:
- Foreign Currency risk (CGAP)
- Weather insurance/derivatives
- Interest rate swaps
- Credit Derivatives
- Basel II Committee
- 

Other:
- Client based risk management
- Process Mapping toolkit
- Product Risk toolkit
- IA&C toolkit
- Fraud booklet (coming soon)
Grammar/Formatting

- The bullet points throughout are aligned so that they extend beyond/outside of the text above them. Generally, bullet points should be aligned with the text. For example:

  “I think you may want to do the following:
  – Realign the bullet points this way
  – Look at “segregation of duties” on page 40 – the bullet points extend outside of the text they are part of.
  – Notice this bullet point is outside of the text above it – and looks funny in general.”

- Headings, sub-headings and so forth need to be consistently the same in terms of spacing, format (bold, italics) and font size. One person should go through and make sure each section uses the same format.

- Be really careful of the citations you are making. You use a lot of material form other sources. If you copied the materials directly without paraphrasing, then it has to be a direct quote “blah-blah-blah”. Even changing a few words is not adequate to call it an indirect reference.
  o Also, even when we do citations, they are not properly created. There is a standard, international format, and it has to be followed.
  o Didn’t we reference SCB’s risk management guide quite a bit? I don’t see it referenced anywhere…
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Understanding Risk
1 Understanding Risk in Microfinance

1.1 What is Risk?

There does not appear to be a single, definitive definition of risk. Many people define and perceive it in different ways. Some experts view risk as a form of uncertainty about an outcome of an event in a given set of circumstances. This definition focuses on the unpredictable variability of an outcome. Without unpredictability there would be no risk. Or in other words, if we know what is going to happen then it is ‘certain’ and can’t be called as ‘risk’, as uncertainty is the key characteristic of risk. A more reliable prediction of an outcome is likely to reduce the risk associated with the outcome. Similarly, low levels of variability also tend to reduce risk.

1.1.1 Can Uncertainty of Outcomes of Any Event Be Termed As Risk?

Risk is always relative to the person/organisation who is impacted by the outcome of the event. Not all events affect everyone or affect everyone in same manner. Unless the outcomes of an event will have any affect on the objective(s) of the person or entity concerned, it can not be called a risk for that person/entity. For instance, the outcome of a toss before a crucial cricket match will have a lot of implications for both teams playing the match; however, the outcome of the toss will have no affect on the umpires of the match, as they have no stake in victory or defeat of either of the team. Hence, risk connects uncertainty with objectives.

My MFI is Impacted by the Outcome of an Event. The Outcome is Uncertain in the Sense of Being Positive or Negative. What is the Risk Here?

The traditional views on risk usually refer to adverse effects, or a potential for loss. According to Chambers Dictionary, ‘Risk is a chance of loss or injury; the degree of probability of loss; a person, thing or factor likely to cause loss or damage’. Webster’s Dictionary defines risk as ‘exposing to danger or hazard’. Wikipedia defines risk as a concept that denotes a potential negative impact to some characteristic of value that may arise from a future event.

The traditional definitions on risk define risk as chance of an undesirable outcome of an event. This refers to a situation of ‘Loss’ or ‘No Loss’, where the outcome could be either same or worse than the desired outcome. For example, if a person is driving a car on the highway, there is a possibility of him/her meeting with an accident or s/he can reach the destination safely (no accident). In this case, if the accident occurs, there could be a loss (of life, car or both) for the person driving the car; however, if an accident does not happen, there is no special gain for the person driving the car. This means the person cannot become better off than his/her current situation (health wise or financially) if no accident occurs, but s/he will certainly be worse off if s/he meets an accident.

Figure 1: Traditional view on risk

<table>
<thead>
<tr>
<th>Uncertainty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk = Threat</td>
</tr>
<tr>
<td>Opportunity</td>
</tr>
</tbody>
</table>

1.1.1 What is the Modern View on Risk?

As the definition has evolved over time, risk is now increasingly seen in various standards and guidelines still as a subset of uncertainty but having its own two subsets called ‘opportunity’ and ‘threat’ (see Figure 2 below). This means that risk is the ‘uncertainty of outcome that affects the objectives,’ which is a two-sided coin: on one side is a threat and on the other an opportunity. Some refer to this as ‘Speculative Risk’, which by definition involves the probability of both gain and loss. This refers to a situation that makes one either ‘Better-off’ or ‘Worse-off’ or remains ‘Neutral’. For example, if one has purchased stock of a business entity at a given price, there are possibilities that the stock price of the company in the future will either go up
(in this case the person is in a situation of gain), the stock price comes down (in this case the person is in a situation of loss), or the stock price remains unchanged (in this case there is no gain or loss). What is involved here is the possibility of something performing better (called Upside Risk) or worse (called Downside Risk) than expected.

Figure 2: Modern view on risk

1.1.2 Should the Definition of Risk Matter to Risk Managers?

Yes, it should. Incorporating both opportunities and threats within a single definition of risk is a clear statement of intent, recognizing that both have equally important influences over the business and its success, and that both need managing proactively. Opportunities and threats are not qualitatively different in nature since both involve uncertainty. As a result, both can be handled by the same process, although some modifications may be required to the standard risk management approach in order to deal effectively with opportunities.1

1.1.3 So, How Do We Define Risk?

To summarize, we can say that risk is the subset of uncertainty which matters (that affects objectives), and if it were to occur, a risk event would affect (favourably or adversely) one or more objectives (see Figure 3 below). This means, risk has two key dimensions – ‘Uncertainty’ and ‘Effect on Objectives’. The uncertainty is often estimated by assigning ‘Probability’ of an outcome, often categorised as ‘high’, ‘medium’ or ‘low’. The second dimension refers to ‘Impact’ of an outcome assessed against some given objectives. The impact could be either ‘Positive’ (Opportunities) or ‘Negative’ (Threats).

Figure 3: The environment of uncertainty and risk

Most of the approaches towards risk management do not include a structured framework for proactively addressing opportunities, since it focuses almost entirely on threats. If a broadened definition of risk is used which includes both opportunities and threats, and if an extended approach is implemented to address both together, organisations will be able to take full advantage of those uncertainties with a potential upside impact. The alternative is a failure to implement proactive opportunity management strategies, which will guarantee that only half of the benefits of risk management can be achieved. (Dr David Hillson)

1 Hilson, Dr. David, “What is Risk? Towards a common definition,” InfoRM Magazine, April 2002, Institute of Risk Management (www.theIRM.org)
So, what can we conclude – is risk a good thing or bad thing? Before becoming too judgmental about risk, we need to understand that risk is involved in almost every activity of our daily life, with businesses and microfinance being no exception. There exist both ‘good’ risks and ‘bad’ risks. If we have to be in business, then we can’t avoid or eliminate all the risks associated with it. Any bid to avoid or eliminate risks entirely from a business will either make the business unviable or it will create a situation where it becomes almost impossible to conduct business.

On the other hand if we choose to ignore all risks associated with the business, then it also could lead us into an extreme situation of business closure due to huge losses. So one needs to be selective in ignoring or tackling the risks based on their own risk appetite and the cost effectiveness of the risk management process. One must understand that the core business of financial institutions is to take some risks and control others in order to remain viable. Risk and return are two sides of the same coin. There cannot be any return without risk.

1.2 Classification of Risk

Divide the participants in 4-5 groups (depending on the size of class); give them 5-6 cards each (or perhaps more if they demand later); and ask them to classify risks into different categories (based on any parameter they want to choose). They should use each card for one kind of classification. Give them 10 minutes to do this exercise. The groups can then paste the cards on walls and everyone can walk past the display to see what each group has done. Thereafter, show them the slide of categories of risks in microfinance to sum up the discussion.

The number (types) of risks in microfinance business is virtually endless. Similarly, several categories of risks can be defined on the basis of classification of risks. In this course, we will only talk about the common or key risks faced by MFIs. The key risks are being categorized into the following main areas:

1.2.1 Institutional/Strategic Risks

Strategic risk emerges from the process of needing to make strategic choices of the future of the company despite an uncertain future. Here the risk can be defined as “the risk arising from adopting inappropriate strategic choices.” These strategic choices are concerned with decisions about an organisation’s future and the way in which it responds to various pressures and influences. The aim of these choices is to satisfy expectations of stakeholders by creating value in the context of actual or potential competition. In this process of making these choices the following risks are involved:

- **Suitability** - Suitability is broad criterion concerned with whether a strategy addresses the circumstances in which an organisation is operating, i.e. its strategic position. Some examples are the extent to which new strategies would fit with the future trends and changes in the environment and how the strategy might stretch and exploit the core competencies of the MFI.
- **Acceptability** - Acceptability is concerned with the expected performance outcomes (such as the financial returns expected) of a strategy and the extent to which these would be in line with the expectations.
- **Feasibility** - Feasibility is concerned with whether a strategy can work in practice. Assessing the feasibility of a strategy requires an emphasis on more details of resources and strategic capability.

1.2.2 Operational Risks

Operational risks are the vulnerabilities that an MFI faces in its daily operations, including concerns over portfolio quality, fraud and theft, all of which can erode the institution’s capital and undermine its financial position. The major operational risks are as follows:

- **Credit risk** – Lending money and not being paid back. There are many possible original issues around this, including the appropriateness of loan products, client demand and preference, and external environmental factors (flood, drought, etc.). However, credit risk also looks at whether the credit policies and procedures are correctly followed and administered by staff. This also included reviewing if credit transactions are properly recorded and summarised in an MFI’s loan tracking system and presented in the

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2 Adapted from *A Risk Management Framework for MFIs* by J. Carpenter and L. Pikholz, ShoreBank Advisory Services and A. Campion, MFN. Published by GTZ, July 2000 and Microsave’s Toolkit on *Internal Audit and Controls*, Ruth Dueck Mbeba, MEDA, Aug 2007

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financial and portfolio reports. For example, one MFI’s in the Philippines loan product tenure was 3 months, although the loan sizes in some cycles were quite high. Generally the clients who were assessed and qualified for a loan of Ps15,000 initially were acquiring almost Ps35000 within a year. The flaw in the product design resulted in large scale delinquency problems with the clients in the 3rd – 4th cycles.

- **Fraud risk** – Intentional or deliberate deception for unfair or unlawful personal gain. These are intentional actions, often manipulation of data or documents or the abuse of office, policies, procedures, or documents of an MFI’s property. If for example, an MFI in Eastern India faced a significant level of fraud due to some weakness in the accounting system. The branches were given the responsibility of managing cash on their own, and the only requirement on their part was to report the status to the HO. In one of the branches, it was discovered that no disbursement had been made since the last reporting cycle and also all of the repayment collections were being kept in the branch over a period of almost a month. At the end, the staff members absconded with the money in the branch office.

- **Error risk** – Unintentional errors that create unreliable information and reports or losses due to a lack of training and capacity, rapid growth or an inadequate number of staff. Errors in judgement or interpretation of policies, procedures, documents, or cash transactions can create large or small losses in an MFI.

- **Security risk** – Risk of theft or harm to property or person. MFIs – both large and small – are about people, paper and money. Money, particularly the high use of cash in most MFIs, creates a high risk for security of both money and people. MFIs mostly operate in environments where crime is prevalent, or where, because of poverty, the temptation is high. For example, in high volume branches the amount of cash collected on a repayment day can easily exceed the average annual household income in that community. Also during the latter half of 2009 in some of the eastern Indian states, incidents took place where field officers lost their lives while discharging their duties.

- **System integrity risk** – An assessment of this risk involves checking the quality of the information entering the system, whether computerized or manual, verifying that the system is processing the information correctly, and ensuring that it produces useful reports in a timely manner. In an MFI based in UP, it was observed that because of problems that arose at the time of acquiring and implementing an automated MIS, the MFI had to use two automated MIS systems along with the manual system for a long time. This exposed the system to risk of management receiving inconsistent reports and hence an atmosphere of confusion.

- **Inefficiency risk** – Management of costs per unit of output, affected by both cost controls and the level of outreach or economies of scale. In the period of 2005–07, many MFIs created a high level of fixed assets in anticipation of easy availability of loans in the market in the future. However when the market started facing a credit crunch, all these MFIs faced the situation of potential bankruptcy.

- **Reputation risk** – An MFI’s image amongst clients, the local community, financial sources, and the government is critical to strong repayment and repeat business. An MFI’s image and reputation in the community does not only come from actual and factual information about the MFI but is also about clients’ perceptions and the satisfaction they feel about the institution, about how they feel they are treated, and whether they value the services provided. One MFI in a northern state of India was facing some delinquency problems. During that time, rumours spread that the CEO had met an untimely death, and as a consequence, the repayment problems became extremely severe to manage.

### 1.2.3 Financial Management Risks

- **Liquidity (Treasury or Refinancing) risk** – A shortfall in the current asset coverage of current liabilities (asset-liability mismatch/ALM). Liquidity risk is a loss arising from the possibility that the MFI may not have sufficient funds to meet its obligations or be unable to access adequate funding. These risks increase and become more complex as the MFI grows and broadens the financial services are to include savings. The typical banking model of providing long term loans funded from short term liabilities, such as savings, is a common example of this kind of risk.

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• **Leverage (Capital Adequacy) risk** – Excessive financial leverage of an MFI’s equity base. When an MFI has too much leverage, this can increase the volatility of the residual net income and it increases the risk that an adverse business event consumes the equity and brings about bankruptcy.

• **Interest rate risk** – This is the risk that an unfavorable change in interest rates might have on the MFI’s earnings, based on gaps that exist in the matching of interest rates of the MFI’s loan portfolio assets to the funding liabilities.

• **Foreign exchange risk** – This occurs when there is a currency mismatch in the MFI’s assets and liabilities that exposes it to foreign exchange rate fluctuations that could cause either losses or gains. For example during the Russian Rouble crisis of 1998, many MFIs had borrowed in dollars but lent in roubles (or in a local currency closely linked to the strength of the Russian Rouble). These MFIs had extreme difficulties in repaying their liabilities, as the real value of their loan portfolios had diminished extensively.

1.3 **Impact of Risk**

Above, we have seen the common types of risks faced by MFIs, but what happens if we ignore those risks? If the risks are not dealt with properly, the MFIs are more likely to suffer shocks that may even bring the organisation to a dire situation or even perhaps bankruptcy. To understand this better, one can use the following case study analysis of MFI ‘X’:

MFI ‘X’ had three branches through December 2008, but in order to meet the donor targets of opening eight branches by March 2009, the MFI decided to quickly recruit staff and open new branches. To meet client targets, it set up an incentive scheme by linking the salary of Loan Officers and Branch Managers to the number of clients and overall branch client population respectively.

However, the MFI failed to develop sufficient staff capacity in credit administration, and consequently, loan portfolio quality started deteriorating steadily. Due to the worsening cases of delinquency and default, the MFI decided to reward its Loan Officers according to level of their portfolio at risk (PAR) and suspended loan disbursements in all the branches until the trend changes. Also to control escalating branch costs, the MFI decided to fire all low-level staff, allowed only for the receiving calls, reduced travel allowances of Loan Officers by 25% and centralised many purchases at the head office only.

**Exercise:** Give this case study to the participants for analysis by dividing them into groups. It is best to create groups of 3 – 4 persons (depending on the total number of participants and their level of confidence and experience). Ask participants to read the case and then discuss the two questions given in the case sheet (Exercise 2.1).

If MFI ‘X’ ignores the ever-changing risks faced, the MFI will eventually see one or more of the following consequences:

• Poor service delivery resulting in loss of clients and market share;
• Declining profitability and cannot service equity/debt;
• Erosion of capital and limits to leverage capacity;
• Difficult to secure financial support and limits to growth;
• Deteriorating institutional reputation; and
• Lower staff morale and high staff attrition.

1.4 **Interrelationships between Risks**

One risk can have bearing on many other risks, and an important aspect of understanding risks is developing an understanding of the interrelationships between them. Sometimes a significant event triggers reassessment of risks across the entire MFI (i.e. across functions and product lines) precisely because of the interrelationships between different risks and the multiple impacts that a single event can cause.

Changes in some processes at an MFI in one department may impact on previously controlled or mitigated risks in another department and could change the dimension (profile) of those risks to a great extent. Changes
in methods of controlling one risk usually introduce other risks. For example, human resource risk may very well be an element of strategic, operational, reputational, fraud, and credit risks.

One operational risk can lead to another. Some operational risks cause financial loss directly; others may only lead only to reputational damage since the problem can be fixed before direct financial loss occurs. However, reputational damage is itself an operational risk, which can lead to financial loss. Financial losses can put customers’ interests at risk, which is why examiners are concerned with an institution’s reputation, as well as the causes of reputational damage.

Some other interrelationships are illustrated below:

- In the case of MFI ‘X’ above we can see that Credit Risk can lead to Solvency Risk and Solvency Risk can lead to Reputation Risk
- Similarly, Inefficiency Risk can lead to Profitability Risk and Profitability Risk can lead to Solvency Risk.
- Competitive Risk in turn can increase Operational, Reputation, Credit, and Profitability Risks
- A MFI is introducing voluntary savings in response to client demand as well as to fund its loan products. The cessation of using outside funding, which is generally more costly than on-lending savings deposits, is seen as a strategic move to improve the MFI’s profitability. However, the MFI must also consider not only the loan side of the equation in the MFI’s source of funds, but also the new liquidity risk of not being able to meet client demands for savings withdrawals which in turn can generate reputational risk.
- A MFI faces possible extinction if it does not roll out new products. In the push for new product development, the MFI generates a human resource risk as staff members are being spread too thin. As a result, ongoing jobs are not effectively performed, and may, for example, lead to increased credit risk through deterioration of the loan portfolio’s quality.
- A push by senior management for a new product to be available in the market for competitive reasons may result in the MFI staff cutting corners in the process. The new product development process is in itself a risk mitigation strategy, however; attempts to mitigate the competitive risk in turn increases operational, reputation, credit, and interest rate risks.

### 1.5 Risk Glossary

The literature on risk management has a glossary of its own to which define various aspects risk management in a uniform way. Following table gives a list terms commonly used:

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk</td>
<td>The possibility of an outcome or its absence that could affect achievement of desired objectives</td>
</tr>
<tr>
<td>Risk Event</td>
<td>The incident that could affect achievement of desired objectives</td>
</tr>
<tr>
<td>Risk driver/Peril</td>
<td>The causal factor that results in the risk</td>
</tr>
<tr>
<td>Hazard</td>
<td>The factors which influence the outcome caused due to a peril</td>
</tr>
<tr>
<td>Risk Indicator</td>
<td>The relevant measure, when measured, quantifies the level of risk</td>
</tr>
<tr>
<td>Risk Owner</td>
<td>The person responsible for managing a particular risk</td>
</tr>
<tr>
<td>Risk Exposure</td>
<td>A condition or set of circumstances where a risk event could result in a loss/gain</td>
</tr>
<tr>
<td>Frequency</td>
<td>The probability or likelihood of the risk event occurring or number of times a risk event is likely to occur</td>
</tr>
<tr>
<td>Severity/Impact</td>
<td>The degree of damage/gain that may result from an exposure</td>
</tr>
</tbody>
</table>

3 The glossary is adapted from MicroSave’s “Institutional and Product Development Risk Management Toolkit” (Pikholz 2005).
**Risk events** are symptoms that a risk is not being well managed. In order to manage a risk, one must first determine what can cause the risk event to occur. The risk tactics should be focused on eliminating or controlling the ability of these factors to exist within the MFI. Factors can be identified that cause a risk event to occur, are called as **risk drivers**, whereas, **hazards** are the factors that influence risk drivers. For example, a motor bike accident occurs on a highway on a rainy night because the person was riding the bike at high speed. Here, ‘accident’ is the risk event; ‘riding bike at high speed’ is the risk driver and ‘lack of adequate visibility’ (due to night) and ‘slippery road’ (due to rain) are the hazards that lead to the accident. A lack of visibility and slippery roads (hazards) accentuate the likelihood of risk event when combined with high speed driving (risk driver).

One risk event can have many risk drivers and one risk driver can have many hazards. To understand it better, refer the example given in Table 2 below. In this example, the risk event is ‘poor loan portfolio quality’. The indicators for this risk are high ‘Portfolio at Risk’ and ‘increasing number of non-performing (overdue) loans’. For this single risk event, there could be multiple risk drivers, like, ‘lending to inappropriate clients’, ‘poor portfolio management’, ‘fraud by staff’, and ‘willful default by clients’. Further, each risk drivers could have many hazards, such as lending to inappropriate clients could be due to either ‘poor client selection system,’ ‘lack of publicly available credit reference bureaus & sharing of information by lenders,’ ‘a weak loan appraisal system’, ‘complacency in dealing with repeat borrowers’ or ‘inadequate credit staff (numbers and competence and experience).

### Table 2: Risk event, indicator, driver and hazard

<table>
<thead>
<tr>
<th>Risk Event: Poor Loan Portfolio Quality</th>
<th>Risk Indicator: High Portfolio at Risk, Increasing number of non-performing loans</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk Drivers</strong></td>
<td><strong>Hazard</strong></td>
</tr>
<tr>
<td>• Lending to inappropriate customers</td>
<td>• Poor client selection system</td>
</tr>
<tr>
<td></td>
<td>• Lack of publicly available credit reference bureaus &amp; no information sharing by lenders</td>
</tr>
<tr>
<td></td>
<td>• Weak loan appraisal systems</td>
</tr>
<tr>
<td></td>
<td>• Complacency in dealing with repeat borrowers</td>
</tr>
<tr>
<td></td>
<td>• Inadequate credit staff (numbers and competence and experience)</td>
</tr>
<tr>
<td>• Poor portfolio management</td>
<td>• Excessive concentration of loans by sector, location, value bands</td>
</tr>
<tr>
<td></td>
<td>• Poor reporting and loan monitoring systems</td>
</tr>
<tr>
<td>• Fraudulent activities by staff</td>
<td>• Poor internal control systems</td>
</tr>
<tr>
<td>• Wilful default by customers</td>
<td>• Inefficient legal systems encourage borrowers to default</td>
</tr>
<tr>
<td></td>
<td>• No enforcement of peer pressure</td>
</tr>
</tbody>
</table>
Risk Management Processes
2 Risks Management Processes

2.1 What is Risk Management?

Risk management is a systematic process consisting of well defined steps of (a) identifying risks, (b) analysing and assessing risks, (c) risk response planning, and (d) monitoring and controlling risks. When these steps are taken in sequence, they support better decision making by contributing to a greater insight into risks and their impact. This process is as much about identifying opportunities as it is about avoiding losses/threats.

Risk management is the process of managing the risk exposures by keeping the undesirable outcomes to an acceptable minimum either by taking actions to reduce the exposure to risks to an acceptable level, or by converting one form of risk into a more acceptable risk, in a cost effective way. Risk management includes the prevention of potential risks, the early detection of risks when they occur, and the correction of the policies and procedures that permitted the occurrence. The essence of risk management is dealing with uncertainties and reducing or removing risk factors.

It is not about eliminating, avoiding or removing all risk. Risk management should be:

- **Comprehensive** – covering every aspect of the organisation
- **Continuous** – not just a one-off exercise, but something that is maintained and updated
- **Built-in** – not an add-on, but integrated into all operations and systems
- **Suitable** – there is no ‘one size fits all’ but principles, policies and practices that can be adapted to any kind of organisation or activity
- **Proportional** – keeping a sense of perspective and proportion between benefits and risks

2.2 Why Risk Management?  

A key management responsibility is to provide reasonable assurance that the bank or MFI’s business is adequately maintained. Rather than focusing on current or historical financial performance, management and regulators now focus on an organisation’s ability to identify and manage future risks as the best predictor of long-term success. There are many benefits in implementing risk management procedures. Some of these include:

- More effective strategic planning;
- Better cost control;
- Enhancing shareholder value by minimizing losses and maximizing opportunities;
- Increased knowledge and understanding of exposure to risk;
- A systematic, well-informed and thorough method of decision-making;
- Increased preparedness for an outside review;
- Minimized disruptions;
- Better utilization of resources and capital;
- Strengthening culture for continuous improvement.

The increased emphasis on risk management reflects a fundamental shift among financial institutions and regulators to better anticipate risks, rather than just react to them. This approach emphasises the importance of “self-supervision” and a pro-active approach by board members and managing directors to manage their financial institutions.

Over the last few years the banking industry has been moving towards the implementation of risk-based prudential management as encapsulated in the Basel II guidelines and agreement. For MFIs, better internal risk management yields similar benefits. As MFIs continue to grow and expand rapidly, serving more customers and attracting more mainstream investment capital and funds, they need to strengthen their internal capacity to identify and anticipate potential risks to avoid unexpected losses and surprises. Creating a risk

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5 This note is adapted from: A Risk Management Framework for MFIs by J. Carpenter and L. Pikholz, ShoreBank Advisory Services and A. Campion, MFN. Published by GTZ, July 2000. The bullets in this note are taken from Handling risks – risk management process by Liliana Ivănuş published in Annals of University of Petroșani, Romania, 2002.
management framework and culture within an MFI is the next step after mastering the fundamentals of individual risks, such as credit risk, financial risk and operational risk. A comprehensive approach to risk management reduces the risk of loss, builds credibility in the marketplace, and creates new opportunities for growth.

The key to fulfilling the responsibility of providing reasonable assurance to stakeholders that the MFI’s business is adequately controlled is the development of a comprehensive system of management controls, accounting and internal controls, security procedures, and other risk controls. MFIs need a risk control structure, which defines the roles and responsibilities of managers and board members with respect to managing risk.

2.3 Risk Management Framework

Before beginning this section, the trainer can ask the following to participants: ‘what makes up the risk management environment’ or ‘what are the major tools used to manage risks’ and take their responses on a white board or flip chart. Thereafter, discuss the meaning of the risk management environment and the risk management feedback loop from the slides.

2.3.1 The Risk Management Environment

The overall risk management environment consists of three major components – Internal Controls, Internal Audit and External Audit.  

![Figure 4: Risk management environment](image)

**Internal Control** is the institution’s mechanisms to monitor risks before and after operations and is a subset of risk management processes. It refers to all policies and procedures adopted by the MFI to help ensure the orderly and efficient conduct of business. MFIs use internal control mechanisms to control risks and ensure that staff members respect their organisational policies and procedures.

**An internal Audit** is a systematic “ex-post” appraisal of an institution’s operations and financial reports. It is a subset of Internal Control. An internal audit plays an important role in providing feedback to the board and management on compliance with policies and procedure and effectiveness of control systems.

**An external Audit** (by an Independent Third Party) serves to further evaluate an institution’s controls and statements and to an extent overlaps the internal audit functions. The reason why the part of external audit circle is shown outside the risk management circle in Figure 4 above is because it also serves the needs of external agencies, e.g. regulators, financiers, donors, etc.

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2.3.2 The Risk Management Feedback Loop

To reach the fullest potential, MFIs need to recognize risk management as an important ongoing internal function. Risk management involves several steps and is not a linear process, but rather an iterative process. The steps are part of an interactive and dynamic flow of information from the field to the head office (and senior management) and back to the field. These steps make a continuous feedback loop that consistently asks whether the assumed risk is reasonable and appropriate, or whether it should be reassessed. Figure 5 below illustrates the cyclical nature of the risk management process.

Figure 5: Risk management feedback loop

1. Identifying, assessing, and prioritising risks: The assessment of these risks is approved by the board of directors. This step requires the board and management to determine the degree of risk the MFI should tolerate and to conduct assessments for each risk of the potential impact, if not controlled.

2. Developing strategies to manage risks: The board approves policies for measuring and tracking risks and monitors the MFI’s adherence to them. Management identifies key indicators and ratios that can be tracked and analysed regularly to assess the MFI’s exposure to risk in each area of operation. Management sets the acceptable range for each indicator, outside of which would indicate excessive risk exposure. Management also determines the frequency with which each indicator should be monitored and analysed and lays down the responsibility for tracking.

3. Develop tactics to mitigate risk: Management develops sound procedures and operational guidelines to mitigate each risk to the degree desired. Sound policies and procedures clearly instruct staff on how to conduct transactions and incorporate effective internal control measures.

4. Implementing and assigning responsibilities: Management selects cost-effective controls and seeks input from operational staff on their appropriateness. The MFI assigns managers to oversee implementation of the controls and to monitor the risks over time. Ideally, each major risk area has an identified ‘risk owner’ who is responsible for managing and monitoring the identified risks that fall into his/her work area.

5. Testing effectiveness and evaluating results: The MFI should have clearly defined indicators and parameters that determine whether a risk is adequately controlled or not. Then the board and management review the operating results to assess whether the current policies and procedures are having the desired outcome and whether the MFI is adequately managing risk. For example, an MFI experiencing increasing

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7 The diagram and its explanation is adapted from: A Risk Management Framework for MFIs by J. Carpenter and L. Pikholz, ShoreBank Advisory Services, 2000
delinquency might decide to reduce its exposure to credit risks by developing stricter lending requirements or limiting the increases in loan sizes for renewals. The MFI also creates mechanisms to evaluate the results of these delinquency reduction efforts, such as by requiring branches to regularly monitor portfolio quality and conduct client visits to verify loan officers’ adherence to the new policies.

Some risks require weekly or monthly monitoring, while other risks require less frequent monitoring (quarterly or semi-annually) depending on the priority assigned to the risk. Significant risks, such as credit risk, liquidity risk, and others that threaten the financial viability of the MFI, are generally tracked via monthly reporting by senior management and the board of directors. Results may suggest a need for some changes to policies and procedures and possibly identify previously unidentified risk exposures.

6. **Revise policies and procedures:** Based on the summary risk reporting and internal audit findings, the board reviews risk policies for necessary adjustments. While only significant findings are reported to the board, the directors should ensure that necessary revisions are quickly made to the systems, policies and procedures, as well as the operational workflow to minimize the potential for loss. The report may make specific recommendations on how to strengthen risk management areas. Management is responsible for designing the specific changes, and in doing so, should seek input from the internal audit team as well as staff involved in operations (including from branches and the field) to ensure that operational changes are appropriate and will not result in unforeseen, negative consequences to the MFI or its clients. After the new controls are implemented, the MFI must test their effectiveness and evaluates the results.

In a nutshell, the risk management feedback loop is an interactive and continuous process to ensure that senior management is in-tune with the actual events in the field offices and that the MFI responds in a timely manner to any changes in its internal or external business environment. Even if an evaluation finds that the MFI is adequately controlling its risks, the risk management process does not end; it continues with regular, ongoing evaluations. Each successive evaluation not only tests the effectiveness of new controls but also includes a review of previously tested controls.

2.4 **Responsibility of Risk Management in an MFI**

The participants have now discussed the definition of risk management and began to look at the process of risk management. So now the trainer can ask, “Whose responsibility is risk management in an MFI?” Take a few answers and show the slides.

Exercise: randomly assign five groups of participants and assign one role to each group: Board, Senior Management, Internal Auditor, Branch Management and Operational staff. Ask each group to discuss briefly the responsibilities of risk management for their assigned role in the each step of risk management feedback loop. Then discuss together briefly with the slide that follows.

While each of the six steps of the risk management feedback loop involves different employees of the MFI, collectively these steps integrate all employees into the process. This means everyone has some responsibility for risk management in an MFI, however, the roles and responsibilities differ. Risk management and internal controls must be ‘driven from the top’. The Board and senior management set the tone and the MFI’s attitude towards risk and internal controls. The following table looks at the various steps in the risk management process, and the roles and responsibilities that various staff, management and Board members play in that process.

<table>
<thead>
<tr>
<th>Process Steps</th>
<th>Institutional Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>

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1. Identify assess and prioritise the inherent risks

Senior Management
- Identify risks and assess their likelihood & impact
- Prioritise risks in MFI’s context

Board
- Review risks and approve priority of risks

2. Develop strategies to manage the risks

Senior Management
- Develop measurement indicators
- Set acceptable range for risk

Board
- Approve indicator, range and strategies to deal with each risk

3. Design policies and procedures to mitigate

Senior Management
- Design operational policies, and systems
- Develop procedures/tactics to implement policies

Board
- Approve operational policies and procedures

4. Implement policies and assign responsibilities

Senior Management
- Assign responsibility for policy implementation
- Monitor compliance

Branch Management
- Monitor compliance at Branch
- Implement control procedures

Operations Staff
- Comply with policies/processes
- Provide input on adequacy and appropriateness of policies and procedures

5. Test effectiveness and evaluate results

Board
- Review results of operations

Senior Management
- Review results of operations

Internal Audit Team
- Verify compliances with policies
- Identifying effectiveness and adequacy of risk management process

Senior management and the Board of Directors are primarily responsible for risk management, but the actual administration of a risk management programme is delegated to those throughout the organisation. Risk management can also be a line function within the MFI’s organisational structure. In such cases, the Risk Manager and his or her department becomes responsible for monitoring the risk management programme and for ensuring that 1) risk owners and high level monitors are reviewing their risks at the intended frequencies 2) the reviews in response to trigger events or special events are in fact performed, 3) risk measures and goals are in place, monitored and attained, 4) risk policies and procedures are documented and updated, and 5) risk owners are sensitised and trained. In short, the Risk Management Department must ensure that the risk management feedback loop steps occur.

In Table 4 below, the responsibilities for framing policies and procedures for each area of risk of both the Board and those of management are provided.

### Table 4: Detailing the responsibilities in risk management

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Policies framed by Board</th>
<th>Management Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Risk</td>
<td>• Permitted lending activities&lt;br&gt;• Portfolio diversification (e.g. percentage of capital to one product, maximum exposure to any)</td>
<td>• Detailed underwriting guidelines or procedures&lt;br&gt;• Portfolio monitoring and reporting on asset quality</td>
</tr>
</tbody>
</table>
Investment Risk

- Percentage of funds in cash and cash equivalents
- Risk parameters for investment portfolio (e.g. percentage in treasury bills, equities, bonds, credit risk of individual instruments)
- Maximum currency exposures
- Maximum asset and liability mismatch (usually as percentage of capital)
- Investment management guidelines and procedures
- Test the portfolio’s sensitivity to interest rate changes
- Balance risk of loss of principal with income

Liquidity Risk

- Minimum cash reserves equal to a certain percentage of deposits (for client cash withdrawals)
- Maintain cash balances or lines of credit equal to cover new loan demand and potential cash losses from delinquency
- Maintain operating reserves equal to 2-3 months operating expenses
- Choose how cash management will be centralised or decentralised among branch offices;
- Choose short-term investment instruments (treasury bills, staggering terms, etc)

Capital Adequacy

- Minimum capital adequacy ratio (sufficient cushion if loss occurs)
- Consider effect on capital adequacy in decision-making for growth

Now a question arises: ‘should Risk Management be a separate line function at the MFI?’ The answer is – it depends on size of the operations. Larger MFIs that face a complexity of risks should have its own Risk Manager, in a separate unit, department or group, who reports to the CEO and to the Board of Directors. At BASIX (India), there is a Risk Committee of the Board of Directors, and the Risk Manager, which is a senior position within the organization, is responsible for tracking operational risks and administering its risk programme. The Risk Manager reports directly to the CEO, who in turn reports to the Board’s Risk Committee.

In smaller MFIs, the Risk Manager may not be a full time job, but vested within an existing department of the MFI. The question is which department is suitable? Credit/Operations has often been the repository of risk management, and consequently has often only focused on just credit risk with respect to the loan portfolio, not even credit risk in broader implications. In some MFIs, internal audit is responsible, as audit is concerned with risks and covers all aspects of the organisation. While internal audit is knowledgeable about risks, it is also required to act independently and objectively. This role cannot be effectively conducted if the responsibility for risk management also exists. Table 5 given below illustrates the distinctions between Risk Management and Audit and the differing roles of Internal Audit and the Risk Manager.

<table>
<thead>
<tr>
<th>Table 2.3 – Relationship between risk management and internal audit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk Management</strong></td>
</tr>
<tr>
<td>• Assessment and Monitoring of Risks</td>
</tr>
<tr>
<td>• Line function responsibility</td>
</tr>
<tr>
<td>• Reports to Management</td>
</tr>
</tbody>
</table>
2.5 Typical Job of a Risk Manager

Once the MFI establishes a risk management division where responsibility for risk management will reside within the organisation, the MFI must hire a Risk Manager based on the qualities the MFI thinks they need in a risk manager, and what the duties of a risk manager are. Sample responsibilities of a Risk Manager within an MFI are:

- Initiate and manage the process of establishing a risk management function
- Recommend a risk mitigation strategy and policy
- Lead the process of developing a risk management manual
- Document risk assessments and supervise thresholds
- Initiate responses when risk thresholds are exceeded, or when the risk trend is moving towards the threshold
- Regularly oversee possible risk areas and annually update the overall risk assessment of the MFI

2.6 Identifying, Assessing and Prioritising Risks

2.6.1 Risk Identification

The first step in risk assessment is to identify risks. Good quality information and thorough knowledge of the organisation and its internal and external environment are very important in identifying risks. Historical information about the organisation and similar organisational types (competitors or not) can also be very useful, as they can lead to educated predictions about current and evolving issues that have not yet been faced by the organisation. The fact that there are many ways an event can occur makes it important to study all possible and significant causes and scenarios. To identify risks the following techniques should be considered:

9 Team-based brainstorming where workshops can prove effective in building commitment and making use of different experiences. The top managers of all key departments to identify all the risks in the functional area for which they are responsible.

- Structured techniques such as process mapping, system design review, systems analysis and operational modelling;
- For less clearly defined situations, such as the identification of strategic risks, processes with a more general structure such as ‘what-if’ and scenario analysis could be used.

The process of identifying risks involves an in-depth analysis of a situation/possibility where it is tried to find out the following features of the risk:

- Risk events,
- Risk drivers,
- Hazards, and
- Likely consequences and frequency/probability

Exercise: Ask the participants to get into their institutional groups to provide an example of different types of risks as they relate to their institution. Ask participants to think through the nature of the risk in each case and the risk owner at their MFI who should manage the particular risk. Give participants time to complete this exercise, and check the degree of completion as this exercise is used as a base for future exercises.

2.6.2 Risk Assessment and Prioritisation

The second step involved in risk assessment is to determine the probability of risks occurring and their potential severity. To assess the probability and severity of risks, a risk management chart or matrix, such as the one presented in Figure 6, can be useful.

9 http://www.enisa.europa.eu/rmra/h_home.html

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Some examples of risk categorisations in a typical MFI may include:

- **High Probability, High Impact (Intolerable Risk)**: Weak loan appraisal leads to poor loan recovery or losses from high risk business loans in one sector
- **Medium Probability, High Impact (Substantial Risk)**: Liquidity crunch due to poor Asset Liability Management
- **Medium Probability, Medium Impact (Moderate Risk)**: Delay in reporting due to poor communication links
- **High Probability, Low Impact (Moderate Risk)**: Petty fraud
- **Low Probability, Low Impact (Trivial Risk)**: Clerical errors
- **Low Probability, High Impact (Trivial Risk)**: Natural disasters, computer crime

The above matrix is a good tool to assess any risk in an MFI. However, to prioritise any risk, in addition to potential severity and probability of occurrence, we also need further information about the risk, such as (a) the quality of existing risk management, or how well management currently measures, controls, and monitors the risk (e.g. Strong, Acceptable, Weak); and (b) the trend or direction of that risk (e.g. Stable, Increasing, or Decreasing). When all the four parameters considered together, it will give us the aggregate risk profile for that risk.

A rating grade is assigned to the risk based on the aggregate risk profile. Further, based on the rating grade, risks are prioritised that need to be analysed in detail to enable proactive mitigation. One should always use a cross-functional team to set priorities at the organisation level, not departmental, to ensure the objectivity in the exercise (but include those who can make decisions).

**Exercise**: Now ask the participants (in the same group) to assess the risks developed in Exercise 3.2, in terms of probability and impact using the risk assessment matrix (then address the two other parameters).

### 2.6.3 When to conduct a risk analysis

As part of the MFI’s risk management programme, the MFI should recognise and monitor indicators key to its well-being. Changes in these indicators can be due to certain stresses the MFI is experiencing. Effective risk management should be a continuous process and should be adapted to the changing risks and environment.

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11. This note is adapted from MicroSave’s “Institutional and Product Development Risk Management Toolkit” (Pikholz 2005).

*MicroSave: Market-led solutions for financial services*
management and appropriate risk mitigation strategies can frequently help recognise and even anticipate signs of stress in an organisation before risks get out of control. However, signs of stress can also indicate the failure of risk mitigation strategies and risk planning.

Table 5: Sign of stresses and their indicators

<table>
<thead>
<tr>
<th>Examples of Signs of Stress</th>
<th>Could Indicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>High client dropout rate</td>
<td>• Client dissatisfaction with services</td>
</tr>
<tr>
<td></td>
<td>• Increased competitive options available to clients</td>
</tr>
<tr>
<td></td>
<td>• Delivery of inappropriate products</td>
</tr>
<tr>
<td></td>
<td>• Inappropriate incentive scheme for staff &amp; clients</td>
</tr>
<tr>
<td>High loan default rate</td>
<td>• Poor selection of clients</td>
</tr>
<tr>
<td></td>
<td>• Poor systems</td>
</tr>
<tr>
<td></td>
<td>• Poor credit control, inappropriate follow-up</td>
</tr>
<tr>
<td></td>
<td>• Inappropriate loan officer incentives</td>
</tr>
<tr>
<td>High rate of staff turnover</td>
<td>• Lack of job satisfaction</td>
</tr>
<tr>
<td></td>
<td>• Conflict and stress</td>
</tr>
<tr>
<td></td>
<td>• Lack of leadership</td>
</tr>
<tr>
<td></td>
<td>• Dissatisfaction with compensation</td>
</tr>
<tr>
<td></td>
<td>• Overworked staff with low morale</td>
</tr>
<tr>
<td>Increase in average cost per client</td>
<td>• Increased inefficiency in component of product delivery</td>
</tr>
<tr>
<td></td>
<td>• Poor loan officer/resource management</td>
</tr>
<tr>
<td></td>
<td>• Small loan sizes</td>
</tr>
<tr>
<td>Decrease in efficiency ratio</td>
<td>• Breakdown in cost control measures</td>
</tr>
<tr>
<td></td>
<td>• Poor Product pricing/costing on new products</td>
</tr>
<tr>
<td></td>
<td>• Decrease in revenue collection</td>
</tr>
<tr>
<td>Increased reliance on subsidised funding</td>
<td>• Poor financial resource mobilisation</td>
</tr>
<tr>
<td></td>
<td>• Poor utilisation of assets</td>
</tr>
<tr>
<td></td>
<td>• Improperly priced products and services</td>
</tr>
<tr>
<td>High incidence of MIS failures</td>
<td>• IT staff does not have expertise to support system</td>
</tr>
<tr>
<td></td>
<td>• Poor system design leads to data corruption</td>
</tr>
<tr>
<td></td>
<td>• System no longer meets MFI product requirements</td>
</tr>
<tr>
<td></td>
<td>• System capacity exceeded</td>
</tr>
<tr>
<td>Increased incidences of fraud</td>
<td>• Poor staff selection</td>
</tr>
<tr>
<td></td>
<td>• Failure to maintain ethical culture within MFI</td>
</tr>
<tr>
<td></td>
<td>• Poor systems</td>
</tr>
<tr>
<td></td>
<td>• Inadequate procedures</td>
</tr>
<tr>
<td>Increase in number of customer complaints</td>
<td>• Poor customer service</td>
</tr>
<tr>
<td></td>
<td>• MFI capacity/resources at maximum utilisation</td>
</tr>
<tr>
<td></td>
<td>• Lack of market research</td>
</tr>
<tr>
<td></td>
<td>• Insufficient training for managers and staff</td>
</tr>
<tr>
<td>Mismatched asset/liability structure</td>
<td>• Long term loans and short term borrowings</td>
</tr>
<tr>
<td>Product not profitable</td>
<td>• Inappropriate product costing</td>
</tr>
<tr>
<td>High budgetary variances</td>
<td>• Cost overruns</td>
</tr>
<tr>
<td></td>
<td>• Inaccurate/outdated assumptions</td>
</tr>
<tr>
<td></td>
<td>• Lack of control methodologies</td>
</tr>
<tr>
<td>Erratic cash management</td>
<td>• Poor liquidity management</td>
</tr>
<tr>
<td></td>
<td>• Logistical problems with transportation of cash</td>
</tr>
<tr>
<td></td>
<td>• Fraud/leakages</td>
</tr>
<tr>
<td>Missed deadlines</td>
<td>• Inadequate management and co-ordination</td>
</tr>
<tr>
<td></td>
<td>• Inadequate internal supervision</td>
</tr>
</tbody>
</table>
Significant changes within the MFI should trigger MFI management to perform an updated risk analysis for the organisation. As the following events cause changes that may well be intrinsic to the very essence of MFI, a new institutional wide, cross-functional risk assessment should be performed.

**Table 6: Examples of special event drivers for a risk management review**

<table>
<thead>
<tr>
<th>Event</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entering new markets</td>
<td>Major fraud</td>
</tr>
<tr>
<td>Introducing new products</td>
<td>High client drop-out rates</td>
</tr>
<tr>
<td>Major changes in an operating or IT system</td>
<td>High staff turnover or major recruitment drive</td>
</tr>
<tr>
<td>Legal transformation</td>
<td>Entry of major competitors in the market</td>
</tr>
<tr>
<td>On a high growth path</td>
<td>Changes in regulations or economic policies</td>
</tr>
<tr>
<td>Sharp decline in market share/growth</td>
<td>Crisis due to political/legal/security issues</td>
</tr>
<tr>
<td>Poor financial performance indicators (esp. portfolio quality)</td>
<td>Sudden demographic changes</td>
</tr>
</tbody>
</table>

### 2.7 Developing Strategies to Manage Risks

Once the risks are identified, assessed and prioritised, the next step is to develop strategies to manage risks. The process includes, (a) develop policies to respond to the identified risks; (b) develop indicators for monitoring risks, and (c) develop guidelines for each indicators, such as thresholds (tolerance limits) for each risk event within which the management should operate, tracking methods and monitoring frequency of the identified risk.

There are four broad strategies\(^{12}\) to respond to any risk, which can be also called the “ATAC Strategy”.

#### 2.7.1 Avoid Risk

If the probability of occurrence is high, the likely impact of the risk event is also high and there are not sufficient organizational resources to mitigate the risk, the most common strategy would be to ‘terminate the risk’. In such cases, risks will only be treatable or containable by terminating the activity to which they relate. However, this would likely mean that the proposed course of action should not be adopted.

This is carried out by doing things differently and removing the risk where feasible to do so. Prevention can be achieved by eliminating a specific threat, usually by eliminating the cause. Counter measures are put in place to stop the threat or problem from occurring or prevent it by having any impact on the organisation. It is never possible to eliminate all risk, but specific risk events can often be eliminated.

Some common examples of terminating the risks are as follows:

- To avoid product related risk – Not offering crop loans in a drought prone area with a mono-crop practice (policy adopted by Bhartiya Samruddhi Finance Ltd, Hyderabad)
- To avoid risk of cash handling by staff - Loan disbursement and collection at Branch Offices (policy adopted by Cashpor Micro-Credit Services - CMC, Varanasi) OR through cheques (policy adopted by Bhartiya Samruddhi Finance Ltd - BSFL, Hyderabad) in operational areas where law and order situation is very poor.

#### 2.7.2 Transfer Risk

If consequences of a risk event can be severe, has an unlikely probability and is not cost effective to control the risk in-house, the most common strategy would be to ‘transfer the risk’. This is a specialist form of risk reduction where the management of the identified risks are transferred to or shared with a third-party deemed to be better equipped to resolve those risks. The risk is shared because the MFI needs to ensure that the third party will meet the obligations of compensating the loss occur due to the identified risks.

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\(^{12}\) This note has been adapted from The University of Manchester Risk Management Toolkit

**MicroSave: Market-led solutions for financial services**
Although many people believe that contract obligations transfer the risk in mind, most contracts place obligations on both parties and must be monitored and complied with if the risk transfer is to remain in place. Contracts, in this sense, are control methods rather than risk management tools as they may give rise to additional risks (counterparty risk).

Some common examples of transferring the risks are as follows:

- Cash-in-transit (and safe) insurance against burglary and theft by staff or outsider. Many of the MFIs in India (e.g. BSFL, SKS Microfin Ltd. Spandana Sphoorty Ltd, CMC etc.) have such insurance coverage provided by leading general insurance companies in India.
- Group insurance (life) coverage of clients against the loan amount. All the above-mentioned MFIs have insured their clients with leading life insurance companies in India.
- Hedging of loan repayments in foreign currency
- Outsourcing market research or internal audit functions to external agencies due to inadequate internal expertise
- MFI becomes banking correspondent to offer other service (e.g. Basix tied-up with Citibank to extend savings products to its clients)

2.7.3 Accept Risk

If occurrence and impact of a risk is within an acceptable limit OR the probably loss is minor relative to the cost of controlling the risk, the most common strategy would be to ‘tolerate the risk’. Acceptance means accepting the consequences and can be active (by developing a contingency plan to execute should the risk event occur) or passive (by accepting the lower profit if some events occur). The exposure arising from the risk may be tolerable without any further action being taken. In many cases risks will have to be tolerated as the ability to do anything about some risks may be limited or the cost of taking action may be disproportionate to the potential benefit to be gained. If the option to tolerate a risk is taken, it may be possible to supplement such action by putting contingency plans in place to handle the impacts that would arise if the risk was to emerge. Risks that are tolerated should always be monitored. If risks are “controlled” by tolerating them, it is essential that all relevant parties are fully aware of the risks and their potential impact.

Some common examples of tolerating the risks are as follows:

- Monitoring release/use of stationery, forms, brochures
- Credit operations involve accepting some loan loss
- Accepting some drop-out of clients in each cycle of loan
- Allowing branch managers to incur expenses and operate bank accounts under a prescribed limit (e.g. CMC gives only Rs.1500 per month to Branch Managers for petty expenses. Other expenses of the branch, such as staff salaries, travelling bills, office rent, etc. are directly paid by the Head Office)

2.7.4 Control/Mitigate Risk

If the likelihood of occurrence of a risk is high, impact is medium to low and the cost to manage it in-house is moderate to low as well, the most common strategy would be to ‘treat the risk’. In such cases, actions are taken to control the risks in some way where they either reduce the likelihood of the risk developing or limit the impact on the MFI to acceptable levels. This method of addressing risk is by far the most common approach that is adopted. The main way of dealing with the risk by this method is by the introduction of controls so the risk is reduced to an acceptable level.

When risks relate to the core business of the MFI, they are mostly controlled internally. The most common risks faced by MFIs that are controlled internally are as follows:

- Credit risk
- Fraud risk
Selection of the appropriate response – avoidance, acceptance, control/reduction, or transfer/sharing – to the risks identified is a critical part of the risk management process. The responses are selected in accordance with the risk limitations established by the board of directors based on the profile of each risk that is arrived by evaluating each risk against two dimensions – probability of occurrence of risk and impact of risk. Consistency in organisational response to the various risks identified is the key to risk management. Figure 7 below depicts a simple but highly effective risk response grid with acceptable risks highlighted mostly in green, risks to be avoided are mostly highlighted in red, and risks to be reduced or shared highlighted in various shades of yellow.

### Table 7: Risk response strategy

<table>
<thead>
<tr>
<th>Impact</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rare</td>
<td>1</td>
</tr>
<tr>
<td>Unlikely</td>
<td>2</td>
</tr>
<tr>
<td>Moderate</td>
<td>3</td>
</tr>
<tr>
<td>Likely</td>
<td>4</td>
</tr>
<tr>
<td>Almost Certain</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 Catastrophic</th>
<th>Transfer risk</th>
<th>Transfer but monitor risk</th>
<th>Add rigorous controls</th>
<th>Avoid OR add rigorous controls</th>
<th>Avoid risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Major</td>
<td>Transfer risk</td>
<td>Transfer but monitor risk</td>
<td>Transfer OR add rigorous controls</td>
<td>Avoid OR add rigorous controls</td>
<td>Avoid OR add rigorous controls</td>
</tr>
<tr>
<td>3 Moderate</td>
<td>Accept but monitor OR Transfer risk</td>
<td>Accept but monitor OR Transfer risk</td>
<td>Transfer OR add reasonable controls</td>
<td>Transfer OR add rigorous controls</td>
<td>Add rigorous controls</td>
</tr>
<tr>
<td>2 Minor</td>
<td>Accept risk</td>
<td>Accept risk</td>
<td>Accept with strong monitoring</td>
<td>Moderate control required</td>
<td>Reasonable control required</td>
</tr>
<tr>
<td>1 Insignificant</td>
<td>Accept risk</td>
<td>Accept risk</td>
<td>Accept risk</td>
<td>Accept but monitor OR little control</td>
<td>Moderate control required</td>
</tr>
</tbody>
</table>

2.8 Risk Trade-offs

It is nearly impossible and not even advisable, given the cost, to eliminate all the potential risks to an organisation. Risks hardly get completely eliminated from the business environment. Any effort to address one risk gives rise to some other form of risk(s). A risk trade-off occurs when one type of risk is substituted for one or more other types of risk(s), which are in acceptable limits.

Not all type of risk trade-offs are made for the purpose of reducing the MFI’s risk exposure or impact in some way. The trade-off is also made when the cost of controlling the substitute risk(s) is far less than the original risk, even in the case where the substitute risk may have the same frequency and severity indices as the risk being traded off. Sometimes, a risk trade-off is made even though it neither improves the risk profile nor reduces the cost of mitigation. In such cases, the mitigation strategy prompts the trade-off, as certain mitigation tactics may be better performed by the MFI than others, or vice versa.

Some of the examples of risk trade-offs are given below:

- By linking its clients to an insurance company, MFI shifts credit, actuarial and operational risks and in turn accepts reputation and counterparty risk

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13 The diagram and its explanation is adapted from: Julie A. Gerschick, Reflections And Learnings, Shorecap Exchange’s Risk Management Forum, December 2004 (pg. 18).
Attempts to mitigate the competitive risk in turn may increase operational and credit risks
The group lending methodology may reduce credit risk but may increase social mission drift risk, as the poorest may be excluded from the groups
Offering voluntary saving product may reduce competitive, social mission and dependency risks but may increase liquidity, operational and reputation risks

2.9 Risk Management and the Need for Balance

While risk trade-offs are often made to keep the risk profile or cost of controlling risks in check, the trade-offs are not always determined by these two factors. The decision of risk trade-offs or establishing any control mechanism is a good balancing act. Good risk management is also about creating and maintaining a healthy balance between customers’ convenience and organizational safety, between value for customers and value for shareholders, between flexibility in the system and cost efficiency, and between profitability and risk averseness (as illustrated in the figure below).

Figure 7: Risk trade-off and the need for balance

Customers’ Convenience ——> Organization’s Safety
Value for Customers ——> Value for Shareholders
Flexibility…Standardization ——> Profitability
Cost Efficiency ——> Risk Averseness

Establishing an MFI’s threshold limits for risk ultimately depends on the Risk Appetite of the Board. This is determined by how much of an MFI’s capital and reputation the board of directors is willing to put at risk of loss/gain for those risks that management can control — e.g. credit risk, liquidity, and operational risk. While some of these criteria are dictated by regulatory authorities, financial institutions typically have leeway to refine regulatory requirements to further define their own risk appetite.

2.10 The BASEL II and CAMELS Risk Monitoring and Rating Tools

2.10.1 Basel Committee on Banking Supervision: A Revised Framework (Basel II)

In Basel II, supervision of capital adequacy is approached from a risk-sensitive perspective to promote the adoption of stronger risk management practices in banks. The Framework is constructed around three pillars: minimum capital requirements, supervisory review, and market discipline. It is in the second pillar, the supervisory review, that encourages banks to develop and use better risk management techniques in monitoring and managing their risks.

The key principles of the second pillar, the supervisory review, are risk management guidance and supervisory transparency. Basel II explicitly places responsibility on bank management to ensure that banks have adequate capital to support their risks, as well as a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

This is accomplished in five steps:

1. Board and senior management oversight
   a. Bank management is responsible for:
      • understanding the nature and level of risk being taken by the bank and how this risk relates to adequate capital levels and

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14 This section is adapted from: Julie A. Gerschick, Reflections And Learnings, Shorecap Exchange’s Risk Management Forum, December 2004 (pg. 7)
15 This note is exclusively from MicroSave’s “Institutional and Product Development Risk Management Toolkit” (Pikholz 2005).
ensuring that the formality and sophistication of the risk management processes are appropriate in light of the risk profile and business plan.

b. The bank’s board of directors has responsibility for:
- setting the bank’s tolerance for risk;
- ensuring that management establishes a framework for assessing the various risks, develops a system to relate risk to the bank’s capital level, and establishes a method for monitoring compliance with internal policies; and
- adopting and supporting strong internal controls and written policies and procedures and ensures that management effectively communicates these throughout the organisation.

2. Sound capital assessment
- Policies and procedures designed to ensure that the bank identifies, measures, and reports all material risks;
- a process that relates capital to the level of risk;
- a process that states capital adequacy goals with respect to risk, taking account of the bank’s strategic focus and business plan; and
- a process of internal controls, reviews and audit to ensure the integrity of the overall management process.

3. Comprehensive assessment of at least these risks: Credit, operational, market, interest rate, liquidity, other (strategic, reputation).

4. Monitoring and reporting: Board and senior management receive reports on the bank’s risk profile and capital needs.

5. Internal control review: The bank should conduct periodic reviews of its risk management process to ensure its integrity, accuracy, and reasonableness.

2.10.2 CAMELS Risk Monitoring and Rating Tool

One of the main functions of classical risk management is to protect and help ensure the financial viability and managerial soundness of an organisation. Historically, banks have waited for external reviews by regulators to point out problems and risks, and then acted on those recommendations. In today’s fast changing financial environment, regulators are often left analysing the wreckage only after a bank has had a financial crisis. To foster stronger financial institutions, the revised CAMELS approach among US regulators emphasises the quality of internal systems to identify and address potential problems quickly. The North American bank regulators adopted the CAMELS methodology to review and rate six areas of financial and managerial performance: Capital Adequacy, Asset Quality, Management, Earnings, Liquidity Management, and Sensitivities. If any of these six areas are not managed adequately, risk to the financial and managerial soundness of the financial institution is threatened. For example, not managing the loan portfolio (the biggest asset base of MFIs) results in credit risk; poor cash flow planning increases liquidity risk.

MFIs should use CAMELS, not only for their regulators (if applicable), but as a tool to help monitor and manage risk in the organisation. It is one of the most valuable tools from the formal banking sector that MFIs could integrate into their organisations. It relies on accurate financial statements, budgets and cash flow projections, portfolio aging schedules, information on funding sources, the board of directors, operations and staffing and macroeconomic information.

CAMELS is certainly a risk management tool that MFI senior managers and directors should concern themselves with, especially if they ever want to raise capital from commercial markets. The main elements are explained below:

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16 This section is almost exclusively from ACCION CAMEL Technical Note, published by Sonia Salzman and Darcy Salinger of ACCION International, September 1998. ‘Sensitivity’ has been broadened from the US Federal Reserve definition to be more appropriate for MFIs.
(1) **Capital Adequacy:** The objective of capital adequacy is to measure the financial solvency of a MFI by determining whether the risks it has incurred are adequately offset with capital and reserves to absorb potential losses. Can the MFI support both the growth of the loan portfolio and a potential deterioration in assets? Can it raise equity in case of losses? What are its policies to establish reserves against the risk inherent in its operations?

(a) One indicator is **leverage**, which illustrates the relationship between the risk weighted assets of the MFI and its equity.
(b) Another indicator, **ability to raise equity**, is a qualitative assessment of a MFI’s ability to respond to a need to replenish or increase equity at any given time.
(c) A third indicator, **adequacy of reserves**, is a quantitative measure of the MFI’s loan loss reserve and the degree to which the institution can absorb potential loan losses.

(2) **Asset Quality:** For a regular bank, the objective of asset quality analysis is to identify, measure and manage/control the quality of existing and potential credit risk associated with the loan and investment portfolios, other real estate owned assets, and other assets as well as off-balance sheet transactions. For a MFI, the analysis of asset quality is divided into three components:

(a) **Portfolio quality** includes two quantitative indicators: **portfolio at risk**, which measures the portfolio past due over 30 days; and **write-offs/write-off policy**, which measures the MFI’s adjusted write-offs based on CAMELS criteria.
(b) **Portfolio classification** system entails reviewing the portfolio’s aging schedules and assessing the institution’s policies associated with assessing portfolio risk.
(c) Under **fixed assets**, one indicator is the **productivity of long-term assets**, which evaluates the MFI’s policies for investing in fixed assets. The other indicator concerns the institution’s **infrastructure**, which is evaluated to determine whether it meets the needs of both staff and clients, such as the MIS.

(3) **Management:** Five qualitative indicators make up this area of analysis:

(a) **Governance** focuses on how well the institution’s board of directors functions, including the diversity of its technical expertise, its independence from management, and its ability to make decisions flexibly and effectively.
(b) The second indicator, **human resources**, evaluates whether the department of human resources provides clear guidance and support to operations staff, including recruitment and training of new personnel, incentive systems for personnel, and the performance evaluation system.
(c) The third indicator, **processes, controls, and audit**, focuses on the degree to which the MFI has formalised key processes and the effectiveness with which it controls risk throughout the organisation, as measured by its control environment and the quality of its internal and external audit.
(d) The fourth indicator, **information technology system**, assesses whether computerised information systems are operating effectively and efficiently, and are generating reports for management purposes in a timely and accurate manner. This analysis reviews the information technology environment and the extent and quality of the specific information technology controls.
(e) The fifth indicator, **strategic planning and budgeting**, looks at whether the institution undertakes a comprehensive and participatory process for generating short- and long-term financial projections and whether the plan is updated as needed and used in the decision-making process.

(4) **Earnings:** Three quantitative and one qualitative indicators are chosen to measure the profitability of MFIs:

(a) **Adjusted return on equity (ROE)** measures the ability of the institution to maintain and increase its net worth through earnings from operations.
(b) **Operational efficiency** measures the efficiency of the institution and monitors its progress toward achieving a cost structure that is closer to the level achieved by formal financial institutions.
(c) **Adjusted return on assets (ROA)** measures how well the MFI’s assets are utilised, or the institution’s ability to generate earnings with a given asset base.

(d) CAMELS analysts also study the MFI’s **interest rate policy** to assess the degree to which management analyses and adjusts the institution’s interest rates on loans (and deposits if applicable), based on the cost of funds, profitability targets, and macroeconomic environment.

(5) **Liquidity Management:** The MFI’s ability to accommodate decreases in funding sources and increases in assets and to pay expenses at a reasonable cost is evaluated using the following indicators:

(a) **Liability structure:** Review the composition of the institution’s liabilities, including their tenure, interest rates, payment terms, and sensitivity to changes in the macroeconomic environment. The types of guarantees required on credit facilities, sources of credit available to the MFI, and the extent of resource diversification are analysed as well. This indicator also focuses on the MFI’s relationship with banks in terms of leverage achieved based on guarantees, the level of credibility the institution has with regard to the banking sector, and the ease with which the institution can obtain funds when required.

(b) **Availability of funds to meet credit demands** measures the degree to which the institution has delivered credit in a timely and agile manner.

(c) **Cashflow projections** evaluate the degree to which the institution is successful in projecting its cash flow requirements. The analysis looks at current and past cash flow projections prepared by the MFI to determine whether they have been prepared with sufficient detail and analytical rigor and whether past projections have accurately predicted cash inflows and outflows.

(d) **Productivity of other current assets** focuses on the management of current assets other than the loan portfolio, primarily cash and short-term investments. The MFI is rated on the extent to which it maximises the use of its cash, bank accounts, and short-term investments by investing in a timely fashion and at the highest returns commensurate its liquidity needs.

(6) **Sensitivity:** Sensitivity refers to planning for the ‘what if’ scenarios, for example: what if the interest rate goes up by a percentage point?; what happens to the liquidity and credit risk etc.?; or What happens to earnings?
An Overview of Internal Control Systems
3 An Overview of Internal Control Systems

3.1 Introduction to Internal Control

3.1.1 What is the Next Step?

The next step (third) is ‘Develop Tactics to Control Risks’. After the selection of broad strategies to manage risks, the management needs to adopt a range of tactics to carry out the strategies. Adopting these tactics is basically introducing a system of internal controls and monitoring tools that ensure, where possible, the risks do not exceed acceptable levels, and wherever they do exceed allowed thresholds that the likely impacts are minimised.

3.1.2 What is Internal Control?

Internal Control refers to all the methods and procedures adopted by the management of an entity to assist in achieving management’s objectives of ensuring, as far as practical, the orderly and efficient conduct of its business. Internal control is the integration of the activities, plans, attitudes, policies, and efforts of the people of an organisation working together to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies. It is a means by which an organisation's resources are directed, monitored, and measured.

The definitions above recognise that a system of internal control extends beyond matters relating directly to accounting and financial systems and is comprised of control environments (mission, board, organisational structures, policies, etc.), control measures and much more.

These definitions establish that internal control impacts every aspect of an organisation - all of its people, processes, and physical structures. It is a basic element that permeates an organisation and incorporates the qualities of good management and is dependent upon people and will succeed or fail depending on the attention people give to it.

The above definitions of Internal Control may appear to be too technical, so what does it mean in layman's terms? Perhaps it is easiest to think of how each of us has developed what we can call our ‘Personal Internal Control System’. Consider the following:

- Do you lock the doors of your house when you leave for your work place? If you do, that's your own “internal control” to safeguard the assets you own.
- Do you keep the PIN number for your ATM card in a safe place (i.e. away from the card itself)? If you do, that is an internal control to protect your funds from being stolen.
- Do you check the transactions and balance of your bank account each month? If you do, that is an internal control to protect your account against errors and omissions.
- Do you prepare a monthly budget for your household? If you do, that is an internal control to protect your funds from unnecessary expenses.

There are many such examples in our daily lives. The above examples show that all of us are Internal Control Users, even though we may not realise it and do not bother about definitions and terminology.

17 Source: SAP 6, issued by the Institute of Chartered Accountants of India

MicroSave: Market-led solutions for financial services
3.1.3 COSO’s Definition of Internal Control

Though there are many definitions of Internal Control, but the most refereed definition comes from ‘The Committee of Sponsoring Organizations of the Treadway Commission’ (COSO). COSO defines Internal Control as a process, affected by an entity’s board of directors, management and other personnel. This process is designed to provide reasonable assurance regarding the achievement of objectives in effectiveness and efficiency of operations, reliability of financial reporting, and compliance with the applicable laws and regulations. The definition involves several key concepts, which are as follows:

1. Internal control is a process. It is a means to an end, not an end in itself.
2. Internal control is not merely documented by policy manuals and forms, but rather, is implemented by people at every level of an organisation.
3. Internal control can provide only reasonable assurance, not absolute assurance, to an entity’s management and board.
4. Internal control is geared to the achievement of objectives in one or more separate but overlapping categories.

3.2 Objectives and Purposes of Internal Controls

By explaining the purpose and objectives, this will also help to understand the scope and utility of Internal Controls in an organisation. Control systems are put in place so that everyone in the organisation knows what has to be done in order for the organisation to achieve its goals and are basically a system of checks and balances that establish the how, why, what, where and when of any actions. According to the Internal Control Framework defined by the Basel Committee, the main objectives of the Internal Control process can be broadly categorised into (i) Performance Objectives, (ii) Information Objectives, and (iii) Compliance objectives. 18

1. **Performance Objectives:** Pertain to the effectiveness and efficiency of the bank in using its assets and other resources and protecting the bank from loss. The process seeks to ensure that business is prudently planned and profitable/sustainable and the assets are safeguarded and the liabilities are controlled. This works towards prevention, detection and correction of frauds and errors and ensures that the personnel throughout the organisation are working to achieve the bank’s goals with efficiency and integrity, without unintended or excessive cost or placing other interests (such as an employee’s, vendor’s or customer’s interests) before those of the bank.

2. **Information Objectives:** Address the issue of preparation of timely, accurate, complete, reliable, and relevant reports needed for decision-making within the banking organisation. It includes annual accounts, other financial statements and other financial-related disclosures and reports to shareholders, supervisors, and other external parties. The information received by management, the board of directors, shareholders and supervisors should be of sufficient quality and integrity that recipients can rely on the information in making decisions. The term reliable, as it relates to financial statements, refers to the preparation of statements that are presented fairly and based on comprehensive and well-defined accounting principles and rules.

3. **Compliance Objectives:** Ensure that all banking business complies with all applicable laws and regulations, supervisory requirements, and the organisation’s policies and procedures. This objective must be met in order to protect the bank’s mission, franchise and reputation.

3.3 Busting Myths about Internal Control

There are many popular misconceptions about Internal Controls, and some of these are presented in Table 8 below with corresponding facts.

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18 The Committee of Sponsoring Organizations of the Treadway Commission (COSO) is a voluntary private-sector organization, established in the United States in 1985, dedicated to providing guidance to executive management and governance entities on critical aspects of organizational governance, business ethics, internal control, enterprise risk management, fraud, and financial reporting. Based on these principles, they developed and published the COSO framework in 1992 as a foundation for establishing internal control systems and determining their effectiveness. [www.coso.org](http://www.coso.org)

19 Framework for Internal Control Systems In Banking Organisations, Basle Committee on Banking Supervision, September 1998
Table 8: Internal Controls: Myths and Facts

<table>
<thead>
<tr>
<th>MYTHS</th>
<th>FACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Control starts with a strong set of Policies and Procedures.</td>
<td>Internal Control starts with a strong Control Environment.</td>
</tr>
<tr>
<td>We know the need of Internal Control, that’s why we have Internal Auditors!</td>
<td>While Internal Auditors play a key role in the control system, management is the primary owner of Internal Control.</td>
</tr>
<tr>
<td>Internal Control is a finance thing. We do what the Finance Department tells us to do.</td>
<td>Internal Control is integral to every aspect of business.</td>
</tr>
<tr>
<td>Internal controls are essentially negative, like a list of &quot;thou shall nots&quot;.</td>
<td>Internal control makes the right things happen the first time, and every time.</td>
</tr>
<tr>
<td>Internal controls are a necessary evil. They take time away from our core activities of designing products, selling, and serving clients.</td>
<td>Internal Controls should be built into, not onto, business processes.</td>
</tr>
<tr>
<td>With decentralisation and devolution of authority, we have to give up a certain amount of control.</td>
<td>With decentralisation and devolution of authority, we need different forms of control.</td>
</tr>
<tr>
<td>If controls are strong enough, we can be sure there will be no fraud, and financial statements will be accurate.</td>
<td>Internal controls provide reasonable, but not absolute, assurance that the organisation’s objectives will be achieved.</td>
</tr>
</tbody>
</table>

Over the years, the concept and scope of Internal Control has evolved and undergone many changes. The key changes are presented in Table 9 below.

Table 9: Internal Controls: Old and New Paradigm

<table>
<thead>
<tr>
<th>OLD PARADIGM</th>
<th>NEW PARADIGM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only Auditors and Treasury are concerned about risks/controls</td>
<td>Everyone, including operations are concerned about risks/controls</td>
</tr>
<tr>
<td>Fragmentation – Every function and department does its own thing (&quot;Silo Management&quot;)</td>
<td>Business risks and control are focused and coordinated with senior level oversight</td>
</tr>
<tr>
<td>No business risk control policy</td>
<td>Formal business risk control policy, approved by management/board</td>
</tr>
<tr>
<td>‘Inspect’ for and ‘Detect’ business risks and ‘React’ to it</td>
<td>‘Anticipate’ and ‘Prevent’ business risks at the source and monitor controls continuously</td>
</tr>
<tr>
<td>Ineffective ‘people’ are primary source of business risk</td>
<td>Ineffective ‘processes’ are primary source of business risk</td>
</tr>
</tbody>
</table>

3.4 Framework of Internal Control

In many cases, we perform Internal Controls and interact with a formal Internal Control structure every day, perhaps without even realising it. The most commonly used framework of Internal Control is the one provided by COSO, which consists of five inter-related components: the control...
environment, risk assessment, control activities, monitoring, and information & communications. The same framework has also been used by the Basel Committee (See Handout 4.1). Each of these components is an integral part of the management process.

Figure 8: COSO’s Framework of Internal Control

1. Control Environment: Also referred to as ‘general control environment’, is the atmosphere created by the people of an organisation. The control environment is the foundation for all other components of internal control, providing discipline and structure. The factors of a control environment include integrity levels, ethical values and competence of the people; management’s philosophy and operating style; the way management assigns authority and responsibility, and organises and develops its people; and the attention and direction provided by the board of directors.

- Ethical Values and Integrity – Ethical Values and Integrity are essential elements of a control environment as they affect the design, administration and monitoring of other Internal Control components. Merely having a written document on ‘Values’ will not help, so the effectiveness of an entity’s control environment depends primarily on management’s actions.
  
  o Examples include commitment to honesty and fairness, recognition of an adherence to laws and policies, respect for the organisation, commitment to excellence, respect for authority, respect for employees’ rights, and conformance to professional standards.

  o Management encourages integrity by: setting a good example, establishing and publishing a code of conduct, complying with the organisation’s ethical values and code of conduct, rewarding employee commitment to the organisation’s ethical values, establishing methods for reporting ethical violations, and consistently enforcing disciplinary practices for all such violations.

- Competence – The characteristic of people who have the skill, knowledge, ability and tools to perform a task. Management must ensure that staff members possess the knowledge, skills and ability necessary to do their jobs. Management must ensure that staff members have what they need – such as equipment, software and policy and procedure manuals. Management should reflect a commitment to: establishing levels of knowledge and skill required for every position; verifying the qualifications of job

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22 This section has been adapted from Executive Summary - “Internal Control - Integrated Framework”, available at http://www.coso.org/IC-IntegratedFramework-summary.htm

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candidates; hiring and promoting only those with the required knowledge and skills; and establishing training programs that help employees increase their knowledge and skills.

- **Management Operating Style and Philosophy** – Actions reflect management’s basic beliefs regarding how the people and the activities of an organisation should be managed. There are many styles and philosophies – none are inherently right or wrong; some may be more effective than others. Elements affecting an organisation’s philosophy and style include the degree to which management is willing to accept risks, the degree of economic or regulatory control imposed by others, and the attitudes toward reporting (both financial and programmatic) and accountability.
  
  - Morale – The attitude people have about their work, as exhibited by their confidence, their discipline, enthusiasm and their willingness to perform tasks. Management is responsible to maintain good morale. Staff should have the sense that their opinions and contributions are welcomed, valued and recognised; the organisation is willing to help improve their level of competency; there is opportunity for continuous improvement; they have a stake in the mission, goals and objectives of the organisation; and the lines of communication are open.
  
  - Supportive Attitude – Executive management should set a tone that emphasizes the importance of internal controls, including: ongoing education to ensure everyone understands the internal control system and their role in it; an openness to control self evaluations and internal and external audits of controls; responsiveness to issues raised as the result of the evaluations and audits; and minimal and guarded use of control overrides.

- **Organisational structure and assignment of authority and responsibility** – Organisational structure provides a framework within which the activities for achieving organisation-wide objectives are planned, executed, controlled and monitored. Significant aspects of establishing an organisational structure includes considering the key areas of authority and responsibility and lines of reporting. The assignment of authority and responsibility includes:
  
  - The establishment of reporting relationship and authorisation procedures.
  - The degree to which individuals or groups are encouraged to use initiatives in addressing issues and solving problems.
  - The establishment of limits to authority
  - Policies describing appropriate business practices
  - Resources provided for carrying out duties

Alignment of authority and accountability is often designed to encourage individual initiatives within limits. Delegation of authority means surrendering central control of certain business decisions to lower echelons. A critical challenge is to delegate only to the extent required to achieve objectives.

- **Human Resource Policies and Practices** – They affect the organisation’s ability to employ sufficient competent personnel to accomplish its goals and objectives. They include organisation’s policies and procedures for hiring, orienting, training, evaluating, counselling, promoting, compensating and taking remedial actions.

- **Attention and direction by the Board of directors** – The board of directors are responsible for setting the broad strategies and major policies of the organisation and approving the overall organisational structure. They are also responsible for establishing the appropriate culture to facilitate an effective internal control process and continuously monitoring its effectiveness. The board of directors should include in its activities (1) periodic discussions with management concerning the effectiveness of the internal control system, (2) a timely review of evaluations of internal controls made by management, internal and external auditors, and (3) periodic efforts to ensure that management has appropriately followed up on recommendations and concerns expressed by auditors and supervisory authorities on internal control weaknesses.

2. **Risk Assessment**: This refers to the first step in the Risk Management Feedback Loop (identify, assess and prioritise risk). A precondition to risk assessment is the establishment of management’s objectives, linked at different levels and internally consistent. A risk assessment will be the basis for determining how a particular
risk should be managed, and the methodology followed to determine the relative susceptibility of programmes or functions to conscious or unintended abuse/misuse of systems or resources. Since economic, industry, regulatory and operating conditions will continue to change, mechanisms are needed to identify and deal with the special risks associated with change.

3. **Control Activities**: Control activities are the policies and procedures that help ensure management directives are carried out. They help ensure that necessary actions are taken to address risks so that the organisation achieves its objectives. Control activities occur throughout the organisation, at all levels and in all functions. They include a range of activities as diverse as approvals, authorisations, verifications, reconciliations, reviews of operating performance, security of assets, segregation of duties, etc. The following should be considered for employing any control activity:

- The cost of the control activity should not exceed the cost incurred if the undesirable event occurred;
- Build control activities into business processes and systems while designing them; and
- The distribution of resources among the control activities should be based on the significance and likelihood of the risk it is preventing or reducing.

4. **Monitoring**: Internal Control systems need to be monitored—a process that assesses the quality of the system's performance over time. This is accomplished through ongoing monitoring activities and separate evaluations by central units, internal audit, or other independent parties. Ongoing monitoring occurs in the course of operations. It includes regular management and supervisory activities, and other actions personnel take in performing their duties. The scope and frequency of separate evaluations will depend primarily on the assessment of risks and the effectiveness of the ongoing monitoring procedures. Internal Control deficiencies should be reported upstream, with serious matters reported to top management and the board.

5. **Information and Communication**: Pertinent information within the organisation must be identified, captured and communicated in a form and timeframe that enable the people to carry out their responsibilities. The information system should produce reports, containing operational, financial and compliance related information that make it possible to run and control the business. The system should not only contain internally generated data, but also information about external events, activities and conditions necessary for informed business decision-making and external reporting. Effective communication also must occur in a broader sense, flowing down, across and up the organisation. All personnel must receive a clear message from top management that control responsibilities must be taken seriously. They must understand their own role in the Internal Control System, as well as how individual activities relate to the work of others. They must have a means of communicating significant information upstream. There also needs to be effective communication with external parties, such as customers, suppliers, regulators and shareholders.

There are synergies and linkages among these components, forming an integrated system that reacts dynamically to changing conditions in which an organisation operates. The Internal Control system is intertwined with the entity's operating activities and exists for fundamental business reasons. Internal Control is most effective when controls are built into the organisation's infrastructure and are a part of the essence of the enterprise. "Built in" controls support quality and empowerment initiatives, avoid unnecessary costs and enable quick response to changing conditions.

3.5 **Characteristics of Good Internal Control**

Begin this session by asking the participants that what the characteristics of a good Internal Control System are. Take down some responses on the white board and then show them the list of characteristics on the slide. Explain each of the characteristic to the participants.

(a) **Timeliness**: Controls should detect potential or actual deviations early enough to limit costly exposure, but cost effectiveness must also be considered. Managers should anticipate and provide for problems disclosed by the control system, but there are always the potential events no one considers or has no experience with, which must also be identified and dealt with in a timely manner.

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Source: CGAP Skills for Microfinance Managers course material on Operational Risk Management for Microfinance Institutions,

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(b) **Economy:** Controls should provide ‘reasonable assurance’ of achieving the intended results at a minimum cost and with the fewest undesirable side effects. Absolute control may be possible (though unlikely), but the costs may also outweigh the benefits to be gained. Controls should pay for themselves by reducing potential losses and expenses beyond the added costs. Thus, management should compare the cost of exposures to be prevented, detected, or corrected with the cost of related controls.

The balancing of exposure and protection may not always be easy, or indeed, objectively measurable. Some controls may be mandated by considerations of safety, the environment, sensitive situations, or enhanced reputation. So, in some cases, management may need to use subjective evaluations when establishing the rigour of particular control systems.

(c) **Accountability:** Controls should help people, especially managers, demonstrate their accountability for the assigned tasks and responsibilities. Managers should therefore be aware of the purpose and operation of controls and be able to take advantage of them.

(d) **Placement:** Controls should be positioned where they are most effective. They should be implemented:

- Before an expensive part of a project.
- Before points of no (or difficult) return.
- When one phase of an operation ends and another starts.
- Where measurement is most convenient.
- When corrective action is easier to take.
- When time is left for corrective action.
- After a completed task or the completion of an error-prone activity has been identified.
- Where accountability for resources change.

(e) **Flexibility:** Circumstances are bound to change, and plans and procedures are almost sure to be altered with time. Controls that will accommodate such changes, without themselves requiring change, are preferable. Changes in controls to match operational changes tend to bring about additional confusion.

(f) **Cause identification:** Prompt corrective action is facilitated if controls identify not only the problem but also the cause. Standard responses can be prepared in advance and readily put to use if the control points to the cause of the difficulty. No corrective action is truly effective unless the cause of the defect is addressed.

(g) ** Appropriateness:** Controls should meet management’s needs. They should help achieve the objectives of management’s plans, and they should fit into the personnel and organisational structures of operations. The most efficient and useful controls are those that work on an exception basis, responding only to significant deviations.

A strong system of internal control supports the achievement of the organisation’s business objectives, and therefore, good internal control is a way of managing risk. However, risk management is much broader than internal control. In addition to supporting management’s efforts to achieve business objectives, it aligns risk management with strategy setting and aids a company’s ability to assess whether the organisation is accepting risk appropriately.

3.6 **Common Internal Control Techniques**

The following are common internal control techniques:

(a) **Segregation of duties:** The segregation of duties is critical to effective internal control and is based on the premise that a single individual should not have the authority of creation, modification, reviewing and deletion for any transaction, task or resource. The primary objective of ‘segregation of duties’ is to avoid ‘conflicts of interest’ of the persons involved in a transaction, so that while carrying out a transaction, a person is not able to:

- Conceal errors and/or irregularities
- Cause the inaccurate or incomplete reporting of financial and other information
Commit fraud, theft or other illegal acts

In this technique, the incompatible business duties and/or responsibilities are separated among different staff. It ensures that no staff person should be responsible for two or more of the following functions for a single transaction class:

- Initiate transaction,
- Approve transaction,
- Record transaction,
- Reconcile balances,
- Handle assets, such as cash, and
- Review reports

Specific examples of segregation of duties are as follows:

- The person who identifies and appraises the client should not be the person who approves the client and sanctions the loan.
- The person who requisitions the purchase of goods or services should not be the person who approves the purchase.
- The person who approves the purchase of goods or services should not be the person who reconciles the monthly financial reports.
- The person who approves the purchase of goods or services should not be able to obtain custody of cheques.
- The person who maintains and reconciles the accounting records should not be able to obtain custody of cheques.
- The person who prepares a listing of cheques received should not be the person who makes deposits in banks and maintains the Accounts Receivable records.

When these functions cannot be separated, due to inadequate staff (or cost factors), a detailed supervisory review of related activities and a periodic job rotation of staff are required as a compensating control mechanism. Periodic job rotation or transfer of staff serves as a deterrent to fraud because it requires collusion with other persons to perpetrate a fraudulent act.

(b) Authorisation, Approval and Verification: Authorisation, Approval and Verification are among the most powerful tools of Internal Control. Management authorises employees to perform certain activities and to execute certain transactions within limited parameters. In addition, management specifies those activities or transactions that need supervisory approval before they are performed or executed by employees. A supervisor’s approval implies that he or she has verified and validated that the activity or transaction conforms to established policies and procedures.

Authorisation is the delegation of authority; it may be general or specific. Giving a department permission to expend funds from an approved budget is an example of general authorisation. Specific authorisation relates to individual transactions; it requires the signature or electronic approval of a transaction by a person with approval authority. Authorisation usually comes with a cap (limit), and it varies based on types and sizes of transactions. Authorisation also serves as a guideline to define normal behaviour within the organisation, such as maximum cash on hand at a branch and protects the organisation from unauthorised transactions.

Approval of a transaction means that the approver has reviewed the supporting documentation and is satisfied that the transaction is appropriate, accurate and complies with applicable laws, regulations, policies, and procedures. Approvers should review supporting documentation, question unusual items, and make sure that the necessary information is present to justify the transaction before they sign it. Signing blank forms/cheques should never be allowed.

Approval authority may be linked to specific sizes of transactions, and transactions that exceed the specified size would require approval at a higher level. Under no circumstance should an approver tell someone that they could sign the approver’s name on behalf of the approver. To ensure proper segregation of duties, the

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person initiating a transaction should not be the person who approves the transaction. The approval levels should be specified in policies and procedures manual.

**The verification process should ensure following three elements:**
(i) **Completeness** - The objective is to ensure that no valid transactions have been omitted from the accounting records.
(ii) **Accuracy** - The objective is to ensure that all valid transactions are accurate, consistent with the originating transaction data and the information is recorded in a timely manner.
(iii) **Validity** - The objective is to ensure that all recorded transactions fairly represent the economic events that actually occurred, are lawful in nature, and have been executed in accordance with management's general authorisation.

(c) **Reconciliations:** Broadly defined, reconciliation is a comparison of different sets of data to one another, identifying and investigating differences, and taking corrective action, when necessary. For example – client visits by managers to verify loan officers follows proper lending procedures. This control activity helps to ensure the accuracy and completeness of transactions. A critical element of the reconciliation process is to resolve differences. Differences should be identified, investigated, explained and corrective action must be taken. If any expenditure is incorrectly charged, then the approver should request a correcting journal entry, and the reconciler should ascertain that the correcting journal entry was posted. Reconciliations should be documented and approved by the management.

To ensure proper segregation of duties, the person who approves transactions or handles cash receipts or bank accounts, should not perform their reconciliations. A frequency can be defined for reconciliation of some transactions, whereas, there should also be scope of surprise or unannounced reconciliations to ensure proper control.

(d) **Budgeting:** Budgeting is also one of the powerful tools of Internal Control. Budgets assure that resources are obtained and expended as planned. It can be used to monitor resource flows and point to the need for operational adjustments.

An organisational budget must be approved by the Board, and any mid-course revision in the budget must also be approved by the Board. Safeguards must be built into the accounting systems of the organisation to ensure budgetary compliance.

As far as possible, a manual override in the budget by the management should be discouraged, and if there is a likely situation of exceeding the budget by a significant amount, then the management should seek approval from the board for specific items.

(e) **Standardised procedures for problem handling:** There are many problems/errors that occur frequently in the organisation (e.g. delinquency, error in recording transactions, etc.). Such situations must be identified by the management, and a standard procedure should be framed to handle them (such as having delinquency management guidelines). This serves as a good control, as leaving the handling of such situations to the discretion of persons concerned might lead to the misuse of discretion and could also create confusion. Such troubleshooting guidelines (written and integrated in manuals) will help the organisation in efficient utilisation of time and resources and prevent misuse of authority.

(f) **Physical safeguards and security:** Liquid assets, vital documents, critical systems, and confidential information must be safeguarded against unauthorised acquisition, use, or disposition. Typically, access controls are the best way to safeguard these assets. Examples of access controls are as follows: locked door, locked filing cabinet, guard, terminal locks, computer passwords, menu protection, and data encryption.

Departments with capital assets or significant inventories should establish perpetual inventory controls over these items by recording purchases and issuances. Periodically, the items should be physically counted by a person who is independent of the purchase, authorisation and asset custody functions, and the counts should be compared to balances per the perpetual records. Missing items should be investigated, resolved, and analysed for possible control deficiencies; perpetual records should be adjusted to physical counts if missing items are not located. The following are some other common examples of physical safeguards and security control:

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• Restricted access to equipment, inventory, securities, cash and other assets
• Periodic asset counts and assessment of their physical condition and safekeeping
• Periodic comparisons and investigation of discrepancies
• Regular data file backups
• Secure document retention (both hard & soft copy)
• Physical safeguards against hazards, e.g. theft, fire, burglary etc. (through vaults, locks, dual control over sensitive assets, cameras, alarms, guards, ID cards etc.)

(g) Monitoring and review: Reviewing reports, statements, reconciliations, and other information by management is an important control activity and provides a basis for detecting problems. Management should review and monitor such information for consistency and reasonableness on an on-going basis. Management should compare information about current performance to budgets, forecasts, prior periods or other benchmarks (e.g. internal benchmark, MIX market) to measure the extent to which goals and objectives are being achieved and to identify unexpected results or unusual conditions which require follow-up. Management's routine review of reports, statements, reconciliations, and other information should be documented and should also prepare an ‘Exception Report’ (that covers the cases where policies/procedures have been overlooked or bypassed and the items to be resolved, i.e. loan disbursed without approval, forms not completed, duplicate payments etc. These steps should be done in addition to a separate evaluation conducted by Internal Auditor.

(h) Control over the information system: Organisations use a variety of information systems - local area networks (LAN) of minicomputers and personal computers, single-user workstations and personal computers, telephone systems, internet etc. The need for internal control over these systems depends on the criticality and confidentiality of the information and the complexity of the applications that reside on the systems. There are basically two categories of controls over information systems: (1) General Controls and (2) Application Controls.

General Controls
General Controls are applied to entire information systems and to all applications that reside on the systems. General Controls Include:
• Access Security, Data & Program Security, Physical Security
• Software Development & Program Change Controls
• Data Centre Operations
• Disaster Recovery

General controls consist of practices designed to maintain the integrity and availability of information processing functions, networks, and associated application systems. These controls apply to business application processing in computer centres by ensuring complete and accurate processing. These controls also ensure that:
• correct data files are processed,
• processing diagnostics and errors are noted and resolved,
• applications and functions are processed according to established schedules,
• file backups are taken at appropriate intervals,
• recovery procedures for processing failures are established,
• software development and change control procedures are consistently applied, and
• actions of computer operators and system administrators are reviewed.

Additionally, these controls ensure that physical security and environmental measures are taken to reduce the risk of sabotage, vandalism and destruction of networks and computer processing centres. Finally, these controls ensure the adoption of disaster planning to guide the successful recovery and continuity of networks and computer processing in the event of a disaster.

Application Controls
Applications are the computer programs and processes, including manual processes, that enable us to conduct essential activities; buying products, paying people, accounting for costs, and forecasting and
monitoring budgets. They are applied to computer application systems and include input controls (e.g. edit checks), processing controls (e.g. record counts), and output controls (e.g. error listings) that are specific to individual applications. Application Controls include:

- Input Controls (Data Entry)
- Authorisation
- Validation
- Error Notification and Correction
- Processing Controls
- Output Controls

Application controls consist of the mechanisms in place in each separate computer system that ensures authorised data is completely and accurately processed. They are designed to prevent, detect, and correct errors and irregularities as transactions flow through the business system. The controls also ensure that the transactions and programs are secured, the systems can resume processing after business interruptions, all transactions are corrected and accounted for when errors occur, and the system processes data in an efficient manner.

### 3.7 Types of Internal Control

Based on the specific intent of the Internal Control techniques, the types of internal control can broadly be classified into three categories:

(i) **Preventative and directive controls**: Preventative Controls are designed to discourage errors or irregularities from occurring and provides reasonable assurance that only valid transactions are recognized, approved and submitted for processing. Many of the preventive techniques are applied BEFORE the processing activity occurs (for example, separation of duties, proper authorisation, adequate documentation, and physical control over assets).

Directive Controls are applied to prevent undesirable events by encouraging good behaviour (for example, incentives, recognition, training etc.).

(ii) **Detective controls**: Detective Controls are designed to provide reasonable assurance that errors and irregularities are discovered for correction on a timely basis. They provide evidence that a loss has occurred but do not prevent a loss from occurring. Detection techniques are performed AFTER processing has been completed. Examples of detective controls are reviews, analyses, variance analyses, reconciliations, checking of physical inventories, internal audit etc.

(iii) **Corrective controls**: Corrective Controls are designed to fix errors or irregularities after they are detected. For example, a Transfer Expenditures Request form is completed, properly approved, and sent to Finance to move an expense to the proper account.

**Exercise**: After explaining the types of Internal Controls, give the participants a matching exercise to be done in a group. Divide the participants into groups of 3 – 4 persons each (depending on the total number of participants, their level of confidence and experience).

For this exercise, a two-page sheet is given to each group of participants. The first sheet contains a list of actions taken by an MFI for internal control. The second sheet has a semi-filled table. Each group is supposed to put appropriate actions (from the list on first page) in the column ‘Example’ against each ‘Control Technique’ listed in the table (on the second sheet). Groups should also specify the ‘Control Type’ for each control technique in the last column of the table.

### 3.8 Developing Strategies to Mitigate Risks

How does one minimise risks to the desired degree? In order to manage a risk, one must first determine what can cause the risk event to occur, often called risk drivers, and the risk management tactics should be focused on eliminating or controlling the ability of these factors to exist within the MFI.
Each risk requires very different responses, and failure to identify the risk driver correctly will result in tactics that are not effective or are possibly even harmful. When a risk is being managed, it is likely that the symptoms, or conditions that indicate the existence of the risks, will subside. In this manner, the improved symptoms can become indicators that risk exposure is reduced.

While this is reassuring, reduced symptoms does not fully answer the question, “Have we managed this risk sufficiently?” Performance measured by selected indicators and compared with the desired threshold tells you how well you are managing that risk. Without data capture, one cannot manage risk and cannot devise appropriate effective controls.

Risks can be measured quantitatively and/or qualitatively, and both types of measurements are needed in order to provide balance. The indicators must be relevant to what is to be measured, and one should know why the activity is being measured. One must also define who will measure the activity, where will it be measured, and how it will be measured. The measurements selected should be objective, verifiable, and valid.

Once you have decided on the appropriate measure(s), one then sets the threshold to meet MFI’s risk tolerance. One should note that controls have a cost/benefit component. One may accept risk exposures to approach specified levels, but after surpassing the predetermined level, one must take further corrective action. For example, a common measure of credit risk is the portfolio at risk (PAR) ratio. If the MFI’s credit risk tolerance is a PAR30 of 4%, and the current PAR30 ratio now measures 4.2%, then the MFI will start examining the credit risk drivers and delve more deeply into the causes, perhaps by sector, geography, loan officer, region, client payment patterns, in order to revise its tactics to produce the desired results – reducing PAR30 to under 4%.

If one finds that a risk trend is not decreasing and is still operating outside of the desired thresholds, then the identified drivers just be re-examined. An MFi may in fact have not identified the real cause (driver) of the risk event, meaning the tactics are not effective in controlling the risk event.

If establishing the indicators and thresholds for the first time, one will need to measure the current exposure first. This becomes the baseline for the indicator from which one can tell if the exposure is going up or down or is stable. As the risk programme matures, the MFI can modify the thresholds so they become the desired measure, not the actual measure.

### 3.8.1 Selecting Cost Effective Controls

Effective risk management requires that one makes explicit choices and decisions that must be revisited repeatedly during the course of doing business. The cost of introducing a particular control like a new software package might not be justified from a cost-benefit point of view for addressing one risk but could be justified if it is able to address many other risks at minimal marginal cost.

The matrix tool below helps managers understand the benefit of implementing and/or prioritising a particular control or risk management system, relative to its costs, and to map out the risks and controls as in the chart below. If a particular control measure (like Control # 2 in Table 10 below) can help reduce a number of high priority risks in the organisation, it probably makes sense to introduce it.

<table>
<thead>
<tr>
<th>Proposed Control Enhancements</th>
<th>Risk 1</th>
<th>Risk 2</th>
<th>Risk 3</th>
<th>Risk 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control 1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control 2</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Control 3</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

High Overlap, therefore may be pursued first

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As part of the process of identifying mitigation tactics, or internal controls, the MFI must ensure that the chosen controls are not more costly than the potential cost to the MFI if no controls were put in place. It is common sense that only cost-effective internal controls should be selected. Cost-effective controls are those measures that offer the maximum risk reduction for the least cost. The steps and calculations below are tools to assist the MFI in balancing the anticipated benefits of reducing identified risks with the cost of controlling them:

1. For each risk event, evaluate the potential loss to the MFI in terms of probability and impact.
2. Identify potential mitigation tactics (controls) to reduce or eliminate the risk.
3. Assess direct costs and indirect costs (opportunity costs of foregone business) to implement tactic.
4. Compare costs of implementing controls (3) with the anticipated benefits (1).
5. Select and implement tactics that add the most value relative to the composite costs.

A second methodology to test the cost/benefit of a mitigation tactic is to calculate the risk reduction leverage, where:

\[
\text{Risk Reduction Leverage} = \frac{\text{Expected Loss (Before)} - \text{Expected Loss (After)}}{\text{Cost}}
\]

If the leverage calculated is less than 1.0, then the cost is more than the benefit. The MFI can choose one of two options:
- Do nothing, i.e. accept the risk, or
- Continue looking until another tactic whose benefits exceed its costs of implementation is found.

If more than one alternative tactic is available and if the leverage for both is calculated to be greater than 1, the MFI would likely choose the plan with the greatest leverage. Sometimes the cost of implementing and executing the tactic may be expressed in monetary terms, but the benefit may be expressed in time. To proceed, one can convert the time units into a monetary equivalent.

### 3.8.2 Evaluating the Effectiveness of Internal Controls

Evaluating the MFI’s internal control system is not simply the role of the internal (or external) auditor but is an overall board and management responsibility, requiring full understanding and appreciation and answering the following questions:

- Why is it necessary to evaluate internal controls?
- If it is necessary, how often should it be done?
- If systems are found in good order, how soon is it necessary to review them again?

The answers lie with the human factor. Monitoring, checking and reviewing employee performance sends the message that performance matters. On the whole, individuals are less likely to take short-cuts or deviate from standard procedures if they know that their work will be reviewed. The overall process of evaluating internal controls encompasses the following steps:
Figure 9: Steps to evaluate Internal Control

1. Obtain a description of the system (e.g. conduct tests of transactions, complete an internal control questionnaire, prepare a narrative description of the system or prepare a flow chart of the system). Handout 4.3 - Internal Control Questionnaire – can help in this evaluation process. MicroSave’s Toolkit - “Institutional and Product Development Risk Management” (Pikholz, 2005) includes numerous Internal Control Questionnaires for other operating processes in Attachment 7 of the toolkit.

2. Evaluate the controls provided by the system (often carried out concurrently with the first step – flow charts are very helpful). The COSO Internal Control Framework, and its five components, can be used as a standard or measure for an effective system, answering:
   - How does your MFI rate against the standard?
   - What are the strengths and weaknesses of the accounting system?
   - Do the written policies or procedures illustrate principles of good internal control?
   - Do procedures demonstrate strong internal control practices?
   - Where are the potential risks?

3. Determine whether the prescribed system is being carried out (observation, review of records, checks and verifications, interviews). Accounting policies, knowledge or written control procedures are only effective if they are relevant and if in fact they are being carried out. This step should answer where are the gaps between what should be taking place with what is actually taking place. Handout 4.4 provides an “Internal Control Diagnostic” tool that is broader than the Internal Control Questionnaire and examines actual findings of the assessment, the potential risks and recommendations to strengthen internal controls in more detail.

4. Decide how the outcome of the internal control review will affect other planned audit steps (e.g. how many transactions will be reviewed, which area warrants greater review)
Step 5 – Report findings Refer to Handout 4.4 “Sample Internal Control Diagnostic - Report.” This handout provides both the template for conducting such an assessment, and a sample of how findings might be reported.

3.9 Limitations of Internal Controls
Internal controls are tools developed and used by management to aid them in achieving the objectives of the organisation. There are always tradeoffs and exceptions to consider. Increasing controls, steps and procedures in different operational processes can become cumbersome and inefficient. Adding additional staff to ensure adequate segregation of duties is expensive. Most MFIs are extremely conscious of costs and efficiencies and will find many arguments against increasing internal controls. No matter how well internal controls are designed, they can only provide reasonable assurance that objectives will be achieved. There are a number of limitations in achieving and ensuring these objectives, these include:

Judgment → the effectiveness of controls will be limited by decisions made with human judgment under pressures to conduct business based on information at hand.

Breakdowns – even well designed internal controls can break down. Employees sometimes misunderstand instructions or simply make mistakes. Errors may also result from new technology and the complexity of computerized information systems. Controls may become obsolete with new systems and operations.

Management Override – high level personnel may be able to override prescribed policies or procedures for personal gain or advantage. This should not be confused with management intervention, which represents management actions to depart from prescribed policies and procedures for legitimate purposes.

Costs vs. Benefit – It may be too costly to install certain controls based on the anticipated benefits of installing that control. A control must be cost effective - the cost of implementing a control relative to the probability of risk of a loss occurring and the size of the loss. Normally, the costs are easy to determine (staff, training, etc) but most benefits are difficult to determine since institutions are dealing in loss probabilities.

Abnormalities – Controls are typically directed towards normal, everyday transactions – the abnormal and unusual transaction is generally not covered, primarily because of cost-benefit issues. But abnormalities do happen!

Human error – This factor will always be present to some degree. Unintentional errors, mistakes, and oversights are part of the reality of working with people.

Staff turnover – Staff who have worked in an area for some time are normally more efficient and familiar with processes than new staff. Rotating staff, staff turnover, or rapid expansion and adding new staff may limit the effectiveness of internal controls as well.

Workload volume – Some people are more capable of handling large workloads and the associated pressures better than others. It is common for workers under pressure to take “shortcuts” in order to be efficient.

Collusion – Control systems can be circumvented by employee collusion. Individuals acting collectively can alter financial data or other management information in a manner that cannot be identified by control systems.

Staff irresponsibility – Persons responsible for a control may also neglect or abuse that responsibility – this limitation normally arises when employees are not satisfied or are bored with their jobs.

Because of these limitations, internal controls cannot provide absolute assurance, but only reasonable assurance, that management objectives will be met.
Managing Credit Risk
4 Managing Credit Risk

4.1 Introduction to Credit Risk

Definition of Credit Risk
Credit risk is one of the most often used terms in the risk glossary particularly in the financial services sector and is defined as the potential that a borrower will fail to meet its obligations in accordance with the agreed terms.24 It is also defined as “the risk of loss due to a debtor's non-payment of a loan or other line of credit (either the principal or interest both”).

Impact and importance of Credit Risk
Credit risk is one of the most talked and written about risks in the financial world, and the Basel II framework on banking supervision lists Credit Risk as the most important risk to be managed comprehensively. According to CGAP’s Microfinance Banana Skins Report - 2009, management quality and governance were the major risks perceived by the MFIs in previous years. However of late there has been a shift in the risk perception in favour of Credit Risk by the MFIs. According to the report, Credit Risk is the biggest fastest rising risk in ranking and rose from 10th rank in 2008 to 1st in 2009.25

Why should MFIs worry about credit risk? Simple! Credit risk has the biggest impact on the biggest asset in an MFI: the loan portfolio. The loan portfolio generates income and sustains an MFI, and the loan portfolio’s quality also determines the ability of the MFI to mobilise financial resources like debt, equity, etc. to allow for growth.

The Case of Risky MFI

Risky NGO (Risky) had recently begun to think about launching commercial microfinance, when the CEO was contacted by an officer of Aggressive Bank to lend funds for microfinance. Concurrently, the CEO was also in touch with a Technical Assistance Provider to train and expose his staff to commercial microfinance. Before Risky could train its staff however, the Bank disbursed the funds, and Risky was in a situation where it had no real option to say no to funds, as it lacked any other significant funding sources.

The magnitude of the funds was something that had never been handled by Risky, nor did it have any experience in conducting commercial microfinance. When the funds landed in Risky NGO’s accounts, the MFI lent aggressively to clients without proper appraisal. Everything was operating well until Risky NGO learnt that some clients had not paid their last loan instalment; however, management thought that these clients would eventually pay, even if late. Very soon thereafter, the problem was exacerbated to a point in which large sections of clients were not repaying on time, thus requiring Risky to default on its loan instalment payment to the sole lender, Aggressive.

Risky NGO commissioned a loan portfolio audit and the following was revealed:
1. Before starting the operations, Risky NGO did not have a business strategy and model in place to start and grow its operations in an orderly manner.
2. The loans were disbursed to the clients without adequate appraisal and without clarifying the terms of the contract. Many clients thought that the MFI was charging very high rates of interest as compared to what was initially informed to them.
3. There was no system of tracking delinquency. The audit found that Portfolio at Risk was many times higher than assumed by the MFI.
4. The staff were not properly trained in client appraisal and loan recovery and were frustrated with having to engage in default collections most of the time
5. There were no defined processes for loan disbursement and loan collections – different branches had evolved their own processes. This created many loopholes in handling and managing cash,

24 Definition adapted from ‘Principals for the Management of Credit Risk’ developed and issued by Basel Committee on Banking Supervision, September, 2000
25 Banana Skins report by CGAP
giving rise to fraud occurring by staff.
6. The hurried recruitment of staff without proper orientation also led to fraud occurring by staff. Some of the staff also gave multiple loans to their relatives, and a few even created ghost clients.
7. There was no defined process of field monitoring – the supervisors did not know what exactly was supposed to be monitored.
8. There was no internal audit system which could independently inform the Management (and Board) of the ground situation.
9. Since Risky had no alternate source of funding (no other lender was willing to lend given its default to Aggressive Bank), the MFI was not able to disburse repeat loans to the clients. Sensing that the MFI will wind-up their operations, many clients chose not to pay their subsequent and final instalments.

Non-Banking Finance Company (NBFC) MFIs in India must maintain a certain percentage of Capital Adequacy in proportion to the risk weighted assets. Since the largest asset of the NBFC MFIs is the loan portfolio, Credit Risk is also the most important source of risk for meeting Capital Adequacy requirements.26 Also due to inherent interrelationship between various risks, as explained in earlier sections, Credit Risk may lead to the risk of reputation for the MFI, affecting the confidence of lenders, investors other stakeholders and clients.

4.2 Linkages of Credit Risk with Other Risks
The clients of microfinance services usually live in close vicinity and generally have strong social ties with each other. Also, many MFIs, especially in South Asia, offer loans to clients in groups through Joint Liability Groups (JLGs) or Self-Help Groups (SHGs) to overcome information asymmetry about clients and requirements of physical security. However, these approaches evoke new risks where credit risk can increase into a major portfolio crisis, as the (non) repayment by one member of a group may affect the repayment behaviour of all members in the group or village/area. Therefore, the extent of Credit Risk may increase multi-fold (and quickly) in MFIs, as compared to the Credit Risk of a Bank, whose customers are more compartmentalised (unorganised and scattered) and do not really interact with each other to default collectively. To sum up Credit Risk might have the following implications for the MFI:

➢ Loss of portfolio/asset, erosion of capital
➢ Reduced income
➢ Reduced ability of the MFI to raise financial resources
➢ High borrowing cost of debt from Banks/public
➢ Reputation risk
➢ Credit risk can potentially blow up and affect the above even more severely

Figure 10: Credit risk as the ultimate catalyst for other risk events

26 Working paper No. 339, The integrated impact of credit and interest risk on Banks: an economic value and capital adequacy perspective.

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4.3 Symptoms of Credit Risk - How Does One Know if their MFI has Excessive Credit Risk?

How can one tell if their MFI has excessive credit risk? Can s/he really measure the extent of the risk? There can be many indicators, both qualitative and quantitative indicators, that can exhibit the extent of credit risk. Below in *Table 11* are some examples of such indicators:

<table>
<thead>
<tr>
<th>Table 11: Indicators of credit risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-financial</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Financial</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

4.3.1 Member Attendance – What Does It Tell You?

Member attendance as an indicator of credit risk is only relevant to the group based lending methodology. Most MFIs require strict attendance norms in the groups. Many MFIs treat low attendance as early warning system of credit risk, even if the quantitative indicators do not yet indicate anything.

4.3.2 Concentration of Credit Exposure

Concentration risk may be defined as overall spread of a MFI’s outstanding portfolio over the number or variety of accounts to whom the MFI has lent money. A working paper by the Basel Committee on Banking supervision notes that that concentration of credit risk in asset portfolios has been one of the major causes of bank distress. This is true both for individual institutions, larger banking systems, and MFIs.

If an MFI is lending disproportionately more in a particular sector including a geography, economic sector/sub-sector and even to individuals, then the risk of loss is significantly tied to the health, ability and willingness of that subsector to repay. In India, the Reserve Bank of India prescribes limits on credit concentration and reporting, relevant for NBFCs but can be followed by other forms of MFIs.
4.3.3 **What is Portfolio at Risk (PAR)?**

PAR refers to the outstanding balance of all loans that have an amount overdue. The formula for calculating PAR is:

\[
\text{Unpaid Principal Balance of Past Due Loans (1 day or more past due)} \div \text{Total Gross Outstanding Loan Portfolio}
\]

The MFI may want to calculate PAR in various aging categories, for example between 1-30 days, 31-60 days and so on. The following table gives a rough idea of how to interpret Credit Risk in various categories of PAR. One should note that different MFIs may follow different intervals or duration of age categories.

| PAR > 1 day       | Serves as early warning device
                  | Indicates a lack of financial discipline |
|-------------------|-------------------------------------|
| PAR 1-30 days     | Like a common cold but can turn to pneumonia
                  | Can potentially spread and consume a larger proportion of the portfolio |
| PAR >30 days      | Most critical measure of extent of credit risk
                  | Problem of non-repayment continuing is high |

---

27 This section has been prepared by referencing/adapting the contents from the following sources:

i) Toolkit for Loan Portfolio Audit of Microfinance Institutions – prepared by MicroSave

ii) Toolkit for Delinquency Management in Group Based lending MFIs - prepared by MicroSave

iii) Microfinance Handbook: an institutional and financial perspective by Joanna Ledgerwood – from website

iv) How to Reduce Arrears in Microfinance Institutions by Dan Norrel

Users of the manual are advised to refer to the abovementioned toolkits of MicroSave for more details on its website: [www.microsave.org](http://www.microsave.org).
The usefulness of PAR in understanding credit risk is that it measures the potential risk in a portfolio by using past data/ performance of the present portfolio. This indicator is based on the key assumption that if all the delinquent borrowers were to default completely, how much money could the MFI lose? **PAR reflects the true Credit Risk since it considers the full amount at risk, which is particularly important when the loan amounts are small and the loan term is long.** By measuring PAR on a periodic basis, the MFI can find out whether the credit risk is increasing or decreasing and take remedial measures to contain the risk.

**Is PAR always reliable?**

Can one always trust the PAR figure and make a true assessment of Credit Risk? Unfortunately not! Many MFIs knowingly or unknowingly end up distorting the PAR figure, making it less relevant or completely useless for understanding true credit risk. If an MFI consistently has 0% PAR over several years, the MFI should not be praised but actually questioned for its PAR measuring practices.

Before making an assessment if PAR measures credit risk well, one must adjust for:

- sudden and large increases in the outstanding portfolio and/or
- decreases in the unpaid principal balance

These can be caused in any of the following ways:

1. **Disbursement of new loans**
   
   Disbursement increases the outstanding portfolio – the denominator— but will not have an impact on the unpaid principal balance of past due loans – the numerator, thus improving overall PAR. The effect is enhanced especially if the repayment schedule for the new disbursements has not yet begun.

2. **Re-scheduling of past due loans**
   
   Re-scheduling is extending/re-organising the repayment schedules for loans. A loan is restructured, usually by lengthening the maturity, in order to avoid default and previously past due loans become current. This reduces the unpaid principal balance of past due loans – the numerator, by making them current. Thus, while the PAR reduces, the actual overdue risk still remains.

3. **Re-financing of past due loans**
   
   Re-financing is replacing one loan with another, usually, a larger loan. This ensures that previous (defaulted) loans are repaid in full, and the new loans become current. This reduces the unpaid principal balance of past due loans – the numerator, by making them current and also increases the outstanding portfolio – the denominator. Thus, while the PAR reduces, the actual risk remains or in fact increases, due to giving a larger loan to delinquent borrowers.

4. **Loan write-offs**
   
   Loan write-offs reduce the unpaid principal balance of past due loans – the numerator, and also reduces the outstanding portfolio – the denominator. In most cases, the PAR reduces, giving a better impression of portfolio quality. If an MFI has a policy of writing off loans at very early stages of becoming overdue, this enhances the affect on PAR.

The key point to note here is that apart from camouflaging the level of risk in a portfolio, such actions also reduce the loan loss provisions (thereby increasing the profit) and reserves. This, particularly, is not good, as the level of risk still remains the same.
Table 13: Effect of various distortions

<table>
<thead>
<tr>
<th>Distortion</th>
<th>Effect on Numerator</th>
<th>Effect on Denominator</th>
<th>Effect on PAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disbursement of new loans</td>
<td>No Effect, if the repayment schedule has not begun</td>
<td>Increases the outstanding portfolio</td>
<td>Decreases</td>
</tr>
<tr>
<td>Re-scheduling of past due loans</td>
<td>Reduces the unpaid principal balances of past due loans</td>
<td>No impact on the outstanding portfolio</td>
<td>Decreases</td>
</tr>
<tr>
<td>Re-financing of past due loans</td>
<td>Reduces the unpaid principal balances of past due loans</td>
<td>Increases the outstanding portfolio</td>
<td>Decreases</td>
</tr>
<tr>
<td>Loan write-offs</td>
<td>Reduces the unpaid principal balances of past due loans</td>
<td>Reduces the outstanding portfolio</td>
<td>Changes, generally decreases</td>
</tr>
</tbody>
</table>

Caution: Re-scheduling & Re-financing - Credit Risk Masks!!

- An organisation’s management should have a clear policy on re-scheduling and re-financing, as they have the potential to decapitalise the portfolio at all levels.

- These actions could result in a ‘multiplier effect’ whereby, after re-scheduling and re-financing of some (clients’) loans, other clients may also request for re-scheduling/re-financing.

- Therefore, unless, the situation mandates, re-scheduling and re-financing are better avoided as they can result in causing clients (and indeed loan officers) to develop a mindset that in the event of not making loan repayments, their loans will also be automatically rescheduled/re-financed.

- Only in cases where natural factors such as earthquakes, fires, cyclones, floods, and drought wreak havoc on economies and the activities of micro-entrepreneurs, should re-scheduling and/or re-financing be thought of as alternatives.

How do we make PAR reliable?

Depending on what has distorted PAR, we need to make adjustment to the PAR figure to make it ‘real’ credit risk indicator. The following table indicates how the adjustments to PAR can be made in case of distortions:

Table 14: Adjustments to PAR

<table>
<thead>
<tr>
<th>Step</th>
<th>Expression</th>
</tr>
</thead>
</table>
| 1    | PAR (adjusted for new loan disbursements) = unpaid principal balance of loans with payments past due \[=\] \[
|      | \[=\] total outstanding portfolio - loan outstanding for which the repayment is yet to begin \[
| 2    | PAR (adjusted for re-scheduling) = unpaid principal balance of loans with payments past due \[=\] \[
|      | + unpaid principal balance of re-scheduled loans (before re-scheduling) \[=\] \[
|      | outstanding portfolio \[
| 3    | PAR (adjusted for re-financing) = unpaid principal balance of loans with payments past due \[=\] \[
|      | + unpaid principal balance of re-financed loans \[=\] \[
|      | outstanding portfolio \[
| 4    | PAR (adjusted for loan write-offs) = unpaid principal balance of loan write-offs \[=\] \[

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5. **PAR (adjusted for all distortions)**

\[
\text{PAR} = \frac{\text{Unpaid Principal Balance of Loans with Payments Past Due} + \text{Unpaid Principal Balance of Rescheduled Loans (before re-scheduling)} + \text{Unpaid Principal Balance of Refinanced Loans (before re-financing)}}{\text{Total Outstanding Portfolio + Write-off amounts}}
\]

**Prudent Credit Risk Management practice prescribes defining the tolerance level for PAR and then monitoring it on a regular basis. When the tolerance levels are surpassed, the MFI must swing into action to contain the increase of credit risk.**

**What is a good level of PAR**
The MFIs may benchmark their PAR against the industry average for their category by geography, lending methodology and organisational structure. The Microbanking Bulletin (MBB) comes with the industry benchmarks on various ratios including PAR. Please see **Handout 4.1** for industry benchmarks for PAR, risk coverage and other parameters released by the MBB.

**Loan impairment allowance**

The second indicator of credit risk is the loan impairment allowance. The Loan Impairment allowance is an account that represents the amount of outstanding principal that is not expected to be recovered by an MFI and is recorded as a negative (contra) asset on the balance sheet, though some MFIs record it as a liability (though the net effect is the same).

The loan impairment allowance should be based on the historical data of loans being delinquent. This is achieved through producing ageing schedules of the portfolio discussed earlier in the section on PAR. The process of ageing allows the MFI to estimate the allowance (reserve) needed. While the age categories may be defined by the MFIs depending on their repayment frequency, some MFIs (such as regulated NBFCs) are supposed to create the allowance based on the rates prescribed by the regulator. Please refer to **Handout 4.2**, covering relevant extracts on the circular by the Reserve Bank of India for creating the Loan Impairment Allowance for NBFCs in India. There may be similar guidelines available for non-bank MFIs and banks in other countries as well. Note that nothing prevents the MFIs to be more conservative in making Loan Loss Allowances, and the institutions can always create more allowances than what is prescribed the regulations/law.

**How to calculate Loan impairment allowance?**
The loan impairment allowance is calculated as a percentage of the portfolio outstanding and indicates the quality of portfolio and consequently the extent of credit risk. The Loan Impairment Allowance Ratio can be calculated and Interpreted through an example:

**Step 1**

Use the formula given below

\[
\frac{\text{Loan Impairment allowance Amount}}{\text{Total Outstanding Loan Portfolio}}
\]

**Making hay while the sun shines**
The G-20 Working Group on Enhancing Sound Regulation and Strengthening Transparency in Banking recently recommended that loan loss provisions should be built up while the economy is healthy in order to enhance the ability of financial institutions to withstand the impact of economic downturns. In India, the Reserve Bank has been encouraging banks to build floating provisions as a buffer for the possible stress on asset quality later. This is surely appropriate for MFIs as well.

---

28 Also called Loan Loss reserve or Loan Loss Allowance
Step 2 | Take the Loan impairment allowance Amount for Year 2009 (10000). Please note that the loan loss impairment amount of 10000 is derived from the Portfolio Report, based on an ageing analysis of all loans.

<table>
<thead>
<tr>
<th>Description</th>
<th>2009</th>
<th>2008</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan Impairment Allowance Amount (A)</td>
<td>10000</td>
<td>10000</td>
<td>14000</td>
</tr>
</tbody>
</table>

Step 3 | Take the Total Outstanding Loan Portfolio for Year 2009 (104000)

Step 4 | Divide the Loan Impairment Allowance Amount by the Total Outstanding Loan Portfolio and as shown below, the Loan Impairment Allowance Ratio is 9.62% for year 2009

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan Impairment Allowance Amount (A)</td>
<td>10000</td>
<td>10000</td>
<td>14000</td>
</tr>
<tr>
<td>Total Outstanding Loan Portfolio (B)</td>
<td>104000</td>
<td>140000</td>
<td>168000</td>
</tr>
<tr>
<td>Loan Impairment Allowance Ratio Value = ( \frac{A}{B} ) =</td>
<td>9.62%</td>
<td>7.14%</td>
<td>8.33%</td>
</tr>
</tbody>
</table>

Step 5 | Likewise, as given above, the Loan Impairment Allowance ratio for Years 2008 and 2007 are respectively 7.14% and 8.33%

One can see that the overall trend in the Loan Impairment Allowance ratio varied, decreasing in 2008 and increasing in 2009.

Like the Portfolio at Risk ratio, the Loan Impairment Allowance ratio must be similarly adjusted for loan rescheduling and refinancing – duly applying greater allowance rates for the rescheduled and refinancing rates.

An increasing Loan Impairment Allowance ratio suggests degradation in portfolio quality and indicates embedded credit risk. Every MFI must have a Loan Impairment Allowance Policy that reflects historical loss rates, perceived credit risk and local standards that even exceed (but at least meet) the minimum local regulations.²⁹

What is a Loan Write Off?
When the MFI is reasonably sure of not being able to collect an overdue loan, it may decide to “write-off” the loan completely from its books and charge the amount against the Loan Impairment Allowance account. When there is a need for a write-off and if there is not a loan impairment allowance (or is inadequate), then the write-off is directly charged against the profit and loss account of the MFI. However, one should remember that writing off a loan amount does not mean that the MFI has lost the right to recover forever – it still has the right to recover the written off amount, which is just an accounting procedure. How do you know that a write off has taken place?

Sometimes, write-offs are not explicitly stated by the MFIs in the financial statements. In such situations, how will one know whether there is a write off or not?

The following example shows how one can calculate the hidden write-offs:

²⁹ For more on the Loan Loss provisioning in the MFIs refer to MicroSave’s India Focus Note 22 - Provisioning for Loan Impairment in MFIs.
### Table: Loan Impairment Allowance

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Closing balance of Loan Impairment Allowance for financial year 2008-09</td>
<td>2500</td>
</tr>
<tr>
<td>2</td>
<td>Closing balance of Loan Impairment Allowance for financial year 2007-08</td>
<td>2200</td>
</tr>
<tr>
<td>3</td>
<td>Provision for loan impairment in financial year 2008-09</td>
<td>400</td>
</tr>
<tr>
<td>4</td>
<td>Difference between closing balances of Loan Impairment Allowance for FY 08-09 and FY 07-08 (1-2)</td>
<td>300</td>
</tr>
<tr>
<td>5</td>
<td>Is the provision amount equal to the difference</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>Write off (2+3-1)</td>
<td>100&lt;sup&gt;30&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

#### How to calculate the write off ratio?
Applying the following formula to calculate the write-off ratio:

\[
\text{Value of loans written off} / \text{Average Gross loan Portfolio}
\]

#### What does the Write-Off ratio tell us?
The Write-off ratio indicates the quality of portfolio by indicating the degree of issues with collections/loan recovery efforts. If further investigated, the causes of the write-offs may be one or more of the factors/causes described in the section below. (Note: There may be genuine – external factors also!).

### 4.4 Causes of Credit Risk

There are a number of factors that contribute to credit risk. We may classify them into the following broad categories:

(i) Inappropriate client selection: This is perhaps the first lapse in the operations that may increase the credit risk. Selection of the following clients may trigger/lead to credit risk for all lending methodologies:

- those who have no ability to pay the loan amount,
- those with a criminal record,
- those with a history of overindebtedness, default or bankruptcy,
- those who do not have sufficient cash flow in line with the repayment term,
- those who migrate often,
- those who are chronically or often critically ill

For group based loans (SHGs and JLG based):
- those who are comparatively rich and dominant
- those unable or unwilling to undertake the group guarantee

#### What may cause Credit Risk

<table>
<thead>
<tr>
<th>a. Inappropriate client selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Inappropriate loan products</td>
</tr>
<tr>
<td>c. Concentrated lending</td>
</tr>
<tr>
<td>d. Deviance from the institutional credit policy and processes</td>
</tr>
<tr>
<td>e. Human Resources</td>
</tr>
<tr>
<td>1. Untrained staff</td>
</tr>
<tr>
<td>2. De-motivated staff</td>
</tr>
<tr>
<td>3. Inappropriate or lack of staff incentives</td>
</tr>
<tr>
<td>4. Staff fraud</td>
</tr>
<tr>
<td>5. Inappropriate or lack of institutional culture towards timely payment</td>
</tr>
<tr>
<td>f. External</td>
</tr>
<tr>
<td>1. Politicisation of microfinance or new regulations</td>
</tr>
<tr>
<td>2. Civil unrest</td>
</tr>
<tr>
<td>3. Competition</td>
</tr>
<tr>
<td>4. Natural calamities</td>
</tr>
<tr>
<td>5. Economic downturn</td>
</tr>
</tbody>
</table>

<sup>30</sup>The difference could also be due to extra provisions being added. However, this procedure is generally discouraged in the microfinance industry.
For individual loans

- Those without (or unwilling to provide) sufficient security
- Those who cannot find guarantors/co-obligants

(ii) Inadequate/inappropriate client training/orientation – unclear terms and conditions of credit

This may easily be one of the most prevalent causes of credit risk in MFIs (almost exclusive perhaps to MFIs). A large majority of the clients are illiterate and not exposed to financial contracts, interest rates, importance of timely payments, etc.

(iii) Unclear, non-standardised and ad-hoc operations policies – If the processes like disbursement, repayment, delinquency management are not documented or standardised, and the staff is not trained on these policies, this may generate significant credit risk. This may happen if the staff starts following lax behaviour and operational processes.

(iv) Weak appraisal system, weak MIS: If the MFI does not get timely information on the portfolio’s performance and quality, it may not be able to detect early warning signals.

(v) Inappropriate Product: Credit Risk due to an inappropriate product may arise when the clients are offered products that do not suit them in one or more of the following ways:

- Loan size: an MFI offering higher sized loans to the clients may run the risk of clients not being able to use the loan in the most economically efficient manner and may use a good part of the loan for consumption. Conversely, lower size loans may not serve the purpose for which the client may want the loan, affecting the repayment capacity of the client.

- Loan term and repayment frequency: Loan terms and repayment frequency affect the instalment size. A higher instalment amount that does not match the cash flow of the client runs the risk of non-payment.

- Price: If the MFI is offering the product at a price which is higher than what was informed/understood by the clients, they may feel cheated and some may default. Also, if the loan is subsidised or below the market rate, there is a tendency to borrow more than what is required by a client. This may lead to extravagant spending that could further lead to over-indebtedness of client.

(vi) Concentrated lending: The MFIs which concentrate their lending only to one or few select sectors/segments, such as economic, geographies or even product mix) may run into increased credit risk, as the specific sector is affected by specific economic, natural or political events.

(vii) Human Resources (HR): HR plays a critical role in any MFI, and if the function of human resources management and development is not paid requisite attention by the MFIs, this may well lead to higher credit risk. The following HR factors may lead to additional credit risk:

- Untrained staff: If an MFI has untrained/inadequately trained staff, they may not be able to communicate the product and policies of the MFI in a clear manner to the clients. This may lead to confusion later.

- De-motivated staff: If an MFI has not shared its mission and vision with the staff and is not constantly reinforcing these, the staff may not relate to the core business of the institution and may not feel sufficiently motivated. On the other hand if an MFI does not have HR friendly policies and
There are some external factors also which may cause credit risk. Such staff may have no motivation to communicate properly or to build strong relationships with the clients. They may commit operational lapses like not conducting proper client appraisals, not emphasising joint liability or timeliness of repayments.

- Inappropriate staff incentives design: At times, staff incentives are based only on the growth in terms of number of clients or portfolio size and not on the maintenance of portfolio quality. As a result, the staff members focus on bringing more clients, often providing them the largest allowed loan size for the concerned loan cycle. This may result in enrolment of ineligible clients, reduced credit discipline and consequently increased credit risk.

- Staff fraud: Staff may commit fraud due to many reasons, but HR related factors may include lax recruitment processes, allowing the entry of unscrupulous staff (due to inadequate reference checks!) and inadequate remuneration and incentives. Equally important is the role of internal control and monitoring systems, and if these systems are weak, this may present opportunities for staff to commit fraud. If the clients know of the staff fraud, the risk may extend to clients and their repayment behaviours as well.

- Institutional culture: Organisations that view their lending activity as a banking business where importance of servicing and collection is stressed tend to have lower credit risk. These organisations view affordability and flexibility as functions of negotiating the terms of loans, not as factors in collections. To be effective, such attitudes must pervade throughout the organisation.

Organisations that treat loans strictly as loans and view collections as very important are more likely to have a lower credit risk than other organisations. Moreover, these organisations view credit risk as detrimental to their business, clients and institutional supporters. By sending a message on fiscal discipline to staff and clients, the organisation sets the tone for the importance of timely collection of loans. In its absence, an organisation may have all the necessary collection tools and policies but cannot produce any long-lasting effect on the rate of past-due loans.

**External factors**

There are some external factors also which may cause credit risk as well:

- Politicisation of microfinance: The business of microfinance has not been looked upon in its true form by many politicians. There is often a social taboo against charging the poor high interest rates, and this issue has been exploited times and again by politicians. Loan waiver by government for cheap popularity is another menace. India has seen the political and religious leaders spoiling the repayment culture in the clients.

- Civil unrest/\textit{bandh}s: Many areas have regular \textit{bandhs} and strikes due to civil unrest and affect the routine operations of the MFI. Temporary unrest/\textit{bandhs} do not have much direct effect on credit risk; however, an area which is perpetually under civil unrest has significant credit risk. MFIs should think before expanding operations into such areas.

- Natural calamities: Floods, fires, cyclones, earthquakes and epidemics can cause havoc to the economic and social life of the people affected, which poses a rare but significant and systemic credit risk to the MFI.

- Economic recession: the recent economic recession has slowed down the disbursal of new loans to clients of some MFIs, due to the liquidity crunch in the financial/banking sector. Stopping or postponing disbursals in the field may affect repayment behaviour of the clients and hence enhance the credit risk. Economic recessions sometime also affect client earnings, potentially reducing their loan repayment capacity. (However, most microfinance are part of the informal economy, which is by and large insulated from the impacts of the mainstream economy.

- Death/disability of the client: In case where the client dies or is incapacitated to undertake business/livelihoods activities will surely affect the repayment.
4.5 Credit Risk Management

4.5.1 Managing by accepting, mitigating and avoiding the risk

The Risk Management Group of the Basel Committee on Banking Supervision prepared a document called Principles of Management of Credit Risk. This toolkit has adapted and customised the principles to appropriately fit a risk management framework for MFIs.

Sound practices of credit risk management have been divided into 5 broad areas:
1. Establishing an appropriate credit risk environment;
2. Operating under a sound credit granting process;
3. Maintaining an appropriate credit administration, measurement and monitoring process;
4. Ensuring adequate controls over credit risk; and
5. Establishing the role of a supervisor

We will briefly discuss about the first four areas, as the fifth area, supervision, does not directly relate to the operations of MFIs (and may not be relevant for certain MFIs).

Establishing an appropriate credit risk environment

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31 The toolkit has adapted the principles recommended by the Credit Risk Management Group of the Basel Committee. This is in view of the adoption of the Basel recommendations by the banking sector, which is closely related to microfinance operations. The same recommendations can surely improve the risk management practices in microfinance.
1. **Credit risk policy and approval**: The board of directors of the MFI must approve and periodically review the credit risk strategies and significant policies.

2. **Ensuring implementation by Senior Management**: Senior management should have responsibility for implementing the credit risk strategy approved by the board of directors and for developing policies and procedures for identifying, measuring, monitoring and controlling credit risk. Such policies and procedures should address credit risk comprehensively.

The senior management must ensure that policies and procedures approved by the Board are implemented on the ground. In many MFIs, there is a vast difference between what is stated in the policy documents and manuals and what is implemented in the field. The senior management is responsible for bridging the gap between the As-Is and Should-be of policy implementation.
What to ensure when approving and implementing credit policies

Client led policies
Credit policies must respond to the client/market needs. The MFI must do market research and a pilot before finalising the products features.

Assessing credit concentration
The institution must assess and approve the credit exposure limits by segments, the risks anticipated and tolerance levels in such segments and expected profitability from each segment. For example the board may look at the following reports on a periodic basis:
1. Concentration reports (by industry, by product, by country, by branch, by borrower, etc.)
2. Delinquency reports by segments
3. Historical loss reports by segments
4. Financial assessments, ratings of investment agencies.

The credit risk strategies should be in line with MFI’s tolerance for risk (for example Portfolio at Risk percentage) and the expected return out of incurring such risks.

Clear and well documented credit policies
Have clear credit policies, field implementation guidebooks – all properly documented in the form of manuals/handbooks. The MFI will do well to have at least the following processes mapped and documented:
1. First interface meeting
2. Selection of clients
3. Group formation meeting
4. Group training and group recognition
5. Loan Approval, disbursement
6. Loan collection process
7. Delinquency Management
   Further each of the above processes must have three sections – description of the process, risk associated with the process and the risk mitigation strategy.

Incentive and remuneration structure
The board must also make sure that the remuneration structure and incentive policy of the MFI is not in contravention to the credit risk strategy. For example, if a MFI decides to limit the PAR tolerance level to X%, the Credit Officer must not be incentivised only on the number of clients and new loans but also make that the maintenance of PAR is below X%.

Product development
In case of new product development, the MFI must adequately analyse the risks in the product, pilot test it and roll out only after due approval of the board or a committee/executive appointed by the board.

Policy on Arm’s-Length Transactions
In cases where the Board of Directors secures new business for the MFI, care must be taken that the credit policies are not overridden.

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### 4.5.2 Operating under a Sound Credit Granting Process

A sound credit granting process has what are called preventive controls on credit risk.

1. MFIs must have well defined product manuals that describe at least the following in addition to the descriptions for various processes:
   
a. **Eligibility**: The target market segment the product is meant for. The segments could include men, women, small entrepreneurs/businessmen, agriculture or (segments may also be by business type).

b. **Price** (including all other charges): Should the MFI charge higher rates to riskier clients? Some MFIs design the products with higher pricing for borrowers who do not have good credit records.

c. **Loan terms and loan sizes in different cycles**: Initially, MFIs keep shorter cycles for general purpose loans. There is now increased interest in the sector to extend loan terms to align with the purpose of the loan. It is increasingly felt that there is a need to design products tailored to client needs – especially in higher loan cycles.

d. **Activities for which the loan/credit can be granted**

2. MFIs must have a thorough understanding of the clients:
   
a. Who are the clients, their general characteristics

b. 

c. **For individual lending** – (Capacity) – the person’s business acumen, profitability of the enterprise and a cash flow analysis. The borrower’s repayment history and current capacity to repay.

d. **Reputation of the client** (Character) – his/her social, behavioural record through references and basic Know Your Customer documentation

e. **Collateral/Security**: For individual lending, this is the security offered. For group lending, very clear documentation of how group liability works is important.

2. MFIs must have a clearly established process in place to approve new credit as well as the amendment, renewal and re-financing of existing credit.

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**5 C’s of client selection**

1. **Character** – Willingness to repay
2. **Capacity** – Can the cash flow service the repayments?
3. **Capital** – more equity than liabilities in the business, household?
4. **Collateral** – Access to an asset that the applicant is willing to provide in case of non-repayment
5. **Conditions** – A business plan that considers competition, legal and economic factors

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32 While the overall framework is suggested by the Basel Committee, much of the details and customisation of the framework has been done. In this section, reference has been taken from the book by Craig Churchill, Cheryl Frankiewicz, “Making Microfinance Work – Managing for improved performance.”

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**Shaky credit processes in the lending value chain**

The subprime experience reminds us that innovations like credit scoring, outsourcing, and partnership models require care in their implementation. Scandals with loan brokers in South Africa and outsourced collections agents in India offer cautionary tales. The creation of the right incentives for staff, managers and partners – to balance volume with quality – is essential and especially challenging when providers are expanding at double-digit rates and facing stepped-up competition.

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a. MFI must have documented process for loan approval. For MFIs engaged in group based lending, for example, there should be very clear procedure for group formation, group training and group recognition criteria. Who the approving authority is should be very clear.
b. There should be a “checker/maker” concept where the Credit Officer (CO) may form and train the groups while the Branch Manager (BM) tests and approves the group and sanctions the loans.
c. The adopted approval process must be clearly identifiable through a process audit trail so as to discover any deviances between the Should-Be and As-Is processes.
d. Similarly for the Individual lending process, both the maker (the CO) and checker (the BM) must be experienced in enterprise and cash flow assessment so as to make a sound decision on approval.

4. All the approvals must be made at an arm’s length basis, and in case there are exceptions (relatives of staff, senior management/Board), due permission of the Senior Management/Board must be required (in case of large IL loans perhaps!).

5. The MFI must establish overall credit limits not just for the individual clients as described earlier but also on the level of products and segments. In other words the MFI will need to look for the portfolio exposure concentration levels in each segment. The strategy must include adequate diversity in the loan portfolio perhaps by occupational segments and/or geographical segments. One MFI in India has segmented its portfolio and has capped the exposure limits in the following manner:
   a. Non-Farm segment >50%
   b. Agriculture and allied < 50% out of which crops loans cannot exceed 18% of the overall portfolio

4.5.3 Maintaining a proper credit administration, measurement and monitoring system

   1. The MFI must have a sound and documented monitoring system.
   2. MFIs must have very objective, measurable indicators of monitoring credit administration, which involves all the processes from selection of clients to the collection of repayments
   3. The indictors must be in the form of a product policy and process checklist, which the monitor must administer during the monitoring visit
   4. Each monitoring authority (e.g. Branch Manager, Area Manager, Regional Manager, etc.) must have a defined scope of monitoring, meaning how many branches/clients cases need to be monitored in a specific period
   5. As indicated above, the MFI must prepare monitoring schedules that takes into account:
      a. The implementation of the credit/loan policy
      b. The implementation of field processes related to business generation – client acquisition, training, testing, disbursement and repayment collections
      c. Documentation related to various processes
   6. The monitors/supervisors must visit clients/groups to ascertain the implementation of many of these processes
   7. Monitors must make sure the Internal Audit observations are addressed
   8. A regular reporting and monitoring of key ratios – such as properly aged PAR, number of delinquent clients in each category must be reported and analysed

Cost of lax appraisal
One MFI in the Philippines did not look at the value and enforceability of land used for collateral for which clients submitted title deeds. The MFI had granted the maximum possible loan to the client based on the perceived market value of the land. When the client defaulted, it became clear that the land could not be sold because of a Government order. The MFI ended up losing a large sum of money.
4.5.4 Ensuring Adequate Controls over Credit Risk

Some unique credit risk management practices in the microfinance sector
1. Group based lending and enforcement of group liability
2. Orienting the clients into strict repayment discipline often by displaying strict norms of time and standard processes
3. Training the clients in the groups and making them understand the terms and conditions of the contract, typically through a 3 day training programme
4. Constantly reinforcing the need to maintain a strict credit culture during every client interface (from the first meeting)
5. Household business and interaction with the family members and neighbours, both with a view to conduct credit appraisal and also enhance the social collateral
6. Incentivising clients who have excellent credit history and penalising those who do not

1. MFI must put in place internal controls like proper authorisation levels to approve loan amounts at different levels
2. In addition to the regular monitoring by the MFI usually conducted by the supervisory staff involved in the operations, the institution must have a periodic independent assessment of credit risk. MFIs must set-up an Internal Audit section/department, which directly reports to the board of directors.
3. Assessing credit risk must be a substantial portion of the scope of work of the Internal Audit department.
4. Apart from auditing the compliance of the processes and procedures as defined in the credit policy, Internal Audit shall also comment on:
   a. The adequacy and relevance of these processes
   b. Risk concentration – whether the exposure is more than the prescribed levels in a certain branch, etc.
   c. Effectiveness of monitoring system – whether the monitors are monitoring properly, adequately and whether their recommendations/directions to the branches are being implemented
5. MFI will need a strong portfolio management information system that is capable of providing all useful reports to the MFI
6. Once the basic Internal Audit system is implemented, the MFIs should strive to add a system of branch credit rating. This will prompt the management to take appropriate action
7. The MFI must ensure that certain volatile sectors like agriculture that depend heavily on external factors such as rainfall are managed well and kept at pre-designated levels. From a credit risk management perspective, the MFI may want to bundle agriculture/rainfall insurance together with the credit product.
8. MFIs must have a robust delinquency management system in place for early remedial action on deteriorating credits, managing problem credits, default and workout situations. Please see the Handout 4.3 on a generic process map for a delinquency management process of a MFI.

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4.6 Management by transfer of risk

Death and asset insurance

One common method of transferring the risk by most MFIs is death and asset insurance. Life insurance (for both group based and individual lending) and asset insurance (in case of individual lending) serve as very important useful tools and act as tools of last resort when the risk cannot be controlled by the MFI – in case of natural events like death, fire, cyclone, flood, etc. Instruments like life insurance can be a ‘win-win’ situation for both the MFI and the client. In case of an unfortunate incident like death of the client or the spouse, the instrument insures the client from defaulting on the loan outstanding while reducing the MFI’s credit risk of the MFI.

There are other measures that MFIs may take to change the risk situation if the analysis of the portfolio risk shows that the total risk exceeds the coverage capital (to suit the regulatory requirements) or if this is mandated by the MFI’s business and/or risk strategy. The three instruments of active portfolio management used most commonly in practice (though not all yet prominent in the microfinance sector) are discussed in detail below:

- Credit derivatives
- Securitisation of loans
- Buying and selling of loans

Credit derivatives

Credit derivatives are financial contracts that allow the transfer of credit risks. Their applications are numerous — they can be used to hedge individual loans or the portfolio risk as a whole. The hedge can cover the entire risk of default, i.e. the risk that the loan cannot be repaid, or the risk of deterioration of the credit quality. The basic function of a credit derivative distinguishes between the protection buyer, who receives cover in return for a premium, and the protection seller, who assumes the risk from the loan in return for receiving a premium. In order to determine the due date of compensation payments, it is necessary to define so-called credit events.

The credit derivatives instruments available in the market can be subdivided into the following classes:

1. credit default swaps
2. credit-linked notes
3. credit spread derivatives
4. total return swaps

Credit default swaps are based on a default of the borrower. Default does not necessarily mean a total default of the entire loan principal, but may also just refer to a delay in payments. In such cases, the protection buyer will typically receive payment of the amount of the loss incurred.

Credit-linked notes usually combine the features of a regular bond and a credit default swap. The combined bond is issued directly by the protection buyer in most cases. If a credit event occurs, a specified amount is deducted from the repayment of the bond amount. Should the credit event not occur during the term of the bond, the bond is repaid in full. Thus, the compensation payment is the difference between the bond’s nominal value and the amount that actually has to be repaid upon maturity.

Credit spread derivatives hedge losses arising from a deterioration in the borrower’s credit standing. The relevant assets are usually listed as corporate bonds or as part of indices. The bonds do not have to be part of the protection buyer’s portfolio. A hedge of the credit portfolio takes effect when (external) liquid reference
assets are selected that reflects the development of the portfolio’s value in the event of a rating deterioration. Settlement will be effected if a certain spread limit is exceeded.

**Total return swaps** cover the entire loss resulting from a change in the underlying asset’s market value. Changes in market value can be caused by a default or a rating deterioration of the company, but they can also result from a change in general market liquidity or an increase in the yield level.

Credit derivatives are used not only to hedge the risks associated with existing credit exposures; they are also employed to increase the degree of diversification of portfolios or to generate additional income from the premium or from speculation. The advantages of hedging the credit risk by means of derivatives are their ease of use and the fact that the credit event type, underlying assets, settlement, maturity, etc. can be arranged individually. This allows the best possible integration of the derivative in the institution’s existing or intended risk profile. A successful application of a credit derivative is contingent upon the fact that its effect in terms of its hedge function can be calculated accurately by using portfolio models. A further advantage is that the derivatives make it possible to separate the credit risk from the claim, which means that — in contrast to a sale of the loan — the claims need not be transferred, thus not requiring notification of the borrower. The use of derivatives appears preferable also compared to the securitization of loan claims, as the required transaction is less complex and therefore usually less expensive. One disadvantage of credit derivatives is that MFIs looking to acquire protection incur a new credit risk, i.e. the risk of default of the contracting party (counterparty risk). This risk must be taken into account in the calculation of the hedge effect.

**Securitisation**

**Definition:**
“A process by which cash flows or claims against third parties of an entity, either existing or future, are identified, consolidated, separated from the originating entity, and then fragmented into "securities" to be offered to investors”

**Actors involved:**
- **Originator** – MFI which originates claims (receivables) which are to be securitised
- **Obligor** – is the debtor of the originator (for MFIs, the end client), and whose loans outstanding are transferred to a Special Purpose Vehicle (SPV)
- **Investor** – entities that purchase these claims in the form of securities
- **Issuer** – by creating a Special Purpose Vehicle. Issuer issues the securities
- **Guarantor / Credit Protection Provider / Insurer**: These are entities that provide protection to the investor for the investment made in the securities and the returns thereon against identified risks. Typically, on the happening of pre-identified events, on a major event affecting the underlying assets or cashflows, or upon a change in the payment ability of the Obligors, these entities produce amounts that are passed on to the Investor who has been insured.

**Securitisation as risk management**

These instruments (securitisation and CDOs) have been used to disperse risks to those willing and presumably able to bear it. Indeed, credit decisions as a result are often made contingent on the ability to transfer a significant portion of the underlying credit risk……More generally, the development of these instruments and techniques has led to greater credit availability, to a more efficient allocation of risk and resources and to stronger financial markets.

However, of late these instruments have come under scrutiny in the recent financial crisis, as some believe that the originators of the loans have less of an incentive to adhere to strict underwriting guidelines (more about quantity than quality).
Process:
A generic deal diagram is presented in the figure below.

Figure 12: Generic Securitisation Transaction Diagram

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Selected loans are first transferred to a company set up for the sole purpose of securitization (special purpose vehicle, SPV). The SPV may be a corporation, trust or other independent legal entity. The intent of securitisation typically is to ensure that repayment of the securities issued to investors is dependent upon the securitised assets and therefore will not be affected by the insolvency of any other party including, the entity securitising the assets. Most securitisation issues are rated by an accredited credit rating agency. The rating applies to the securities that are issued to investors and indicates the likelihood of payment of interest and payment of principal in full and on time.

The securities are linked directly with the default risk of the tranche they securitise. Often, the securitising institution has to provide additional collateral or liquidity facilities to make the securities attractive for investors. Furthermore, the MFI will usually have to keep a first loss provision on their own books -which is usually equal to portfolio’s expected loss. Thus, only the risk of unexpected credit losses or rating deterioration is passed on to the investors. The MFI usually remains responsible for servicing, which includes monitoring the receipt of payments and the collection of claims due. Securitisation is particularly suitable for homogeneous portfolios.

Buying and Selling of loans
The direct buying and selling of loans, often to local banks, is a simpler and less expensive version of securitisation without all the players; there is simply a buyer and seller (and of course lawyers). However, the disadvantage is perhaps not being able to find a willing buyer and not being able to sell as much as the portfolio as the seller desires.

When loans are sold, they are placed directly with one or more investors and are thus also removed from the balance sheet. For this purpose, the individual loans to be sold are selected and combined in a portfolio. This portfolio then has to be evaluated, and the investors have to be furnished with detailed information to enable

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33 The deal diagram has been adapted from the following sources:
a: Securitization and the Challenges Faced in Micro Finance by Sudipto Basu, IFMR, Chennai, April, 2005
b: Securitization of microcredit receivables by Nidhi Bothra, Vinod Kothari and Company

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them to assess the risk of the individual loans. The expected default rates of the individual loans are included in the evaluation. The buyer will usually only be prepared to buy the portfolio if the discount on the nominal value of the loans covers at least the losses from the expected defaults, the cost of refinancing, as well as the return on equity required.

Finally, the purchase price is negotiated and the contract of sale is concluded. When the loans are sold, the risk of default and the responsibility for servicing are transferred in full to the buyer. The selling of loans is a long and complex process, as it is often difficult to find a buyer. The main reason is the lack of transparency concerning the evaluation of the portfolio and is not always possible to come to terms concerning the evaluation, as the buyer is usually unable to check all the information required, particularly information about the borrower’s credit standing. By contrast, individual loans are generally easier to sell, as their risk is usually easier to assess than the risk of an entire portfolio. The complexity of the sales transaction, however, makes it relatively expensive, which means that it only makes economic sense to sell loans that are sufficiently large. Therefore, the sale of a portfolio and individual loans should always be assessed bearing in mind the benefit it creates — in terms of risk reduction — and the cost incurred. In addition, the seller needs to consider whether other instruments would not be just as effective but more suitable. Thus, the sale of loans is usually only the last resort.

### Difference between Securitisation and portfolio sale/assignment

<table>
<thead>
<tr>
<th>Objective</th>
<th>To transfer one or more assets to another entity – normally an over the counter (OTC), privately negotiated transaction</th>
<th>To convert a portfolio of assets into capital market securities so as to offer them to capital market investors – retail or institutional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likely investors</td>
<td>Usually entities in the same business</td>
<td>Not necessary though most of the investors have been Banks in microfinance [Define this better!!!]</td>
</tr>
<tr>
<td>Parties to the transaction</td>
<td>Does not need SPV – a bilateral transfer</td>
<td>SPV needed to hold the receivables</td>
</tr>
<tr>
<td>Legal process</td>
<td>Assignment of receivables to the transferee</td>
<td>Assignment of receivables to the SPV, issuance of pass through certificates by the SPV</td>
</tr>
<tr>
<td>Accounting treatment</td>
<td>Achieves off balance sheet accounting for originator</td>
<td>Achieves off balance sheet accounting for originator</td>
</tr>
<tr>
<td>Regulatory treatment</td>
<td>Grants capital relief, allowing for additional leverage.</td>
<td>Grants capital relief</td>
</tr>
</tbody>
</table>

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Managing Operational Risk
5 Managing Operational Risk

5.1 Definition of Operational Risk
A common definition for Operational Risk is still emerging and as of now there is no agreed upon universal definition of Operational Risk. One can ask – ‘does the definition really matter?’. Yes, because institutions cannot expect to manage Operational Risk if they can’t define it. Worldwide many institutions have their own internal definition of Operational Risk. If we review those definitions and analyse common classifications and eliminate cultural and organisational differences, a common definition of Operational Risk emerges as ‘the risk of financial loss resulting from staff negligence, mismanagement, inefficiency, systems errors, or other human errors’. Operational risk is usually referred as the vulnerabilities that an organisation faces in its daily operations, including fraud and theft, all of which can erode an organisation’s capital and undermine its financial position. The Basel Committee has defined ‘Operational Risk’ as ‘the risk of direct or indirect loss resulting from inadequate or failed internal processes, people, and systems or from external events’. This definition is comprehensive, positive and forward looking statement that can be adapted by organizations to reflect their own circumstances.

5.2 Types of Operational Risk
The most common types of Operational Risks that are found in MFIs are as follows:

- **Fraud risk** – Intentional or deliberate deception for unfair or unlawful personal gain. These are intentional actions, manipulation of data or documents, or the abuse of office, policies, procedures, or documents of MFI’s property for the purpose of personal gain.
- **Error risk** – Unintentional errors that create unreliable information and reports, or the loss of assets due to lack of training and capacity, rapid growth or an inadequate number of staff. Errors in judgement or interpretation of policies, procedures, documents, or cash transactions can create large or small losses in MFI.
- **Security risk** – Risk of theft or harm to property or person. MFIs – both large and small – are about people, paper and money. Money, particularly the high use of cash in most MFIs, creates a high risk for security of both money and people. MFIs mostly operate in environments where crime is prevalent or where, because of poverty, the temptation is high. For example, in high volume branches the amount of cash collected on a repayment day can easily exceed the average annual household income in that community.
- **System integrity risk** – An assessment of this risk involves checking the quality of the information entering the system, whether computerized or manual, verifying that the system is processing the information correctly, and ensuring that it produces useful reports in a timely manner.
- **Inefficiency risk** – Management of costs per unit of output, affected by both cost controls and the level of outreach or economies of scale.
- **Reputation risk** – An MFI’s image amongst clients, the local community, financial sources, and the government is critical to strong repayment and repeat business. An MFI’s image and reputation in the community does not only come from actual and factual information about the MFI but is also about clients’ perceptions and the satisfaction they feel about the institution, about how they feel they are treated, and whether they value the services provided.

Other than the two kinds of fraud explained above, the Basel II Committee has further defined five types of loss events as Operational Risk. Each category is presented below with some examples:

(i) **Internal fraud** – It comprises operational losses resulting from an act involving at least one internal party of a type intended to defraud, misappropriate property/data, intentional misuse of positions, bribery, circumvent company policy or law;

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34 Adapted from ‘Risk Management and Capital Adequacy’ by By Reto R. Gallati

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(ii) External fraud – It comprises operational losses resulting from an act by a third party of a type intended to defraud, theft of property, theft of information, hacking damage), forgery;

(iii) Employment practices and workplace safety – comprises of operational losses resulting from acts inconsistent with employment, health, or safety laws or agreements, payment of personal injury claims, or payment arising from discrimination events;

(iv) Clients, products, and business practices – comprises of operational losses resulting from the nature or design of a product or from an unintentional or negligent failure to meet a professional obligation to specific clients (including fiduciary and suitability requirements);

(v) Damage to physical assets – comprises of operational losses resulting from the loss of or damage to physical assets from natural disaster or other events;

(vi) Business disruption and system failures – comprises of operational losses resulting from a disruption of business or system failures; and

(vii) Execution, delivery, and process management — is the operational loss event type category that comprises of operational losses resulting from failed transaction processing or process management or losses arising from relations with trade counterparties and vendors.

Why should MFIs Care about Operational Risk?

Before exploring the methods of mitigating Operational Risks of MFIs, one must first understand the unique characteristics of MFIs that could lead to Operational Risk. Some of the characteristics that are unique to MFIs are given below:

- Large number of transactions of small values
- Decentralisation - could cause deviations away from prescribed credit policies and result in fraud, error or manipulation
- Rapid Growth - Burgeoning growth of the portfolio and clients could result in failures of established systems
- Managers trained more in social services than in business techniques
- Competitive pressures
- Growth oriented incentives for sales force
- Constant pressure to cut costs – mandate of efficiency may result in fewer controls/procedures/information/supervision.
- Lack of fully-integrated information systems
- Increasing dependence on Technology
- Poor infrastructure facilities in remote areas
- Pace of change, especially for products and technology

From the above list, it is evident that Operational Risk encompasses various risks inherent in business activities across an MFI, and consequently, losses have the potential to be much greater. One of the characteristics of operational risk is that it is less predictable and even harder to model. While some types of operational risks are measurable, such as fraud or system failure, others escape any measurement discipline due to their inherent characteristics and the absence of historical precedents. The typical loss profile from operational risk contains occasional extreme losses among frequent events of low loss severity. MFIs must therefore take care to focus on Operational Risks because these risks present the most relevant and highest exposure to the MFIs (other than credit risk) and can best be addressed by the MFI itself, as the risks often cannot be transferred or insured.
5.3 Identifying Operational Risks

A common approach to analysing operational risks is through “process mapping”. This approach illustrates working processes through flow charts. Another approach that is commonly used in the field of auditing is the Cycle Approach. Both the approaches have been discussed here in brief.

5.3.1 A Cycle Approach

A systematic and reliable approach for identifying points of risk within an institution is to classify operating activities and transactions into operational cycles. Although the activities within cycles vary among different types of business entities, the major cycle categories are common to all. The cycle approach to identify risks consists of (a) Listing of steps for each operating process, and (b) Identifying the points of risk in each process.

Figure 13: The Cycle Approach

**Revenue Cycle**: In an MFI, the primary source of revenue is the interest and fees collected on loans made to clients. In an MFI, the revenue cycle is the credit delivery cycle and includes the entire process of disbursing and collecting loans, all of which should be clearly outlined in a credit policy manual and in the accounting policies and procedures. This is probably one of the highest risk areas for MFIs since loan disbursements and collections are usually in cash, and very often in remote communities far away from bank branches.

**Expenditure Cycle**: As in all businesses, the expenditure cycle primarily includes payment for purchases and payroll. Purchasing policies should outline procedures for initiating requests for goods or services, the tender or bid process, approval levels, preparing and signing cheques or issuing cash, and the receipt and storage of goods. Payroll includes the range of human resource functions of hiring, training, compensating, evaluating, and terminating as well as the disbursement functions of accounting for all payroll costs, deductions, benefits, advances, and other adjustments.

**Conversion Cycle**: Many MFIs do not have specific policies in place for the management of fixed assets other than as part of purchases. The risks, however, are often greater because the costs are higher. Controls begin with a pre-approved capital budget and criteria for the use of the assets. In addition, there should be policies for identification/inventory of assets, depreciation, disposition, and the procedures and recording of the disposition of assets.

**Treasury Cycle**: The treasury cycle focuses on the management of cash within the MFI, particularly through its management of liquid or near-liquid assets and liabilities, but there are a number of additional functions included in treasury, included but not limited to, the following: 

*MicroSave: Market-led solutions for financial services*
Funds received from equity and debt investors
- Funds temporarily invested until needed for operations
- Liquidity management
- Asset and liability management
- Functions involved with issuance and redemption of capital stock, debt and investment management, investigation and selection of appropriate forms of financing
- Donations

5.3.2 Process Mapping

Process mapping is a graphic representation of the process under review, allowing for a process description, the risks inherent in the event, and procedures that control those risks. This allows Risk Owners to identify not only missing controls, but redundant controls as well that sub-optimize customer service and operational efficiency goals. For each product and business activity, conduct the following:

1) Map out the flow of processes that take place from the moment that there is customer contact.
2) Design your procedures, as they should be performed.
3) Design a solution to mitigate the risk, e.g. adding or modifying a step, adding a control, or reordering the workflow.

This toolkit does not go into great depth in process mapping various operating activities. However, it is worth to review the key points of risk identification, risk strategies and assessing and prioritizing risks – from the perspective of Operational Risk Management. Further details can be found in MicroSave’s “Toolkit for Process Mapping for MFIs”.

Look at the sample Process Map shown in Figure 14 below. The map consists of four tiers:

Tier I – Flow Chart
Tier II – Description of Process Outlined in Flow Chart
Tier III – Risks Associated with Process
Tier IV – Internal Control/Risk Management

The top two tiers are for general use by all staff help document procedures and often serve as the basis for training manuals for front-line staff. All four tiers would be used by senior management and others directly involved in the MFI’s risk management programme, such as Internal Audit for risk analysis and procedures-compliance analysis, as well as for training senior management.

By adding the Risk and Control tiers to the process maps, there is a compelling need to regard the processes in a new perspective by asking, “What can go wrong?” Once the risks that are associated with the process are clearly identified, the extent to which the MFI wants to mitigate these risks can be assessed. The diagram below illustrates how process mapping techniques can be integrated with risk analysis techniques and tools.

Figure 14: Integrating Process Mapping and Risk Management

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5.4 Fraud Risk in MFIs

5.4.1 Definition of Fraud

The very nature of microfinance activity is often associated with hard cash, especially when there are numerous cash transactions handled by different sets of people within an organisation. Before discussing the strategies to manage this issue, one must first understand the concept, types and factors contributing to fraud.

The legal definition of fraud will vary in different countries but a general understanding about fraud in the area of audit and control is ‘the use of deception by persons internal or external to the organisation, with the intention of obtaining an advantage, avoiding an obligation or causing loss to another party’.

Generally, the term is used to describe such acts are, bribery, forgery, extortion, corruption, theft, conspiracy, embezzlement, misappropriation, false representation, concealment of material facts, collusion, etc.

5.4.2 Types of Frauds in MFIs

Emerging MFIs are much more vulnerable proportionally to employee theft, and are much less able to absorb these losses than larger MFIs. The most common types of frauds found in MFIs are the following:

- Falsified or altered documents
- Fictitious loans
- Kickbacks from clients
- Embezzlement of funds/theft of cash
- Collusion in issuance of loans
- Manipulation of financial data through omitting the effect of transactions or incorrectly or incorrectly using accounting policies and procedures.

5.4.3 Factors contributing to Fraud

MFIs are most vulnerable to fraud when there is:
• Weak information and accounting systems
• Changing systems
• Transformation into another legal form
• Late completion of financial reports
• Weak policies, procedures and internal control system
• High employee turnover
• Non-standardisation of loan products and programs
• Loan officers handling cash
• A significant cost reduction effort
• High growth

How is fraud most often detected?

• Increase in delinquency: There is often a link between fraud and delinquency. Organisations must re-examine both lending policies and reporting procedures.

• Accounting irregularities: There is a link between fraud and inadequate controls. Organisations must examine accounting procedures and maintain a system of independent review.

• Employee tips: There is often a link between fraud and unmotivated or disgruntled employees. Fraud is much more likely to be detected by a tip than by other means such as internal audits, external audits or internal controls. The importance of encouraging tips is thus evident. Organisations must examine the institutional culture and create a “fraud awareness” philosophy.

5.4.4 Possible tactics to mitigate Fraud

Just as there are multiple drivers or causes of risk, there are multiple forms that controls can take to mitigate risks. Ideally, the controls are built into the design or the product features as well as into the processes used to deliver them. There are four broad types of controls that are used to mitigate fraud.

1. **Human Resource Controls**: through recruitment, training, incentives etc.

2. **Policies and Procedures**: Controls through application of detailed procedures, and system controls.

3. **Product Design Controls**: Controls imposed by the design of products and delivery process, such as peer appraisal and guarantee, prompt payment incentives, penalty for late payments, etc.

4. **Performance Measures**: Ratio analysis, trend analysis, internal audit.

*Exercise:* At the end of this session, participants will work on a group exercise to discuss and present the steps that should be taken by an MFI in the wake of a significance occurrence of fraud.

**Human Resource Controls**

Human Resources are one of the primary intangible assets of any organisation. Staff members interact daily with clients, deliver products and services, fulfil the accounting and financial functions and manage the Management Information Systems. MicroSave’s “Human Resource Management for MFIs Toolkit” (Pityn, 2005) provides helpful tools in managing this important resource in MFIs. The following section looks at the key ingredients of staff management to from a preventative perspective on internal controls.

Setting a positive working environment to train, encourage and motivate staff is an important part of the MFI’s leadership role and an atmosphere of suspicion and distrust is generally not conducive to an MFI’s business operations. As microfinance is all about financial intermediation, the very heart of a good financial service is based on trust and trustworthiness.
Are people basically honest? As human beings we all want to believe in the best in one another. However, a 1999 study conducted in Canada (and cited by KPMG Forensics) of the top 1,000 public and private companies concluded that roughly 20% of the general population is basically honest. Another 20% is basically dishonest. The remaining 60% are honest or not depending on the situation. In other words, given the opportunity and the right situation, many people make dishonest choices. Therefore, it is important that organisations place appropriate controls and culture that prevent and discourage people to become dishonest due to situational factors.

Factors Contributing to Employee Fraud
A well-known criminologist, Dr. Donald Cressey who researches embezzlers, calls such people calls “trust violators.” He refers to the “Fraud Triangle”, as exhibited below, when discussing the subject. Per Cressey, employees who commit fraud generally are able to do so because there is **opportunity, pressure, and rationalisation**.

Figure 15: The Fraud Triangle

**Opportunity** is generally provided through weaknesses in the internal controls. Some examples include inadequacies in (or a complete lack of) the following:

- Supervision and review
- Separation of duties
- Management approval
- System controls
- Working relationships with suppliers of goods or clients
- Enforcement of existing controls
- Code of ethics or rules of conduct

Limiting opportunities for employee fraud is accomplished through strong internal controls and policies, procedures and systems that ensure systematic record-keeping, segregation of duties and independent verification of limits.

**Pressure** can be imposed due to a variety of factors:

- Personal financial problems
- Personal vices or addictions such as gambling, drugs, extensive debt, etc.
- Unrealistic deadlines and performance goals (e.g. our branch must break even by next year)
- Desire or pressure for status symbols e.g. a vehicle, a larger house, etc.
- Pressure from increased extended family responsibilities
- Pressure from peers who are conducting the fraud and seemingly able to “get away with it”
“Knowing your employees” – their families, backgrounds, and taking time to build positive work relationships can help to understand your employees’ needs, ambitions, dreams and pressures.

**Rationalisation** occurs when the individual develops a justification for their fraudulent activities. The rationalisation varies by case and individual. Some examples include:

- “I really need this money and I’ll put it back when I get my paycheque. No one will notice.”
- “I just can’t afford to lose everything – my home, car, everything.”
- “I work so hard and have put in so much effort over the years to this MFI, but they still have not rewarded me or promoted me to the level I deserve.”

There is also the issue of ‘Personal Character’. There are people who either will deliberately make fraudulent choices at any opportunity because they lack strong moral character or personal integrity and cannot manage or control the pressures in their lives.

Rationalisation to commit a fraud can also be prevented or reduced through thorough staff motivation efforts. In fact, the single most important factor in prevention of fraud within an organisation is a well-motivated staff.

**Effective Staff Motivation**

Preventive internal controls with respect to human resources are about preventing opportunities for error, misstatement and abuse. The greatest preventive antidote to fraud is to ensure that MFI provides strong and effective staff motivation.

Abraham Maslow has conducted research on the various levels of human need, and most of the world is now familiar with the model that carry’s his name, “Maslow’s Hierarchy of Human Needs”. When the lower levels of need are satisfied – primary needs of survival and personal security, he learned that people are motivated by seeking to satisfy higher needs – social belonging and personal fulfilment (or self-actualisation).

The mission and vision of MFIs is often what attracts and motivates many people to enter the sector. People are often drawn by a mission that seeks to provide access to the poor and disadvantaged. However, if staff members are not receiving adequate salaries to cover their primary needs of food, clothing and shelter and also some of their social needs for recognition, status and belonging, they may well be poorly motivated and discouraged to achieve that higher mission.

**Figure 16: Maslow’s Hierarchy of Human Needs**

[Diagram of Maslow’s Hierarchy of Human Needs]

Herzberg, a writer on organisational management, has identified five “motivating factors” to workplace satisfaction and positive attitudes. He also identified five “negative” factors, which can cause dissatisfaction in the workplace. The table below shows the factors in the order of importance based on his research. It should...
be noted that he found salary and benefits to be the third most commonly cited demotivating factor in a work environment. People find bad policy and administration, and incompetent supervision more difficult.

None of the motivating factors highlight the issue of salary or remuneration, although it is generally included with recognition. It is interesting to note that the motivating factors all correspond to Maslow’s higher levels of human need – self-esteem and creativity. So in effect, an organisation must ensure the basics of benefits and salaries are right to have employees conduct the minimum levels of expected performance; however, to have employees perform beyond the minimum levels, techniques other than salary must be considered.

<table>
<thead>
<tr>
<th>Table 15: Motivational and Negative Factors</th>
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<tbody>
<tr>
<td><strong>Motivating Factors</strong></td>
</tr>
<tr>
<td>Achievement</td>
</tr>
<tr>
<td>Recognition</td>
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<tr>
<td>Quality of the Work</td>
</tr>
<tr>
<td>Responsibility</td>
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<tr>
<td>Advancement</td>
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**Effective Human Resource Policies**

An MFI’s attitude towards fraud and dishonesty will to a large extent determine staff attitudes. An MFI’s board and management that hold a high regard for strong internal controls and low tolerance toward fraud, will often succeed in minimising fraud. The policies, procedures, practices, and responses to incidents will reflect that attitude. The human resource policy must include the policy on hiring, training, remunerating, and terminating staff members and seek to answer the following key questions:

- Are the hiring procedures designed to attract individuals who are honest and well motivated?
- Are new employees oriented to the MFI culture of honesty and zero-tolerance?
- Are staff remuneration levels reasonable and competitive?
- Is there an immediate termination policy for staff fraud or dishonesty?

**Hiring:** Staff must understand and adopt the vision of the MFI or preferably already be someone who believes in the mission personally. The MFI can identify sources of prospective staff members with high moral integrity. In every case, even with a “known” person, an MFI must follow solid recruitment practices and be willing to invest time and resources to find the right people. The staff screening mechanism must include the following:

- Check references, both professional and personal
- Personality tests or other screening mechanisms
- Systematic and tested recruitment, interview and screening process
- Consider background checks

**Training and Development:** A critical aspect of bringing on new recruits is to train them thoroughly in their positions, in the operational policies, procedures and internal controls, and to indoctrinate them into the organisation’s culture. This is the ideal opportunity to promote the organisation’s core values of honesty and integrity, and demonstrate a low-tolerance toward fraud.

Training staff in values, organisational culture, and practices includes both teaching and verbalising those values, but more importantly, living those values. More is “caught” in the field than “taught” in the classroom. Values need to be reinforced with all staff on an ongoing basis. Unfortunately, the sad reality is that many MFIs are so focused on operational productivity and cutting costs that staff development and training are often sidelined or forgotten.

**Remuneration:** Employees should have a strong incentive to perform their job in a responsible and competent manner. Employees who do not feel sufficiently compensated will be much less likely to carry out their job with the needed thoroughness and attention to detail. Likewise, they are much more vulnerable to committing fraud, especially in economies where sums that they handle daily represent months, or even years’ worth of salary. A competitive salary is a strong preventive control in deterring sloppy or fraudulent
employee behaviour. Typically, MFI budgets are limited and very cost-conscious; so linking financial incentives to financial performance of the MFI or the portfolio is a good way to ensure that adequate remuneration is financially affordable.

**Rotation of staff and mandatory leave**: Periodically, the job functions or the geographical location of employees should be changed/rotated. The rotation or transfer should be long enough to allow the MFI to discover fraud, e.g. waiting a few repayment or disbursement cycles. Job rotation also helps train staff to do other jobs, allowing them to fill in when other staff are on leave or sick. The leave should require all staff to take off at least one week in consecutive days per year (and following regulatory labour laws).

**Terminating**: Employee awareness of potential negative consequences for inadequate job performance can also be a preventive control, especially for employee fraudulent activity. There should be a clear message that staff members will be immediately terminated, lose their valuable source of income and benefits, and be taken to court (if possible) if they perpetrate fraud. Swift and permanent action in response to even the least consequential fraudulent activity sends a clear message to employees that the MFI does not tolerate fraud of any type. **Final tip**: Remember to check your country’s labour legislation and the legal regulations for termination.

**Response to Fraud**
If fraud is identified, the MFI needs to quickly move into damage control mode. Organisations should consider developing contingency plans that can be dusted off and put into action when the need arises. This contingency plan might include the following elements:

- Who will be involved and in charge of investigating and making decisions?
- How will the MFI investigate the single incident and examine if the issue goes beyond the one reported event?
- What action will the MFI take against the perpetrator (i.e., termination, bringing in the police, legal proceedings, and efforts to recoup losses)?
- What approach will the organisation take with clients who were victimised?
- What approach will the organisation take with other clients who may think this is an opportunity to stop loan repayments, or become unsure of the MFI’s reliability? (Clients talk to one another more than they talk to the MFI, and a small incident can have a much larger communal effect than anticipated!)
- How can the MFI turn this public relations nightmare into an opportunity?
- What changes to the internal control policies are required to prevent this from occurring again?

**Model for Sustainable Capacity Building**
Values are the core of effective capacity building. Each MFI must determine what values are appropriate for the institution and constantly seek to have those values internalised by all, including board members and management. Setting policies, procedures and strategies that reflect the MFI’s values and plans provide direction for the staff. Building capacity for sustainability and growth of MFIs require the right people, with the right skills, and doing the right things. With this planning cycle, the “Capacity Building” is more likely to be sustained.

**Figure 17: Model for Sustainable Capacity Building**

1. Begin with stating the Core Values of the Institution:
   Justice/Fairness, Integrity, Quality, Commitment, Respect, etc.
2. Set policies and procedures consistent with the values
3. Set strategies and objectives for implementation
4. Hire staff who share the core values
5. Train and Equip Staff
5.5 Policies and Procedures

This section will specifically discuss the components of Administrative and Accounting Controls. Some of the key policies around cash operations and security will also be highlighted in this section. Clear and comprehensive policies and procedures are an integral part of preventive control of risks in an MFI.

- **Policies** are the written guidelines that indicate the direction of the operations, e.g. credit policies include guidelines on eligibility of clients, description of products offered, etc.
- **Procedures** are the written instructions that tell how to implement and follow the policies.

In order to be effective, policies and procedures must be:

- **Written** – oral instructions are seldom consistent and easily misunderstood
- **Simple/Clear** – keep straight and to the point; use diagrams to show the flow of operations; have the instructions in the vernacular language that can be understood best by the person taking on the task (even if it includes having all documents in the local language)
- **Available** – ensure that each staff member has the policies applicable to their position easily available
- **Understood** – provide training for all staff. If a policy has been changed, be sure it is communicated and training provided
- **Relevant** –
- **Implemented** – expect all staff to follow the policies and procedures as stated

5.6 Administrative Controls

The common form of administrative controls are ‘Segregation of Duties’, ‘Dual Control’, ‘Physical Safeguard and Security’, ‘Standardised Error/Problem handling procedures’, ‘MIS Controls’, etc. We have already discussed the features of these controls in the ‘Internal Control’ section, so we will not discuss the concept and meaning here in details but will focus on their utility.

**Segregation of Duties**: An effective internal control system relies on proper ‘Segregation of Duties’. The participation of two or more persons in a transaction creates a system of checks and balances and reduces the opportunity for fraud. If segregation of duties is not always possible, the management should perform additional procedures, such as periodic staff rotation, frequent reconciliation and monitoring, etc., to offset the lack of inadequate internal controls.

Segregating the duties between different staff members helps to avoid problems but can also be more costly and less efficient, and does not prevent collusion of staff in misappropriation.

**Dual Control**: It simply means ‘two sets of eyes’ for a transaction. Dual controls act as a backstop to decision making or approvals, as it requires another employee to carry out a transaction. The common example is having at least two keys needed from two separate persons to access vaults. Another common example is two or more signatories to withdraw funds from a bank account. Dual control should also be established for counting or transferring cash.

**Limits of Authority**: Limits are often used to set parameters for approvals, expenditures, and other ordinary business processes. Budgets are one of the most common types of limits used in business operations. Another operational limit is to place a cap on the amount of cash allowed in a branch at any point in time. If the cap is exceeded, the branch must make a bank deposit.
5.7 Accounting Systems and Controls

The integrity of the MFI’s financial reports will depend on the strength and integrity of the accounting system – whether manual or computerized. The system must operate and process transactions correctly and individual transactions must be entered correctly. The two systems should be compatible and connected, ensuring that transactions are entered and treated correctly in both and that monthly reconciliations of each system are the same at the end of each month.

Characteristics of Transactions

In order to produce reliable financial statements and reports, accounting transactions must have the following characteristics. These are core elements of basic accounting and information controls. Controls for validity, completeness, and valuation are best maintained by independent checks and segregation of duties within the accounting function. This ensures that each person performs only certain functions within the system and that each person’s work is checked by another.

a. **Transactions shall be valid**: The system must not permit the inclusion of fictitious or nonexistent transactions in journals or other records.
   - All pre-printed forms shall be pre-numbered and kept under the control of the Head Accountant
   - All transactions entered in the journals must be recorded in numerical order
   - All transactions must be fully substantiated by supporting source documents
   - Any changes made to entries must be made by first reversing the incorrect entry and then entering the new one. Entries that have already been posted should not be altered.

b. **Transactions shall be properly authorised**: Upon approval of the annual budget, the Manager alone authorises expenditures. These shall remain within the budget limits by classified categories unless approvals are received for any changes.

c. **Transaction records shall be complete**: The system must prevent the omission of transactions from the records. All pre-numbered forms must be accounted for in numerical order, including forms that have been mutilated or otherwise voided due to error.

d. **Transactions shall be properly valued**: Expense reports, invoices, receipts and other transactions shall be checked for accuracy and initialled by someone other than the person preparing the payment documentation. Values should be checked for consistency throughout the recording process.

e. **Transactions shall be properly classified**: The transactions must be entered into the journals following the proper account categories, according to the chart of accounts.

f. **Transactions shall be recorded at the proper time**:
   - All transactions must be properly recorded as close to the time they occur. Recording them before or well after they occur will increase the likelihood of errors.
   - All transactions occurring in any given month must be recorded in the books during that month.
   - Proper month-end cut-off procedures shall be maintained to ensure consistent reporting from month-to-month

g. **Transactions shall be properly posted to the general ledger (master files) and correctly summarised and aggregated**. Whether the accounting system is manual or automated, adequate controls must be in place to make sure that the classification, posting and summarisation is correct.

h. All transactions must be supported by adequate and appropriate documents that justify and support the payment.

**Voucher preparation**

Every time a transaction occurs, it must be documented on an accounting voucher or other internal source document. Preparing a voucher will record the transaction consistent with the accounting treatment per the MFI’s own practices. The most important point to remember is that vouchers result in a paper trail for each
transaction. In a computerized system, this is the basic document used for data entry. In a manual system, this is also the initial source document.

Vouchers are supported by invoices, receipts, cheque stubs or cash requests and generally include the following:

- Number and nature of voucher
- Name of department
- Date prepared
- Account name and number
- Amount of money
- Source and description of the transaction
- Authorised signature(s) of person reviewing the documentation, and also authorised signature of person approving the transaction
- Attachment of original invoices and cash requests
- Proof of delivery or completion of services rendered

**Independent Checks and Verification:**

Independent reviews and checks are a common internal control feature in microfinance operations, and are used for transactions, reconciliations, approvals and reports. This is a way of not only segregating duties, but adds an extra “pair of eyes” to ensure that bank reconciliations are done properly, financial reports are supported by reconciliation schedules that agree to the report, and that accounting reports agree with MIS loan tracking reports.

MFIs also need to conduct independent checks on the client loan portfolio. The authentication of clients (vouching that the client names and files in the MFI records are in fact the physical client at the business) and the verification of their loan balances (verifying the amount of loan the client was granted, the payments made and the remaining balance) is a critical part of every MFI internal control system. If the MFI collects and holds client savings, these balances must also be verified to client records.

### 5.8 Cash Handling Controls

The proper management of cash is very important for an MFI for the following reasons:

- There are a large number of transactions of cash receipts and cash disbursements.
- Cash handling fraud is relatively easy to commit and hide, as cash does not leave a “paper trail” automatically. Timely payments to creditors maintain the reputation of the organisation.
- Timely payments from clients improve the MFI’s financial position.
- Good systems foster client trust, limit opportunities for abuse, and protect the staff members who follow procedures as dictated.

**Cash Receipts**

**Loan repayments:** The primary source of operating cash received by a microfinance institution is the repayment of loans from clients. In some cases, payments are made directly into a bank account. In other cases, payments are made to the teller or cashier at MFI Branch or satellite offices. However, many payments are made directly to loan officers. In general, most MFIs should discourage loan officers from handling cash payments, but if there is no other option, additional control procedures need to be established. All collection procedures should include the following elements:

- Issue pre-printed repayment schedules to each client with the loan proceeds. Include bank account numbers, if paid to a bank.
- Issue pre-numbered receipts to borrowers for bank deposit slips or cash funds received.
- List all collections, including field collections, and compare with accounting and MIS transaction journals.
- Each individual receipt is recorded in two places: the individual client ledger cards (passbooks) and the cash receipts journal.
• Reconcile the total receipts for each day with the daily bank deposit slip (the institution’s deposit, not the client’s).

Other receipts: There are certain types of cash receipts, like Donor Funds and Sale of Assets, etc. for which the Chief Executive Officer (CEO or Managing Director/MD) must have direct control.

• Donor Funds: The general manager must be responsible for the deposit of donor funds to ensure timely and proper crediting to the institution’s account. No donor funds should be received and deposited without his/her knowledge.

• Sale of Assets: The general manager must personally approve the sale of any asset, complete with signature on the bill of sale and signature on the voucher showing the receipt of cash.

All cash receipts from whatever source must be recorded in a cash book and reconciled to the daily bank deposit slip.

Cash Disbursements

Bank Account: General Control Techniques:

• Use only pre-numbered cheques for disbursements
• Have proper documentation support for cheques
• Cancel supporting documents when paid (e.g. cross them with a line and a signature, or stamp them “Paid” or “Used”)
• Cheque signing by management with no access to records
• Keep voided cheques, but ensure signatures are obliterated
• Post or deliver cheques or disbursements directly to client or payee
• If hand delivered, obtain a receipt
• Record all cheques in numerical order in the cash disbursements journal and allocate each cheque to the proper operating expense account number
• Use an imprest petty cash fund system with one custodian and another person to verify the petty cash records

Petty Cash: In many institutions, supplies and expenses are often paid in cash rather than by cheque, including, in some cases, payroll. For this reason, procedures for handling the petty cash fund need to be clearly outlined and consistently followed. For example:

• Petty cash shall be maintained on an imprest basis. At any given time, the cash and receipts in the cash box shall total the imprest level. The level shall be maintained at a specific amount.
• Only one designated staff person will handle petty cash. Actual cash will be spot-checked and verified by the supervisor at least once per week. The staff person in charge of the fund shall reimburse for any discrepancies.
• All requests for additional petty cash must be signed by an authorised supervisor on a pre-numbered voucher. All vouchers must be supported by invoices and bills for the purchase.
• Cancel supporting documentation after payment.
• Record petty cash transactions in a cash book.
• A cheque to replenish the fund shall be issued when the fund is low, and at the end of every month. A physical cash count of the cash box will be part of the replenishment process.
• Compare the cash count to the cash bank when making a physical verification.
• The cash and vouchers will be kept in a lock-box or safe.

Reconciliations

Bank Reconciliations: Accurate and timely bank reconciliation is a key factor in maintaining internal control over cash in the bank account. This means monthly, immediate reconciliation of the bank statement to the general ledger. Refer to Handout 6.2 Sample Bank Reconciliation Format for details of the following section.

The bank reconciliation must be prepared at least monthly for each bank account to reconcile the bank balances per the bank statements to the general ledger or cash book balance. The format is outlined on the next page.

Part A of the form summarises activity in the cash book for the month. The first line is the opening balance at the beginning of the month, taken from the general ledger. This should agree with the previous month’s closing balance. The monthly totals of cash receipts and disbursements from the cash book are listed.

The bank statement may list service charges or interest received on the accounts that have not been included in the cash book. If so, adjustments should be made to the general ledger so the final balance is current and up to date. Those adjustments are also listed in Part A.

Part B begins with the closing month end balance from the bank statement. Now the reconciling begins. The possible differences between the bank balance and the general ledger balance in Part A are in two categories:

1. Deposits that were entered in the cash book but have not been credited to the bank account are listed as outstanding deposits. Deposits that are outstanding for more than one week should be followed up with the bank.

2. Cheques listed in the cash disbursements journal and included in the general ledger total but have not cleared the bank are reported as outstanding cheques.

The ending balances of the bank statement should agree to the ending balance of the general ledger.

Cash Reconciliations: Cash reconciliations are generally part of petty cash management. However, if your MFI’s primary medium of transactions happens to be cash, cash reconciliations also include the analysis and verification of cash in transit, cash in the vault, and bank deposits in transits. These must be carefully documented and monitored to ensure there are no unnecessary delays in the system. Some MFIs develop and use a “Cash Count” sheet to document and verify cash reconciliations. Refer to Handout 6.3 Sample Cash Count and Verification as a sample tool for reconciling cash on hand.
Managing Financial Risk
6 Financial Risk Management

Like banks, MFIs are involved in the business of managing maturities. Assume that an MFI takes a loan with a maturity of 5 years but lends through loan products having shorter maturities, ranging from 6 months to 1 year. Further, assume the debt obligations from the MFI to the bank are of the order of $10 million with $2 million coming due in Year One, $1.5 million coming due in two years and $6.5 million due in three years. The MFI will therefore need to secure significant new financing in Year Three (or even sooner) to ensure it will be able to continue servicing its existing portfolio. This situation poses two kinds of risks: one is **Liquidity Risk** or a maturity mismatch risk. The second risk is **Interest Rate Risk**. The new financing to be secured to manage liquidity can still come at a higher interest rate, reducing interest margins and the overall bottom line.

To make the matter a little more complex, assume that the MFI operates in India. The MFI borrows in dollars, but the assets (the loan portfolio) created will be in Indian Rupees. This poses the risk of having to pay more Indian Rupees per dollar when an MFI services its debt obligations (assuming the dollar strengthens) and would be considered to be **Foreign Exchange risk**.

All the above three risks are managed by a function called Asset-Liability Management (ALM). In fact, in most of the countries, Banks are required to set up Asset-Liability Committees (ALCO). Many large MFIs also have these committees, whose primary functions are to manage the assets and liabilities of the MFI to address the liquidity, interest rate and foreign exchange risk (see the adjoining box for an example). Usually, the Treasury function in the financial institution is responsible for management of liquidity, interest rate and foreign exchange risk on a day-to-day basis.

In general, the ALM requires setting up strong MIS systems in addition to top management commitment from Treasury and the ALCO. The following table presents the pillars of ALM processes, applicable for managing liquidity, interest rate risk and foreign exchange risks:

### Table 16: Basic tenets of Asset Liability Management

<table>
<thead>
<tr>
<th>ALM Pillar</th>
<th>Pillar rests on</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALM Information Systems</td>
<td>• Comprehensive Management Information Systems</td>
</tr>
<tr>
<td></td>
<td>• Information availability, accuracy, adequacy and expediency</td>
</tr>
<tr>
<td>ALM Organisation</td>
<td>• Structure and responsibilities</td>
</tr>
<tr>
<td></td>
<td>• Level of top management involvement</td>
</tr>
<tr>
<td>ALM Process</td>
<td>• Risk parameters</td>
</tr>
<tr>
<td></td>
<td>• Risk identification</td>
</tr>
<tr>
<td></td>
<td>• Risk measurement</td>
</tr>
<tr>
<td></td>
<td>• Risk management</td>
</tr>
<tr>
<td></td>
<td>• Risk policies and tolerance levels.</td>
</tr>
</tbody>
</table>

The following sections discuss the three most common risks identified above under ALM describe how they can be managed.

---

35 Adapted from the Reserve Bank of India’s guidelines on Asset Liability Management for NBFCs

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6.1 Liquidity Risk Management

6.1.1 Liquidity definition and importance

Why should one spend time and effort learning about liquidity management? The answer is simple: if the MFI is not liquid to meet debt obligations and fund operations, it becomes bankrupt very quickly. One can avoid liquidity problems simply by holding assets in cash; however, an MFI’s business is not to be a guardian of cash. Also, cash typically does not earn enough to cover funding and administrative costs. The challenge therefore is, to find a middle way between having too much or too little cash.

Liquidity is simply defined as the ability of a financial institution to honour all cash payment commitments as they fall due. These commitments can be met either by drawing from a bank account where the institution might hold cash, by using current cash inflows, by borrowing cash or by converting liquid assets into cash.

An MFI’s ability to meet its near-term obligations (such as payments to suppliers, debt obligations, clients’ demand deposits (for example cooperatives or deposit-taking NBFCs in India) and disbursing client loans when conditions are met is critical to its short-term and long-term viability and strategic goals. Experience demonstrates that financial institution failures result more often from liquidity crises as opposed to insolvency; once an institution is unable to meet its obligations, it sparks a series of events and loss of confidence that can ruin it, regardless of the size of the liquidity shortfall. The impact of even a very brief liquidity shortfall may be extremely severe (if not lethal) and the risks include:

- Higher funding costs
- Creditor problems
- Inability to extend/renew client loans
- Client (and wider community) distrust
- Closer scrutiny by regulators
- Financial distress

Liquidity risk management

Financial Institutions manage liquidity because of the following four reasons:

- To honour all cash outflow commitments on a daily and ongoing basis,
- To minimize the cost of foregone earnings on idle liquidity,
- To satisfy minimum reserve requirements and other regulatory liquidity standards,
- To avoid additional cost of emergency borrowing and forced liquidation of assets.

We will use the risk management feedback loop (described on page X of Section X) to illustrate managing liquidity risk.

Identifying, measuring and controlling liquidity risks

Institutional structural forms like the Finance Manager (or CFO) and Risk Management Committee (RMF or often the Finance Committee) must own the primary responsibility of managing and controlling liquidity risks. The RMC meet at least on a quarterly basis to identify risks and should produce formal of meeting minutes and recommendations and decisions.

Each MFI’s policy must contain provisions for periodically measuring its estimated, current liquidity position, keeping in mind that any liquidity measure is a proxy for true liquidity. When incorporating

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36 This section draws from the “Tool for Financial Risk management Policy” developed by the Women’s World Banking and Liquidity Management for MFIs published by GTZ.
standardized liquidity measurements as part of a liquidity policy, MFIs will need to consider both internal and external views of liquidity.

While third parties, such as creditors and suppliers, may have a shorter term view of liquidity, management must take a long term view of its liquidity position to support the fulfilment of strategic goals. (For example, projected high growth will require MFIs to secure additional liquidity sources today for tomorrow, e.g. increasing bank lines of credit.) Liquidity Ratio Monitoring Policies should require the measurement and monitoring of liquidity levels with the use of the following seven liquidity ratios:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Liquidity Ratio</th>
<th>Explanation</th>
<th>Trigger Levels</th>
<th>Recommended Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Cash + Marketable Securities + Current Accounts Receivable)/Current Liabilities</td>
<td>“Quick ratio” – Traditional measure of liquidity using only the most liquid current assets.</td>
<td>1.2x</td>
<td>Consider increasing liquidity by increasing cash position; if necessary, secure back up treasury/credit lines and delay capital expenditures.</td>
</tr>
<tr>
<td>2</td>
<td>Liquid Assets/Deposits</td>
<td>Indicates percentage of total deposits that are supported by liquid assets.</td>
<td>20%</td>
<td>Consider increasing cash position [or reduce deposits if inadequate liquidity available].</td>
</tr>
<tr>
<td>3</td>
<td>Liquidity Reserve/ Withdrawable Savings</td>
<td>Local regulatory requirement for cash to be held at the central bank as a percentage of highly liquid deposits.</td>
<td>10%</td>
<td>Consider increasing cash position through alternative funding methods [or reduce deposits if inadequate liquidity available].</td>
</tr>
<tr>
<td>4</td>
<td>Liquid Assets/Total Assets</td>
<td>Indicates percentage of total assets that are supported by liquid assets.</td>
<td>3-5%, if not mobilising savings 10-20%, if mobilising savings</td>
<td>Consider increasing liquidity by increasing cash position; if necessary, secure back up treasury/credit lines and delay capital expenditures.</td>
</tr>
<tr>
<td>5</td>
<td>Broader Planning Liquidity: (Current Assets + Availability Under Committed Credit Lines)/(Current Liabilities + 1 Month’s Operating Expenses + 1 Month’s Net Portfolio Growth)</td>
<td>Forward looking measure that determines whether there is sufficient liquidity for disbursements, where liquidity also includes committed funding sources.</td>
<td>&gt;1</td>
<td>Consider increasing liquidity by increasing cash position; if necessary, secure back up treasury/credit lines and delay capital expenditures.</td>
</tr>
</tbody>
</table>

Table 17: Some useful liquidity indicators/ ratios

37 Adapted from ‘Tool for Financial Risk management Policy’ developed by the Women’s World Banking.
38 This may not be mandated by the Regulator in all cases, but the MFIs who mobilize savings must monitor this ratio.
39 Or higher if prescribed by the regulator.
6.1.2 Monitoring liquidity risks

Institutional structures and positions, such as the Finance Manager, the Risk Manager, the RMC, the ALCO, and Internal Auditor, all monitor liquidity risks. Pre-determined limits and triggers help these individuals or committees to identify threats quickly to adequate liquidity. Triggers generally fall into three categories:

1. Changes in market conditions
2. Changes in funding sources
3. Changes in the client portfolio

The following limits/triggers are indicators of potential changes in conditions related to market liquidity or the MFI’s access to funding. They are signals to move to increase (or decrease) the liquidity position by, for example, increasing the cash position or securing back-up credit lines or an alternative source of funding. As with all other policy guidelines, statutory requirements may supersede these recommendations.

<table>
<thead>
<tr>
<th>Trigger</th>
<th>Recommended Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Foreign exchange volatility or devaluation.</td>
<td>Consider increasing liquidity by increasing cash position; if necessary, secure back up treasury/credit lines and delay capital expenditures. Consider adjusting tenure of bank loans in response to market movements.</td>
</tr>
<tr>
<td>• Increased inflation.</td>
<td>Depending on the nature of the regulation, review impact on liquidity position and increase liquidity if needed.</td>
</tr>
<tr>
<td>• Interest rate movements.</td>
<td>Consider increasing liquidity by increasing cash position; if necessary, delay capital expenditures and slow down growth plans.</td>
</tr>
<tr>
<td>• Changes in government regulations</td>
<td>Secure longer-term funding sources, such as long term credit lines.</td>
</tr>
<tr>
<td>• Loss of credit availability</td>
<td>Consider increasing liquidity by increasing cash position by curtailing portfolio growth; if necessary, secure back up treasury/credit lines and delay capital expenditures. Consider lengthening tenure of bank loans. This is in addition to strong delinquency management efforts.</td>
</tr>
</tbody>
</table>

A lengthening in the average tenure of the client portfolio.

**Caution on using ratios only for liquidity monitoring and using maturity category analysis:**

Using ratios for liquidity management is called a “stock approach”. Management of liquidity through ratios suffers some drawbacks, as it does not factor market liquidity aspect of assets and liabilities. For example, presence of some short term investments may indicate an improved liquidity position of the bank, whereas the investment itself may be highly illiquid. Further, the ratio, though a good indicator of liquidity, is only valid for a point of time.

Therefore, the flow approach, or cash flow projections, has been accepted by most of the financial institutions. Under the flow approach, cash flows are segregated into different maturity ladders and net funding requirements for a given time horizon is estimated. The net funding requirement over a given time horizon gives a fair idea of the level of liquidity risk faced by an institution. This method of monitoring and managing liquidity is exhibited by the following table:

<table>
<thead>
<tr>
<th>Table 19: Flow approach of Managing Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-14 days</td>
</tr>
</tbody>
</table>

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### 6.1.3 Cash Flow Management

Since the MFIs deal with cash daily, cash management becomes very important. In fact, it may not be an exaggeration to state that day-to-day cash management is equal to liquidity management in very small MFIs. The process of cash management must start from the branch level. At the branch level, every credit officer must prepare a weekly cash flow statement. The branch manager can consolidate this statement and send it to the HO for an overview of the branch’s needs. The finance manager at the HO can consolidate this report and know the weekly cash requirement at all of the branches. Based on this he can also take a decision on whether to draw down upon the existing cash resources or convert the excess cash parked in short term investments. Thus cash flow management allows the finance manager to balance between maintaining adequate liquidity and minimising excess liquidity so as not incur the opportunity cost of having too large of a liquidity level.

The following may be kept in mind while doing short-term cash flow planning:

- The cash flow forecasts should be as detailed as possible.
- Forecasts should begin at the branch level and consolidate up to headquarters.
- Forecasts should capture all sources of liquidity available (such as cash on hand, cash flows from operations, and unused funding/credit resources).
- Forecasts should capture all uses and potential uses of liquidity.
- Forecasts should be conservative and should factor in any uncertainty in the cash flows, such as the probability of a reduced repayment rate by clients and any likelihood of funding being inaccessible.
- Cash flow forecasts are only as good as the cash collection and disbursement systems, balance reporting, and information systems.
- For MFIs that mobilize deposits, reserve requirements should be forecasted.

### 6.2 Interest Rate risk

It is the risk that an unfavourable change in interest rates might have on the MFI’s earnings. Interest rate risk arises when interest rate on assets and interest on liabilities (which fund the assets) are mismatched. The mismatch may take place in terms of both rates and terms.

Interest rate risk is more prominent in MFIs working in countries that have:
• unpredictable or volatile inflation rates since inflation rates affect base interest rates determined by the government and by the markets. If the inflation rates go up, the interest on the loans may not be enough to cover the cost of inflation.
• an unstable political situation
• extreme swings of the economy with many “booms and busts”
• poor monetary policy by central government
• undeveloped capital markets or few funding alternatives

One of the common types of interest rate risk which is relevant for MFIs is yield curve risk, which is also called re-pricing risk or term structure risk. This risk arises if interest rates are fixed on liabilities for periods that differ from those on the portfolio (asset), indicating maturity mismatches. Suppose an MFI is earning 15% on the portfolio, supporting a liability on which it is paying 9%. The asset matures in 6 months while the liability matures in 4 years. In 6 months, the MFI will have to reinvest the proceeds from the asset. If the market interest rates fall – the MFI may end up extending loans at much lower rates, say 12%. For the remaining three and a half years, the MFI would earn 12% on the portfolio, while continuing to pay 9% on the original liability. The reduced spread will have a negative impact on the MFIs income. In another case, an MFI uses short term liabilities to finance a long term asset portfolio, and the liability may be re-priced after every liability term. One can imagine what might happen if the interest rates rise - the MFI is at risk of having to borrow at higher cost while still continuing to receive income at old (lower) rates.

Managing interest rate risk
When analysing managing interest rate risk, one can ask two questions:
1. What is the amount of funds at risk for a given shift in interest rates
2. What is the timing of the cash flow changes that will occur for a given interest rate shift

For the timing of cash flows, one can use two techniques. One is called the gap analysis and other one is a simulation technique. Simulation involves sophisticated techniques that may not really be appropriate for the MFIs at this stage. Gap analysis is simpler and is explained below.

Gap Analysis: The concept of gap analysis is relatively simple. Each asset and liability category is classified according to the time that it will be re-priced and is then placed in a grouping called a time category. Time categories refer to the time that assets or liabilities mature, generally grouped in three-month to one-year intervals. 41

In microfinance organisations that do not take deposits, the assets are frequently short-term (cash and loans less than one year, term deposits, and so on) while the liabilities are frequently long term (term loans, etc.). This typically results in a funds gap. A funds gap or excess is calculated by subtracting assets from liabilities within each time category.

Gap positions are measured for each time category using the following formula:

\[
\frac{\text{Assets maturing within one year less liabilities maturing within one year (or eligible for re-pricing)}}{\text{Total Assets}}
\]

An acceptable level for this ratio depends on the average loan term, terms of the liabilities, and expectations about the movement of interest rates. If the gap ratio is positive (or an excess), this implies that the assets are re-pricing themselves quicker than the liabilities (since more assets are available for re-pricing) for the given maturity period.

\[\text{Table 20: Effect of interest rates on net interest income}\]

41 Referenced from Microfinance Handbook by Joana Ledgerwood with suitable adaptations

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If an MFI that does not collect short-term deposits expects interest rates to rise, it will likely maintain a positive short-term gap and would generally benefit. However, if interest rates decline, both assets and liabilities would normally be re-priced at lower rates when the time period ends. As there are fewer re-priced liabilities to fund the re-priced assets, the result is increased risk (that is, the lower re-priced assets will be funded in part with higher liabilities that have not yet been re-priced). On the other hand, if the gap ratio is less than one or if there is a negative gap, a liability-sensitive position results. If interest rates decline, risk is reduced because the lower-priced liabilities will be funding more assets that are still priced at the higher rate. If an MFI anticipates declining interest rates, it will maintain negative short-term gaps which allow more liabilities to re-price relative to assets.

### Table 21: Gap analysis for tracking Interest rate Risk

<table>
<thead>
<tr>
<th></th>
<th>1 month</th>
<th>3 months</th>
<th>6 months</th>
<th>7 – 12 months</th>
<th>13 - 24 months</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and Investments</td>
<td>2000</td>
<td>—</td>
<td></td>
<td>1000</td>
<td>3000</td>
<td></td>
</tr>
<tr>
<td>Net Loan Portfolio</td>
<td>3000</td>
<td>2000</td>
<td>17000</td>
<td>3000</td>
<td>25000</td>
<td></td>
</tr>
<tr>
<td><strong>Total IR Sensitive Assets</strong></td>
<td>5000</td>
<td>2000</td>
<td>17000</td>
<td>4000</td>
<td>28000</td>
<td></td>
</tr>
<tr>
<td>Other assets</td>
<td>0</td>
<td>500</td>
<td>—</td>
<td>500</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>5000</td>
<td>2500</td>
<td>17000</td>
<td>4500</td>
<td>29000</td>
<td></td>
</tr>
<tr>
<td><strong>Liabilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest bearing deposits</td>
<td>10000</td>
<td>—</td>
<td>—</td>
<td>3000</td>
<td>14000</td>
<td></td>
</tr>
<tr>
<td>Fixed rate commercial loans</td>
<td>—</td>
<td>1000</td>
<td>2000</td>
<td>2800</td>
<td></td>
<td>2800</td>
</tr>
<tr>
<td>Floating rate commercial loans</td>
<td>—</td>
<td>—</td>
<td>1000</td>
<td>3000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total IR Sensitive Liabilities</strong></td>
<td>10000</td>
<td>1000</td>
<td>3000</td>
<td>3000</td>
<td>28000</td>
<td>19800</td>
</tr>
<tr>
<td>Soft loans from donors</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1000</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Accounts payable</td>
<td>500</td>
<td>200</td>
<td>—</td>
<td></td>
<td>700</td>
<td></td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>10500</td>
<td>1200</td>
<td>3000</td>
<td>3000</td>
<td>3800</td>
<td>21500</td>
</tr>
<tr>
<td><strong>IR Sensitive Assets/IR Sensitive Liabilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net Gap</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cumulative Gap</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Caution:** the MFI must ensure that there is not a significant mismatch between the assets and liability maturity terms. Preferably, the MFIs must maintain a positive gap in the short-term—which means the debt maturity should be longer than the asset (portfolio) maturity since this will give the MFI some room for portfolio growth and manage short-term liquidity needs.

**Interest rate swaps:** These are called derivatives, as these instruments are derived from an underlying interest rate. An interest rate swap is defined as a mutual agreement among two parties to exchange interest payments over a pre-determined period. The interest rate payment may be fixed or floating depending on the terms of the agreement. Parties to the agreement may be fix rate payer/receiver or floating rate payer/receiver. In the case of interest rate swaps, loan principal is not exchanged in the beginning and is only notional.

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How does the interest rate swap work?
Suppose an MFI has a fixed rate asset lent to end clients at a 21% interest rate, funded with a floating rate liability at LIBOR+3%.42 A Bank has a class of floating rate assets priced at LIBOR+1% and fixed rate liabilities priced at say, 12%. If interest rates rise, the MFI will suffer by paying more for its liabilities. If the interest rates fall, the Bank will suffer loss of income since the assets will yield less. Both the MFI and the Bank are exposed to interest rate risk.

Assume the LIBOR rate is reset at 13%. To overcome this, these two entities may enter into a swap transaction wherein:
1. The MFI pays the Bank at a fixed rate interest, say 13% on the notional principal
2. The Bank pays the MFI a floating rate, say LIBOR on the notional principal

The transaction may be shown through the following diagram in the figure below.

![Diagram of Interest Rate Swap]

How does the swap help in case of a change in the floating rate:
Assume the floating interest rates increase by a percentage point that is now 14% (13%+1). The effect on the gap is shown in the table below:

<table>
<thead>
<tr>
<th></th>
<th>MFI</th>
<th>Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current situation</td>
<td>Interest rate on assets (A) 21% (Fixed)</td>
<td>14% = LIBOR+1% i.e., (13%+1%)</td>
</tr>
<tr>
<td></td>
<td>Interest Rate on Liabilities (B) 16% = LIBOR+3% i.e., (13%+3%)</td>
<td>12%</td>
</tr>
<tr>
<td>Look at the interest spread</td>
<td>Spread (A-B) 5%</td>
<td>2%</td>
</tr>
<tr>
<td>Effect of change in interest rate</td>
<td>Interest rate on Assets (C) 21% (Fixed)</td>
<td>15% = LIBOR+1% i.e., (14%+1%)</td>
</tr>
<tr>
<td></td>
<td>Interest Rate on Liabilities (D) 17% = LIBOR+3% i.e., (14%+3%)</td>
<td>12%</td>
</tr>
<tr>
<td>Reduced spread for MFI</td>
<td>Spread (E) = (C-D) 4%</td>
<td>3%</td>
</tr>
<tr>
<td>How Swap helps hedge</td>
<td>Swap pays in (F) 14%</td>
<td>13%</td>
</tr>
</tbody>
</table>

42 London Inter Bank Offer rate is the benchmark used by financial institutions to fund each other, or interbank borrowing.

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You can see that the spread does not change and both the institutions have managed to retain the same spread by entering into a swap agreement. The mechanism would work the same way in case of a drop in the interest rates.

**Limitations of Swap deals:**

There are some limitations that swap transactions have:

1. **Counter Party Risk:** If the counter party defaults in making the interest payments, there may be a loss to the MFI.
2. **Fund Requirement:** Only parties whose fund requirements are the same can enter into a swap deal. For instance, if X requires Rs.100 million and Y requires only Rs.40 million, then they cannot enter into the swap as there will be discrepancy in exchanging the interest payments.
3. **Cordial Relationships:** There should be a healthy relationship among the parties in the swap deal, so that they may discuss their requirements and mutually agree upon the terms and conditions.
4. **Information Network:** Required to know about the companies that are seeking to borrow funds from the markets. Once the companies are known, they can be approached to finalise a swap deal. Nowadays, it is not a difficult task to get such information, but it requires a reliable information network.

### 6.3 Foreign exchange risk management

An MFI will face foreign exchange risk if:

1. It receives investment funds/loans in foreign denominations and has to pay back in the same currency after investing in the portfolio in local currency
2. Holds its investments/deposits in foreign currency

Many MFIs may face situation one, while the situation number two is not very common as yet. Currency depreciation or appreciation can affect the assets and liabilities of the MFI just as can the interest rates.

SEEP prescribes the following strategies to manage the foreign exchange risk:

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Complexity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid it: Pursue local currency loans first</td>
<td>Low</td>
<td>Low-Moderate</td>
</tr>
<tr>
<td>Establish policies on foreign exchange management and exposure</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Convert hard currency loans to local currency loans</td>
<td>Moderate</td>
<td>Moderate-High</td>
</tr>
<tr>
<td>Explore local hedging instruments</td>
<td>High</td>
<td>Moderate-High</td>
</tr>
</tbody>
</table>

Avoid it: Pursue local currency first: The best solution for an MFI is to avoid foreign exchange risk altogether and fund itself only in local currency. There are a number of ways to do it:

1. Borrow from local banks
2. Access local capital markets
3. Operational hedging, back-to-back lending or linked deposit lending. This involves depositing hard

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Adapted from Occasional Paper – Foreign exchange risk management in microfinance by WWF
Seep Network, Progress No. 13, Five strategies to minimize foreign exchange risk for microfinance institutions
currency as collateral with a Bank which then lends in local currency. This arrangement may involve costs, though. This is also called back to back lending.

4. Negotiate local currency loans from the lenders – often a loan guarantee from an Apex international institution can assist MFIs in securing capital from normally sceptical local banks.46

Establish policies on foreign exchange management and exposure: If the above does not work out and foreign currency exposure is necessary, the MFI’s Board and Senior Management should:

1. Define risk tolerance limits – the MFI must define to what extent it can expose itself to the foreign exchange risk and may decide what percentage of its portfolio can be financed through foreign exchange risk.
2. Establish written procedures
3. Measure and monitor foreign exposure risk
4. Explore foreign exchange hedging instruments

Foreign exchange hedging instruments: Today there are various financial instruments available to hedge against foreign exchange risk. Some of the instruments are currency swaps, forward contracts, futures and options in currency. Derivatives, as they are called, are the instruments derived from an underlying index, such as a currency. The derivatives do have costs but may be substantial lower than the risk resulting from the foreign exchange exposure. This is explained through the following diagram:

Figure 19: Effect of hedging on a loan portfolio Asset risk profile

Credit risk

FX risk

Cost of Hedge

Risk eliminated through hedging

Credit risk

Currency Futures

A currency futures contract, or foreign exchange (FX) future, specifies the terms to which an exchange of one currency for another on a specified date in the future at a fixed price (exchange rate).

Currency Forwards/Futures:

Simply defined forward contracts are customised bilateral agreement between two counterparties agreeing to buy and sell the underlying currency on a specified future date at a specified rate. This same type of transaction is called a futures contract when traded on a market exchange.

For example, MFI ABC in India enters into an agreement with a debt investor for a loan with the following terms:

Amount: USD100000
Rate of interest: 10%
Loan tenure – 12 months
Interest payment – monthly
Principal payment – bullet payment with the last instalment
Form of payment – USD

46 For example, Grameen Foundation and USAID’s new loan guarantee fund: http://www.grameenfoundation.org/what-we-do/financing-microfinance

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Clearly, the MFI is currently bearing the foreign exchange risk and decides to secure 12 futures contracts corresponding to the due dates of payment.

The results of three different scenarios are presented in the table below.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Effective interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the loan is paid back in dollars</td>
<td>19.67</td>
</tr>
<tr>
<td>If the same loan is received in India Rupees of equivalent value and paid back in Indian Rupees</td>
<td>10.47</td>
</tr>
</tbody>
</table>

* excludes hedging cost which is marginal

There are some practical considerations that determine the feasibility and the level of protection that can be achieved through futures. Since each futures contract carries a specific delivery date, in order to cover a series of payments (e.g. interest and principal payments), the MFI would need to enter into a series of futures rate agreements to match the debt payment stream. This could be complicated or costly, due to issues such as relatively small payment amounts. Therefore, futures may be more suited to hedging the foreign exchange risk on a bullet principal repayment as opposed to a stream of interest and principal payments.

Another limitation on the use of futures could derive from how far into the future these contracts are available as compared to the maturity of the loan. For example, MCX Stock Exchange Limited in India offers a maximum maturity of 12 months. This means that if an MFI is exposed to a debt tenure of more than 12 months, the debt payment stream beyond 12 months will still remain un-hedged. MFIs considering the use of currency futures should compare the all-in cost of funding, including the effective interest rate on the hard currency loan and the cost of the futures, as well as the level of risk mitigation obtained achieved with other foreign exchange risk hedging mechanisms (such as a swap – explained below) and to the all-in cost of local currency funding, if available.

Finally, MFIs considering the use of forwards should establish a policy on the utilization of these instruments. For example, the policy should state a minimum amount for which futures can be entered into. This level should consider transaction costs and should be set at an amount for which this hedging mechanism makes economic sense.

**Swaps**

Given the practical considerations of forwards mentioned above, MFIs that operate in currencies for which swaps are available should consider that the structural characteristics of a swap might be better suited to be used with a loan than a forward. In practice, though, forwards are sometimes favoured as a more affordable, albeit less effective hedging mechanism than swaps when used to hedge the foreign exchange risk of the principal of a loan, while leaving interest payments uncovered.

In a swap, the two parties involved essentially exchange financial obligations. In other words, an MFI with a liability in foreign currency can in effect exchange it for a local currency obligation. The mechanics are as follows:

1) a lender disburses a hard currency loan to the MFI;
2) the MFI exchanges the principal of the loan in hard currency for a local currency principal amount with its swap counterparty;

**Difference between currency and interest rate swap**

Unlike interest rate swaps, foreign currency swaps involve the exchange of the principal at the beginning of the contract and the re-exchange of the principal at the end of the contract.

**What is a currency swap**

A currency swap is a financial contract where a borrower swaps their debt obligations in one currency for the obligations of another borrower in a different currency.
3) over the life of the loan, the MFI makes interest payments on the local currency principal amount to its counterparty, and in exchange receives the interest amounts due on the hard currency loan;
4) at maturity of the loan, the MFI repays the principal amount received in local currency from its counterparty and in turn receives the hard currency principal amount owed to its lender

In December 2003, with more than $800,000 in US dollar loans, or approximately 90% of total liabilities, PMP decided to hedge its foreign currency exposure by entering into two 6 month NDF contracts with Banco Continental: one for US$603,500 with a contract exchange rate of 3.5151 PEN/US$ and one for US$200,000 with a rate of 3.5114 PEN/US$. Given the spot-rate at this time was approximately 3.48 PEN/US$, the total cost associated with the NDFs, or the increase in PMP’s cost-of-funds, was an annualized 2.0% and 1.8% respectively. This was far cheaper than converting the US$ loans into Peruvian sol loans with either a standby letter of credit or a guarantee, which would have raised PMP’s cost-of-funds to 20% (some 18% higher than through the NDF [– can’t be 18% difference; the increase was 2% so the base rate must have been much higher] ), and more feasible than converting PMP’s loan portfolio into dollars, which would transfer the exchange rate risk to its clients. If at maturity, the market exchange rate had exceeded the contract rate of the NDFs, Banco Continental would have been obliged to pay PMP the difference between the prevailing market exchange rate and contract rate. PMP could then use this money to pay its US dollar denominated obligations, which would have become more expensive. If on the other hand, the prevailing market exchange rate at maturity was less than the contract rate, PMP would pay Banco Continental the difference, but this loss would be offset by its relatively cheaper loan obligations.

In addition to mitigating foreign exchange risk, there are potential intangible benefits to an MFI for executing a swap. To have successfully undergone the rigorous credit evaluation process required and to have been approved as a counterparty would be well regarded by other local and international funders. This could create new opportunities with new funding relationships or be useful when seeking to negotiate improved credit terms with existing funders. Finally, if the swap enables the MFI to take a loan from a certain international lender, this may improve the receptivity of other international lenders to lend to the MFI.

As with forwards, MFIs considering the use of swaps should develop a policy for that purpose. Within the context of a broader financial risk management policy, the specific policy on the use of swaps should state a minimum amount for which swaps can be entered into. This level should account for transaction costs, and should be set at an amount for which this hedging mechanism makes economic sense.

Other interesting currency risk mitigation strategies:
The Local Currency Risk Fund (LCRF) by Oikocredit was established through funds received from Oikocredit members and provides an insurance facility for the exchange risk of the exposure and earns income on its own investment in addition to surpluses on loans granted in local currency. The mechanics are the following:
1) the borrower repays the loan in local currency;
2) the euro value of each instalment and interest payment received in local currency is deducted from the loan value in Euros (+ 9% interest p.a.) at the moment it is received;
3) at maturity of the loan, a final calculation is made comparing the counter value of all the exchanged local currency payments over the years with the original amount in Euros + 9% interest;
4) if the counter value in Euros is higher than the original principal + 9%, the difference is paid into the LCRF - if lower, Oikocredit receives the difference from the LCRF.

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Managing Strategic Risk
7 Strategic Risk Management

7.1 Defining Strategic Risk
Before understanding strategic risk it is important to understand strategy. Strategy can be defined as “the direction and scope of an organisation over the long term, which achieves advantage in a changing environment... with the aim of fulfilling stakeholder expectations” (Johnson, Scholes and Whittington, 2005, p9). Strategic risk emerges from the process of making strategic choices, as the future is uncertain and therefore all outcomes of strategic choices will be accompanied by varying degrees of uncertainty. This uncertainty poses risk to the organisation, especially around making the wrong strategic choices. Hence, strategic risk can be defined as “the risk arising from adopting inappropriate strategic choices”.

What are the strategic choices that organisations are faced with?
There are three kinds of strategic choices that each organisation is required to make:
- What should be the business level strategy, which in other words means, given the forces present in operating environment of the organisation, the capabilities of the organisation and the expectations of stakeholders, how can the organisation attain a sustainable advantage over its competitors to create value for its stakeholder’s, i.e. how to compete effectively in the market?
- What is direction of strategy development, for example new products or new markets or a combination of both?
- What are the methods through which business level strategies can be implemented? Can it be through organic development or acquisitions or collaboration?

What are the options for Business Level Strategy?
The answer to this question can be based on a combination of pricing options and the value an organisation is to offer through its products. The options can be represented through a graph.

Figure 20: Business Level Strategic Options

The combination of price and value add throws up following choices for the organisations:

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1. No frills: Low price and low value added for the consumers. The focus is on a segment which recognises that the quality of product or service is low, but it cannot or chooses not to buy better quality goods.

2. Low price strategy: This seeks to achieve a lower price than competitors whilst trying to maintain similar value of product to that offered by competitors.

3. Differentiation strategy: This seeks to provide products or services unique or different from those of competitors in terms of dimensions widely valued by buyers.

4. Hybrid strategy: This seeks simultaneously to achieve differentiation and a price lower than competitors.

5. Focussed differentiation: This seeks to provide high perceived value, justifying a substantial price premium, usually to a selected market segment.

6. Failure strategies: The strategies shown in the map at number 6, 7 and 8 are bound to fail as they score negative on price as well as value proposition dimension.

**The direction of strategy development** In regard to the direction of the strategy, an organisation has the following options:

<table>
<thead>
<tr>
<th>Product</th>
<th>Existing</th>
<th>Modified</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing</td>
<td>1. Sell more of an existing product to our current types of customers (Market penetration)</td>
<td>2. Modify our current product and sell more of it to our existing customers (Product modification)</td>
<td>3. Design a new product that will appeal to our existing customers (New product development)</td>
</tr>
<tr>
<td>Geographically Modified</td>
<td>4. Enter and sell our products in other geographic areas (Geographic expansion)</td>
<td>5. Modify an existing product for sale in new geographical markets (Expansion with modification)</td>
<td>6. Design a new product for the types of customers we already serve but in a new geographic area (New products in new areas)</td>
</tr>
<tr>
<td>New</td>
<td>7. Sell our existing products to new types of customers (Segment invasion)</td>
<td>8. Offer and sell modified products to new types of customers (Invasion with modification)</td>
<td>9. Design new products to sell to new customers (Diversification)</td>
</tr>
</tbody>
</table>

Adapted from Kotler (1999)

**Methods for strategy implementation:**
The following generic methods are available to the organisations:

- Organic growth
- Acquisitions
- Collaborations

**What are the risks with the above strategic choices?**
These strategic choices are concerned with decisions about the organisation’s future and the way in which it responds to various pressures and influences. The aim of these choices is to satisfy expectations of stakeholders by creating value in the context of actual or potential competition. In this process of making these choices there are following risks involved:

**Suitability:**
Suitability is a broad criterion concerned with whether a strategy addresses the circumstances in which an organisation is operating—the strategic position. For example, the extent to which new strategies would fit with the future trends and changes in the environment would be a measure of suitability or how the strategy might stretch and exploit the core competencies of the MFI.

**Acceptability:**

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Acceptability is concerned with the expected performance outcomes (such as the financial returns expected) of a strategy and the extent to which these would be in line with the expectations.

**Feasibility:**
Feasibility is concerned with whether a strategy could be made to work in practice. Assessing the feasibility of a strategy requires an emphasis on more detailed practicalities of resourcing and strategic capability.

**Inadequate strategic decision making structure:**
The uncertainties associated with the strategic decision making process are the primary causes of strategic risks and hence the decision making structure becomes an important source of strategic risk if it is not adequate.

Each of the above mentioned risks associated with the process of making strategic choices will be discussed in detail.

**Risk of suitability**

**Reasons**
Suitability can be thought of as the rationale of a strategy and whether it makes sense in relation to the strategic position of the organisation. The risks associated with suitability may arise because all the factors influencing organisations strategic position are not addressed. They are unduly shaped by one aspect at the expense of others. For example, the desire to chase market opportunities without the necessary competencies or funding, the failure to acknowledge the need for product development or the pursuit of a strategy against the wishes of a powerful stakeholder would be cases in point.

**Mitigation**
To mitigate the risk due to lack of suitability, the factors affecting the competitive position of the organisation should be addressed. An organisations strategic position is influenced by following factors:

- The macro environment
- Competitors
- Customers

**7.2 The Macro environment**
The factors comprising the macro-environment and their impact on organisational strategies need to be well understood. A framework which can be used for this purpose is a PEST analysis. PEST analysis examines the external factors that are likely to influence your organisation (to its benefit or detriment). The Political, Environmental, Social (including legal and environmental) and Technological trends are assessed using a PEST framework. PEST analysis gives this information about macro trends which influence your business (usually in long term):

- Economic growth,
- Interest rates,
- Demographics

The analysed trends can represent opportunities or threats. One should identify key trends that will give leverage in building a competitive advantage and use an approach that focuses on the dynamics in the PEST factors – notice the trends which are going to influence the sector in the future (months, years) and assess how the trend will influence our organisation – positively or negatively? Remember that every trend can become a threat or opportunity – it depends on how one approaches it. Specifically, various factors affecting the macro environment of the MFI can be addressed in following way:

**7.2.1 Political factors**
These include such non-market factors as macroeconomic and social policies (fiscal, monetary, trade, investment, industrial, income, labour, and developmental), or events related to political instability.
(terrorism, riots, coups, civil war, and insurrection). If not addressed properly such factors may cause increased risk of a strategic, financial, or personnel loss for a firm. Microfinance institutions are subject to major political risks in countries like India since often the same target market of MFIs are the focus of major political and religious organisations. MFIs in India have faced a number of such crises like the Krishna District crisis in 2006 (See the text box above for details).

Strategies to address political risks by MFIs can be at two levels:

**Strategies for Micro-level political risk**
- **Effective Communication and Public Relations strategy:** MFIs should try to establish good rapport with the local influential opinion makers. Special efforts should be made to make people aware of the purpose of the organisation and its benefits to the clients. Developing rapport with the local media will help in dissemination efforts. In India, some MFIs organise press conferences at the opening of new Regional offices where the local leaders are called Guest’s of Honour.
- **Customer service orientation and Social Performance:** This is the most effective strategy to overcome local political risks. An MFI which has an excellent customer service record, enjoys good rapport with its clients, and focuses on the social and financial aspects will be in a better position to tide over any political crisis. MFIs may to begin by following ACCION’s Client protection guidelines or Sa-Dhan’s voluntary code of conduct for microfinance institutions.

**Strategies for Macro-level political risk**
- **Industry networks**
  For macro-level political risks, a formal industry network, such as Sa-Dahn, to lobby for or against any government policy is an effective way of handling such risks.

7.2.2 **Physical environment risks**

Physical environment poses great risk for many MFIs. In addition to damage of the institution’s infrastructure, there may be large scale credit (since large scale delinquencies may happen at the same time) and liquidity risks (there may be a run for money by clients on their savings product and clients miss their instalments). The strategy to mitigate Physical environment risks is broken in to the following categories
- Assessing the risk
- Institutional Preparedness
- Client Preparedness
- Emergency Response
- Recovery

**Assessment of Risk**
MFIs should assess physical environmental risks the clients and the organisation may face due to natural disasters. The MFI will need to conduct exploratory exercises for understanding the characteristic of the hazards. In order to do this, the first step is to contact local or national government authorities responsible for keeping records on such occurrences. If this is not possible, relief agencies, which have been involved in previous disaster relief work, will likely have data or reports. Once the natural disasters are identified and their nature and probability understood the next step is to identify the potential impact the disaster will have on the social services and the infrastructure of the organisation. MFIs must also identify players who can help it cope with the disaster, such as relief agencies active in the area, government relief departments, other NGOs, etc.

### Table 25: Data to be gathered for understanding nature and characteristics of disaster

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Question to be answered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard</td>
<td>What kind of disaster?</td>
</tr>
<tr>
<td>Source</td>
<td>What causes it?</td>
</tr>
<tr>
<td>Frequency/Seasonal Trends</td>
<td>How often does it occur?</td>
</tr>
<tr>
<td>Predictability</td>
<td>Will there be sufficient warning before it occurs?</td>
</tr>
<tr>
<td>Probability</td>
<td>How likely is it to occur?</td>
</tr>
<tr>
<td>Speed</td>
<td>Slow on-set (drought) or Rapid on-set (volcano, hurricane, flood, earthquake)</td>
</tr>
<tr>
<td>Concentration</td>
<td>How spread out will it be?</td>
</tr>
<tr>
<td>Intensity</td>
<td>What level of damage is likely to be done? Will related disasters occur, like landslides after earthquakes?</td>
</tr>
</tbody>
</table>

### Institutional Preparedness

MFIs must prepare to survive from the impact of a disaster. Such impacts may include physical damage to life and property, loss of information about clients and business (MIS), liquidity risk, and credit risk.

### Table 26: Preparing against physical damage to life and property

<table>
<thead>
<tr>
<th>Preparing against physical damage to life and property</th>
<th>Ensuring access to disaster related information</th>
<th>Prepare infrastructure and equipment</th>
<th>Staff security</th>
<th>Communication</th>
<th>Access to clients and market shocks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Policy on disaster watch</td>
<td>• Consider disaster-resistant construction</td>
<td>• Develop a staff evacuation plan and train all the staff in the plan</td>
<td>• Ensure a back-up communication plan in case any phone, road or postal communications are cut off</td>
<td>• Identify alternative access routes to clients, and if necessary provision of means of alternative transportation (e.g. boats)</td>
</tr>
<tr>
<td></td>
<td>• Identification of responsible disaster watcher</td>
<td>• Fire or water-proof cabinets.</td>
<td>• Plan and budget for the affected staff</td>
<td>• Identify institutions (e.g. Government, hospital) with access to radio or satellite communication which could assist during a natural disaster</td>
<td>• Develop a communication plan defined with clients in the event of a natural disaster</td>
</tr>
<tr>
<td></td>
<td>• Identification of reliable source of information</td>
<td>• policy on vehicle and other equipment evacuation</td>
<td>• Health and life insurance for staff</td>
<td></td>
<td>• Pre-assign back-up account officers who know the location of the clients if the prime account officer is disabled</td>
</tr>
<tr>
<td></td>
<td>• Identification of channels to disseminate information</td>
<td>• Train staff on equipment evacuation policies</td>
<td></td>
<td></td>
<td>• Plan to acquire necessary supplies to offer services in the event of a market shock</td>
</tr>
</tbody>
</table>

### Preparedness of MIS

Availability of information is very important to resume operations after a disaster has struck. An MFI which has managed to protect its MIS will obviously be in a much better position to quickly resume its services and

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also offer new services like emergency loans, etc. The following steps must be taken to ensure the safety of MIS.

<table>
<thead>
<tr>
<th>Ensure the preparedness of MIS in cases of disaster</th>
<th>Ensure the safety of data</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ensure the preparedness of MIS in cases of disaster.</td>
<td></td>
</tr>
<tr>
<td>• Ensure the safety of data.</td>
<td></td>
</tr>
<tr>
<td>• Regularly back up data.</td>
<td></td>
</tr>
<tr>
<td>• Keep a hard or soft copy of data in a secure location, for example, in</td>
<td></td>
</tr>
<tr>
<td>• fire proof or water-proof cabinets;</td>
<td></td>
</tr>
<tr>
<td>• on the second floor in high locations for floods;</td>
<td></td>
</tr>
<tr>
<td>• in the basement for hurricanes;</td>
<td></td>
</tr>
<tr>
<td>• at another location, such as the head office.</td>
<td></td>
</tr>
<tr>
<td>• Define a policy for data back-ups in disaster warning times – for example daily rather than weekly.</td>
<td></td>
</tr>
<tr>
<td>• If you have an external MIS provider or support unit, establish emergency procedures so that you can still get support for your MIS system if necessary.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ensure adequate capacity to offer preparation, response and recovery services to clients</th>
<th>Ensure adequate support resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Make sure your portfolio management system can track additional products. If not, develop a dual system for emergency response products.</td>
<td></td>
</tr>
<tr>
<td>• Ensure that the portfolio management system can track restructured loans, while providing accurate portfolio quality reports. This may mean tracking them separately.</td>
<td></td>
</tr>
<tr>
<td>• Be certain that financial reports are able to present portfolios or balances of each product separately.</td>
<td></td>
</tr>
<tr>
<td>• Adjust your MIS system so that it can track and consolidate loans by geographic region and by business category to better monitor those clients or areas most affected by the disaster.</td>
<td></td>
</tr>
<tr>
<td>• Track non-financial service costs related to disasters separately in the accounting system.</td>
<td></td>
</tr>
<tr>
<td>• Train system operators for tracking all products, including those designed only for emergency situations.</td>
<td></td>
</tr>
<tr>
<td>• Cross-train non-MIS staff to assist in accounting and portfolio management in the event of a natural disaster when transaction flow increases.</td>
<td></td>
</tr>
<tr>
<td>• Identify back-up personnel for critical tasks.</td>
<td></td>
</tr>
<tr>
<td>• Obtain a stand-by generator and/or batteries for systems.</td>
<td></td>
</tr>
<tr>
<td>• Identify a back-up source for data entry. This could be through a previously designated read only terminal in a branch office.</td>
<td></td>
</tr>
<tr>
<td>• Maintain a reserve stock of legal forms and reporting formats in case the regular stockpiles are destroyed.</td>
<td></td>
</tr>
<tr>
<td>• Maintain a reserve supply of paper, ink cartridges, etc.</td>
<td></td>
</tr>
<tr>
<td>• Once you have identified areas of improvement needed in your current MIS, develop a strategy and implementation plan to address them.</td>
<td></td>
</tr>
</tbody>
</table>

**Preparedness for liquidity management:**
- Diversify clientele geographically, so they will not all be affected by a single hazard. If a natural disaster affects your entire portfolio, it is much more difficult to handle. Geographically diversified MFIs will likely have several branches which are unaffected by the crisis, and can assist in meeting demands for excess cash in the affected areas.
- Diversify your clientele by economic sector so they may not all be affected to the same degree. If all of your loans are in agriculture, a drought could affect your entire portfolio. By also financing producers and traders, a smaller percentage of your clients may be directly impacted.
- Develop a contingency plan to tap internal and external sources of funds. Following table gives a list of internal and external sources of funds that can be tapped by the MFIs.

<table>
<thead>
<tr>
<th>Internal Sources of funds include</th>
<th>External sources of funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Retained earnings</td>
<td>• Set aside emergency funds for the event of a natural disaster. These funds would be invested in short term, secure, investments, such as Treasury Bills or Certificates of Deposit, which can be liquidated rapidly in time of need.</td>
</tr>
<tr>
<td>• Savings</td>
<td>• Explore gaining access to “Disaster Fund Facilities” sometimes available from donors in certain countries.</td>
</tr>
<tr>
<td>• Grants</td>
<td>• Some village banking MFIs have established client contingency accounts, maintained by the groups to be used in case an emergency develops.</td>
</tr>
<tr>
<td>• Stand-by lines of credit</td>
<td></td>
</tr>
<tr>
<td>• Required cash reserves</td>
<td></td>
</tr>
<tr>
<td>• Funds previously committed to new loan outlays</td>
<td></td>
</tr>
<tr>
<td>• Negotiating late payments on rent, utilities, salaries</td>
<td></td>
</tr>
<tr>
<td>• Sale or lease of fixed assets</td>
<td></td>
</tr>
</tbody>
</table>

**Client Preparedness**

Client preparedness involves analysing the client needs with respect to natural disasters identified in the Assessment of Risk section. This involves conducting client surveys and market research to understand client needs and preferences. PRA tools may be used to find out qualitative aspects of client’s preparedness for the disaster. Based on the information collected, MFIs may develop some products to mitigate client vulnerabilities after the disaster occurs like:

**Client responsive Loan products**

In areas where disasters are periodic and are not massive, MFIs may tailor their loan products in such a way that the instalments during such periods are small. This reduces the burden on clients and they may continue with their activities after the disaster.

In Bangladesh, where the timing of the flood season is well known, several MFIs adjust their loan repayment schedules to reduce the required repayments during the flood season. In this way, when a severe flood occurs, clients’ obligations to the MFI are already at a minimum (Brown and Nagarajan, 2000). The flip side for this is it may cause cash flow problems unless the MFI maintains a diversified portfolio of clients and/or has means for profitable investment of idle funds.

**Voluntary Savings Product**

Savings is one of the most effective pre-disaster measures of coping with disasters. In areas where disasters are frequent, MFIs may offer savings products in the months preceding the disaster period so that a fund is created from which the clients can withdraw to help them override the crisis and restore their livelihood. For the institution, the instrument is useful only if the records are maintained safely through the disaster to allow easy withdrawals during the hectic times and there are adequate reserves to meet the demand. It has been observed, however, that clients who held flexible savings accounts with the MFIs tend to draw down on their cash savings to cope with disasters only after exhausting other non-financial and financial options (Wright, 2001). Therefore, the use of flexible financial savings may not cause a big run on the MFI, nor would it be the first line of defence for client protection unless significant volumes of funds are accumulated in the account.
Insurance Product
Clients and their spouses may need to be insured to protect against loss of life and property.

Emergency Response Phase
This phase deals with the strategies MFIs may adopt after the disaster has occurred.

Rescheduling of loans
Re-scheduling and re-structuring of old loans is advisable rather than writing off loans in case of disasters. Writing off may undermine the credit culture of the area in the long run. Suitable incentives have to be provided to clients to repay re-scheduled loans. Communication plays an important role in re-scheduling and clients should understand that they have to repay the loan.

Emergency loans
Immediately after a disaster occurs, MFIs may provide new, small and quick disbursal of emergency loans to help the clients meet their immediate needs and help them restock inventories to restart economic activities. Emergency loans protect clients only if they are timely and made for shorter period of time with no explicit conditions for utilisation of funds. Rapid response backed by good information is the essence of emergency loans. Supply of emergency loans without proper assessment of client demand for such a product should be avoided.

Savings
As a post-disaster measure MFIs can allow the withdrawal from compulsory savings accounts which otherwise would not have been possible for clients. The MFI should clearly communicate to the clients that these accounts should be replenished over a time period.

Non-financial services
MFIs may engage the services of a donor or a relief agency and support it to extend relief services to its clients. Non-financial services may include providing food, clothing, medicines and shelter to the victims of disasters.

7.2.3 Regulatory and legal compliance risk
Regulatory risk is the risk of loss resulting from any adverse provision in law or regulation of a country. Regulatory risks affecting MFIs are shown in the figure below.

Figure 22: Regulatory and legal compliance risk
Strategies adopted by MFIs to mitigate regulatory risk may include:

Industry Networks
Industry Networks are formal associations of MFIs, formed to provide a common platform for all the players to voice their concerns against any adverse regulation or to lobby for a favourable provision. Such networks also help MFIs to keep themselves updated on the latest debates happening in the sector and anticipate any regulatory changes in the future.

Flexible to implement changes
MFIs must be pro-active in anticipating regulatory changes and should be flexible enough to bring in those changes. In-house training facilities within the organisation must be effective to bring in the required changes in the operations of the MFI.

Ability to self-regulate
Regulatory authorities sometimes pass regulation based on precedents. For example, in India there were a number of instances of financial service providers (like urban co-operative banks) offering savings products which were liquidated due to fraudulent management practices. This led to stricter enforcement by the RBI, not allowing non-banking financial providers to mobilise savings. MFIs through informal or formal agreements among themselves may follow certain practices (like following Basel norms), which may prevent a future adverse regulation.

7.2.4 Technology
The following issues must be considered by microfinance institutions while selecting and operationalising delivery technology:

Supportive regulation
Governments have considerable power in creating an environment that enables financial institutions to use technology delivery channels. The precondition for this type of channel is a broad regulatory environment that supports the use of electronic payments. Financial contracts should be enforceable, telecommunications policy should foster widespread access, and privacy and data security must be ensured.

Supporting infrastructure

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Many delivery channels use telephone lines or mobile networks for their operations. For such technologies the supporting infrastructure like telephone connectivity, mobile phone networks and electricity become important elements for the success of technology. Any selection decision should be guided by such requirements and their availability.

**Ensuring acceptance by target customers**

The foundation for creating technology based delivery channels is superior insights into customer behaviour. These can come in many forms, but at their most basic forms, they entail understanding customer needs for the delivery of different products, how these needs vary by customer types, current customer behaviour, and customer profitability. The following issues are particularly important:

**Perceived value addition:**

How do clients perceive the incremental value of using a technology enabled network rather than other alternatives? Some clients in the Philippines prefer to travel to the bank or MFI branch and stand in line rather than pay a nominal fee to make a loan repayment through a mobile phone.

**Consumer education:**

Experiments in which debit cards are offered to the employed poor in India have shown that unless clients are specifically told not to reveal their PINs to others, they often will write these numbers on the debit card itself, rendering account security useless.

**Usability:**

Depending on the type of clients targeted, the technology device, customer interface, and usage process should be designed to make the system easy to use and to learn. To reach indigenous and illiterate customers, Prodem (Bolivia) designed ATMs with colour-coded touch screens and audio instructions available in Spanish, Quechua, and Aymara.

**Cultural fit:**

Cultural issues around gender, caste or class, technology, money, privacy, and so on must be addressed for the system to be successful. Vision S.A., an MFI in Paraguay, credits the aspirational nature of its VISA branded debit cards with its rapid uptake among poor customers.

**Physical security:**

Use of handheld devices requires them to be carried to the clients’ location for executing the transactions. Due to far flung location of microfinance clients, the equipments run the risk of being robbed. There is also the risk of physical damage to the equipments. To mitigate this risk appropriate insurance cover should be taken.

**Risk of obsolescence:**

Advances in the area of a chosen technology may render the existing one redundant or inadequate. In that case the organisation may be required to either upgrade the existing technology or switch to a new technology platform. While selecting technologies, a comprehensive scan of the market and research into available options should be conducted. The need and scope for an upgrade must be taken into consideration. Based on the pace of technology, development of appropriate provisions should be created well in advance.
7.2.5 **Competition**

Competition risk is the loss in the business of an organisation due to increased competition in the area of its operations. Competition is a recent risk emerging in matured microfinance markets, like the south of India. Competition per se is not bad as it offers various advantages to clients like lower interest rates, access to a wide range of products due to the diversity of available MFIs, proximity of microfinance agencies, etc. Competition, when it becomes unbridled and unfair, however, leads to a number of disadvantages to the clients and MFIs.

**Strategies to overcome competition**

*Continuous process improvement*

MFI’s should continuously improve their processes to become more efficient and customer friendly. Competition analysis and client satisfaction surveys are the tools which MFIs can employ to help improve their processes. For start-ups, this strategy may be too costly to implement. The best mitigation for competition risks for start-ups is to avoid the areas of high competition in the initial phase of their expansion.

**Competitor Analysis**

MFI’s must constantly ask the following questions about its competitors:

- What is the competition currently charging for similar products?
- What terms and characteristics of the competitors’ products that seem to be successful are appropriate for our market?
- What are the systems being used by the competitors to deliver the product?
- What is the product’s position in the market? What market segment is the product aimed at?
- How is the product marketed to the public?
- How is the product *perceived* by the public? (what do they like/dislike about it?)
- How will the competition react to your MFI’s introduction of a new product? (e.g. Will they introduce new products as well? Will they adjust the price and terms of existing products? Will they ignore you?)
- What products do you expect to see your competition introducing in the near future?

**Client Satisfaction Surveys**

Periodic client satisfaction surveys should be conducted to understand client’s perspective on the services needed.

**Technology**

MFI’s can use technology to re-engineer their processes (using mobile payments) and become more efficient than their competitors.

**Differentiation**

In the long run MFI’s have to identify the differentiation strategy which they will pursue. Differentiation strategy means the areas in which an MFI wants to be best or different.

Any MFI cannot be the best in every business process so it is necessary to make trade-offs and decide what *not* to do. The organisation should focus on a set of activities in which it has decided to excel – other activities should meet the sector standards, but they are not mentioned in strategy formulation and implementation.

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The three common differentiation strategies followed by MFIs are Price, Quality and Service orientation. An MFI has to choose the kind of differentiation it can do well based on its Mission, Vision, resources available and the competitive environment. For example, in a market where all MFIs are seeking to compete on the basis of “Convenient, customer-oriented service” (shown by blue dots on the perceptual map), your institution might want to focus on an offer that combines quality and price (as shown by the Red point in the diagram) as differentiators. Whichever you chose, it must be aligned with your institution’s Mission, Values and Vision.

7.2.6 Customers

For customers, the following factors need to be considered:
- Who is my target market?
- Where to serve the clients?
- Which needs of the above clients are to be satisfied?

The vision, mission and strategic goals of an institution decide its target market and where it wants to position itself in the competitive environment. Analysis of client needs further clarifies the above. An incorrect understanding of needs of clients may lead to incorrect choice of market and scope.

For this the choice of market and scope should be directly linked to the mission of the organisation. This should be further informed by clients’ needs analysis through tools like market research and market segments study. It is important to note that clients needs change over time as their demographics (family status, size etc.), level of income, life style, values, fashion, etc. change. The MFI must identify and consider these evolving needs while making strategic decisions.

Risk of acceptability:
Acceptability is concerned with the expected performance outcomes of a strategy. The performance outcomes can be of three types: return, risk and shareholder reactions. The table below, summarises some of the frameworks that can be useful in understanding the acceptability of strategies together with limitations of these frameworks.

<table>
<thead>
<tr>
<th>Exhibit #</th>
<th>Some criteria for understanding the acceptability of strategic options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>Used to understand</td>
</tr>
<tr>
<td>Return</td>
<td>Financial returns of investments</td>
</tr>
<tr>
<td>Profitability</td>
<td>Only tangible costs/benefits</td>
</tr>
<tr>
<td>Cost-benefit</td>
<td>Wider cosy/benefits including intangibles</td>
</tr>
<tr>
<td>Real options</td>
<td>Sequence of decisions</td>
</tr>
<tr>
<td>Economic value added</td>
<td>Impact of new strategies on value for stakeholders</td>
</tr>
<tr>
<td>Risk</td>
<td>Robustness of strategy</td>
</tr>
<tr>
<td>Financial ratios</td>
<td>Tests assumptions/robustness</td>
</tr>
<tr>
<td>Sensitivity analysis</td>
<td>Political dimensions of strategy</td>
</tr>
<tr>
<td>Stakeholders’ reactions</td>
<td></td>
</tr>
</tbody>
</table>

In general it is useful to use more than one approach in building up a picture of acceptability of a particular strategy.
Return:
An assessment of returns likely to accrue from specific strategies could be a key criterion of acceptability of strategy—at least to some stakeholders. There are a number of different approaches to understanding return. This section looks briefly at four approaches:

Profitability analyses:
Traditional financial analyses have been used extensively in assessing the acceptability of strategies. Three of the more commonly used approaches are as follows:

- Forecasting the return on capital employed (ROCE) during a specific time after the new strategy is implemented
- The payback period has been used where a significant capital injection is needed to support a new venture. The payback period is calculated by finding the time at which the cumulative net cash flow becomes zero. The judgement is then whether this is regarded by the organisation as an adequate outcome and if the organisation is prepared to wait that long for a return.
- Discounted cash flow is a widely used investment appraisal tool and is essentially an extension of the payback period analysis.

Although the assessment of return may be assisted by the use of one or more of the financial methods mentioned above, it is important to recognise some of the implicit assumptions which limit their use. In particular, it is important not to be misguided by the tidiness and apparent thoroughness of these approaches. Most of these methods were developed for the purposes of capital investment appraisal and, therefore, focus on discrete projects where incremental costs and cash flows are easily predicted. Neither of these assumptions is necessarily valid in many strategic developments.

In order to overcome the above constraints, the following methods can be used for the purpose of assessing returns of various strategic options:

- Cost-benefit analysis:
The cost-benefit concept suggests that a money value can be put on all costs and benefits of a strategy, including tangible and intangible returns to people and organisations other than the one sponsoring the project or strategy. The major benefit of this approach lies in forcing people to be explicit about the various factors which should influence strategic choices. So, even if people disagree on the value which should be assigned to particular costs and benefits, at least they are able to argue their case on common ground and decision makers can compare the merits of the various arguments.

- Real options based approach:
This method of analysis can be applied in a situation where the real costs and benefits of a project are not very clear at the beginning and they are expected to be clear only when the project progresses. The framework helps in deciding whether to pursue the strategy at all and whether it should be pursued immediately or deferred to a later date. The decision is made based on the volatility in the operating environment and the value to cost ratio of investment required for the implementation of strategy. This situation arises because strategy involves making a sequence of decisions. Some actions are taken immediately and others are deferred. Strategy sets a framework in which the future decisions are taken, but at the same time it leaves a scope for learning from ongoing developments and for discretion to act based on what is learnt.

This approach suggests that strategy can be seen as a series of real options (i.e. choices of direction at a particular point in time as strategy takes shape, as a result of previous choices that were made).

- Economic value added (EVA) analysis:

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Risk:
The likely return from a particular strategy is an important aspect of the acceptability of the strategy. However, another aspect of acceptability can be the risk that organisation faces in undertaking the strategy. This risk can be particularly high for the organisations with major long term programmes for innovation or where high levels of uncertainty exist about key issues in the competitive environment of the organisation. This section outlines some of the ways in which this risk can be understood:

- **Financial ratios:**
  The projections of how key financial ratios might change if a particular strategic option were adopted can provide useful insights into risk. Two kinds of financial ratios can be looked at:
  - Ratios related to the capital structure of organisation:
    How the capital structure of the organisation would change is a good general measure of risk. For example the options which would require the extension of long-term loans will increase the gearing of the company and increase its financial risk.
  - Ratios related to liquidity:
    At a more detailed level, an analysis of the likely impact on an organisation’s liquidity is important in assessing the risk.

- **Sensitivity analysis:**
  Sensitivity analysis is sometimes referred to as “what if” analysis and allows each of the important assumptions underlying a particular strategy to be questioned and challenged. In particular the technique seeks to test how sensitive the predicted performance or outcome is to each of these assumptions. This can help develop a clearer picture of risks of making a particular strategic decision and the degree of confidence that the managers have in a given decision.

7.2.7 **Stakeholder reactions**

It is important to understand the likely reactions of stakeholders to new strategies, the ability to manage those reactions and hence the acceptability of those strategies. There are many situations where the judgement of stakeholders’ reaction could be crucial. For example:

- A new strategy might require a substantial issue of new shares, which could be unacceptable to powerful group of shareholders, since it dilutes their voting power.
- Plans to expand to more affluent customer segments may be unacceptable to the directors and staff who are socially inclined.
- Attempts to gain market share in mature markets may upset the status quo to such an extent that competitors will be forced to retaliate in a way that is damaging to all parties, but which would undermine the assumptions on which a strategy’s acceptability had been assessed. The most common example of this would be a price war.

The above examples illustrate the importance of understanding stakeholders’ expectations so that the strategies can be made acceptable to them. An important tool which can be used for assessing the stakeholders’ expectations is stakeholder mapping. This is about understanding the political context and prioritising the political agenda for an organisation.

### Stakeholder mapping

Stakeholder mapping identifies stakeholders’ expectations and power and helps in understanding political priorities and underlines the importance of two issues:

- How interested each stakeholder group is to stress that meeting its expectations on the
organisation’s purposes and choices of strategies is important.

- Whether they have the means to do so. This is concerned with the power of stakeholder groups.

**Power/Interest matrix:**
This matrix seeks to describe the political context within which an individual strategy would be pursued by classifying stakeholders in relation to the power they hold and the extent to which they are likely to show interest in supporting or opposing a particular strategy. The matrix indicates the type of relationship which organisations typically might establish with the stakeholders’ groups in different quadrants. The framework can help in better understanding the following:

- Whether the levels of interest and power of stakeholders properly reflect the corporate governance framework within which the organisation is operating.
- Who are likely to be the key blockers and facilitators of a strategy, and how this could be responded to – for example, in terms of education and persuasion?
- Whether organisations should seek to reposition certain stakeholders? This could be to lessen the influence of a key player or, in certain circumstances, to ensure that there are more key players who will champion the strategy.
- The extent to which stakeholders may need to be assisted or encouraged to maintain their level interest or power.

<table>
<thead>
<tr>
<th>Level of interest</th>
<th>Power</th>
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<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>A</td>
<td>Minimal Effort</td>
</tr>
<tr>
<td>B</td>
<td>Keep Satisfied</td>
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**Feasibility:**
This is concerned with whether an organisation has the resources and competencies to deliver a strategy. A number of approaches can be used to understand feasibility.

**Financial feasibility:**
Two approaches can be adopted for analysis financial feasibility of a strategic option:

1. **Funds flow forecasting:**
   A useful way of assessing financial feasibility is funds flow forecasting, which seeks to identify the funds which would be required for any strategy and the likely sources of funds. It should be remembered that funds flow forecasting is subject to difficulties and errors of any method of forecasting. However, it assists in finding out whether a proposed strategy and timing is likely to be financially feasible.

2. **Breakeven analysis:**
   Financial feasibility can also be assessed through a breakeven analysis, which is a simple and widely used approach to assessing the feasibility of meeting targets of return, and as such, combines a parallel assessment of acceptability. It also provides an assessment of the risks of various strategies, particularly when different strategic options require markedly different cost structures.

**Resource deployment:**
A wider understanding of the feasibility of strategy can be attained by identifying the resources and competencies needed for a particular strategy. A resource deployment strategy can be used to assess two things: first, the extent to which an organisation’s current resources and competencies would need to change to reach or maintain the threshold requirements for a strategy, and second, the unique resources and core competencies required to sustain a competitive advantage. The issue is whether the changes are feasible in terms of scale, quality of resource or time scale of change.
Governance versus strategic risk
The uncertainties associated with the strategic decision making process are the primary causes of strategic risks and hence the decision making structure becomes an important source of strategic risk if it is not adequate. Governance risk is the risk of having an inadequate structure or body to make effective decisions. It is the board’s responsibility to oversee senior management and hold them accountable for strategic decisions. If board members fail to fulfill their duties effectively, the MFI risks financial loss as a result of poor decision making or inadequate strategic planning. Microfinance institutions are particularly vulnerable to governance risks resulting from their institutional structure and ownership.

Risk Mitigation:
The board of directors’ responsibilities are to govern and to determine the ends for which the institution exists. The board must discern think, excise judgment, and plan. Effective governance is achieved by clearly identifying the board of directors’ roles to provide direction and oversight to the institution and its employees. The board of directors’ role and responsibilities include:

1. Mission and Vision Development, Focus, and Preservation:
The first responsibility of a board of directors is to state clearly its mission. The board of directors is responsible to communicate this message to its stakeholders, employees, and to the public at every possible opportunity. A focus on the mission in making decisions will cause a board of directors and executives to address issues relevant to the organization’s purpose and values. The board of directors is responsible for evaluating the relevance of the mission statement.

2. Board management and self governance:
A board’s ability to effectively shape policy and further the institution’s mission is either enhanced or constrained by the way its members relate to one another,. The board’s organisation and structure defines how members will interact. Although board structures are relatively similar across institutional types and sectors, the individuals who make up the board memberships should display greater variation. The quality of board members is particularly important at two levels: to hold management accountable and to respond to external actors and issues of external accountability.

3. Executive Oversight and Management:
To ensure that management is held accountable for the activities of the organisation, a board must:
1. Focus on the process and mechanisms it uses to identify a competent executive.
2. The Board must set clear and measurable goals.
3. A board must monitor the performance of the executive.
4. The Board must be able to identify managerial weaknesses and confront them when these adversely affect the institution. If necessary, the board must be prepared to remove the CEO it appoints, and therefore it must consider this a core responsibility.

4. Policy Development and Approval Process

5. Financial and Operational oversight and fiduciary responsibilities:
1. Access to Financial Services: An insolvent MFI likely means an end to a client’s access to capital until they find another source of loan funds. As microenterprises grows, more individuals will come to rely on its success, and unlike middle-income individuals with access to multiple forms of financing, low income microentrepreneurs’ growing circle of jobs and income will greatly suffer if the institution providing their financing falters. Similarly, micro entrepreneurs as savers are also at greater risk in the event of loss than are other sectors of the populations.

2. Fiduciary Responsibility to Funding Sources: microfinance boards incur a fiduciary responsibility when the institution obtains funds from donors, lenders and investors. The fiduciary responsibility increases when the institution borrows funds from a local bank, mobilises deposits, or floats an equity instrument.

6. Strategic Planning and Development
For effective governance, the following practices should be adopted:

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• Balanced board composition with representation from corporate and development management experts
• Ensuring what is at stake and the role of managers in organisational governance and development are aligned by employing innovative measures such as requiring management to provide equity
• Clear functional responsibility centres within the board – like Audit and a Finance Committee
• Systematic mechanism to provide the board with feedback from a broad range of stakeholders
• Ensuring transparency in the functioning of the organisation and accountability for the actions taken by it

**Monitoring strategic risk:**
A successful strategy is the proof of well managed strategic risk, and a framework which helps in monitoring this success is KOGMA. KOGMA stands for **Key Objectives, Goals, Measures/targets and Activities.** A KOGMA Analysis is based on the Structure Tree approach developed by George Labovitz and Victor Rosansky – see “The Power Alignment”, John Wiley and Sons. It provides an intuitive approach to:

- Identifying the **Key Objectives** for achieving the mission/vision of the organisation and then …
- Setting the **Goals** that must be achieved to meet these Key Objectives as well as …
- The **Measures/Targets** and
- The **Activities** necessary to achieve the goals.

It also allows you to describe and communicate your strategic plan in a succinct manner. This gives a tool to monitor the stated strategies against the actual status of strategy implementation.

**Arriving at KOGMA output:**

*Identifying key objectives*
Identifying key objectives use the findings from the SWOT analysis to identify issues critical to the institution’s future and ones that must be addressed so the institution can carry out its mission. A critical or strategic issue is generally framed as a challenge over which the institution has influence. It can be described as a fundamental policy question or important challenge that affects the institution’s:

- mandates, mission and culture;
- product or service level mix;
- clients or users; or
- costs, financing, organisational structure, or management.

Below is an example of mission, vision and strategy statement of an MFI, and the key objectives derived from them:

**Figure 23: Key Objectives**
Identifying goals:
The next step is to set the Goals that must be achieved in order to achieve the Key Objectives. Again focus on the issues that really drive the achievement of the Key Objectives. Typically you will have 1-4 Goals for each Key Objective. Remember the more Goals you have the more complex the implementation and creating effective change will be … so focus on *What Really Matters!*

**Figure 24: Key Goals**

<table>
<thead>
<tr>
<th>Objective 1: Efficient systems and processes</th>
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</thead>
<tbody>
<tr>
<td>Objective 2: Client satisfaction and retention</td>
</tr>
<tr>
<td>Objective 3: Comprehensive human resource management system</td>
</tr>
<tr>
<td>Objective 4: Contemporary dynamic IT based MIS</td>
</tr>
<tr>
<td>Objective 5: Mobilisation and management of adequate cost effective financial resources</td>
</tr>
</tbody>
</table>

Identifying measures and targets:
The Measures will guide and drive your organisation’s efforts to achieving the Goals, and are therefore central to the effective implementation of your strategy. Measures must be selected with the greatest of care!

**Figure 25: Key measures**

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Updated HR manual

- Committee constituted and terms of reference prepared
- First draft of HR Manual prepared
- Reviewed HR Manual ready
- HR Manual approved by the Board

- By August 15, 2009
- By October 31, 2009
- By November 30, 2009
- By January 31, 2010
Risk Management Reporting and Action Planning
8  Introducing Risk Management Reporting

8.1  Reporting of Risk as part of the Risk Management Process

Reporting of risk is crucial to the entire process for risk management. In what might be called “The Infinite Circle of Risk Reporting,” KPMG explains (see Figure 1):

1. “You can’t manage what you don’t measure”
2. “You can’t measure what you don’t get reported”
3. “You don’t get reports without good management”

Figure 26: The Infinite Circle of Risk Reporting

Good corporate governance requires that companies adopt a methodical approach to risk management which:

- protects the interests of their stakeholders
- ensures that the Board of Directors discharges its duties to direct strategy, build value and monitor performance of the organisation
- ensures that management controls are in place and are performing adequately
- The arrangements for the formal reporting of risk management should be clearly stated and be available to the stakeholders

8.2  Utility and Importance of Risk Reporting

The reporting of risk to the board/external stakeholders is important to an MFI as it promotes:

- Transparency
- Record
- Facilitates trend reporting and aids in management’s decision making
- Strengthens MFIs reputation with regulators or sources of funding
- Provides a good summary of the information contained within other critical management reports like the portfolio report, the balance sheet and income statement, cash flow, internal audit report
- Facilitates the assessment of the extent of risk and takes appropriate actions
- Revision of policies and procedures
## 8.3 Management and Regulatory Reporting

Different levels within an organisation need different information from the risk management process. The information requirements at different levels within the MFI are as follows.\textsuperscript{48}

### The Board of Directors:
- know about the most significant risks facing the organisation
- know the possible effects on shareholder value of deviations from expected performance ranges
- know how the organisation will manage a crisis
- know the importance of stakeholder confidence in the organisation
- know how to manage communications with the funders
- be assured that the risk management process is working effectively
- publish a clear risk management policy covering risk management philosophy and responsibilities

### Business Units should:
- be aware of risks which fall into their area of responsibility, the possible impacts these may have on other areas and the consequences other areas may have on them
- have performance indicators which allow them to monitor the key business and financial activities, progress towards objectives
- identify developments which require intervention (e.g. forecasts and budgets)
- have systems which communicate variances in budgets and forecasts at appropriate frequency to allow action to be taken
- report systematically and promptly to senior management any perceived new risks or failures of existing control measures

### Individuals should:
- understand their accountability for individual risks
- understand how they can enable continuous improvement of the risk management response
- understand that risk management and risk awareness are a key part of the organisation’s culture
- report systematically and promptly to senior management any perceived new risks or failures of existing control measures

Risk reporting to the Board should provide information on actual results compared to budget, showing the variance, and tracks key ratios and numbers relevant to the MFI’s operations. However, this information reporting should also occur at several levels:

### 8.4 Reporting Risks Internally

- **Internal audit reports**
  The internal audit is a critical part of the risk management feedback loop. It evaluates operations “ex post” and helps assess whether the “ex-ante” (before operations) procedures and controls are effective in mitigating risk. The internal audit process tests the accuracy of the information coming from management reports and investigates specific areas of higher risk to the MFI.

- **Summary reports for senior managers and directors**
  This audience needs summary reports that capture trends in key ratios and indicators so they can monitor the organisation’s overall performance, and detect any changes in the MFI’s financial condition or potential increased or decreased risk to the MFI. Senior management and the board of directors usually focus on financial and strategic risks, rather than operational risk. The most useful summary reports emphasise ratios rather than absolute numbers and the monthly or quarterly trends for those ratios so they can “manage by exception” and focus quickly where a key ratio has changed significantly and ask appropriate questions of management.

\textsuperscript{48} A Risk Management Standard published by AIRMIC, ALARM, IRM: 2002

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8.5 Reporting Risks Externally

- **Regulators**
  Regulatory risk reporting is an internal reporting. The purpose of this kind of reporting is primarily to comply with the reporting formalities required by law. It may include reporting on financials, capital adequacy, provisioning norms, etc. and must be done on a timely basis, in the desired formats and at a frequency as desired by the regulator. Apart from this, it is also important to establish a good working relationship with the regulatory authorities. One way of doing this is by sending them the latest research findings to improve regulators’ knowledge and understanding of MFIs. They may also be invited to seminars and conferences to have a better understanding on the developments in the sector and sensitise them to its needs.

- **Other Stakeholders**
  The demand for disclosing risk externally is also growing. Investors, financial analysts, and other external stakeholders are increasingly aware of the critical role of proper risk management. They want better information on the various risks organisations confront, and how these are addressed by the risk management system. They want concrete assurance that a sound system and process is in place to identify, assess, and manage risks, so that they can better evaluate corporate performance and make more informed decisions.

8.6 Salient features of Risk Reporting

The formal reporting should address:

- The control methods: particularly management’s responsibility for risk management
- The processes used to identify risks and how these are addressed by the risk management system
- The primary control systems in place to manage significant risks
- The monitoring and review system in place

The following table provides a quick look at what distinguishes a good report from a bad one:

<table>
<thead>
<tr>
<th>Table 28: Criterion for reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Good</strong></td>
</tr>
<tr>
<td>Knowledge based</td>
</tr>
<tr>
<td>Layered (can be drilled down)</td>
</tr>
<tr>
<td>Parallels accountability process</td>
</tr>
<tr>
<td>Summarises and draws conclusion</td>
</tr>
<tr>
<td>Inclusive of risk dimension</td>
</tr>
<tr>
<td>Clarity of definitions</td>
</tr>
<tr>
<td>Consistency of language</td>
</tr>
<tr>
<td>Consistent with organisation’s view of risk in terms of economics, regulation, accounting conventions, accountability</td>
</tr>
</tbody>
</table>

- **Information required at different levels within the MFI for risk reporting**
  The information required for risk reporting to Board/other stakeholders pertains to a broad range of parameters and remains available with different departments within an organisation. Most of the information has to be obtained from the MIS, especially the parameters on which the reporting needs higher frequency. To ensure this, the MIS of the organisation should be appropriately customised as per the risk management structure.

However, reporting on some of the parameters may need further analysis over the data provided by MIS software. Depending on the size of the MFIs, this task can either be done by a specialised department dedicated to Risk Management, by a team that is an extension of the internal audit team or in some cases by a Board Committee on Risk Management. The decision to form a separate department for Risk Management

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will depend on the costs and benefits of doing so. A framework for risk reporting to the Board is given in Annexure I, which may be suitably customised for other internal reporting too.

- **Frequency of reporting**

  The frequency with which risk reporting occurs on a particular parameter to the Board / other stakeholders depends on the priority assigned to the risk. Many risk categories, such as credit risk, liquidity risk, and others that remains relatively volatile, should be reported on a monthly basis to the senior management and the board of directors. Others may be reviewed quarterly or semi-annually (e.g. whether loan loss reserves are adequate relative to the portion of portfolio-at-risk). The board of directors and senior management may review risk management policies only once a year. Risk management is an interactive and continuous process to ensure that senior management is in-tune with the actual events in the field offices, and that the MFI responds quickly to any changes in its internal or external business environment.
9  Annexures

9.1  Annexure I: Framework for Risk Reporting to Board of Directors

Note:
1. The assumption is that before filing this sheet, the organisation would have specified for itself the key benchmarks, e.g. the number of trainings to be conducted, etc.
2. All the questions are supposed to be measurable. The sample size to be decided by the management, based on considerations of cost and time.
3. Use of advanced Excel tools can be used for activating alerts in case the risk indicator overshoots the tolerance limits.
4. Risk mitigation steps should be taken in case of any violation of the tolerance limit.
5. This is a general template. It will need to be customised to suit the needs of the individual MFI.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Significance</th>
<th>Periodicity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Credit Risk</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portfolio Quality</td>
<td>This will help in assessing the risk of loans deteriorating.</td>
<td>Monthly</td>
</tr>
<tr>
<td>PAR (&gt;0 days)</td>
<td></td>
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<tr>
<td>PAR (&gt;30 days)</td>
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<tr>
<td>PAR (&gt;60 days)</td>
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<tr>
<td>PAR (&gt;90 days)</td>
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<td></td>
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<tr>
<td>PAR (&gt;180 days)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAR (&gt;360 days)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write-off amounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of Unsecured Loans to Total Loans</td>
<td>One of the major strategies for risk mitigation is to limit ones overall exposure to a sector. This will, to an extent, immune the MFI from the systemic risks that result in downturns in a particular sector. The sectoral limits to exposure will have to be decided based on a variety of factors. Examples are: petty trade, agriculture, light manufacturing, etc.</td>
<td>Monthly</td>
</tr>
<tr>
<td>Percentage of loan restructured to total loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sectoral Exposure</strong></td>
<td></td>
<td></td>
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<tr>
<td>Sub-sector 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures</td>
<td>Significance</td>
<td>Periodicity</td>
</tr>
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<td>-----------------------------------------------</td>
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<tr>
<td>Sub-sector 2</td>
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<tr>
<td>Sub-sector 3</td>
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<tr>
<td>Sub-sector 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-sector 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Client Tracking</strong></td>
<td>One way to limit the credit risk is to screen out good clients from bad clients, i.e. ensuring that bad clients are screened out and good clients are not left out. It is also vital to track the number of clients that drop-out of the system after completing a loan cycle. Similarly MFIs do not want too many non-active clients and can be tracked with the help of the member-to-borrower ratio.</td>
<td>Monthly</td>
</tr>
<tr>
<td><strong>Percentage of loan restructured</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Percentage of portfolio restructured</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of Drop-outs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Member-to-Borrower ratio</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B. Operations Risk</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HR related</strong></td>
<td>Unfilled staff positions especially at the senior management level pose serious operational risk. At the frontline level, it may lead to overburdening of the BM/COs. For COs this has to be decided on the basis of the current vs. targeted caseload. Lack of clearly specified goals (documented and communicated) at each level of staff poses a risk in terms of conflicts and lack of accountability amongst staff. Trainings have to be conducted as per the plan. Any unexecuted training poses the risk of poor delivery of services by the staff due to inadequate training. Staff should receive timely feedback on their performance and advised on the areas of improvement. Any delay in this regards poses significant risk.</td>
<td></td>
</tr>
<tr>
<td><strong>No. of Staff that have left the MFI (Staff-turnover) at different levels:</strong></td>
<td></td>
<td>Monthly</td>
</tr>
<tr>
<td>Grade 1</td>
<td></td>
<td></td>
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<tr>
<td>Grade 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade N</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No. of staff positions that are unfilled</strong></td>
<td></td>
<td>Monthly</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Measures</th>
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<th>Periodicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td></td>
<td></td>
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<tr>
<td>Grade 2</td>
<td></td>
<td></td>
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<tr>
<td>Grade N</td>
<td></td>
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<tr>
<td>Delay (in no. of days) in releasing the salary</td>
<td>Monthly</td>
<td></td>
</tr>
<tr>
<td>No. of Seniors Positions for which Succession Plan is not in place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process related</td>
<td>The major process related risks arise out of non-adherence to procedures laid down by the MFI. Since the deviations are difficult to establish through methods other than a process audit (which itself is an elaborate exercise), creating indicators, which are a reliable proxies for assessing the risks, have to be monitored. In the list below, these indicators have been mentioned.</td>
<td></td>
</tr>
<tr>
<td>Client attrition/ drop out in different cycles</td>
<td></td>
<td>Quarterly</td>
</tr>
<tr>
<td>First to second</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second to Third</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N-1) to N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issues related to customer convenience</td>
<td></td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of reported instances of misbehaviour of staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average time taken for settlement of insurance pay out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instances of Fraud</td>
<td></td>
<td>Monthly</td>
</tr>
<tr>
<td>Total Fraud Amount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Financial Risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of funding sources and their share in total liability structure?</td>
<td>How diversified are the MFI's funding resources?</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Lender 1</td>
<td></td>
<td></td>
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<tr>
<td>Lender 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Measures</th>
<th>Significance</th>
<th>Periodicity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lender N</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Weighted Average of Cost of Funds (inclusive of bank charges)</strong></td>
<td>Risk of funding liabilities being costly</td>
<td>Quarterly</td>
</tr>
<tr>
<td><strong>Capital Adequacy Ratio/Debt-Equity ratio</strong></td>
<td>Is the MFI adequately capitalized to cover the financial risk and also comply with the regulatory norms?</td>
<td>Monthly</td>
</tr>
<tr>
<td><strong>Return on Other Assets</strong></td>
<td>Role of Treasury</td>
<td>Quarterly</td>
</tr>
<tr>
<td><strong>Liquidity Position</strong></td>
<td></td>
<td>Monthly</td>
</tr>
<tr>
<td>Whether the repayment of instalments/interest etc. was made on time?</td>
<td></td>
<td>Monthly</td>
</tr>
<tr>
<td>Cash in hand and at the bank bank as a percentage of total assets</td>
<td>Risk of how the cash is being managed</td>
<td>Monthly</td>
</tr>
<tr>
<td><strong>Acid-test Ratio</strong></td>
<td>To track whether MFI is in a situation to honour its debt commitments.</td>
<td></td>
</tr>
<tr>
<td><strong>Liquidity Reserve/ Withdrawal Savings Ratio</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Debt Service Coverage Ratio</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted maturity period of liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted maturity period of Assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Broader Liquidity Planning Ratio</strong></td>
<td>To track whether MFI has required funds to meet business expansion</td>
<td></td>
</tr>
<tr>
<td><strong>Gap Analysis</strong></td>
<td></td>
<td>Quarterly</td>
</tr>
<tr>
<td><strong>Profitability Risk</strong></td>
<td></td>
<td>Monthly</td>
</tr>
<tr>
<td>Operating Cost Ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Foreign Exchange Risk</strong></td>
<td></td>
<td>Monthly</td>
</tr>
<tr>
<td>Net foreign exchange loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tracking Macro-economic variables</strong></td>
<td></td>
<td>Monthly</td>
</tr>
<tr>
<td><strong>Interest rates</strong></td>
<td>Risk associated with loss of earning or low liquidity arising from the unexpected movement of interest rates</td>
<td></td>
</tr>
<tr>
<td><strong>Exchange rates</strong></td>
<td>The risk associated with earnings and liquidity due to change in relative value of the currency in which an MFIs assets and liabilities are denominated</td>
<td></td>
</tr>
<tr>
<td><strong>Inflation</strong></td>
<td>Risk associated with loss of earning or low liquidity arising from the unexpected movement in inflation</td>
<td></td>
</tr>
</tbody>
</table>
## Measures

### D. Strategic Risk

<table>
<thead>
<tr>
<th>Goals (short/medium term and tactical in nature)</th>
<th>Goals (long term/strategic in nature)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 1</td>
<td>Goal 1</td>
</tr>
<tr>
<td>Goal 2</td>
<td>Goal 2</td>
</tr>
<tr>
<td>Goal N</td>
<td>Goal N</td>
</tr>
</tbody>
</table>

### E. Market Risk

<table>
<thead>
<tr>
<th>Regulatory risk</th>
<th>Competition risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission is within 1 months from balance sheet date/expiry date/stipulated time.</td>
<td>Did the competitor bring in any new product or process innovation in this period?</td>
</tr>
<tr>
<td>Compliances based on statutory guidelines</td>
<td>Number of new players</td>
</tr>
</tbody>
</table>

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