LESSON 4

VIABILITY OF A MICROFINANCE ORGANIZATION

Objectives: Micro-finance organizations are becoming more and more concerned with financial viability. This session discusses the costs and revenues associated with credit activities and the importance of achieving self-sufficiency and high productivity.

Micro-finance organizations are generally involved in two primary activities: credit and savings. For the purpose of this analysis, it is assumed that no voluntary savings are provided and all savings collected are simply a requirement of receiving credit. Any other activities which occur at the branch are excluded from this analysis.

Topics covered include:

- Revenue
- Expenses
- Financial viability
- Operational self-sufficiency
- Cost of capital
- Financial self-sufficiency
- Trend analysis
- Productivity analysis

Revenue

A micro-finance organization earns revenue through:

- Interest income
- service charges
- other fees
- other revenue-generating activities (e.g. fundraising).

Interest income is the amount of money received from borrowers (excluding principal) stated as a percentage of the loan amount. Micro-finance organizations generally charge interest as a flat amount of the loan disbursed or on the declining balance of the loan (as discussed previously).

Service charges represent fees charged to clients for loan disbursement and other services associated with the credit and savings activities.

Other fees are any fees earned that are related to credit activities, such as training (if applicable).

Other revenue-generating activities include fund-raising, external training programmes, publications, etc. Revenue earned from these activities (with the exception of fund-raising which is included at the very end of the Income Statement and separate from credit-related revenue) should not be used to cover costs incurred for credit and/or saving activities.

Variables that affect the revenue of a branch are :

- loan volume
- interest rates and fees
- loan terms
- late payments
- loan losses
- idle funds.

Consider how and why each of these variables affects the revenue of a branch.

For example: increased loan volume results in increased revenue, increased interest rates and fees result in increased revenue particularly as related to the interest rate calculation method, loan terms affect revenue (again highly related to the interest rate calculation method), late payments result in postponed revenue, loan losses result in lost revenue, and idle funds generally result in lower revenue.

Expenses

Micro-finance organizations typically incur three types of costs (a fourth cost, *the imputed cost of capital,* will be discussed later in this session):

- financial costs
- loan loss provision
- operational costs

Financial costs are the costs incurred by the organization for borrowing funds (which in turn are sometimes charged to the branches by Head Office). Financial costs can also include other costs levied by the bank for overdraft charges and service charges. Financial costs are related directly to how the loan portfolio is funded and the size of the portfolio.

Many micro-finance organizations charge their branches a percentage interest for funds financed by Head Office (other funding sources would include savings collected at the branch). In turn, branches lend this money to clients at a higher interest rate. *"Spread" refers to the difference between the "cost of funds" and the "effective yield" to a micro-finance organization on those funds*. For example, if the effective yield earned on loans disbursed by the branch (as calculated in the session on Effective Cost) is approximately 29% and the branch pays Head Office 9%, the resulting "spread" is 20%.

The **Loan loss provision** is that amount of money expensed by the organization to cover the loss of loans that are thought to be non-recoverable. Micro-finance organizations should periodically create *Loan loss reserves* based on the quality of the loan portfolio (and not on the amount disbursed). The loan loss reserve refers to the amount set aside to cover future losses on the loan portfolio. This Reserve shows up as a negative asset or as a liability on the Balance Sheet.

When the loan loss reserve is first created, a Loan loss provision is recognized on the Income Statement as an expense in an amount equal to the Loan loss reserve. Subsequent Loan loss provisions are recorded on the Income Statement in the amount necessary to increase the loan loss reserve to its appropriate level. (Calculation of the loan loss reserve will be covered in Lesson 5 – Delinquency Management.) Actual loan losses, or write-offs, are netted out of the Reserve (on the Balance Sheet) so do not affect the Income Statement when they occur (unless the Loan loss reserve is insufficient – in this case an additional Loan loss provision is recorded on the Income Statement).

A Loan loss provision is a direct expense that reduces the profit of a branch and a micro-finance organization as a whole.

Some organizations include the Loan loss provision with the operating costs on the Income Statement. It is helpful to separate out the provision as it gives an indication of portfolio quality for the period. In this analysis, the ratio considers the Loan loss provision made for the period rather than the Loan loss reserve (refer to the Accounting Study Guide for a thorough explanation).

Operational costs are those costs incurred in the day to day operations of an organization or branch. Examples include rent, salaries and benefits, supplies, maintenance, depreciation on equipment and vehicles, transportation, etc.

For an organization or branch to be self-sufficient, the revenue earned must cover these three costs (financial, loan loss, and operational). It is necessary, therefore, to determine how much revenue is earned from credit (and savings) activities, and match that revenue against the cost of delivering credit (and savings) activities.

Financial Viability

Micro-finance organizations are coming to understand that, in order to be sustainable in the long-term, they must be financially viable. As their loan portfolio grows, it becomes increasingly difficult to raise the necessary loan capital and operating subsidies to maintain the operation. Therefore, more and more organizations are striving to cover their costs from the revenues generated through their lending activities.

Financial Ratio Analysis is a tool that helps managers of micro-finance institutions answer three primary questions that apply to every institution regardless of context or design:

Sustainability:	Will the institution have the resources necessary to continue to be able to serve our clients in the future?
Efficiency:	Does my institution serve as many people as possible with its resources at the lowest possible cost?
Portfolio Quality:	Are we doing a responsible job of managing our most important asset? [1]

[1] Financial Ratio Analysis of Micro-Finance Institutions. SEEP/Calmeadow 1995. Much of the ratio material presented in this lesson and the next, follow the format of this publication. This format was developed by the Financial Services Working Group of the Small Enterprise and Education Promotion (SEEP) Network.

To determine if an organization (or a branch) is financially sustainable, the costs – operational, Loan loss provision, and financial costs – are subtracted from revenue – interest and loan fees.

By stating the costs and revenues as a percentage of the assets, the level of self-sufficiency can be determined. An effective way to state the revenue and expenses and subsequent profitability of a branch is to state the revenues and expenses as a percentage of Average Total Assets, Average Performing Assets or Average Outstanding Portfolio.

Average Total Assets is defined as all the assets of an organization and is calculated by summing total assets at the end of each month and dividing by the number of months in the period. (Alternatively, the denominator can be calculated by adding the year end figures for the current and prior years and dividing by 2.)

Average Performing Assets is calculated similarly by summing the total outstanding performing assets which includes the loan portfolio plus any revenue-earning assets.

Average Portfolio Outstanding is calculated in the same manner but includes only the gross outstanding loan balance (not net of revenues) and excludes other revenue-earning and non-revenue earning assets. Average Performing Assets is more accurate than Performing Assets at the end of the period, particularly if the loan portfolio is changing in size.

The choice of which denominator to use depends on the activities of the organization. If all of the assets are used for providing credit (and/or savings), then Average Total Assets is appropriate. Average Performing Assets is more appropriate if only part of the assets is used to support credit activities. If the purpose is simply to measure the portfolio activity and not to measure any investment or funds management, then Average Portfolio Outstanding can be used.

The first step is to calculate the Return on Assets:

$$\text{Return on Performing Assets} = \frac{\text{Interest and Fees *}}{\text{Average Performing Assets}}$$

$$\text{Return on Portfolio} = \frac{\text{Interest and Fees **}}{\text{Average Portfolio Outstanding}}$$

* excludes grant revenue but includes investment income
** excludes grant revenue *and* any non-credit or investment income

In most micro-finance organizations, the primary generator of revenue is the loan portfolio. The Return on Portfolio ratio measures the average revenue received for every unit of currency outstanding in loans. The Return on Performing Assets ratio varies from the Return on Portfolio ratio depending on other investments (term deposits, treasury bills, etc.) which the organization has made.

[Note: It is useful to consider the Return on Performing Assets ratio for analysis of overall financial management. While the Return on Portfolio might indicate an adequate return, if only 50% of the assets are represented by outstanding loans, the organization *may* not be performing as well as the Return on Portfolio ratio would indicate. The Return on Performing Assets ratio takes into account the return earned on other investments. Micro-finance programmes should be evaluated based on the overall asset management. *For the purposes of this guide, Average Performing Assets will be used*.]

Factors which affect the Return on Performing Assets ratio are: varying loan terms, interest rates and fees, changes in the level of delinquent payments, and the amount of idle funds. The split between Interest income and fee income also affects this ratio if loan terms and loan amounts change.

For example, if a micro-finance organization earns $250,000 in revenue and has Average Performing Assets of $1,136,000 then the Return or *yield* on the Performing Assets is 22%.

$$\text{Return on Performing Assets} = \frac{\text{Interest and Fees}}{\text{Average Performing Assets}}$$

$$= \frac{\$250,000}{\$1,136,000}$$

$$= 22\%$$

The Return on Performing Assets ratio is an important indicator to analyze when changes in pricing and/or loan term structures are implemented. Analysis of this ratio will improve the ability of the organization to determine the impact on revenue generated of policy changes, improved delinquency management, or the addition of new products.

As mentioned before, micro-finance organizations incur financing costs, loan loss expenses, and operating expenses. To determine how much the organization needs to earn to be able to cover these costs, each of these expenses can be stated as a percentage of Average Performing Assets. In the example above, the yield on Average Performing Assets was 22% ($250,000). Expenses for the same period were:

- financing costs – $32,000
- loan loss provision – $34,000
- operating costs – $204,000.

$$\text{Financing Cost Ratio} = \frac{\text{Financing Costs}}{\text{Average Performing Assets}}$$

$$= \frac{\$32,000}{\$1,136,000}$$

$$= 3\%$$

[Note: The Financing Cost ratio does not represent the actual rate of interest paid on borrowed funds because the calculation is based on Average Performing Assets, not on borrowed funds.]

The Financing Cost ratio is affected by changes in the cost of funds and the mix between debt and equity (including grants, donations and retained earnings) in the organization's funding of performing assets. An increase in the interest paid by an organization or an increase in the debt portion of the portfolio funding (relative to equity or donations) will increase this ratio.

The Return on Average Performing Assets less the Financing Cost Ratio results in the "spread" or Gross Financial Margin for the branch. The spread is what must cover the provision and operating costs.

Loan loss provision Ratio = Loan loss provision / Average Performing Assets

= $34,000 / $1,136,000

= 3%

The Loan loss provision ratio states the amount of revenue as a percentage of Average Performing Assets required to cover the Loan loss provision.

[Note: this is not the Loan loss reserve – as previously explained, the Loan loss provision is the amount expensed periodically to achieve an adequate Loan loss reserve.]

Operating Cost Ratio = Operating Costs / Average Performing Assets

= $204,000 / $1,136,000

= 18%

The Operating Cost ratio calculates the amount of revenue, in percentage terms, required to cover the operating costs. It gives an indication of the efficiency of the lending operations.

Operational Self-Sufficiency

The Self-Sufficiency ratios present information that has already been calculated in the example above. They are included here simply to further indicate the financial viability of the credit operations. Self-Sufficiency ratios are commonly referred to in the micro-finance field although there are many definitions used. This training suggests two levels of self-sufficiency although often three levels of self-sufficiency are referred to: Level 1 (Operational Self-Sufficiency) refers to revenue covering operating expenses and Loan loss provisions. Level 2 covers financing costs, operating expenses and Loan loss provisions and Level 3 (Financial Self-Sufficiency) refers to revenue which covers non-financial and financial expenses calculated on a commercial basis – "profit without subsidy". [2] In the definitions presented in this training, Operational Self-Sufficiency equates to Level 2 and Financial Self-Sufficiency equates to Level 3. The equivalent to Level 1 is not considered here.

Operational Self-Sufficiency

= Operating Income / Operating Expenses + Financing Costs + Loan loss provision

Operational Self-Sufficiency indicates whether enough revenue has been earned to cover the organization's costs. This ratio relates to the Net Operating Margin described above. Looking at the ratio as a self-sufficiency figure allows management of the organization to determine how close to 100% self-sufficiency the operations are.

[2] Rhyne, Beth, Robert Vogel, Robert Peck Christian. Maximizing the Outreach of Microenterprise Finance: An Analysis of Successful Microfinance Programmes. USAID Centre for Development and Evaluation. August, 1995.

In the example above, total costs as a percentage of Average Portfolio Outstanding are 24% (3% + 3% + 18%). Total revenue is 22%.

Does this mean that the organization is profitable? Does this mean it is Operationally self-sufficient?

Operational Self-Sufficiency

$$= \frac{\text{Operating Income}}{\text{Operating Expenses + Financing Costs + Loan loss provision}}$$

$$= \frac{\$250,000}{\$204,000 + 32,000 + 34,000}$$

$$= 93\%$$

The organization is only covering 93% of its total costs. Therefore, it has not reached *Operational self-sufficiency*. Eventually, the loan capital (fund capital) will be reduced by losses unless additional grants can be raised to cover operating shortfalls. This means there will be less funds to loan to borrowers and could result in the closing of the organization once the funds run out.

An example of an operationally self-sufficient organization follows :

For the year ending 1995, a micro-finance organization earned $371,000 in revenue and had Average Performing Assets of $1,136,000:

$$= \frac{\text{Revenue}}{\text{Average Performing Assets}}$$

$$= \frac{\$371,000}{\$1,136,000}$$

$$= 33\%$$

The *yield* on the portfolio is 33%.

The following expenses were incurred:

- financial costs $32,000
- Loan loss provision $34,000
- operational costs $270,000

$$\text{Financing Cost Ratio} = \frac{\$32,000}{\$1,136,000} = 3\%$$

$$\text{Loan loss provision Ratio} = \frac{\$34,000}{\$1,136,000} = 3\%$$

$$\text{Operating Cost Ratio} = \frac{\$270,000}{\$1,136,000} = 24\%$$

Total expenses as a percentage of Average Performing Assets are 31% (3% + 3% + 24%). Total revenue is 33%.

This means that the organization is operationally self-sufficient.

$$\text{Operational Self-Sufficiency} = \frac{\$371,000}{\$270,000 + 32,000 + 34,000}$$

$$= 110\%$$

Cost of Capital

In addition to determining the operational self-sufficiency of a micro-finance organization, it is necessary to consider one further cost to determine the long-term viability of its credit activities.

The Net Operating Margin (revenue less financing costs, Loan loss provision and operating expenses) represents the bottom line of the credit activities. If it is a positive number, the organization is sustainable in the short-term (Operational Self-Sufficiency). If the organization is working in an inflationary environment, and/or has concessional loans (loans which bear a very low interest rate, below inflation and market rates), at the very least, the effect of inflation[3] on the value of the capital (equity and concessional loans) must be considered. This is referred to as the *Imputed Cost of Capital:*

Imputed Cost of Capital

$$= \frac{\text{(Inflation Rate x Equity) + \{(Inflation Rate – Interest Rate Paid) x Concessional Loans\}}}{\text{Average Performing Assets}}$$

The Imputed Cost of Capital is considered to be the cost of maintaining the value of the equity in an organization. Many micro-finance organizations fund their loan portfolios primarily with equity or concessional loans. The financing costs of concessional loans are netted out in this calculation because they are captured in the financing costs on the Income Statement. Financing costs on the concessional loans are an actual cash-outflow for the organization. The Imputed Cost of Capital is not a cash-outflow but must be considered for long-term financial viability.

Continuing with the example above, if 50% of the performing assets ($1,136,000) are funded with equity, 30% with debt (commercial loans) bearing an interest cost of 8% per year, and 20% with debt (concessional loans) bearing an interest rate of 2% per year:

equity (50%)	=	$568,000
commercial loans (30%)	=	$340,800
concessional loans (20%)	=	$227,200
TOTAL		$1,136,000

Total financing costs for one year are as follows:

commercial loans @ 8%	=	$27,264
concessional loans @ 2%	=	$ 4,544
TOTAL		$31,808

Financing costs of $31,808 (rounded to $32,000 above) have already been captured in the Financing Cost Ratio. It is necessary though to consider the cost of inflation on the equity and concessional loans, particularly if concessional loans are, over time, funding the portfolio less and less.

[3] It is important to note that it may be more appropriate to use the market rate of debt (or equity) rather than the inflation rate to calculate the Imputed Cost of Capital. This would be appropriate if the organization is likely to have to replace the concessional loans with market-rate debt (or equity) or if shareholders began demanding a return on the equity greater than inflation. This could occur if the micro-finance organization develops into a formal financial institution.

The *imputed cost of capital* for a year in which the inflation rate was 7% is calculated as follows:

$$\frac{(\text{Inflation Rate} \times \text{Equity}) + \{(\text{Inflation Rate} - \text{Interest Rate Paid}) \times \text{Concessional Loans}\}}{\text{Average Performing Assets}}$$

$$= \frac{(7\% \times \$568{,}000) + \{(7\% - 2\%) \times \$227{,}200)\}}{\$1{,}136{,}000}$$

$$= \frac{\$51{,}120}{\$1{,}136{,}000}$$

$$= 4.5\%$$

The imputed cost of capital must be considered as an additional cost (although not a cash-outflow) when determining Financial Self-Sufficiency.

Financial Self-Sufficiency

Financial Self-Sufficiency indicates whether or not enough revenue is earned to cover all the operating, financial and loan loss expenses as well as maintain the value of the equity and quasi-equity (concessional funding) in an organization relative to inflation and other capital costs. Unless 100% Financial Self-Sufficiency is reached, the provision of credit services in the long-term is undermined by the continued necessity to rely on donor funds.

$$\text{Financial Self-Sufficiency} = \frac{\text{Operating Income}}{\text{Operating Expenses} + \text{Financing Costs} + \text{Loan loss provision} + \text{Imputed Cost of Capital}}$$

This ratio relates to the bottom-line of the Income Statement before grant revenue or donations are considered. If an organization is able to reach or surpass 100% Financial Self-Sufficiency without considering donations, they are ready, if desired, to create a formal financial institution [Note: a profit is required to attract equity investors].

Continuing with the example above, total revenue was $371,000. Expenses were: financing costs – $32,000; Loan loss provision – $34,000; operating costs – $270,000; cost of capital – $51,120.

$$\text{Financial Self-Sufficiency} = \frac{\$371{,}000}{\$32{,}000 + \$34{,}000 + \$270{,}000 + \$51{,}120}$$

$$= 96\%$$

In this example, although the organization appears to be making a profit (Operational Self-Sufficiency), over time, inflation will erode the value of its loan portfolio and its long-term viability is at risk. It has not achieved Financial Self-Sufficiency. Ultimately, if revenues do not increase or expenses do not decrease relative to Average Performing Assets, grant funds or donations will be necessary to make up the shortfall in order for the micro-finance organization to continue to operate in the long-term.

$$\text{Grants/Donations Ratio} = \frac{\text{Grants and Donations}}{\text{Average Performing Assets}}$$

Refer to the "Viability Analysis" on the next page and examine each ratio on a line-by-line basis.

VIABILITY ANALYSIS

	INDICATORS	1994		1993	
		($)	(%)	($)	(%)
	Average Performing Assets	**78,750**		**59,750**	
	Return on Performing Assets	18,850	23.9 %	13,600	22.8 %
less	Financing Costs	- 3,500	- 4.4 %	- 1,200	- 2.0 %
=	Gross Financial Margin (Spread)	15,350	19.5 %	12,400	20.8 %
less	Loan loss provision	- 3,000	- 3.8 %	- 5,000	- 8.4 %
=	Net Financial Margin	12,350	15.7 %	7,400	12.4 %
less	Operating Costs	- 13,100	- 16.6 %	- 10,900	- 18.2 %
=	Operating Margin	- 750	- 1.0 %	- 3,500	- 5.9 %
less	Imputed Cost of Capital	- 6,600	- 8.4 %	- 6,600	- 11.1 %
=	Net Margin	- 7,350	- 9.3 %	- 10,100	- 16.9 %
plus	Donations and Grants	950	1.2 %	3,500	5.9 %
=	Net Result	- 6,400	- 8.1 %	- 6,600	- 11.1 %
	Operational self-sufficiency		96.2%		79.5%
	Financial Self-Sufficiency		71.6%		57.4%

Trend Analysis

The above Income Statement items (revenues and expenses) were converted into ratios. If ratios are calculated in a consistent manner on a periodic basis, they can be compared over time. This is referred to as *trend analysis*. Trend analysis is done by comparing the same ratios for an organization or branch over different periods of time and seeing how the ratios have changed. Some ratios indicate an improving situation if they increase (such as Revenue as a percentage of Average Portfolio Outstanding). Other ratios indicate a deteriorating situation if they increase (such as Loan loss provision as a percentage of Average Portfolio Outstanding).

Refer to the Financial Analysis on the next page and to the Sample Income Statement and Balance Sheet which you will find in "Sample Account Analysis" in the document list of this Study Guide and review the ratio trends. Go through the calculation of the ratios. (You will calculate the ratios for 1995 in the “Viability” Exercises at the end of the session.)

FINANCIAL ANALYSIS

Financial Sustainability Ratios		**1994**	**1993**
Return on Performing Assets	Financial Income / Avg. Performing Assets	23.94%	22.76%
Financial Cost Ratio	Financial Costs / Avg. Performing Assets	4.44%	2.01%
Loan Loss Provision Ratio	Loan loss provision / Avg. Performing Assets	3.81%	8.37%
Operating Cost Ratio	Operating Expenses / Avg. Performing Assets	16.63%	18.24%
Imputed Cost of Capital (ICC) Ratio	see text	8.38%	11.05%
Donations and Grants Ratio	Donations and Grants / Avg. Performing Assets	1.21%	5.86%
Operating Self-Sufficiency	Financial Income / Fin+Op.Costs+Provision	96.17%	79.53%
Financial Self-Sufficiency	Financial Income / Fin+Op.Costs+Prov.+ICC	71.95%	57.38%

Productivity Analysis

Several additional ratios are suggested to analyze the productivity and operating efficiency of a micro-finance organization's branches.

Efficiency is determined by the amount of operating costs, the number of loans disbursed, the number of loans maintained, and the average amount of each loan. In micro-finance organizations, two key factors influence the level of activity and hence operating costs and productivity: i) turnover of the loan portfolio and ii) average loan size. [4]

The impact of these two factors and the corresponding efficiency of operations can be further analyzed by looking at the costs associated with lending on a per unit of currency (UOC) basis or on a per loan basis.

$$\text{Cost per UOC Lent} = \frac{\text{Operating Costs for the Period}}{\text{Total Amount Disbursed in the Period}}$$

The Cost per UOC Lent ratio highlights the impact of the turnover of the loan portfolio on operating costs. The lower this ratio, the higher the efficiency. However, this ratio can sometimes be misleading. For example, while operating costs may increase, even though the size of the portfolio remains the same, the cost per UOC lent may actually decrease. This would happen if more short-term loans were made during the period and therefore the turnover of the portfolio was higher. Although the ratio would decrease, it does not necessarily indicate increased efficiency.

$$\text{Cost per Loan Made} = \frac{\text{Operating Costs for the Period}}{\text{Total Number of Loans Made in the Period}}$$

The Cost per Loan Made ratio provides an indication of the cost to provide credit based on the number of loans made.

4 Bartel, Margaret. "Financial Management Ratios: Analysis in Micro Credit Programmes" (1993)

Both of these ratios need to be looked at over a period of time to determine whether operating costs are increasing or decreasing relative to the number of loans made. As an organization matures, these ratios should decrease (with the above noted caveat). Analysis of the Cost per UOC Lent and the Cost per Loan Made provides insight into how operating costs may have changed and how efficiently the organization is operating.

It is difficult to compare these ratios to other organizations as the average loan size and loan term are so significant in their calculations. For example, traditional formal financial institutions have relatively lower Cost per UOC Lent or Loans Made ratios because they generally make much larger loans than micro-finance organizations.

Further analysis of productivity and efficiency can be achieved by calculating the following ratios:

No. of Active Borrowers / Credit Officer $\frac{\text{No. of Active Borrowers}}{\text{No. of Credit Officers}}$

Portfolio Outstanding / Credit Officer $\frac{\text{Portfolio Outstanding}}{\text{No. of Credit Officers}}$

To calculate productivity and efficiency ratios, financial statements and a *Portfolio Report* are required. The Portfolio Report provides information about the portfolio activity over a period of time and the current portfolio quality.

Refer to the Sample Portfolio Report below (this report will be explained further in the next session – Delinquency Management).

SAMPLE PORTFOLIO REPORT

PORTFOLIO DATA	**1995**	**1994**	**1993**
Total value of loans disbursed during the period	160,000	130,000	88,000
Total number of loans disbursed during the period	1,600	1,300	1,100
Number of active borrowers (end of period)	1,800	1,550	1,320
Value of loans outstanding (end of period)	84,000	70,000	52,000
Average outstanding balance of loans	75,000	61,000	45,000
Value of payments in arrears (end of period)	7,000	9,000	10,000
Value of outstanding balances of loans in arrears	18,000	20,000	20,000
Value of loans written off during the period	500	3,000	0
Average initial loan size	100	100	80
Average loan term (months)	12	12	12
Average # of credit officers during the period	6	6	4

Source: SEEP Financial Services Working Group

Productivity and efficiency ratios reveal staff productivity by providing information on the rate at which credit officers are generating revenue to cover expenses. Comparing the number of loans and the loan volume per credit officer indicates how efficient and productive the organizations' human resources are. The greater the number of borrowers or portfolio outstanding per credit officer the better, although when comparing these ratios with other organizations it is necessary to take into account the lending methodology as well as the average loan term as this greatly affects the number of borrowers a credit officer can maintain. For example, group lending generally implies more active borrowers per credit officer than individual lending. Also, if the loan terms are relatively long, a credit officer need not spend as much time processing renewals and meeting with the clients than if the loan terms were shorter. If an organization provides primarily longer term loans, a credit officer should, theoretically, be able to carry more active borrowers than a credit officer working with shorter loan terms (assuming all other factors are the same).

As a credit officer gains experience, the number of active borrowers in her/his portfolio and her/his Portfolio Outstanding should increase.

These ratios can be used to compare performance over time and to measure improvements. By tracking performance of well-performing branches, a micro-finance organization can begin to determine the "optimum" relationships between key operating factors. In addition, Branch Managers can compare their branches to other branches and determine how they can either reduce costs or increase revenue to increase profitability.

Refer to the ratios calculated below from the Sample Income Statement, Balance Sheet and Portfolio Report. Go through each of the ratios. (You will calculate the ratios for 1995 in the "Viability" Exercises.)

Operating Efficiency Ratios		**1994**	**1993**
Cost per Unit of Money Lent	Operating Costs / Total Amount Disbursed	0.10	0.12
Cost per Loan Made	Operating Costs / Number of Loans Made	10.08	9.91
No. of Active Loans per Credit Officer	No. Of Active Loans / No. Of Credit Officers	239	209
Average Portfolio per Credit Officer	Value Loans O/S / No. of Credit Officers	10,167	11,250

EXERCISES

Complete the "Viability" Exercises on the next page.

Viability of a Micro-Finance Organization

EXERCISES

1. List three types of costs incurred by an organization when delivering credit.

   i)

   ii)

   iii)

2. How does a micro-finance organization earn revenue?

3. List five variables that affect the revenue of a branch.

4. When calculating the Return on Assets ratio, is it better to use Average Total Assets, Average Performing Assets or Average Outstanding Portfolio as the denominator? What is the main determinant for selecting the denominator?

5. If a micro-finance organization has the following revenues and expenses, is it considered operationally self-sufficient?

    - revenue – Bs174,000
    - financial costs – Bs37,000
    - Loan loss provision – Bs14,000
    - operating expenses – Bs134,000

6. Refer to the Sample Income Statement and the Sample Portfolio Report in the document "Sample Account Analysis" and calculate the following for December 31, 1995:

    - Cost per unit lent ratio
    - Cost per loan made
    - No. of active borrowers per credit officer
    - Portfolio outstanding per credit officer

Operating Efficiency Ratios		**1995**	**1994**	**1993**
Cost per Unit of Money Lent	Operating Costs / Total Amount Disbursed		0.10	0.12
Cost per Loan Made	Operating Costs / Number of Loans Made		10.08	9.91
No. of Active Loans per Credit Officer	No. Of Active Loans / No. Of Credit Officers		239	209
Average Portfolio per Credit Officer	Value Loans O/S / No. of Credit Officers		10,167	11,250

7. Using the Sample Income Statement and Balance Sheet from the document "Sample Account Analysis", calculate the following Viability Ratios for 1995 and assess the three year trend analysis:

	INDICATORS	1995		1994		1993	
		($)	(%)	($)	(%)	($)	(%)
	Average Performing Assets			**78,750**		**59,750**	
	Return on Performing Assets			18,850	23.94 %	13,600	22.76 %
less	Financing Costs			–3,500	–4.44 %	–1,200	–2.01 %
=	Gross Financial Margin (Spread)			15,350	19.49 %	12,400	20.75 %
less	Loan loss provision			–3,000	–3.81 %	–5,000	–8.37 %
=	Net Financial Margin			12,350	15.68 %	7,400	12.39 %
less	Operating Costs			– 13,100	–16.63 %	–10,900	–18.24 %
=	Operating Margin			–750	–0.95 %	–3,500	–5.86 %
less	Imputed Cost of Capital			–6,600	–8.38 %	–6,600	–11.05 %
=	Net Margin			–7,350	–9.33 %	–10,100	–16.90 %
plus	Donations and Grants			950	1.21 %	3,500	5.86 %
=	Net Result			–6,400	–8.13 %	–6,600	–11.05 %
	Operational self-sufficiency				96.17%		79.53%
	Financial Self-Sufficiency				71.95%		57.38%

NOTE: Inflation rate for 1995 was 10%;
Commercial rate on debt was 16%;
Concessional rate on debt was 5%.