

in such approach. The increased costs and expenses due to the nature of existence of the rural poor should be absorbed by some outsider; it can be government or donors, so that cheap loans can be provided to the rural poor. In this regard, Woller and Schreiner (), state as follows:

...but financial self-sufficiency has a potential downside. The oft-expressed fear is that focus on financial self-sufficiency will divert MFIs' attention and resources away from their core objective of poverty alleviation and away from their core poor market. This fear is based on several factors. The poor tends to be concentrated in harder-to-reach rural areas characterized by weak and fragmented markets for goods and services, dispersed populations, limited non-farm activities, and underdeveloped infrastructures. These factors imply both relatively high costs per dollar lent and relatively greater risk. Other factors implying relatively high administrative costs are the difficulties inherent in identifying and reaching poor persons and the heavy delegation and monitoring costs resulting from the lack of physical collateral (Conning 1999). The lack of physical collateral in turn implies higher credit risk. In short, delivering financial services to the poor is comparatively costly and difficult, and is fraught with risk, none of which bode well for long-term financial self-sufficiency. Hence the belief (or fear) that financial self-sufficiency and depth of outreach are inherently dichotomous

According to Johnson (1997), most of the well-known programs have been operating in subsidies especially at the beginning of their operation. In general, studies show that it is possible to be financially self-sufficient, if institutions are able to charge a high interest rate (usually more than market interest rate). When determining the interest rate, several factors must be considered. A balance between what clients can afford and what the lending organization needs to earn to cover full cost must be considered when fixing interest rate full cost interest rates are a pre-condition not only for sustainability but for exponential growth Ledgerwood, (1999).

According to Christen, (1995) successful Latin American MFIs, who were able to pay high interest loans, was because they were generating extremely high rates of return from extra liquidity represented by loan. Therefore, to reach financial sustainability, MFIs have to charge on effective interest rate that covers all costs incurred in providing financial services to the poor. Both saving outreach and the quality and volume of lending can benefit from positive real on lending rate that covers the true risk and full administrative costs associated with lending to target group. A positive interest rate will enable an MFI to pay competitive interest rates on deposits. Paying competitive interest rates can simultaneously stimulate both savings mobilization and the volume of lending; since additional deposits can be extended to credit Yaron (1997). Charging such a high interest rate to poor borrowers may not be easy and also may not be acceptable to all people. It needs appropriate policy environment and staff commitment.

Financial self-sufficiency in microfinance is possible through many factors such as, decrease in administrative costs, high rate of loan collection combined with increased loan size, and the encouragement of voluntary saving (saving mobilization).

Reducing transaction (administrative) cost

Innovative microfinance institutions have been able to reduce their transaction costs to some extent. This has been possible by bringing about rapid approval and disbursement. In most cases, information required for loan approval is reduced and group (in Group based microfinance) or local agents are delegated to make client selection (Otero and Rehyne, 1994).

MFIs shall be able to reduce their transaction costs to a level that keeps their sustainability. It may become possible to minimize the administrative cost significantly, if financial institutions (FIs) can rely on NGOs or SHOs (self help organizations) as intermediaries between the FIs and the groups or members Levitsky, (1998).

Loan recovery rate

Loan repayment delinquency is recognized as the major threat to maintain the value of fund. A high rate of non-repayment erodes the value of the loan portfolio and reduces income, which undermines the hope of achieving sustainability (Levistky, 1998). Most successful microfinance institutions have a good record of repayment rate. Grameen Bank for instance has loan recovery rate of 98% in 1994 (Sarah, 1997). Similarly in most best managed MFIs the loss amount 2-3% of the value of the portfolio. It is indicated that, for viable MFI losses shall not be more than 5% of the value of loan portfolio (Levistky, 1998). Ibid

High repayment rate in some microfinance institutions has been associated with group formation, close monitoring and follow-up. Groups have largely been considered as a means of minimizing the risk of failure through peer pressure. The practical role of group in enhancing repayment however has not yet been clear. Jain, (1996) indicated that in many cases group members are not responsible for the repayment of unpaid loans in the group. Rather the purpose of group is more to do with the development of credit-responsive organizational culture by enabling routine repetition of identical behaviour by all members. During the weekly meeting, members have the obligation to do the same kind of pledge, which is meant to keep their commitment for timely repayment.

Further to the group formation, higher repayment has been possible through client centred system of credit operation. The high repayment rate in some institution shows that poor people are credit worthy and capable of paying their debt if the credits are based on their need and if the system of operation considers their business type. The time and patterns of repayment and time and seasons for loan disbursement should consider the client's situation and business. For instance, if the client needs the loan for animal rearing, the repayment schedule should not be designed to be in a weekly basis.

Savings

Studies indicate that savings were the “forgotten half” of rural finances Robinson (2001). Policy makers and bankers in many parts of developing world have been taught to believe that the poor don’t save, cannot save, and do not trust financial institutions, and prefer non-financial forms of savings. In the earlier period, micro finance programs were not effective in mobilizing saving deposits and showed little interest in this regard. Ledgerwood, (1999) mentioned two major reasons for these. The first one is the mistaken belief that the poor cannot save, and the second one is due to regulatory constraint of license to mobilize deposits. Recent microfinance experience shows that even poor households would deposit their surplus in MFIs provided that they get attractive interest rate, convenience /location (priority and accessibility), security (the safety of the saving option), and ease of withdrawal.

To summarize the key to sustainability financially is to charge an interest rate that is high enough to cover operating costs, loan losses, and interest and adjustment expenses. However, MFIs must operate efficiently enough that reasonable, affordable and competitive interest rates can be charged to cover these costs. Therefore, long – term sustainability requires MFIs to manage delinquency, keep their cost of capital low (by mobilizing savings), rotate their portfolio efficiently, keep their operating costs to a minimum and most importantly, set interest rates to cover all these costs.

The most commonly used methods of measuring financial sustainability are:

a. Sustainability Index (SI): is expressed as a percent of total cost covered by income in a given period. This measure depicts the extent to which an MFI is able to cover all its operating and financial costs by its operating income more stringently by its net income (income after tax). Okumu (2007) presents this measure of sustainability as:

$$OSS = \frac{[(NL \times AvLz \times i) (1-y)] + Z}{[FINCO + OPCO + LLP]}$$

Where OSS is Operating Self – sustainability; NL is the number of loans disbursed by the MFI during defined period; AvLz is average Loan Size disbursed during the same period; i is nominal lending rate charged by the MFI; y is rate of default; Z is other income; FINCO is financial cost; OPCO is operating cost; LLP is loan loss provision.

The above equation of OSS presented by Okumu describes the ratio of all income (income from operation and other income other than operation) adjusted for default to all costs and expenses. The author further extended the above equation by substituting the NL by NSB + NRB * ANT. Where NSB stands for number of single borrowers (those who borrowed once during the specified time), NRB stands for number of repeated borrows and ANT stands for average number of times that repeated borrower take loans in a defined period and presents the new equation as follows:

$$OSS = \frac{[(NSB + NRB * ANT \times AvLz \times i) (1-y)] + Z}{[FINCO + OPCO + LLP]}$$

b. Subsidy Dependency Index (SDI): focuses on the degree to which the program relies on external support for its operation Chavers (1996).

The sustainability index focuses on the amount of cost covered by revenue, and doesn’t show how much the program is dependent on external fund, whereas subsidy dependence index shows the extent of self sufficiency or dependency of the program. Financial self-sustainability is achieved when return on equity, net of any subsidy received equals or exceeds the opportunity cost of the equity fund. Subsidy dependency is the inverse of self-sustainability Yaron (1994).

A credit program or institution is self-sustaining when income exceeds expenditures. When an institution providing credit receives a subsidy, it may be profitable but unable to sustain that profitability.

Subsidies to credit institutions can take several forms:

- below-market interest rates;
- losses absorbed by the government instead of the institution;
- reimbursements of operating costs;
- exemptions from reserve requirements or forced investments

The Subsidy Dependence Index (SDI) is a financial tool developed to measure the reliance of an institution on subsidies. The index measures how much the average lending interest rate would have to be increased to compensate for complete and immediate subsidy elimination. The lower the SDI, the more sustainable the institution. According to Yaron (1992a), the following formula is used to determine SDI:

$$SDI = \frac{\text{Subsidies}}{\text{Revenues from lending}} = \frac{E \times m + A(m-c) + K-P}{LP \times i}$$

Where: E = average annual equity; m = market interest rate; A = average public debt; c = interest debt paid on public debt; p = reported annual accounting profit; k = other subsidies; revenue grant and discount on expenses; LP = average annual outstanding loan portfolio; i = lending interest rate

Reference

- [1] Anne-Lucie al.et (2006), *Overview of the Outreach and Financial Performance of Microfinance Institutions in Africa*: Feature Articles Microbanking Bulletin, http://www.griequity.com/resources/industryandissues/financeandmicrofinance/Africa_D
- [2] ata_Study.pdf. Date visited 2 November 2012
- [3] Chaves, R.A. and Gonzalez - Vega, C. (1996), *Design of Successful Rural Financial Intermediation: Evidence from Indonesia*, World Development 24(1) Core Performance Indicators for Microfinance <http://www.unCDF.org/sites/default/files/Download/indicators.pdf> date accessed 15/11/2012
- [4] Christen R. P. et.al (1995), *Maximizing the Outreach of Microenterprise Finance: Analysis of Successful*

- Microfinance Programs*. Program and Operations Assessment Report 10, USAID: Washington D.C.
- [5] Conning, J. (1999), *Outreach, Sustainability and Leverage in Monitored and Peer-Monitored Lending*." Journal of Development Economics,
- [6] Degefe D. (2007), *Microfinance in Ethiopia: Elixir or poison?* PhD diss.
- [8] Hulme, D. and P. Mosley (1996). *Finance against Poverty (Volumes I & II)*. London: Routledge
- [9] Jain, S.P. (1996), *Managing Credit for the Rural Poor*. World development 24 (1)
- [10] Jonson, S. and B. Rogaly (1997), *Microfinance and Poverty Reduction*: Oxfam
- [11] *Development Guidelines*, Oxfam and ActionAid: London
- [12] Ledgerwood, J. (1999) *Microfinance Hand Book: Institutional and financial Perspective*.
- [13] Washington D.C. the World Bank
- [14] Letenah E. (2009), *Performance Analysis of a Sample Microfinance Institutions of Ethiopia*. International NGO Journal Vol. 4 (5), 288-289
- [15] Mark Schreiner (1999), *Aspects of Outreach: A Framework for Discussion of the Social Benefits of Microfinance* <http://www.gdrc.org/icm/ppp/aspects.pdf> date accessed 02 November 2012
- [17] Navajas, S. (2000): *Microcredit and the Poorest of the Poor: Theory and Evidence from Bolivia*. World Development, 28(2), pp. 333-346.
- [18] Okumu, (2007), *the Microfinance Industry in Uganda: Sustainability, Outreach, and Regulation*
- [20] Otero, M. Rhyne, E (1994), *Principles and Institutions for Microenterprise finance, in New World of Microenterprise Finance: Building Health Financial Institutions to the Poor*,
- [22] Kumarian Press Inc.: West Hartford.conn
- [23] Paxton J. (2002), *Depth of Outreach and its Relation to the Sustainability of Microfinance Institutions.*" *Savings and Development*, Giordano Dell'Amore Foundation,
- [24] Rhyne, E. (1998): *The Yin and Yang of Microfinance: Reaching the Poor and Sustainability*. In: *MicroBanking Bulletin*, Issue 2, 1998
- [25] Robinson, M.S. (2001), *the Microfinance Revolution: Sustainable Finance for the Poor*.
- [26] The World Bank and Open Society Institute: New York
- [27] Schreiner, M. (2001) „*Seven Aspects of Loan Size*." Journal of Microfinance, 3(2), 27-48.
- [28] Schreiner, Mark, (2002), *Evaluation and Microenterprise programs in the United States*, Journal of Microfinance
- [29] Steinwand, D. (2001). *The Alchemy of Microfinance: The Evolution of the Indonesian People's Credit Bank (BPR) to 1999 and a Contemporary Analysis*. Berlin.
- [30] UN Economic and Social Commission for Asia and the Pacific (2006), *Microfinance for Poverty Reduction: building inclusive financial sectors in Asia and the Pacific*: development papers No. 27, UN Economic and Social Commission for Asia and the Pacific: New York.
- [31] Woller, G.M. C. Dunford and W. Woodworth (1999), *where to microfinance?* International journal of economic developmet 1(1).
- [32] Yaron .J (1992), *successful rural finance institutions*; Discussion paper no.150, The World Bank; Washington DC
- [33] Yaron, J. (1994). *Successful Rural Finance Institutions. Finance and Development*.
- [34] Yaron J. (1997) "What makes rural finance institutions successful?"The World Bank Research Observer. Vol.9, No. 1