Is Microfinance Outreach Sustainable? A Case of Microfinance Institution Model in India

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Abstract:
Microfinance sector has witnessed a burgeoning outreach under microfinance institutions model which poses a question on the sustainability of the programme. Even if repayment rate for the major MFIs are greater than 95 %, it may neither be an appropriate indicator of institutional sustainability nor on impact. In this paper an examination on the outreach and sustainability of microfinance institutions model of microfinance have been carried by taking a MFI of Assam as a case. Although the MFI reaches a large number of clients, analysis indicates that MFI is still financially not self-sufficient which is reflected by a number of calculated indicators such as FSS, SDI and SDR. In addition, the paper discusses on the policy options for sustainability of microfinance institutions which are based on break-even interest rate analysis.

Keywords: MFIs, Repayment, Sustainability, Financial Self Sufficiency, Subsidy Dependence Index, Break-Even Rate

JEL Classifications: G29, Y80

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Introduction:

It is well argued that the basic root of poverty is dearth of asset and inadequate flow of income. Consequently credit and savings has a crucial role in improving economic conditions of poor people since it can handle risky economic environment and enhance an economy’s investment efficiency (Besley 1995). It thus implies that a bundle of financial services even in small amount could make changes in their economic conditions. But against the expected implication, financing poor people is a problematic concern since long back due to market failures which is associated with the formal credit markets (Hulme and Mosley 1996). Moreover, higher probability of risk in repayment and lack of acceptable collateral exclude poor people from accessing finance from formal sources (Hermes and Lensink 2007).

Notwithstanding the worldwide exertion of developmental aids and various policies to uplift the economic conditions of poor people since 1950s, it failed in reality (Khawari 2004). It is due to diversion of loan towards unintended beneficiaries with mounting subsidies and low repayment rate (Morduch 1999). Besides, there was also a divergence between the demand for credit by the poor people particularly in terms of products and product delivery mechanism and supply of credit by conventional financial institutions (Jindal 2008). A new form of institutional credit innovation, ‘microfinance’ emerged in late 1970s in Bangladesh to bridge the gap in accessing credit facilities for excluded sections of people. More than hundreds of replication has germinated worldwide in lopsided settings of the different countries over the period of three decades, which is due to demonstrated success of Grameen Bank. So far more than 154 millions of poor people have reached by 3552 Microfinance Institutions (MFIs) worldwide as of December 2007, where 69 percent were among the poorest and 83.4 percent were women (Harris 2009).

In view of burgeoning outreach of MFI model, now-a-days, concern is centered on the sustainability of the program. Sustainability and outreach are widely discussed issues in the field of microfinance and two strands of thought emerge in this connection—“The Poverty Camp” and “The Sustainability Camp” (Morduch 2000). Although it is
viewed by some thinkers that sustainability and outreach are competitive, some others indicate it as complementary in nature (Rhyne 1998). It therefore can be implied that sustainability is the means to achieve outreach.

Sustainability of a program indicates permanency in realizing the intended goal of the program. A MFI might help the poor now, but it cannot help the poor in the future if it could not survive. A financially self-sufficient MFI would earn so much profit that when donors leave, it will not shrink in real terms nor will it reduce the size or coverage of its service to the poor in future (Schreiner 1997). Therefore, sustainability of the microfinance matters since permanency in the solution of the problem and is of utmost importance. Importantly, repayment also spins on the sustainability and permanence of a MFI. High repayment helps MFIs to maintain the financial health of the institution. It also helps in further outreach. Moreover, past studies also reveal mixed results in different settings in the world. As for example, Adongo and Stork (2005) in Namibia found that no microfinance institution independently financially sustainable, while Robbinson (2001) in Indonesia found that MFIs can be profitable, sustainable, stable, and widespread, allowing millions of the world’s poor to build enterprises, increase incomes, and gain self-confidence.

Subsidy is a crucial issue in the study of sustainability of microfinance and it is also viewed as a constraint in attaining sustainability of microfinance program. Brewer et al.’s (1996) highlighted the potential dangers of subsidized funding. To mitigate subsidy dependence and to achieve self-sufficiency, authors suggest that instead of targeting different segments of the micro business population, business should be dealt with individuals with better credit records due to their increased ability to handle debt and lower associated default rates. In this regard Vinelli (2002) also suggests that mission drift can occur when a lender seeks profit not by working harder to make better and less expensive products but rather by searching for borrowers who are easier and cheaper to serve. Tang, Painter and Bhatt (2002) suggest that one reason for continued institutional dependence on subsidies is an unwillingness to charge the maximum legally allowable interest rates and fees that would allow programs to cover as much expense and risk cost

1 The problem here is constraint in accessing credit for the poor section of people, which rest on the reason of risk in repayment, moral hazard, adverse selection and some how credit rationing.
as possible from operations. Regarding pricing and self-sufficiency, Gulli (1998) suggests that institutions must charge sufficient interest rates to cover their costs. Therefore, it is imperative to understand the crux of sustainability in view of outreach.

To evince the sustainability of microfinance outreach, Indian subcontinent setting is considered in this endeavour. The rationality behind consideration of Indian subcontinent setting lies in the fact that it has higher outreach of Microfinance Institutions (MFIs) as compared to Bangladesh. Although microfinance is offered in the axis of two broad models in India, Microfinance Institutions (MFIs) model has gained momentum recently. The model shares 25.53 percentage against the total microfinance client outreach of 54.87 million as on 2007-08 with an outstanding credit of Rs. 6124 crore (Srinivasan 2009). The model has also been operating in Assam, which is a priority state in terms of SHG-Bank Linkage Programme (SBLP) for a period of over one decade with infinitesimal share as compared to national average. The model shares only 0.98 percent of total client outreach in India and 0.75 percent in terms of loan portfolio (Srinivasan 2009). It is thus an indication that there is a scope of increasing outreach and the assertion is justified with the coming up of new players in the market. The rationality behind the emergence of the state as a lucrative microfinance market can be inferred from its socio economic position. It is reported in the Census of India 2001 that 87.1 percent of the total population live in rural areas of the state. Besides during 1999-2000 out of total population of the state, 36.09 percent people are below the poverty line where rural poverty constitutes 97.48 percent (indiastat.com). In addition to the above, employment scenario in the state is quite pathetic, which is reflected by the work force participation rate of 35.8 percent. The more interesting point of attraction in taking Assam as a microfinance market can be implied from the All India Debt and Investment Survey where it is reported that institutional credit access constitutes 57.9 percent of total credit availability, of which commercial bank including Regional Rural Banks and Government credit share 66.5 percent. On the other hand non-institutional sources of credit still constitute 42.1 percent, out of which 61.7 percent consists of moneylenders (NSSO 2003).

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2 Based on the dataset of MiXMarket (2010), it is found that 7.7 percent age of the world MFIs are located in India with 28.8 percentage of global outreach in terms of active borrowers. The figures are 3.8 and 22.3 percentages respectively for Bangladesh.

3 Self Help Group model and Microfinance Institutions models are two dominant models in India.
This reflects that large sections of people do not have an access to credit from formal financial institutions, which imply that there is a need for more institutional credit arrangement.

The numbers of microfinance institutions in the state is infinitesimal as compared to southern region of the country. MFIs such as Credit and Savings Programme-Rashtriya Grameen Vikash Nidhi (CSP- RGVN)\(^4\), ASOMI\(^5\), Bandhan, Integrated Institute of Rural Management (IIRM), Manab Sewa Sangha, Prochesita, Grameen Sahara, etc. provide microfinance in the state. These are registered under various legal forms like NBFC, society’s registration act and are basically NGOs. NGOs under SBLP and MFIs are distinguished by their delivery mechanism. Where the former has other programs apart from channeling microfinance for the SHGs, the later has the core objectives of providing microfinance for both SHGs and joint liability group.

As against a large outreach of the client under SBLP, MFIs in Assam has a limited outreach although it is gaining impetus. But at the same time trade-off between outreach and sustainability seems to be an issue of concern. The reason behind the argument rests on the organizational form of MFIs as compared to SBLP, where in former case microfinance provider has some marginal difference from the SBLP. MFIs are semi formal organization and entitled a legal status of ownership under various acts like, Society’s Registration Act, Indian Trust Act, NBFC, Section 25 Company, etc. Thus financial viability in the long run is an important aspect for these MFIs. The balance sheet of the MFIs reveals that they are profitable and their repayment rates are high. But an in-depth analysis through various financial performance indicators such Operational Self Sufficiency (OSS), Financial Self Sufficiency (FSS) and Subsidy Dependence Index (SDI) will tell more about the financial health of the MFIs apart from the repayment rate. Repayment rate is also important, but the costs associated in recovery of the loans are ignored and thus it cannot be treated as an indicator of financial performance. Thus, in a broader framework of analyzing the financial sustainability, careful analysis of performance indicators are necessary to know whether MFIs are financially more sufficient as time passes out or not.

\(^4\) RGVN: CSP is renamed as RGVN (NE) Microfinance Ltd. in 2010 and incorporated as Non Banking Financial Institution (NBFI)

\(^5\) ASOMI now rename as ASOMI Finance Pvt. Ltd. and it was registered as NBFI in 2010.
As indicated in The Triangle of Microfinance (Zeller and Meyer 2002), in this paper two facets of microfinance namely, sustainability and outreach has been analysed leaving the impact of microfinance, although all the three aspects has its importance. In this paper an attempt has been made to examine the sustainability of microfinance outreach under MFI model of microfinance in the state. Although in a broader framework sustainability of microfinance indicates different levels of sustainability, the study limits the concept only to financial sustainability of the MFIs. For analysis of the issue, a case study of one mature MFI namely, Credit and Savings Program-Rashtriya Grameen Vikash Nidhi (hereafter CSP-RGVN) is considered. The rationality behind the selection of CSP-RGVN is based on the argument that as the operational years increases it may enjoys the benefits of economies of scale and under the theory of infant industry argument some form of protection may help the MFI in future to be sustain both financially and economically. Therefore it can be inferred that as operational year’s increases with a growing outreach of the program, the MFI can become sustainable in the long run. The paper is purely based on secondary data which is collected from the head office of sample MFI.

The paper is organized in five sections. Apart from the introduction and methodology in section I, section II discusses on the issue of sustainability and outreach from the review of literatures. Section III describes lending methodology of RGVN-CSP, which is followed by results and analysis on the issue of outreach and sustainability of the MFI in section IV. Finally section V concludes the paper.

2. Outreach and Sustainability: Some Concepts

In the wake of persistent poverty and budding of MFIs, outreach is perceived goal from social and business point of view. The gloomy part of the story looms when the issue of sustainability of the microfinance program have come out since it is observed that only few percent of the MFIs are sustainable to run operation without subsidies (Hulme and Mosley 1996). Outreach and impact are complementary in nature in achieving microfinance sustainability. The concept can not be applied in general as in some cases outreach and sustainability is competitive and sustainability pre-conditioned
on the reduction or removal of subsidy on microfinance. It also requires a well recovery rate, which can further help in outreach of the program. A deep attention on the concept can be attracted by taking the case of depth of outreach. For example, when an MFI serve a section of population who lives below poverty line, the probability of poor repayment in the case of adverse economic shocks to their lives increases delinquency rate. While even a small delinquency rate can causes more annual loss of loan, thus loan loss provision increases their cost segment (Rosenberg 1999). Sustainability of microfinance nowadays therefore becomes more complex and debatable issue from different angles of observation and which is among the one⁶ of the important key principles of Consultative Group to Assist Poor (CGAP).

In common parlance sustainability of microfinance indicates permanency of the program. Within microfinance, sustainability can be viewed at several levels- institutional group and individual) and can relate to organizational, managerial and financial aspects⁷. However, financial sustainability of microfinance institutions has become the critical point of focus of mainstream microfinance analysis at the expense of the sustainability of the client. In defining sustainability of microfinance, Woller et al (1999) used the definition that offered by Brinkerhoff, which stated sustainability as the “ability of a program to produce outputs that are valued sufficiently by beneficiaries and other stakeholders that the program receives enough resources and inputs to continue production.” Pollinger et al (2007) defined sustainability as the ability to cover annual budgets including grants, donations, and other fundraising. Acharya and Acharya (2006) considered view of Sharma and Nepal (1997) to understand the concept of sustainability of microfinance institutions, where sustainability indicates excess of operating income over operating cost. The concept is from the banker’s perspective and it includes both financial viability and institutional viability of MFIs. On the whole sustainability is not an end in itself. It is just a means to the end of improving the lot of the poor (Schreiner 1997: 63-64).

⁶ Principal number 3 of Consultative Group to Assist Poor states that “Microfinance means building financial systems that serve the poor”: The principal thus has an anticipation that microfinance programs can serve the poor (in general outreach) in a sustainability way.
⁷ Sa-Dhan Microfinance Resource Centre, 2003, Sustainability of Microfinance Interventions, Perspective Paper No. 4, Sa-Dhan, pp. 1-20
Financial sustainability indicates that income from the microfinance services should be greater than the cost of providing services. Therefore, self-sufficiency is an indication for the financial sustainability of the MFIs. As the microfinance industry matures, the definition of the self-sufficiency has commenced to slender and currently sustainability refers only two levels of sustainability by the most of the people associated with this industry (Ledgerwood 1999: 216-17). These are *Operational Self Sufficiency* (OSS) and *Financial Self Sufficiency* (FSS).

OSS indicates whether enough revenue has been earned to cover the MFI’s direct costs, excluding the cost of capital but including any actual financing costs. Since all MFIs do not incur financial cost equally, hence for the sake of simplicity, financing cost is excluded. FSS on the other hand portray the actual financial health of MFIs. It is clear from the definition that OSS only covers operating income and operating expenses along with a provision of loan loss. But it does not include cost of capital, which can depict a real picture of the financial sustainability of the MFIs. Thus, FSS includes cost of capital (adjusted) apart from the components in OSS. Vinelli (2002) defines FSS as income derived from operations divided by the operating expenses incurred, thus excluding revenue from subsidies. On the other hand Pollinger et al (2007) refers self-sufficiency as to organizations that can survive and add to their asset base wholly on the basis of income derived from their lending and related operations.

Subsidy is a crucial factor in analysing sustainability of microfinance in general and MFIs in particular. Majority of microfinance programs in the world are subsidized in different ways, sustainability of the programs poses a question in the mind of academics and researchers. Even front line institution like Grameen Bank of Bangladesh may experience a high repayment rate, but also depends on subsidies due to higher value towards social sector (Morduch 1999). It is observed from the experience of the Philippines that although replication of Grameen-type MFIs can be sustainable with substantial increase in outreach, but it is at the cost of subsidy (Seibel and Torres 1999). Subsidy syndrome thus considered attention from very beginning by researchers like Yaron, Hulme and Mosely, Khandker, etc. who constructed index to examine the subsidy dependence of the MFIs. The rationality of this index is to examine the social cost

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8 Interpretations for both these indicators are taken from Ledgerwood (1999) and web source of UNCDF.
associated with such subsidies and to highlight the harmful effects of subsidies to credit (Yaron 1992).

Subsidy Dependence Index (SDI) as first developed by Yaron assesses and quantifies subsidy dependence and also measures the extent to which the lending interest rate would have to be raised in order to cover all operating costs if any subsidies the MFIs receive were to be uncovered (Hulme and Mosley 1996: 43). Consequently the notion of a subsidy free break-even rate for MFIs provides the argument for the upward revision in interest rates to poor borrowers. SDI as calculated by Yaron is a fraction of subsidy and loan portfolio multiplied by lending rate of interest. The most interesting calculation part of the index is subsidy where it comprises of a number of cost revenue and cost components. A modified version of the formula was devised in by Hulme and Mosley (1996) where they used new notations and simpler to calculate.

SDI shows subsidy dependence of an MFI and in calculating the index from the earning point of view only income from loan portfolio is considered. But in reality sources of earning of a MFI is not confined only to interest income but it considers income from investments. Moreover, since cost component involves in case of all these segments of earning, thus SDI seems to be narrow in calculating subsidies. Khandker therefore proposes Subsidy Dependence Ratio to have a better understanding on the financial health of the institution. The basic rationality for taking this ratio is based on the argument of Kahndakar and Khalily (1995), which stated that as the SDI compares subsidy only with revenue from lending even though MFIs also get revenue from investments in non-loan assets such as treasury bills. In principle, a MFI could decrease its subsidy dependence through increased revenues either from loans or from investments. Thus the SDR suggests that subsidy be compared with revenue both from loans and from investments (Schreiner and Yaron 1999).

Apart from SDI and SDR, it is useful to analyze the break even condition for a financial institution in general and MFIs in particular. The reason behind adoption of break even condition is that with out analysis of break even it is difficult to have an in-depth economic analysis of the institution. It thus demands for estimation of expected

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9 Sa-Dhan Microfinance Resource Centre, 2003, Sustainability of Microfinance Interventions, Perspective Paper No. 4, Sa-Dhan, pp. 1-20
10 For details, please refer computation part of SDI in Yaron (1992).
level of price of financial products. A break even condition for any financial institution over a period of time simply indicates that income of the institution should be at least equal to the expenditure. For analysis of the same, the method as adopted by Hulme and Mosley is considered (Hulme and Mosley 1996: 17-26).

3. CSP-RGVN: Context and Credit Delivery Methodology:

The Credit and Savings Programme (CSP) was initially started as an action research program in 1995 by Rashtriya Gramin Vikash Nidhi (RGVN), a pioneer NGO in the North Eastern and Eastern part of India to try out the aptness of micro-credit intervention in the Northeastern region. CSP-RGVN is a core microfinance provider and registered under the legal form of Section 25 Company which has recently incorporated as NBFC in 2010. The main objectives of CSP are to instrumented credit for the poor, eliminating the exploitation of moneylenders and creating opportunities for self-employment. The intended client for the program is basically those sections of people who cannot access credit from formal financial sector. The Credit and Savings Program operates through its large network of unit and area officers.

3.1 Credit Delivery Modes of CSP:

CSP delivers credit via two broad delivery modes, such as Group Lending Model and Individual Lending Model. Under Group Lending Model, poor women and men are provided credit through Self Help Groups (SHGs) and Joint Liability Groups (JLGs). On the other hand Entrepreneurship Development Loan (EDL) comes under Individual Lending Model. A brief overview of the three methods is portrayed as below:

**Self Help Group (SHG):** SHGs under CSP program comprises of 10-20 members (all women), who have no knowledge of handling funds previously and group should have a leader and a treasurer. SHGs are formed with an idea that it would exist and sustain on its own even without outside credit. Savings is compulsory even prior to lending. The loan size per member is about ₹ 4,000- ₹ 12,000 with an interest rate of 10 percent per annum (flat) and an administrative cost up to 5 percent. Loan repayment schedule for this segment is both weekly and monthly.
Joint Liability Group (JLG): CSP also provides credit through JLGs which are alike to Grameen model of JLGs. Normally it is a credit group and consists of 5-6 members, both men and women who have experience of handling funds previously. They should have similar income cash flow to form a group. Unlike SHG model, under this method group has no leader or a treasurer. Under JLG, members are individually and jointly liable to each other. The loan size under this mode is ranges from ₹ 3,000/- ₹ 25,000 per member along with interest charges of 7 percent to 10 percent per annum (flat) depending on the periodicity and administrative cost up to 5 percent. Repayment schedule under this mode is weekly or monthly.

Entrepreneurship Development Loan (EDP): It is an individual loan program and under this modes only SHG members, with good repayment record for last three loans and JLG members with good repayment record for last two loans are eligible. It is for SHG members who have reached a certain level to absorb more credit and should show entrepreneurial ability. Under this mode of credit delivery, loan size ranges from ₹ 15,000/- to ₹ 25,000/ along with a flat interest rate of 10 percent and an administrative charge of up to 5 percent. Repayment schedule under this mode is weekly or monthly.

3.2 CSP’s Process of Intervention:

CSP conducts area survey to have a better understanding on the operational potentiality in the intended area. Selection of area for operation passes through a number of procedures, such as, survey of bank availability, interaction with the Gaon Panchayat, study on bank's Non Performing Assets (NPA) in that area, target client survey, analysis of credit needs, and competitors (other NGOs, Banks etc) analysis. The next step after selection of the area is to form suitable group for disbursement of credit. Following steps are generally carefully conducted in selecting client’s group:

- Group selection is helped by the field supervisor or credit officers.
- In case of SHGs, weekly group meetings are held for three months when the group begins the process of saving a minimum of ₹ 10/- per member per week. After this for another three months, SHG are encouraged to revolve the savings

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11Gram panchayats are local government bodies at the village level in India.
within members at a rate of interest decided by them. During this period observations are made on self and credit discipline; and on system development.

- Credit to SHGs begins only after this phase of six months.
- In case of JLGs, credit begins as soon as the group is formed.

Besides the MFI also provides training for groups on group cohesiveness, bookkeeping and credit discipline.

4. Results, Analysis and Discussion:

4.1. Outreach and Operational Performance during 2001-02 to 2007-08:

Credit and Savings Program has completed 13 years of operation in May 2008. Before analyzing the issue of tradeoff between outreach and sustainability, a glimpse on the latest operational performance is portrayed in table 1. The program initially operated only with 4 field offices in 4 districts of Assam in March 1996, which has spread to over 32 field offices across 12 districts as on March 2008. Thus it is reflected that area coverage has increased by 240 percent and client outreach in terms of active borrower by 158 percent from 28174 in March 2002 to 44722 in 2008, which reveals a growth of 22.68 percent CAGR for the period of 2001-02 to 2007-08. It is also reported by the head office that about 90 percent among the borrowers are women.

Although the growth rate of some selected operational indicators post a positive growth in terms of CAGR, it does not reflect a uniform trend over the period so far as annual growth rate is concern. Growth of average size of loan on outstanding portfolio shows a commendable growth of 23.1 percent CAGR during the period. On the other hand growth of the number of active borrowers shows lesser growth in comparison to other indicators. So far as the outreach is concerned it is implied from the chart 1 that growth of both the number of active members at 1st cycle and number of active borrowers has not increased in a proportionate way. It is interesting to note that growth of numbers of active borrowers has shown a negative growth of 56.3 percent in 2004-05. However the trend recovered in the subsequent period continuously. There may be a number of reasons for this negative growth rate. One possible explanation that can be envisaged is
client drop out, completion of the repayment term and upgradation of client for higher loan size under JLG and EDP.

As discussed in the section 2, there are broadly two different modes of credit delivery method in terms of number of members under the mode. In case of SHG, there is lesser number of clients as compared to JLG and both are separate mode of credit delivery and loan sizes under former is smaller than later. When a client under these groups passes through fiscal discipline and build a sound credit history, they stand eligible for individual loan. When repayment period of clients under group model is over then they may go for further loan of bigger amount, which indicates a fall in active borrowers. In addition, some clients may be dropped out from the program due to delinquency and thus loan is written off and hence falls in number of outreach.

4.2. Financial Performance and Sustainability of the Program:

It is clear from above analysis that the program has registered a substantial outreach of client for the reference period and cumulative loan disbursement amount has grown at 56.71 percent CAGR while loan outstanding amount shows a comparatively lesser growth of 45.6 percent CAGR for the period. The growth of the loan portfolio implies profitability of the program. But, it is confirmed from the audited financial statement for various years that the MFI has made a profit in 2003-04, 2005-06 and 2006-07 fiscal years. It is important to examine whether this profit are accrued either from business of the program or from other segments, which may be in the form of subsidy-in-kind or subsidy-in-cash. The importance of the issue lie on the fact that if an MFI like CSP-RGVN, which has operated for a period of more than 13 years could not reach clients profitably, then avowed theoretical win-win proposition may be questioned.

Table 2 shows that throughout the period, OSS is more than 100 percent, which indicate that the MFI can compensate its operational cost from the operational income allowing provision for loan loss. But a close look on FSS, which includes adjusted cost of capital, can portray a precise picture about the financial sustainability of the MFI. As depicted in table 2, the calculation shows that MFI was financially self sustainable only for two fiscal years 2006-07 and 2007-08; although it approaches to cent percent level in 2003-04. This clearly indicates that the MFI has attained financial self sufficiency after
12 years and thus indicate a considerable attention for the MFI to maintain the financial self sufficiency of the institution. Moreover, the rate for the mentioned two years is not impressive.

From the analysis, it is not clear whether FSS bears subsidy part or not. To examine the subsidy component which is added to total income part, Subsidy Dependence Index, as devised by Yaron is adopted in this endeavour. It is clear from table 2 that throughout the period, the MFI is less dependent on subsidy except for two years (1998-99 and 2000-01). It is interesting to note that dependency on subsidy has decreased over the years and shows a negative dependency on subsidy for two consecutive years (2002-03 and 2003-04) and finally 2007-08. As the trend of SDI shows a less dependency on subsidy since 2000-01, it is an implication that as time passes, a microfinance institution may become subsidy non-dependent and could be sustainable. In addition, the negative dependency trend of subsidy for the period indicates that the MFI could compensate its social cost in future.

As an alternative to SDI, Khandker had developed SDR to examine dependency of MFIs on subsidies, calculating income from loan, investment and others. Therefore this ratio can reflect a more detailed picture of sustainability. In the analysis, it is found that SDR indicate more subsidy dependency than SDI for the period and the trend are not similar to SDI. In this analysis, it is observed that SDR is 0 in the fiscal year 1998-99. The result contradicts the popular notion of subsidy dependence, which states that as an institution elapses some times, its economies of scale form and eventually less depends on subsidy. While, in this analysis the popular notion is contradicted, it is observed that recently (in 2007-08), SDR shows a negative dependence on subsidy and thus although the notion may be contracted, it can not be refute at all.

The controversial debate regarding trade-off between outreach and sustainability implies that as outreach increases subsidy dependence also increases. In the analysis, it is observed from chart 1 and table 1 that active borrowers for this period are increasing. But indicators of subsidy dependence show an opposite picture in our analysis and thus to examine the inference Pearson correlation coefficient is calculated which is depicted in table 3.
It is observed from table 3 that for the sample MFI, only SDI has shown a significant negative relation with all three performance indicators, e.g., OSS, FSS and outreach. It reveals that as SDI increases, OSS, FSS and outreach shrink. In this analysis, it is found that the relation between SDI and outreach is negatively significant at a .001 level. This implies that increase of outreach exert a negative impacts on subsidy or vice versa. So far as SDR is concerned although OSS and FSS shows a negative relationship, it is not significant. Although the relationship between SDR and outreach support notion of trade-off between subsidy dependence and outreach, it is not significant and thus the notion holds true.

In addition, it is important to analyse the relationship among calculation component of SDI and SDR to examine the factors which is closely connected with SDI and SDR. It is clear from the table 4 that SDR is negatively correlated at 99 percent confidence level only with market rate for concessionary fund. It is an indication that 1 point of positive dependence on subsidy is induced by 0.804 point positive changes in market rate of interest. Therefore it implies that as market interest rate raises the tendency of a MFI moves toward subsidized sources of fund. As against the SDI, SDR reveals a contradictory result with the same component. It indicates that both are negatively correlated. As market rate of interest reduces, tendency of a MFI moves for non-subsidized fund. It may be due to comparatively easily available sources of fund at a lower interest rate. It is further an implication for the MFIs, that to what extent they seek such funds and the answer purely lies in their internal management of fund. But, a simple economic analysis of cost and income that incurred on and from per borrower lends a hand to the management. To examine the issue further, an analysis of cost-income pattern per borrower over the period is taken as in chart 2.

As it is argued that to become financially sustainable a MFI must earn profit. To understand the basic of financial sustainability from income expenditure statement perspective, income and expenditure component of various annual financial statements has been taken. As depicts in chart 2, it is observed that interest income on borrowed fund as a percentage of interest expenditure on loan has increased over the reference period. It is thus a clear indication that from the interest rate perspective the MFI can make profit and the current lending and borrowing rate allows the MFI to extend the program for a
higher level of outreach. But this is only partial story of the issue, since expenditure of a MFI not only covers interest expenditure but also a number of components such as administrative cost, loan loss provision and operating cost. Therefore for a better understanding of income and expenditure, the fraction between total expenditure to total income excluding grants expressed in percentage term is considered. It is observed from chart 2 that although the fraction has decreased in the period, it does not show smooth pattern. However, the fraction has decreased from 150 percent in 1998-99 to almost 100 percent in 2003-04; it increases in the subsequent two years. It is interesting to note that the trend is above 100 percent level except for the year 2007-08. Thus it implies that despite being a mature MFI (in terms of years), it still depends on subsidy and ignoring the subsidy component, profit from the program can not be made. It is clear that although the MFI is profitable from the perspective of interest income and expenditure, taking income and expenditure in broad portray a different picture, which shows that during the period, except for one year, the MFI is unable to make profit in real sense, if grants are excluded. Thus, it confirms that the MFI in the analysis depends on subsidy for financial operation and financially not self-sufficient.

4.3. Break Even Rate Analysis and Alternate Policy Measure:

The result of the calculation based on the data of the sample MFI is depicted in table 5. It is apparent from the table that expenditure is greater than income all the year in absolute term. Although negative profit has been reduced by 6.16 percent in terms of CAGR, it does not portray a uniform trend. For example, in the year 1999, negative profit reduced by 36.12 percent over the previous year where for the subsequent two years it demonstrated augmentation. Further, in the last three years, negative profit has reduced continuously. It thus implies that present income level at the existing lending rate is unable to offset increasing expenditure pattern.

The question before the managers is how to control such an unprofitable situation. Should there be changes in the prevailing interest rate and should the MFI concentrate on internal financial management to curb cost to grow in a sustainable way? What should be alternative for the institution to be worked out?
To make a better comprehension of the issue, Break Even Rate of Interest (BERI) is calculated along with an examination of factors affecting the net income-expenditure position. In addition, comparative microfinance environment along with financial regulation of the settings should be understood to have a policy measure in this circumstance.

It is worth mention here that the prevailing lending interest rate of the institution is 10 percent per annum. Throughout the reference period break even interest rate is higher than the prevailing lending rate of the MFI. Therefore to financially break-even the MFI should charge the calculated break even rate. But whether the existing apex financial norms allow the institution to charge more?

The higher interest rate, which is charged by many MFIs in the world, has drawn an extensive attention before policy makers throughout the world. It is mentioned that currently about 40 developing countries has interest ceilings of some kind (Helmes 2004). In an interesting study conducted by Wright and Alamgir (2003), it is revealed that although the microfinance interest rate is higher as compared to banking interest rate, it is lower in compare with moneylenders Therefore, it implies that to facilitate sustainable source of credit for the excluded and underprivileged sections MFIs should allow a little higher interest rate than banking and the like institutions. In a country like India where social issues are more vibrant and where rural poverty persists in a pervasive way, a hike in interest rate by the MFIs may shrink outreach. It is observed from the table 5 that break even interest rate is still higher than recent general minimum rate and thus in view of competitive financial environment it may not permit the MFI to charge more.

As it is known that, in India with the inception of the concept of Multi Agency Approach in the 80’s, priority sector lending at a relatively subsidised rate has been advanced through commercial and regional rural banks. In addition, a plethora of development programmes has been implementing for the last few years through which credit is advanced at a relatively lower rate of interest. Therefore, it implies that although the apex financial body of the country allows higher rate of interest, the competitive financial environment may stand as a restraint, since due to the targeted disbursement of credit under the priority sector, a near perfect knowledge of customer on the interest rate hype may reduce the outreach.
Charging higher interest rate may not be a feasible solution for the small and medium MFIs since, increase of interest rate by one MFI necessarily commensurate increase in the interest rate of other prevailing MFIs in the region. Besides so far expansion of MFI is concern, big player may wipe out small player with the advantage of economies of scale. Thus, consequently it entails a grim picture on break even interest rate.

5. Conclusion:

The worldwide burgeoning growth of microfinance sector seems to occur due to the reported success of some microfinance institutions which serve a sizeable portion of unprivileged sections of the society with profitability. As the commercialisation and securitization of microfinance is in practice along with towering credit need from a large number of low income population; the sector seems to be expanding with promising outreach. To hold the pace of outreach in a sustainable way, microfinance institutions have to be very careful on its operation. As found in this study, it may be inferred that although sample MFI make a large outreach since its inception, the MFI is yet to be financially self-sufficient. Despite being operationally self sufficient, achieving financial self-sustainability is still a crucial area of consideration for the sample MFI. It is pertinent to note that the MFI is operationally self-sufficient but still depends on subsidies, which is reflected in the SDI and SDR. As it is discussed, raising interest rate may not be feasible options, thus, this may be tackled either by lowering the operating cost or increasing repayment rate, which demands thorough monitoring on the internal management of the MFIs. Acclimatization to and implementation of modern technologies especially communication technology may be a panacea in reducing the transaction cost segment relating to clients as in the case of ACCION’s Porta Credit and Grameen Phone.

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<table>
<thead>
<tr>
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<td>Number of area offices</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>6</td>
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<td>Number of field offices</td>
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<td>9</td>
<td>13</td>
<td>22</td>
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<td>32</td>
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<tr>
<td>Number of Field Staff</td>
<td>55</td>
<td>53</td>
<td>54</td>
<td>50</td>
<td>70</td>
<td>120</td>
<td>161</td>
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<td>Number of districts covered</td>
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<td>5</td>
<td>8</td>
<td>8</td>
<td>9</td>
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<td>12</td>
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<td>Number of active groups</td>
<td>2493</td>
<td>2291</td>
<td>2353</td>
<td>979</td>
<td>1557</td>
<td>3227</td>
<td>7952</td>
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<td>Number of active members</td>
<td>28174</td>
<td>30089</td>
<td>30939</td>
<td>31674</td>
<td>30578</td>
<td>44279</td>
<td>62849</td>
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<tr>
<td>Number of active borrowers</td>
<td>28174</td>
<td>30089</td>
<td>30939</td>
<td>13526</td>
<td>15859</td>
<td>24147</td>
<td>44722</td>
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<tr>
<td>Outstanding portfolio (₹ Lakh)</td>
<td>396.83</td>
<td>434.25</td>
<td>374.68</td>
<td>406.6</td>
<td>615.24</td>
<td>1322.34</td>
<td>2695.38</td>
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<tr>
<td>Average loan size on outstanding portfolio (₹)</td>
<td>1408.49</td>
<td>1443.21</td>
<td>1211.03</td>
<td>3006</td>
<td>3879</td>
<td>5476.2</td>
<td>6026.97</td>
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<tr>
<td>Total no of loans</td>
<td>42055</td>
<td>43970</td>
<td>44820</td>
<td>62233</td>
<td>70091</td>
<td>85935</td>
<td>117854</td>
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<tr>
<td>Cumulative amount of loan Disbursed (₹ Lakh)</td>
<td>1756.22</td>
<td>2309.59</td>
<td>2821.79</td>
<td>3246.07</td>
<td>3928.52</td>
<td>5721.07</td>
<td>9461.1</td>
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<tr>
<td>Average loan size on Disbursement (₹)</td>
<td>4176.01</td>
<td>5252.65</td>
<td>6295.83</td>
<td>5215.9</td>
<td>5604.89</td>
<td>6657.43</td>
<td>8027.82</td>
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</tbody>
</table>

Source: Head Office, Credit and Savings Program - RGVN, Guwahati

**Chart 1: Growth of selected Operational performance of CSP-RGVN during 2001-02 to 2007-08 (in %)**
Table 2: Calculated Indicators of Sample MFI for the period 1998-99 to 2007-08 (in %)

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>OSS</th>
<th>FSS</th>
<th>SDI</th>
<th>SDR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998-99</td>
<td>128.10</td>
<td>73.67</td>
<td>71.66</td>
<td>0</td>
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<tr>
<td>1999-00</td>
<td>140.61</td>
<td>81.49</td>
<td>47.59</td>
<td>-4</td>
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<tr>
<td>2000-01</td>
<td>112.51</td>
<td>67.65</td>
<td>73.98</td>
<td>-5</td>
</tr>
<tr>
<td>2001-02</td>
<td>129.22</td>
<td>74.93</td>
<td>41.69</td>
<td>83</td>
</tr>
<tr>
<td>2002-03</td>
<td>165.55</td>
<td>87.63</td>
<td>-13.02</td>
<td>56</td>
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<tr>
<td>2003-04</td>
<td>169.19</td>
<td>98.15</td>
<td>-46.42</td>
<td>63</td>
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<tr>
<td>2004-05</td>
<td>121.87</td>
<td>76.80</td>
<td>8.79</td>
<td>95</td>
</tr>
<tr>
<td>2005-06</td>
<td>121.80</td>
<td>83.39</td>
<td>34.37</td>
<td>75</td>
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<tr>
<td>2007-08</td>
<td>235.71</td>
<td>119.85</td>
<td>-20.94</td>
<td>-17</td>
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</tbody>
</table>

Source: Calculated from the audited financial statement for the various years

Table 3: Correlation of SDI and SDR with Outreach, FSS and OSS

<table>
<thead>
<tr>
<th></th>
<th>OSS</th>
<th>FSS</th>
<th>Outreach*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDI</td>
<td>-.703*</td>
<td>-.720*</td>
<td>-.817**</td>
</tr>
<tr>
<td></td>
<td>(.023)</td>
<td>(.019)</td>
<td>(.004)</td>
</tr>
<tr>
<td>SDR</td>
<td>-.344 (330)</td>
<td>-.207 (.565)</td>
<td>.518 (.125)</td>
</tr>
</tbody>
</table>

* Outreach is measured in average loan disbursement.
** Correlation is significant at the 0.01 level (2-tailed).

Source: Calculated by authors

Table 4: Correlation of SDR and SDI with some calculation components

<table>
<thead>
<tr>
<th>Calculation Component</th>
<th>SDI Coefficient</th>
<th>SDI Coefficient</th>
<th>SDR Coefficient</th>
<th>SDR Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan portfolio</td>
<td>-.407 (.243)</td>
<td>-.377 (.283)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment</td>
<td>-</td>
<td>-.198 (.584)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total financial resources</td>
<td>-</td>
<td>-.345 (.329)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating cost</td>
<td>-</td>
<td>-.193 (.512)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average concessionary interest rate</td>
<td>-.194 (.591)</td>
<td>.312 (.380)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market interest rate for conc. fund</td>
<td>.804** (.005)</td>
<td>-.692* (.027)</td>
<td></td>
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<tr>
<td>Total annual concessionary borrowed fund</td>
<td>-.371 (.292)</td>
<td>-.328 (.354)</td>
<td></td>
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<tr>
<td>Subsidies</td>
<td>.174 (.631)</td>
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</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Source: Calculated from annual report (various years)
Chart 2: Expenditure as a percentage of Income for the period 1998-99 to 2007-08

Table 5: Calculated Income Expenditure Position of Investment per Rupee and Break Even Interest Rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Income</th>
<th>Expenditure</th>
<th>Difference</th>
<th>Change in difference (percent)</th>
<th>Break Even Interest Rate (percent)</th>
<th>Lending Rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>0.003</td>
<td>0.105</td>
<td>-0.102</td>
<td>-36.12</td>
<td>25.17</td>
<td>12.00-13.00</td>
</tr>
<tr>
<td>2000</td>
<td>0.007</td>
<td>0.123</td>
<td>-0.116</td>
<td>13.66</td>
<td>29.23</td>
<td>12.00-12.50</td>
</tr>
<tr>
<td>2001</td>
<td>0.012</td>
<td>0.157</td>
<td>-0.146</td>
<td>25.71</td>
<td>33.58</td>
<td>11.00-12.00</td>
</tr>
<tr>
<td>2002</td>
<td>0.012</td>
<td>0.141</td>
<td>-0.129</td>
<td>-11.60</td>
<td>27.83</td>
<td>11.00-12.00</td>
</tr>
<tr>
<td>2003</td>
<td>0.013</td>
<td>0.116</td>
<td>-0.103</td>
<td>-20.08</td>
<td>25.23</td>
<td>10.75-11.50</td>
</tr>
<tr>
<td>2004</td>
<td>0.013</td>
<td>0.143</td>
<td>-0.129</td>
<td>25.51</td>
<td>28.26</td>
<td>10.25-11.00</td>
</tr>
<tr>
<td>2005</td>
<td>0.011</td>
<td>0.177</td>
<td>-0.166</td>
<td>28.77</td>
<td>30.59</td>
<td>10.25-10.75</td>
</tr>
<tr>
<td>2006</td>
<td>0.011</td>
<td>0.142</td>
<td>-0.131</td>
<td>-21.39</td>
<td>24.99</td>
<td>10.25-10.75</td>
</tr>
<tr>
<td>2007</td>
<td>0.005</td>
<td>0.101</td>
<td>-0.096</td>
<td>-26.92</td>
<td>17.89</td>
<td>12.25-12.50</td>
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<tr>
<td>2008</td>
<td>0.015</td>
<td>0.069</td>
<td>-0.054</td>
<td>-43.48</td>
<td>14.66</td>
<td>12.25-12.75</td>
</tr>
</tbody>
</table>

* Lending rate here refers to General Minimum rate as prescribed by Reserve Bank of India.
Source: indiastat.com
Calculation is done by authors