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Sustainable development of microfinance customers

An empirical investigation based on India

Saju Jose and Jacob Chacko
College of Business Administration,
Abu Dhabi University, Abu Dhabi, United Arab Emirates

Received 13 February 2016
Revised 7 April 2016
Accepted 11 April 2016

Abstract

Purpose – The purpose of this paper is to examine whether microfinance activities aimed at the bottom of the pyramid consumers are sustainable.

Design/methodology/approach – The study follows a mixed methodology, manager's views on sustainability of the programs were gauged by analyzing their responses in the areas of diversion of funds, operating cost, interest rates, and return rate of loans through semi-structured interviews. A survey was administered to 316 poor microfinance borrowers at the bottom of the pyramid in India in a cross-sectional field study format. The study used one sample *t*-test to test the sustainability of the microfinance activities.

Findings – All else being the same, microfinance activities aimed at the borrower's communities are not sustainable. The major contributor to the lack of sustainability is the diversion of funds, results of both managers' interviews and consumer survey provides strong evidence to support this. Though there are issues related to high interest rate, operating cost and low return on investment, it seems that the core issue behind all this is lack of full investment in the microfinance venture.

Research limitations/implications – The study was limited to only two states in India. The mixed nature of the study meant that semi-structured interviews with a relatively small sample were the most appropriate method to address the research question. Future studies with larger, more representative sample sizes are encouraged to investigate how the findings can be generalized to larger populations. Also the information which determines the experiences and satisfaction of the consumers is collected only once. This study does not account for any changes over time in the populations or their interest.

Originality/value – The impact of micro finance in alleviating poverty is questioned by researchers and there is demand for further empirical evidence. Therefore, the findings of this study complement with existing work to present a comprehensive understanding of this topic by investigating the sustainability aspect of these programs from the dimension of both customers and lenders.

Keywords India, Consumers, Financial services, Microfinance, Sustainability

Paper type Research paper

1. Introduction

The world has witnessed impressive growth in bank accounts among the poor creating wide spread financial inclusion of the poor customers in the financial service sector between 2011 and 2014. Now 62 percent of the world's adult population has a bank account; up from 51 percent in 2011. Three years ago, 2.5 billion adults were unbanked and now two billion adults remain without an account. This represents a 20 percent increase (Kunt *et al.*, 2015). Microfinance focused at the bottom of the pyramid customers have played a significant role in this. Microfinance has caught the eye of the financial institutions all across the world and it has emerged as a global product that can successfully generate social impact through alleviating poverty and achieving sustainable growth (Bugg-Levine and Emerson, 2011). According to the International Monetary Fund, economic growth in the 20 most important microfinance markets in 2015 would be twice the rate of developed economies (Etzensperger, 2015).The microfinance industry in emerging economies is characterized largely by poor captive borrowers (Jose *et al.*, 2015). The popularity of microfinance has triggered research in this area particularly in the last decade with researchers focusing mainly on the social impact of these programs. The common theme emerging out of this research is that microfinance is a tool aimed at achieving a positive societal, environmental,

Journal of Enterprise Information Management
Vol. 30 No. 1, 2017
pp. 49-64

1741-0398
DOI 10.1108/JEIM-02-2016-0056

or sustainability impact through capital investment (Karlan and Goldberg, 2011). However, sustainability of these programs still is a matter of contention and this is substantiated by the numerous negative reports about microfinance industry in many countries. This have recently led scholars to start to question the impact of microfinance in alleviating poverty and there is demand for further empirical evidence (Hudon and Sandberg, 2013). The term sustainability is now widely used among politicians and businesses. Customers and other important stakeholder's warrants action from businesses to include sustainability in their overall business agenda. However, they lack a common understanding on what sustainability really means (Piotrowicz and Cuthbertson, 2009). According to the World Council for Economic Development, sustainable development is development that "meets the needs of the present without compromising the ability of future generations to meet their own needs." So, for industrial development to be sustainable, it must address important issues at the macro level, such as: economic efficiency (innovation, prosperity, and productivity), social equity (poverty, community, health and wellness, and human rights), and environmental accountability (climate change, land use, and biodiversity).Thus sustainability is a broad subject with varying objectives, that all focus on the development needs of present and future generation under varying conditions.

A microfinance institution (MFI) needs to have a goal to deliver tangible socio-economic benefits which will improve livelihoods of the customers (Acharya and Acharya, 2006). This means that the bottom of pyramid customers should be able to get a steady surplus from their venture without assistance after its liabilities have been paid up. However, some critics fear that microfinance finance institutions have become too focused on making profits at the expense of outreach to poorer customers (Mersland and Storm, 2010). The study aims to contribute to the existing body of microfinance literature by investigating the sustainability aspect of these programs from the dimension of both customers and lenders. MFI often accused of not being customer centric in their approach but driven by their vested interest which impacts the sustainability of these programs.

The objective of the study is to gain insight both from a managers and borrowers perspective on the sustainable development of the microfinance customer. In the case of microfinance, sustainability of the customer means the ability to survive without the assistance of the lender after an initial period, achieve steady cash flow from their ventures. The customers are the working poor in several areas of India. As the most vulnerable of lending recipients, they are captive customers, sustainable development of this group is extremely important for the country's economic prosperity and also helps to maintain a socio-economic balance. Thus it is useful to empirically examine the prosperity of the bottom rung consumers toward achieving this goal. Sustainability of microfinance programs is under-researched, as formal data collection from them is not easy. A MFI which has sound and long standing operations in the state of Kerala and Tamil Nadu in India was selected for the study.

This paper is structured as follows, the next section presents a review of literature of microfinance. Specifically, the section discusses the theoretical framework, relevant research on the microfinance and the criticisms that have come up so far. The paper then explains the research methodology in the context of this study, followed by empirical evidence that relates to sustainability of microfinance programs among the rural poor in India. Finally, in the discussion and concluding sections, the paper discusses the key findings and presents the study's contributions and practical implications.

2. Literature review

Poverty is a condition in which a person or community lacks the fundamentals for a minimum standard of life (Kanellopoulos, 2011). Microfinance is expected to alleviate poverty by raising the standard of living of the poor. There exists a lot of differences of opinions with regards to the successes and failures of microfinance interventions in achieving sustainable growth among the below the poverty line people. The literature generally agrees with the conclusion that substantial growth of micro- financial services is a means to alleviate poverty and empower the poor (Dunn, 2002; Cohen, 2002). Microfinance in fact has proved wrong the popular belief that poor are mere dole takers of financial services. It also demolished the assumption that the poor are "unbankable" (Woller, 2002). Even though microfinance has many success stories in its history, there are reported cases where sustainability of its programs from customer's perspective was doubtful. In fact, researchers have uncovered various reasons for the failure of sustainable growth of these interventions. These were based on studies conducted in different parts of the world. The issues cited related to diversion of funds, gender, interest rates, and conflict between villagers (Hulme, 2007; Hassan, 2002; Snow and Buss, 2001; Floro and Dymski, 2000). Another problem of microfinance failing to meet its objectives is because of its failure to blend the product taking into account of local needs and preferences (glocal approach) (Rugimbana *et al.*, 2005). There are also reported misuses of funds meant for microfinance businesses by consumers that resulted in underperformance. Thus there is need for continued research which could provide insights into creating a successful business model. As substantial amounts of funds are invested in this sector, it is highly essential that both successful strategies and unsuccessful strategies are identified. Successful strategies could then be incorporated and defective ones be removed. This study will evaluate the effectiveness of the strategies for sustainable growth of bottom of the pyramid customers deployed by the formal financial sector in providing microfinance programs to the rural poor in India.

2.1 Alleviation of poverty and improving lifestyle through microfinance

During the past two decades microfinance has advanced from a charitable activity to a successful tool for poverty alleviation (Carlin, 2006). It has also become a profitable business activity with more than 90 percent average repayment rate of the loans. The world has witnessed the emergence of microfinance from a "novel" idea to a Nobel Peace Prize winning concept for poverty alleviation (Rogaly, 1996; Carlin, 2006). The low default rates of microfinance coupled with women empowerment have created an impression that poverty in low income countries can be slowly obliterated by helping the bottom of the pyramid customers with small loans for business activities (Develtere and Huybrechts, 2005). In contrast some studies found that microfinance has a negative impact on poverty; poor households simply become poorer through the additional burden of debt (Hulme and Mosley, 1996; Hulme, 2007). Most studies suggest that microfinance is beneficial, but only to a limited extent (Dichter, 1996).

Some established financial institutions pursuing microfinance consider the effort as part of their corporate social responsibility (CSR). They strongly believe that it leads to sustainable development for both users and providers. For the consumer, the benefit comes from accessing credit from the formal financial sector, which can be used for business activities that would assist them to break the poverty cycle. These financial institutions claim that by pursuing the aforementioned strategies they help people to follow business values and their initiatives satisfy the requirements of the organization and their stakeholders. This in turn helps the financial institution to maintain legitimacy and sustainability, thus assisting them to become more competitive in the market. However, microfinance programs have their fair share of criticism from researchers. This is discussed in the next section.

2.2 Criticism on microfinance

Lack of sustainable practices. As their popularity grows, microfinance programs face a growing number of critique. The critics fully agree that MFI could and should become sustainable. However, they have questioned the impact of microfinance on poverty reduction and the sustainability in its present form in many places. With microfinance lending being practised by a range of institutions in over numerous countries, from the richest to the poorest, this calls into question the extent to which lessons can be applied to different contexts. Furthermore, most micro lending programs depend significantly on donors, as they are often highly subsidized (Adams *et al.*, 1984; Morduch, 1999). Therefore, even if microfinance programs are considered customer centric in terms of targeting the poor, they may not be cost-effective and perhaps not worth supporting as a means of transferring resources.

Lack of customer centric strategies. Another criticism is that the micro enterprises supported by these programs have limited growth potential and so will not have a sustained impact on the poor. Rather, it is argued, that microfinance programs make the poor economically dependent on the program itself (Bouman *et al.*, 1989). Moreover, in practice, funds disbursed under microfinance may still not reach the very poorest, as some borrowers experience credit rationing in microfinance programs, including inequality in terms of benefits and loan sizes and limited access to service (Baydas *et al.*, 1997; Joseph, 1993). Thus MFI's in some part of the world are accused of not targeting the right customers. Microfinance movement encourages poor households to take on loans that they may not able to service (Snow and Buss, 2001). Gonzalez Vega (1998) questions the goals and expectations established by the microcredit summit. He argues that these goals are based on wrong assumptions of the role of finance and disregards the difficulties in expanding the financial system to include the poor.

Social and economic problems created by microfinance. Some studies have pointed to several social and economic problems in some of the programs. Some of these are:

(1) diversion of funds from microfinance ventures for personal use (Hulme, 2007; Bichanga and Aseyo, 2013);

(2) high interest rates (Hassan, 2002);

(3) risk of ending up in a circle of debt (Snow and Buss, 2001);

(4) fragility of credit financed household (Floro and Dymski, 2000); and

(5) the risk of free-riding and conflicts between villagers and gender (Hassan, 2002).

From the different opinions and result of researchers, it is clear that there is considerable disagreement about the potential of the microfinance movement. This warrants continued research in this area. Despite all the criticisms on microfinance, this sector continues to grow particularly in countries like India, where majority of the people are living below the poverty line. There are millions of potential customers of microfinance, given the inconclusive nature of result into the research on microfinance it is important to further test the effectiveness of microfinance in a country like India.

2.3 MFI in India

Microfinance in India is provided by almost all the new generation banks, multinational companies, and NGOs. Some new age banks in India pursue microfinance strategies as part of their CSR (Prahalad, 2005). There are even public limited companies providing microfinance in India. For public limited company's microfinance is strictly a business activity. It is a fact that MFIs have more scope in selling their microfinance programs in developing nations like India. India has a large number of people who are poor and who consequently have no banking services. The Indian economy is growing, the Gross Domestic Product is now growing at the rate of more than 7 percent (RBI, 2012). However, the growth is mainly due to the business activities of upper class and middle class. A recent study conducted by Oxford University and the Human Development Report Office of the United Nations Development Programme (UNDP) found out that there are 421 million poor people in India. This number is more than the people in poverty in 26 African poor countries combined (410 million) (United Nations Development Programme, 2010). This is approximately 42 percent of the total population of India. A majority of people in India remain outside the ambit of mainstream financial services. Only 58.7 percent of households are availing of banking services in the country (Census data, 2011).

The relevance of microfinance surfaces in this context. Traditionally, the formal sector banking institutions in India have served only the needs of the commercial sector through provisions of loans for middle and upper income groups. The ICICI Bank was the first bank in India to enter into the microfinance sector in 2002. This was followed by other banks, including HDFC, HSBC, ABN AMRO and Axis Bank. At present there are more than half a dozen commercial banks operating in the Indian microfinance sector.

Commercial banks are involved in microfinance in many ways: government-subsidized lending programs through the banks, government-mandated lending targets met by banks subsidizing interest rates, government-mandated lending targets with banks charging commercial interest rates and microfinance as a profitable business (Conroy *et al.*, 2000). In India, all models are present. Banks in India have entered the microfinance lending market and many are partnering with regional MFI. The Indian MFI's have attained an outreach of over 30 million clients and an outstanding portfolio of over Rs200 billion (Puhazhendhi, 2012). While there is immense scope and potential to further expand the outreach of MFIs and banks to serve the hitherto excluded population, serious thought should be given on the topic of sustainability of MFI's and sustainability of their programs to effectively produce tangible results among its consumers. A regional MFI which has link with new generation banks is selected for this study.

2.4 Hypothesis

Consumers who are the beneficiaries of the microfinance ventures have low annual incomes and are located in remote villages. These groups of people have been largely neglected so far by financial institutions; the microfinance initiatives by the banks and MFIs provide a solution to this problem by giving access to the services for the rural poor. It would be critical to know the impact of these products on their daily lives. Are they able to break the cycle of poverty or are they plunging them into more debt? Banks and MFIs who pursue microfinance initiatives want to see their practices being perceived as legitimate by stakeholders. They want their programs to be sustainable both from a lender's and borrower's perspective. However as discussed earlier the sustainability of the programs among the bottom rug are being questioned due to various reasons, the following hypothesis is formulated to test the sustainability of the programs from a borrower's perspective:

H1. The customers of microfinance programs are discontent with the sustainability of income generation activities.

3. Theoretical framework

Micro finance activities are going on in several countries in different forms. The variables that affect the sustainability of these programs differ from country to country. In the paper titled "Serving the world's poor: innovation at the base of the economic pyramid" Anderson and Billou (2007) suggest a theoretical frame work for assessing the sustainability of programs of these nature. According to this paper, a program should be assessed the basis of 4As. The 4A's are:

(1) acceptability;

(2) availability;

(3) affordability; and

(4) awareness.

The primary objective of their research was to find out the best practices in serving poor customers on developing markets. At the end of their two-year long exploratory research they found the core success factors of an organization which serves the poor is how they implement the 4A framework. Thus efficacy of microfinance programs could be determined by analyzing the 4As (Figure 1).

Affordability: this is the degree to which an organization's products and services are affordable to the customers. Micro financiers are often accused of charging higher interest rate (Hassan, 2002). Prahalad and Hart (2002) argue that income generation opportunities are often limited and commercial credit is often unavailable to the poor due to lack of banking facilities and collateral. The research intends to test this factor by getting consumers opinion on interest rate charged on their microfinance loans.

Acceptability: it is the extent to which companies adapt their product and services to meet the unique needs of the customers. Micro financiers have traditionally relied on a one-size-fits-all policy (Bhatt and Tang, 2001). This approach focuses on providing credit only. The one-size-fits-all approach does not seem to work, as different countries and cultures have different needs and follow different norms. Researchers attribute the failure of microfinance interventions in East Africa to not paying enough attention to an appropriate balance between globally derived and locally acceptable ideas that is, a glocalized approach (Rugimbana *et al.*, 2005).

Availability: getting the product and services to the poor could be one of the challenges faced by the companies serving them. These communities are isolated and often deprived of basic infrastructure and communication facilities which make the task of reaching them hard. Prahalad and Hart (2002) suggest that distribution access in rural region is a hindrance in doing business in rural region. This is particularly applicable to microfinance customers as the majority of them are from rural background and reside in underdeveloped regions. Researchers have argued that, microfinance may still not reach the very poor, as some borrowers experience credit rationing in microfinance programs, including inequality in terms of benefits and loan sizes and limited access to service (Baydas *et al.*, 1997; Joseph, 1993).

Awareness: it is the degree to which customers are aware about the product and service offered by the organization. Loans to consumers of microfinance are disbursed through self-help groups (SHG's). The MFI provide training to the customers of the product and services. This is being transmitted to the local community through word of mouth.

The research frame work analyses this from the customer's point of view by delineating the different factors of this model and how they affect customers of microfinance. In the present context it is important for MFI's to understand the underlying thought process of consumers by understanding their attributes regarding the MFI programs in the light of 4A frame work and the impact it makes on their daily lives.

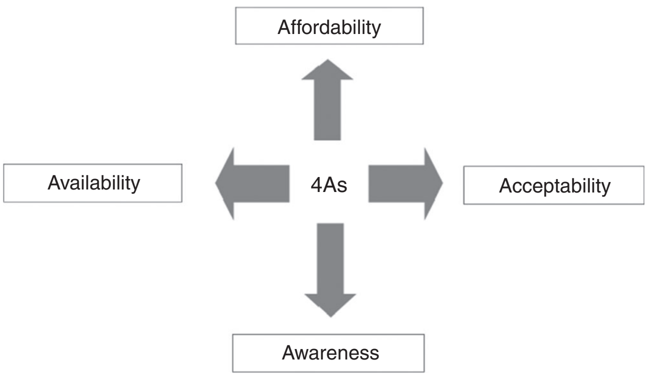

Figure 1.
4A model

4. Research methodology

The objective of the study is to test whether microfinance activities aimed at the bottom of the pyramid consumers are sustainable. This was achieved through:

- interviews with managers of new age banks and MFI to ascertain their understanding of sustainability of the programs; and
- survey of consumers of microfinance to gauge consumer contentment of the sustainability of microfinance programs.

Such a purpose justified the use of a mixed method approach that utilized both qualitative and quantitative techniques in the same survey (Morse, 2003). According to Morse (2003), a mixed method approach involves an analysis of both qualitative and quantitative data in a single study in which these data have been collected concurrently or sequentially. These data are then subject to integration at one or more stages in the process of the research study. The mixed method approach is based, essentially, on the premise of triangulation, which involves the use of more than one research approach in a study to gain a broader, or more complete, understanding of the issues being investigated (Veal, 2005). Both semi-structured interviews with managers and the surveys of consumers required instruments that consisted of open-ended and closed-ended questions.

4.1 Data sources and instrument development

The body of the survey contained randomized items from the Customer Discontent Scale, developed by Lundstrom and Lamont (1976) and validated in numerous studies. The advantage of using "old" instruments (tested for reliability and validity), or parts thereof, is in their control for halo effects (Wilkie and Mccann, 1972; Razaqque, 1994); its cultural positioning effects (Bond, 1988); or the tendency for respondents to use particular portions of the scales. In this context, consumer discontent was defined as the collection of attitudes held by consumers toward the sustainability of the microfinance programs. Modified statements from the original pool of items developed by Lundstrom and Lamont (1976) was used to measure the (dis)contentment of customers of microfinance. Minor modifications were made to the Lundstrom version for this study, whereby a five-point response scale was used in place of the original six-point scale, for ease of response, data entry and analysis. In analyzing the data, each of the Likert-type statements was assigned a weight from 1 to 5 or 5 to 1 depending on the order of the statement, positive or negative, in relation to the underlying construct in operation for the statement. The mean of all the scores obtained by the statements were used to operationalize a particular construct, which was then deemed to be the score for that construct.

4.2 Pre-test of questions to assess validity

The objective of this pre-test is to refine the questionnaire (Saunders *et al.*, 2006). The preparation of the research instrument was guided by the relevant literature and expert opinion in the field of research. Saunders *et al.* (2006) suggest that, initially, the questions should be provided to a group of experts to comment on their characteristics and appropriateness. This process of allowing suggestions to be made on the structure of the questionnaire would help establish content validity (Mitchell, 1996). The questionnaire was reviewed by three academics familiar with microfinance programs and the Lundstorm and Lamont scale. This process ensured the integrity of the content and encountered scrutiny on the validity of its constructs. Comments and suggestions were incorporated into a revised questionnaire.

4.3 Interviews

Semi-structured interviews with managers of new age bank and MFI was held to ascertain their understanding of sustainability of microfinance programs among the customers.

Five managers were interviewed for this purpose. Though smaller in size, efforts were made to carefully select this sample in order to get a divergent view. The interview sample comprised of one manager from the bank, then another two senior managers from the MFI and two field officers. Since microfinance is disbursed through multiple organizations, i.e. bank and NGO, it is imperative to get views from people working in different organization and in various levels of hierarchy. Senior manager from the bank who dealt with the NGO was selected for the interview to get the bank perspective on microfinance loans. Two senior managers of NGO were selected to gauge the top management beliefs and views on microfinance loans. Two field managers representing each state who dealt with the customers were selected to understand the insight at the ground level.

4.4 Survey

A survey of consumers of microfinance customers was administered to gauge consumer experiences of the microfinance programs. The sampling frame for the study was consumers in the rural area of the southern states of Tamilnadu and Kerala in India. A cluster sampling approach was followed, with each state representing a cluster. The cluster sampling approach can be based on the any natural occurring grouping (Saunders *et al.*, 2006). In the case of cluster sampling the practice is to select the clusters at random; however, in this case the states have not been selected as such.

4.5 Data collection and analysis

Data were collected from the customers of MFIs. The customers are organized themselves into SHG's and they hold meetings every week. Each SHG consisted of 15 to 20 members. The data were collected by visiting ten SHGs each in Kanyakumari and Trichur district of Tamil Nadu and Kerala, respectively. The questionnaire was distributed at the end of the meeting. After each SHG meeting the researcher gave a brief introduction, explaining the purpose of the study assuring the respondents of strict anonymity. Out of the total of 316 questionnaires collected, eight of them were found to be incomplete. The response rate was 97.5 percent. This is in line with the claims of Saunders *et al.* (2006) that delivery and collection questionnaires by following this method can receive up to 98 percent response rate. After checking for outliners the final set of data comprised 151 Malayalam questionnaires (Language of Kerala) and 150 Tamil (Language of Tamil Nadu) questionnaires, which make a total data set to 301. The final 301 questionnaires were all used for analysis of the research.

4.6 Reliability test

Reliability tests measure the extent of correlation among the questions asked. If the questions are irrelevant the correlation will be poor. The internal consistency and the split-half reliability tests for the questionnaires were used for quantitative analysis. The internal consistency was estimated by Cronbach's α. The analysis was done using SPSS. A combined analysis of both the respondents from State of Kerala and Tamil Nadu was undertaken to gauge the (dis)contentment on various issues. The reliability tests conducted produced the following results.

4.7 Sustainability

Nine statements are grouped under sustainability. Specific statements related to micro-enterprise development and financial stability are included in this section. Reliability testing of the nine statements had a measure with $\alpha = 0.70$ reliability. There was only one negative question and it was reversed to determine the combined mean and standard deviation. Most of the individual responses had a mean below 3 and the combined mean was just above three. The combined mean value, which is marginally above three, does not show much by way of strong discontentment. However, analysis of the data shows that the consumers had serious doubts about the sustainability of the programs. There were many direct questions related to the sustainability of microfinance schemes. Surprisingly, the majority of consumers gave negative replies to most of the questions. For example, consumers of microfinance seemed to have no belief in the sustainability of the income generation activities they started while using the funds. In total, 57 percent of consumers thought that microfinance did not help them raise their standard of living. In total, 65 percent did not think that the income from their ventures enabled them to provide three meals a day for their families 75 percent did not feel that microfinance had helped them to provide a safe shelter for their families. In total, 72 percent did not think that they could send their children to school using the income provided by the microfinance venture. These are very critical answers and they clearly show the cynicism of consumers about the outcome of the schemes. Even though the questions were worded for positive answers, the answers were negative, thus showing clear discontentment on the part of consumers.

4.8 Hypothesis testing

A *t*-test was used to test the hypothesis. A *t*-test is usually used if the population standard deviation is unknown (Levin and Rubin, 1998). A *t*-test can be directional or non-directional. In the present case – a non-directional hypothesis – a value that the population mean is greater than 3 ($\mu \geqslant 3$) shows discontentment. When population standard deviation is not known, researchers use sample standard deviation as the best estimate of the population standard deviation. Using the sample standard deviation and sample size, standard error of the sample mean will be determined. The overall mean and standard deviation of the combined variables were determined using SPSS. The overall mean of sustainability is 3.01 and technically it shows discontentment as the mean figure is just above 3. The *p*-value of this test is equal to 0.803, which is greater than $\alpha = 0.05$ indicated that the hypothesis should not be rejected. This indicates that the hypothesis "The customers of microfinance programs are discontent with the sustainability of income generation activities" is supported by the data.

4.9 Sustainability from manager's perspective

Managers' views on sustainability of the programs were gauged by analyzing their responses in the areas of diversion of funds, operating cost, interest rates, and return rate of loans. Managers of new age banks and MFI were all highly motivated regarding their microfinance activities. They had a deep understanding in the implementation of microfinance programs. However, all had the difficult task of meeting the conflicting demands of both.

4.10 Diversion of funds

Sustainability of the programs was affected by the diversion of funds for other uses. Field officers of MFI who had direct contact with the consumers of microfinance indicated massive diversion of microfinance funds for other uses. This resulted in shortage of funds for genuine investments in business, resulting in reduced returns. One of the main reasons for the low rate of return of businesses was the diversion of loan funds to other purposes (Hulme, 2007; Bichanga and Aseyo, 2013). Only 34 percent of customers from Tamil Nadu and 35 percent of customers from Kerala invested fully in the business. In total, 190 customers out of 292 respondents either had a debt to pay or had personal expenses that they gave priority to over investment in income generation activity. The interview with bank managers revealed that they did not conduct checks on the utilization of loans and all of them agreed that loans given for income generating activities were not fully invested, though their estimates differed widely. The table below provides a comparison of manager and the customer views about the percentages of investment activities believed to be done using microfinance (Table I).

The field managers and senior manager of MFI were highly pessimistic in their evaluation; they estimated that only 20 percent was invested in income generation activities. However, the actual percent invested was higher. On the other hand, new age bank manager and the senior managers of the MFIs were relatively optimistic. Only 49 customers which is 34 percent of respondents from Tamil Nadu and 53 customers which is 35 percent of customers from Kerala invested full amounts in income generating activities. The alarming fact is that new age bank and MFI did not investigate this matter although they know the full amount was not being invested in income generating activity. The diversion of funds impacted on the return rate of income generation activity and is an important factor behind the failure of microfinance programs to produce sustainable development.

4.11 Interest rates

There is a level of support for the view that microfinance providers should charge interest rates so that the lending programs can become sustainable (Adams *et al.*, 1984; Yaron *et al.*, 1997). However, other researchers observe that after the introduction of microfinance in India, there was an upward shift in the interest rates charged by formal institutions to rural borrowers. On the question of interest rate, 273 customers out of a total of 288 believed that they were charged 10-20 percent by MFI. This is a large difference; a more accurate estimate on interest rate could be made by comparing the responses from different managers in the interviews that were conducted (Table II).

The new age bank provides loans to MFI at the rate of 12 percent, MFI in turn lends to the customers at a higher percent. According to the two field managers and the senior manager of MFI their lending rate is 18 percent, and according to the managing director of MFI it is 15 percent. It is not clear why the two categories of officials in the same organization can give such differing rates, though it is clear that customers receive loans at rates between 15 and 18 percent from MFI.

It was unexpected to note that customers of microfinance in Tamil Nadu receive loans from other sources at rates much less than that for microfinance (e.g. through Church related organizations). This raises a pertinent question: Why should customers avail themselves of microfinance at all? There may be two reasons for this anomaly. The quantum

Table I. The Percentage of diversion of funds

Manager	Field manager Tamil Nadu	Field manager Kerala	Senior manager MFI	Managing director MFI	New age bank manager	Customer response
Investment in income generation activities (%)	20	20	20	85	70	34.5

Table II. Interest rate charged by various banks

Manager	Field manager Tamil Nadu	Field manager Kerala	Senior manager MFI	Managing director MFI	New age bank manager 1	New age bank manager 2
Interest rate (%)	18	18	18	15	12	12

of loans that could be provided by other charitable organizations is limited and there are strict checks and conditions to be satisfied when loans are sanctioned. The other reason is that the customers of microfinance in Tamil Nadu may want to take advantage of the support given by the MFI in starting new income generating ventures. In the case of Kerala, 43 customers out of 113 paid more than 20 percent interest rate for their old loans taken from other providers. For them, microfinance was a better deal.

4.12 Return from income generation activities

A total of 243 customers, 141 from Tamil Nadu and 102 from Kerala, got a return of less than 20 percent from their income generating activity, representing around 81 percent of the customers. Only 25 customers were able to get a return of more than 25 percent. This is only 8.3 percent of the total customers. This is a startling figure; it suggests that microfinance provided to customers of new age banks in the States of Kerala and Tamil Nadu may not lead to sustainable development. The interest rate charged by MFI was between 15 and 18 percent, and the return rate from income generation activities of the majority of customers was less than 20 percent. Thus customers were getting a very low net return rate probably lower than the interest rate of the microfinance, and income generation is in the negative.

4.13 Operating cost

Research has revealed that MFIs face many challenges in finding ways to reduce lending costs. While the cost of funds, default costs and transaction costs contribute to the total cost of lending in any sector, in the microfinance sector transaction costs have been identified as being an important contributor to lending costs (Goodwin-Groen, 2003). The major reason behind this is the average loan size, which is quite small, and the number loans granted, which are very high (Rosenberg *et al.*, 2013). All the managers interviewed expressed a view that high operating cost had had an impact on the sustainability of the programs.

5. Major findings

On overall analysis on the issue of sustainability, diversion of funds seems to be the main contributor for the failure of microfinance programs. Though there are issues related to high interest rate, operating cost and low return on investment, it seems that core issue behind all this is lack of full investment in the microfinance venture. Referring back to the 4A framework the following conclusions can be drawn. Awareness, affordability, and acceptability of the loans are the major contributors which affects the sustainability of the programs. Availability seems to have little effect on the sustainability. All consumers are unanimous in their opinion that their business programs are not self-sustainable. For most of them, present consumption appears to be the most important thing. Here, the short-term goals of the providers and the consumers come together. This shows the lack of long term goals. The myopic approach to microfinance has got serious implications regarding the sustainable development of the poor. Only 34.5 percent of the total respondents from Tamil Nadu and Kerala invested full amounts in income generating activities. A 192 respondents admitted that they had debts to pay or had personal expenses that could not be postponed. This supports the view of researchers like Hulme (2007), Bichanga and Aseyo (2013) that the diversion of funds is a reason why micro enterprises fail to achieve sustainability. This could be attributed due to the lack of awareness from the part of the customers on the true objective of this loan. Financial institutions particularly the ones offering microfinance under CSR has an inherent responsibility to make sure the consumers are fully aware of the objective of microfinance and the consequences of not doing it right. It requires intervention from higher levels to remedy the situation. Vision and mission are formulated at the highest levels of management. However how far these ideals have percolated to the lower levels is a matter of contention.

The reason for the callous approach from the banks could be because microfinance is a viable investment with repayment rate more than ninety percent. By introducing an MFI which acts as a link between the bank and the customers, the banks try to gain benefits of legitimacy by serving the poor customers. In fact, by providing loans to poor people they are getting a good return rate in the investment. Consumers are availing themselves of loans to divert them for other uses. They are paying back the loans not from business income generated. They are content to get loans as the alternative is the money lender who charges even higher interest rate. As the loans are not generating income the consumers of microfinance are getting deeper into poverty. The banks seem to be aware of this: however, they do little to prevent the diversion of loans to other purposes. The consumers know that banks and their intermediaries are more keen on short-term profits and the diversion of the funds will not be considered as a major crime provided repayments were made regularly. This could affect the commitment they give to their businesses started by microfinance funds.

The literature on microfinance identifies high interest rates as one of the reasons behind the failure of microfinance in meeting its objectives. This could lead to customers taking more loans to repay loans and ending in a circle of debt (Snow and Buss, 2001). This is a vicious cycle and has implication on the Affordability of the microfinance program. The result of the study indicates that lack of affordability of the loans is due to high interest rates and contributes to the lack of sustainability. Eighty-four percent of customers surveyed felt that the interest rate charged by MFIs was excessive. These findings support the argument that the excessive interest rates charged by MFIs is the major contributor to enterprises not achieving sustainability (Hassan, 2002). However, since the full amount is not invested in the venture, high interest rate could not be considered as the root cause of the failure. In fact it could be argued that the lack of awareness on the objectives of the microfinance is leading to the partial investment in ventures. This could affect the affordability of the loans as the venture is not running to its full potential. The results of this study indicate that beneficiaries of microfinance have not accepted the claims made by the banks and MFIs. They do not believe that the schemes are going to make them move above the poverty line. The condition of acceptability is totally lacking.

6. Implications and research limitations

The literature on microfinance is divided in terms of its effectiveness in providing sustainable growth for the poor. As reviewed earlier most studies reveal that microfinance is beneficial; however, some studies have found that microcredit has a negative impact on poverty, whereby poor households simply become poorer through the additional burden of debt (Hulme and Mosley, 1996). The results from this study indicate that microfinance in this part of the world is used as an additional finance by families and is used for many purposes, with only a small amount of money actually invested in income generation activity. The borrowers in most cases use funds from outside to repay microfinance loans, thus supporting the view that microfinance is an additional burden of debt. Governments should put more stringent verification on the utilization of schemes without choking the flow of funds.

6.1 Possible limitations of the study

- A country like India has different subcultures within different States. The customers may vary in different aspects within the States in India (for example, different dialects, religion, and castes). The sample selected for this study may not be representative of the state's culture.

- The mixed nature of the study meant that semi-structured interviews with a relatively small sample were the most appropriate method to address the research question. Future studies with larger, more representative sample sizes are encouraged to investigate how the findings can be generalized to larger populations.
- The information which determines the attributions (experiences) and satisfaction of the respondents is collected only once. This study does not account for any changes over time in the populations or their interest.

7. Conclusion

Though the increase in the percentage figures of financial inclusion is a positive sign for microfinance, the non-sustainability of the programs seems to be a major concern. Respective stakeholders should make sure that there is transformation from financial inclusion to financial sustainability of the poor customers. Conclusions reached here in any way negate the importance of microfinance. Microfinance as a business venture has always been successful wherever it was attempted with serious rigor providing numerous benefits to the bottom of the pyramid customers. Microfinance has been considered an effective vehicle for women's empowerment (Leach and Sitaram, 2002). Even recent studies provide empirical evidence to support this view (Kato and Kratzer, 2013). Illiterate and semi-literate customers particularly women of remote villages are now organized into self-help groups. Most of them have become self-employed. They have become independent and know how to operate bank accounts.

Microfinance has proven as a highly profitable business for banks and MFI's and has saved the poor from the shackles of money sharks. Even self-help groups have started their microfinance activities with their own share capital. This has made the SHG's small scale venture capitalists. Despite the different providers, as the results indicate the non-sustainability of the programs is still a lingering issue that need to be addressed. The programs under taken using the microfinance funds are sound. However, diversion of funds seems to be the major reason for their lack sustainability. In short to achieve sustainable growth MFI should follow some customer centric strategies highlighting the following issues which were unveiled by this study:

- There must be strict scrutiny of the businesses of the members of SHGs and their working. The main challenge inherent to the complex reality of MFIs lies in coming up with a pragmatic business model. Money received is not invested fully in the microfinance venture but diverted for other purposes. MFIs need to be mindful of these vulnerabilities of bottom rug. The issue of financial literacy is extremely important in this case.
- Proper scrutiny of production statistics and sales statistics should be made to find out the diversion. At present there is little scrutiny of the sales and profits of the businesses started using the microfinance funds. Field officers should be trained to supervise microfinance lending.
- MFI must make conscious efforts to create a service climate in the organization. Service climate is the employee perceptions of the practices, procedures, and behaviors that are expected, supported, and rewarded with regard to customer service and customer service quality (Bairi and Manohar, 2011). This would help to tackle the issues related to acceptability and awareness variables in the 4A framework unveiled in this study.
- Brixiová (2010) suggest a need for training for would be women entrepreneurs and using microcredit to help them maximize their income generation potential. Training

in business management and networking was found to be helpful in promoting entrepreneurship among customers of microfinance (Karlan and Valdivia, 2011). Consumers of microfinance need training in accounting practices, hygiene and sales. This will make them aware of the consequences of not fully investing in a venture.

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Corresponding author
Saju Jose can be contacted at: sajuvjose@hotmail.com