

# A Critical Evaluation of the SKS Microfinance Fiasco

\* Prasad Pole  
\*\* Anurag Asawa  
\*\*\* Deepak Shah

## Abstract

Crises have hit various players from different parts of the world in the global microfinance industry in the past. In the present study, we critically evaluate the SKS and Andhra Pradesh microfinance crisis in India. SKS established itself as a leader in the microfinance industry in India, and became the first listed microfinance company in the country. The dream run did not continue for long, as the Andhra Pradesh government started putting some regulatory conditions in place. We critically evaluate the SKS crisis to ascertain whether the cause was purely the government's action or the over-indebtedness amongst the borrowers of the microfinance industry. Further questions on commercialization of the microfinance industry are also discussed.

**Keywords:** Andhra Pradesh microfinance crisis, commercialization of microfinance, microfinance crisis, SKS microfinance, over-indebtedness

**JEL Classification:** G21, O10, O16

**Paper Submission Date :** December 17, 2013 ; **Paper sent back for Revision :** January 12, 2014 ; **Paper Acceptance Date :** April 17, 2014

SKS Microfinance, also known as Swayam Krishi Sangam (a term coined by the founder Vikram Akula), started its operations in the year 1998. By the end of the year 1998, SKS had 165 borrowers (Akula, 2010). It touched nearly 6.2 million active borrowers in 2010 as reported on Mixmarket.org. It also reported 87% compound annual growth rate (CAGR) in the number of borrowers in its annual report of 2010-11. Akula raised USD 52, 000 from friends and relatives to start this venture. Its gross loan portfolio later grew to USD 960 million. It started its operations in a small village in Andhra Pradesh and expanded itself to 18 other states in India. This was an aggressive growth for any microfinance company in the world. Incidentally, this was in line with the founder's goal: "To grow, grow, grow, as fast as we could" (Akula, 2010, p. 138). Such a fast growth was a subject of discussion across the sector during the forming phases of SKS. Later, its rapid fall was also discussed widely by academics and practitioners alike.

The steep growth would not have been possible with only charitable funds. Donor or social funds are limited, and in most of the countries, microfinance institutions (MFIs) are not allowed to collect deposits. According to Swanson (2007), most of the estimated 10,000 existing MFIs are not deposit-taking institutions, and are unlikely to become so, given the cost and complexity of complying with the regulations. So, accepting deposits and lending remains mainly a bank's job, making MFIs handicapped in terms of raising funds and re-distributing the same.

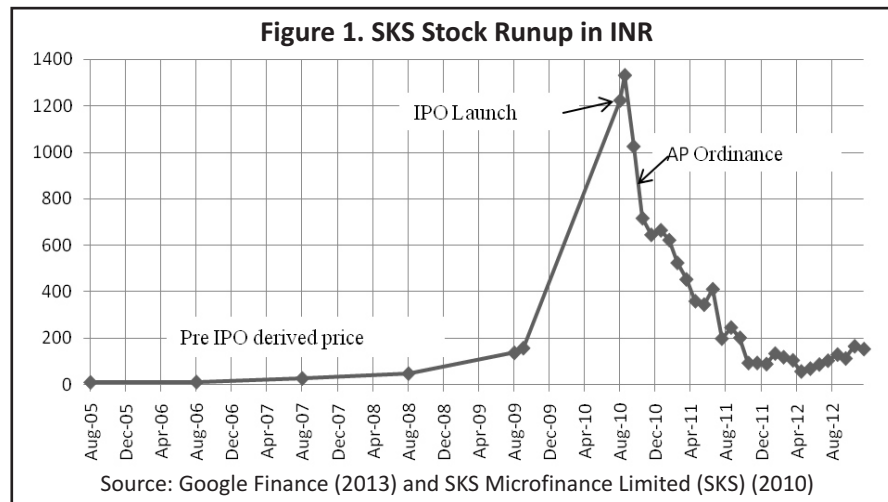
The above point of resource constraints is valid all across the world. Professor Mohammed Yunus criticized the for-profit microfinance organizations. But Akula contended that Grameen Bank, founded by Yunus, has been converted into a bank by a special act of the Government of Bangladesh, which led them to access the savings from the poor and mobilizing these deposits (Akula, 2010). Chakrabarti and Ravi (2011) pointed out that without the

---

\* Ph.D. Scholar, Gokhale Institute of Politics and Economics, Pune-411 004. E-mail : prasadpole@gmail.com

\*\* Assistant Professor, Gokhale Institute of Politics and Economics, Pune-411 004. E-mail : anurag@gipe.ac.in

\*\*\* Professor, Gokhale Institute of Politics and Economics, Pune-411 004. E-mail : deepakshah@gipe.ac.in



profit motive, it is difficult to have organizations that would engage in the financing activity in a sustained and efficient manner.

All over the world, microloans are unsecured and are seen as risky by the traditional banking system. The banking sector has not been able to understand lending to the poor as a viable and profitable activity, but only as a social obligation (Thorat, 2006). This makes it difficult for MFIs to convince the banking industry to support them for the funding needs. MFIs are left with the only option to approach private investors. Private investors can be convinced by showing higher Sharpe ratio either by higher returns or lower risk<sup>1</sup>.

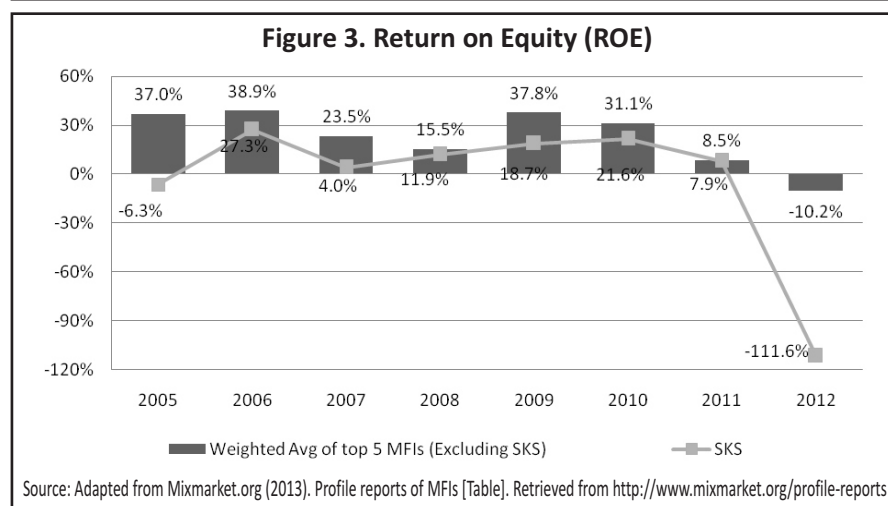
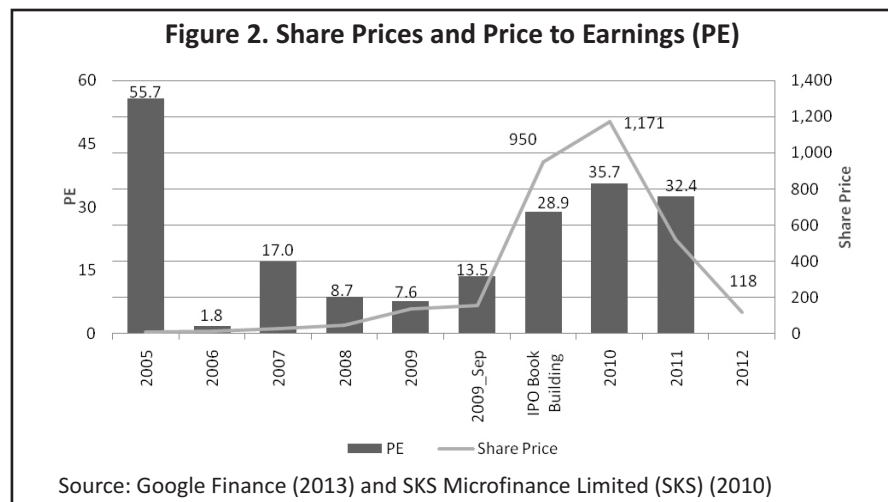
The pursuit for growth made SKS to launch an IPO after it received many investments from venture capitalists and private investors. This was seen as a very successful move, with its IPO getting oversubscribed 13 times. SKS was the first microfinance company to go public to raise money after the Mexican Compartamos Banco, which was a pioneer in raising money through the public issue. The stock market debut of SKS was very successful, with SKS stock price closing at ₹ 1233 on the first day of listing, compared to the issue price of ₹ 950. Unfortunately, this IPO success did not last long, and after the Andhra Pradesh government promulgated an ordinance (Government of Andhra Pradesh, 2010) to regulate microfinance institutions, it stooped to a low of ₹ 85. The Figure 1 shows the SKS stock price movement. We have derived the pre-IPO price by calculating the net asset value from the red herring prospectus of SKS IPO.

## Quantitative Analysis of SKS

The share prices plotted in the Figure 1 are overlaid with price to earnings (PE) ratio of SKS as shown in the Figure 2. SKS went through the book building process and decided ₹ 850 - ₹ 985 as its price band for its IPO allotment. If we calculate the PE ratio for the share price of ₹ 950, it is about 28.95, which is much higher as compared to its range from the year 2006 to 2009, which was below 17. In the quarter ending September 2009, SKS had a net asset value per share of ₹ 157.34 and earnings per share (basic) as ₹ 11.65, so the PE ratio is 13.35. PE of about 30 shows that SKS stock at ₹ 950 was way too expensive. This should have raised some doubts about the company's mission drift.

Return on equity (ROE) data of SKS in Figure 3 also raises the same doubts. The ROE of SKS was compared against the weighted average of top five MFIs (based on gross loan portfolio). In this calculation, we excluded SKS if it turned up in the top five lists. The details of the top five MFIs are shown in the Table 1. It was found that the ROE was consistently below the average level of the top 5 MFIs, indicating the underperformance of SKS.

<sup>1</sup> Sharpe Ratio is the ratio of returns over risk free rate to risk (i.e. standard deviation of returns).



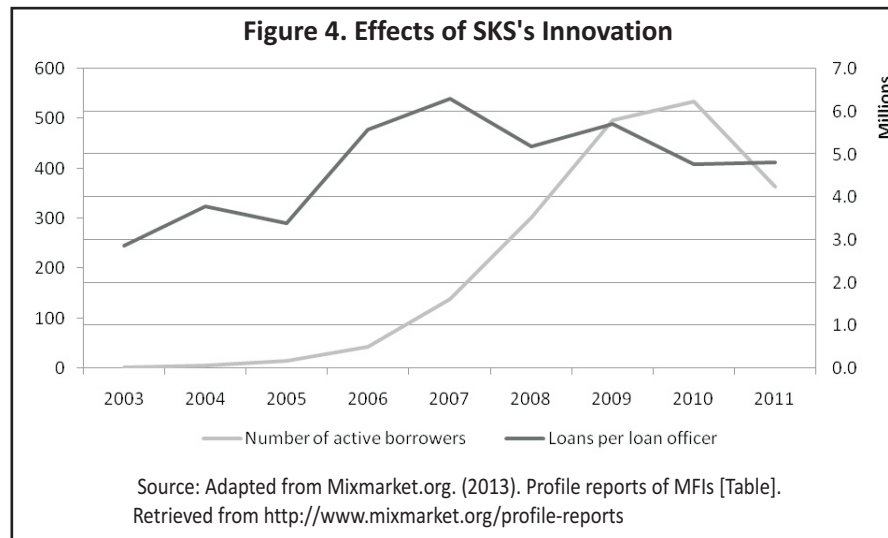
**Table 1. Top Five MFIs with Their Gross Loan Portfolio in Mn USD (SKS is Excluded)**

Rank/Year	2005	2006	2007	2008	2009	2010	2011	2012
1	Spandana	SHARE	SHARE	Spandana	Spandana	Spandana	Spandana	Bandhan
	55	82	92	262	483	961	926	733
2	SHARE	Spandana	Spandana	SHARE	SHARE	SHARE	Bandhan	Spandana
	40	64	90	182	367	787	779	534
3	MMFL	MMFL	SKDRDP	SKDRDP	AML	Bandhan	SHARE	SHARE
	37	50	52	152	239	377	565	415
4	AML	AML	MMFL	AML	Bandhan	AML	AML	SKDRDP
	14	40	51	85	139	332	465	322
5	BASIX	SKDRDP	AML	Bandhan	SKDRDP	BASIX	BASIX	AML
	13	24	45	84	125	315	298	236

Source: Adapted from Mixmarket.org (2013). Profile reports of MFIs [Table]. Retrieved from <http://www.mixmarket.org/profile-reports>

## Innovative Methods Used by SKS for its Widespread Growth

So far, we have studied the quantitative statistics of SKS, now we move ahead to understand the qualitative aspects of SKS and how they contributed to its widespread growth. SKS stood out from its competitors by using



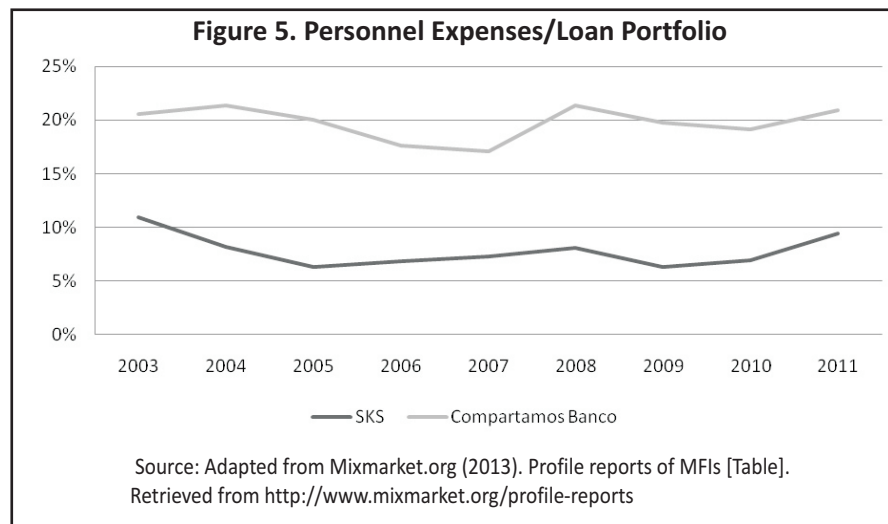
innovative techniques in its operations. According to Mohan and Potnis (2010), SKS is a catalytic innovator. Their 3-year study of SKS identified five factors that worked in favour of SKS to meet the criteria posited by Christensen, Baumann, Ruggles, and Sadtler (2006) as a catalytic innovator. Customer focus (on poor) and social entrepreneurship are both important for social missions. Other factors like operational innovation, IT and human capital management are necessary for scalability and financial stability. Mohan and Potnis concluded that SKS was scaling its operations without experiencing mission drift.

We can discuss some of the innovations used by SKS in terms of business and operations, which helped it target the poor customers and increase its base to cover underserved regions. Akula (2010) identified three constraints for scaling up microfinance activities, which are called the '3Cs': Capital constraints, Capacity constraints, and Cost constraints. SKS found innovative ways to tackle these constraints. The for-profit model helped SKS garner social investors to scale up the microfinance activities. To tackle capacity problems, SKS tried to adopt McDonalds's time model and Starbucks's hub and spoke model to setup and expand its business. This way, it developed training processes that allowed SKS to train more than 500 new loan officers per month and add more than 2 new branches per day (Chen, Rasmussen, Reille, & Rozas, 2010).

Akula (2008) found that for a business focusing on the bottom end of the pyramid, it is imperative that its business model be scalable since profit margins are very low in this market. To improve the capacity, SKS included measures like setting up meetings near the road so that loan officers could easily travel to other villages. This helped the same loan officer to cover more villages. The borrowers were also asked to bring the repayments segregated into standard denominations for additional time saving. These were few more innovative ways of saving time adopted by SKS. This helped SKS gain efficiency; the loans disbursed per loan officer increased from 245 in the year 2003 to 410 in 2011 (Figure 4). This, in turn, helped SKS to achieve the "J-shaped" growth for its active borrowers.

Cost constraints are very critical for any business. The above point regarding tackling capacity constraints also takes care of cost constraints partially. SKS setup the standardization of loan processes to cut down the loan processing time for the loan officers. So, SKS developed a software for their loan products, which saved time on loan processing. The company brought about some simple innovations like pre-populated loan applications from the old records in its software system. This cut down the time needed to process the loans and enhanced the record maintenance.

SKS also developed a robust management information system (MIS). They (got) developed and implemented simple systems so that the field data was available to its head office in a day's time. This system could be handled even by the less educated employees. By creating such a simple loan management accounting software, which could be used by loan officers with no computer experience, SKS reduced the time spent on accounting matters



from several hours to minutes (Bhatnagar, Dewan, Torres, & Kanungo, 2002). They ran a pilot program of using hand-held devices for loan officers. This was going to save more time as loan officers had to fill-up the loan application and feed it into the SKS software. They also mulled on using the smart card in hand-held devices for cash transfer, but the idea was scrapped as regulations never emerged in this area. This was the time when most of the MFIs were paper based and this consumed a lot of time for processing and monitoring applications.

Human capital innovation was also aided by MIS. SKS was able to hire staff members from local villages, their systems could be handled even by a 10th grade educated person. This kept their costs low as compared to their international counterpart Compartamos Banco (Figure 5), and this could also be the reason for lower interest rates of SKS (around 23.6% on a declining method basis in Andhra Pradesh and Karnataka, and 28% in other states), whereas Compartamos Banco charged as high as 100% (Lewis, 2008).

The point to be taken from this discussion is that SKS was innovative in its approach. Its peers were not even close to achieve what SKS had achieved in a short span of time. It was moving in a right direction, and it knew what its constraints were for growth.

## SKS's Non-Profit Social Mandates

SKS used innovation to grow in size and profitability. However, its innovations were not only limited to the commercial aspects. Various social mandates were also initiated. SKS used to suspend the loan repayment programs during natural calamities like floods, cyclones, and so forth. For example, in 2008, when Bihar was hit by floods, which were one of the worst floods in India's history, SKS suspended its repayment collection drive. Moreover, during these times, loan officers delivered blankets and food to the affected victims, thereby showcasing their non-profit motives (Akula, 2010).

SKS also designed micro-insurance along with Bajaj Allianz, with the premium being as low as ₹ 20 (about 50 cents) per week. For a premium of only ₹ 35 per week over a period of 5 years, customers received ₹13,200 in case of natural death and ₹ 33,900 in case of accidental death. If unclaimed, the deposit is refunded with interest after 5 years ("Allianz takes Indian made micro-cover," 2010). SKS also worked with Nokia and Airtel for discounted handsets and services to its borrowers ("Airtel, SKS Microfinance tie up," 2008). In 2008, SKS's affiliate, SKS NGO started with a low-cost elementary school with a monthly fee of ₹ 260 - ₹340 (\$5-\$7). The school admits not only the children of SKS borrowers, but anyone in the area served by SKS can enroll their children in this school.

UNICEF had donated de-worming tablets to the Indian government, but due to lack of a centralized channelizing system, they were not distributed, but loan officers from SKS took up the extra responsibility of distributing these tablets and also provided training on hygiene and sanitation to the poor families.

➡ **The Ultra-Poor Program (UPP):** This program is for the absolute poor who live on less than 5 cents a day. This program has an initiative of pulling up these poorest of the poor to the next economic ring. As per this program, they can select from the “asset basket” of their choice ranging from buffalo to chickens to sheep or non-farm assets like pay telephone, food goods, or other necessities like a small teashop, and so forth. The recipients have no obligation to repay. An evaluation of the SKS - UPP indicated that the financial module helped members make economic progress (Huda, Lamhauge, & de Montesquiou, 2009).

SKS does have a strong network which can be used for many government projects. They are already using their network for many social initiatives.

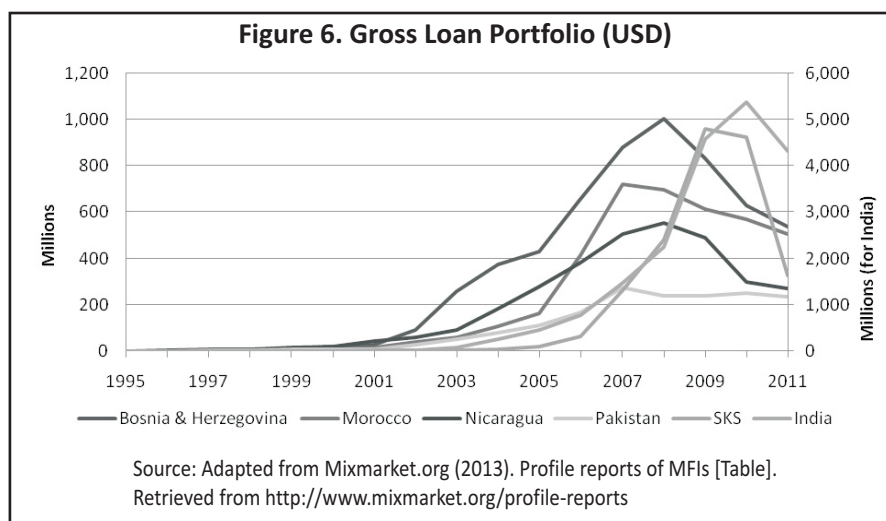
## SKS Governance and Investors

SKS started with 5 mutually benefit trusts (MBT) and some nominal shareholders. MBTs are special purpose vehicles that would aggregate borrower members of the microfinance organization. These MBTs had an initial capital of ₹ 20 million and promoter Vikram Akula had very little holdings. However, SKS had the highest compensation for the CEO in the industry, there were stock options for him as well as for others (Sriram, 2010). SKS started building capital from investors and philanthropists. According to Kumar and Rozas (2010), SKS's MBTs were allocated shares worth ₹ 273 million at a price of ₹ 71/share in 2008, which was very low as compared to other investors. It was not clear as to how other investors (including commercial fund of Sequoia) agreed for this. The allocation story does not stop short here. In 2007, Akula received shares worth ₹ 16 million (Sriram, 2010), which was a one shot gain of ₹ 65 million and these were sold 18 months later to gain ₹ 150 million. CEO Gurumani and other senior members like COO, M .R. Rao, CFO, Dilli Raj also sold their holdings for a significant premium (Sriram, 2010). This shows the level of commitment the insiders had for SKS's business. Board member Gurucharan Das resigned in May 2009 followed a few months later by Anu Aga of Thermax and Narayan Ramachandran of Morgan Stanley, all of whom joined as trustees of the MBTs.

N. R. Narayana Murthy's (Infosys founder) Catarman Fund got 1.5 % stake in SKS in January 2010 at ₹ 300 per share, which was half the price of the other private equity sales by SKS during the same time. Mr. Murthy was also named as the Chairperson of a new advisory board of SKS, putting the name of one of the most respected investors in India behind SKS and bolstering the company's credentials leading into the IPO (Chanchani, 2010). However, there seemed to be more ambiguous situations in terms of governance and investors.

## Microfinance Crises Around the World

The world has already faced similar crises in the past. When we say 'a crisis,' it always means repayment problems





**Table 2. International Microfinance Crises**

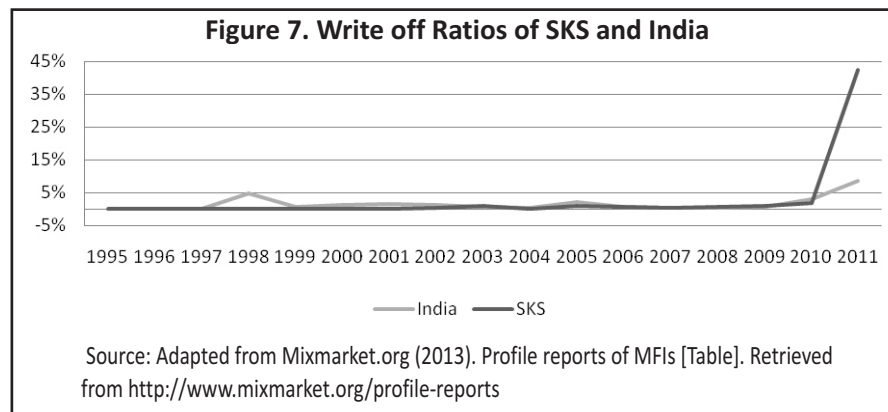
SL No.	Crisis	Onset of Crisis	Reasons and Impact
1	Bolivia	1999	One of the earliest known crisis in the microfinance sector. There was a mission drift and new business of consumer lending was started, causing indebtedness (Rhyne, 2001). Many borrowers were taking multiple loans from different sources at the same time (Vogelgesang, 2003).
2	Morocco	2007	Since 1999, the Government tried to push the microfinance sector. Government and local banks were committed towards its growth. Commercial banks launched 2 MFIs with 85% funding. From 2003 to 2007, MFIs' loan portfolio increased by 11 times, and client outreach grew by 4 times. In the case of Morocco, unprecedented growth overstretched MFI capacity. This translated into lenient credit policies, obsolete management information systems (MIS), lack of internal controls, and substandard governance. The Government has proposed to control multiple lending and avoiding over-indebtedness (Reille, 2009).
3	Bosnia and Herzegovina	2009	58% of the clients were holding more than 1 active credit contract, with more than 32% of the clients holding 3 or more active credit contracts (Maurer & Pytkowska, 2010). MFIs adopted growth at any cost, senior managers were over-paid. Over-indebtedness of clients was the major reason for the crisis (Augsburg, De Haas, Harmgart, & Meghir, 2012).
4	India-Kolar	2009	Karnataka has about 5% of India's population and 12.6% borrowers in microfinance; this shows the outreach of microloans. Muslim clerics urged all the borrowers not to repay the loans, and this became widespread. It was not limited to Kolar, but it spread to Ramanagaram, Mysore, and Sidlaghatta. The underlying reasons for the crisis have been found to be multiple lending by MFIs operating in the area (AKMI, 2010).
5	Nicaragua	2009	As reported by La Prensa.com (2010), more than 100,000 clients have stopped receiving credit. The industry served some 324,000 clients before the crisis, while today, it serves an estimated 225,000. More than half of the total portfolio was wiped out due to defaults (Bastiaensen, Marchetti, Mendoza, & Pérez, 2013). Multiple borrowings were one of the explanatory variables of the default (De Franco, 2010).
6	Pakistan	2009	The expansion was very rapid and the staff were overburdened with work. One of the borrowers in Tehsil Murdike sought the local politician's help for his repayment problem, which triggered a greater crisis. All borrowers had a sense of bailout and mass default started. Multiple borrowings and deterioration of incentives to maintain good repayment record to access to progressive loans also led to the crisis (Burki and Shah 2007).
7	Nigeria	2010	Nigeria launched the Microfinance policy framework in 2005. It established hundreds of microfinance banks (MFB) across the country. Due to lack of liquidity, investments in capital markets and abuse by insiders caused the crisis. 224 out of 820 MFBs were closed down (Microfinance Focus, 2011).

and mass defaults. The Figure 6 shows the gross loan portfolio of microloans in the following countries: Bosnia and Herzegovina, Morocco, Nicaragua, Pakistan, SKS and India. The reason for comparing SKS with these countries is that these countries have already faced similar crises and these cases are widely discussed. The figure also shows the onset of the crisis by a diamond-shaped marker. This figure clearly shows the growth of the loan portfolio and its decline post crisis. India's gross loan portfolio is shown on the secondary axis (as India has a huge gross loan portfolio in absolute dollar terms).

The crisis that hit the Indian microfinance sector has been widely discussed by academicians, the government, and practitioners all across the globe. The microfinance industry throughout the world has witnessed crises of varied magnitude during the past 10 years. However, all of them inevitably point towards the repayment issues. The Table 2 summarizes the major crises that the microfinance sector has faced.

## The Andhra Pradesh Crisis

Andhra accounted for 27.93% of the country's borrowers and 7.28% of the country's population (Srinivasan, 2009). Andhra Pradesh had 36.4% share in the self-help group (SHG) linkage program (Srinivasan, 2009). So this makes Andhra a big stakeholder for the microfinance sector. Many MFIs, including SKS, concentrated their



operations in Andhra, making them vulnerable to concentration risk. The country's growth story was clearly visible in Andhra Pradesh, and borrowers were getting good services as Andhra was having a presence of many MFIs. Andhra Pradesh was topping the microfinance penetration index (MPI) (with a score of 3.64) and the microfinance poverty penetration index (MPPI) (with a score of 6.35) in 2010 (Srinivasan, 2011). MPI is computed by dividing the share of the state in microfinance clients by the population share. MPPI is derived by dividing the share of the state in microfinance clients by share of the state in population of the poor. This implies that microfinance had high penetration in Andhra Pradesh. High levels of penetration are also a cause for concern, as they indicate that the debt levels could exceed the repayment capacity of the poor households (Srinivasan, 2009). Andhra Pradesh had 9.63 loan accounts per household (Srinivasan, 2010). A minister in the government of A.P. admitted on December 3, 2010 that 75 suicide cases had come to the notice of AP government by that date ("Bill to replace MFI ordinance soon," 2010). Microfinance Focus (2010) reported that out of 123 alleged cases of harassment, 54 borrowers allegedly committed suicide due to unbearable harassment by the MFIs in the state of Andhra Pradesh. One borrower was unable to pay a loan of ₹ 15,000 and her 16 year old daughter was humiliated and harassed, and was told to enter prostitution to pay the debt. The young girl was kept locked in the house under wrongful confinement, and she committed suicide. A study by Ashta, Khan, and Otto (2011) on microfinance and suicide gave two important conclusions. First, the suicides by microfinance customers in Andhra Pradesh do not seem to be any greater than the average suicide rate in India, and second, the cross-sectional state-wise data in India also seems to suggest a strong link between suicides and microfinance and an even stronger link between the bank SHG model and suicide rates. Thus, the measures to protect people apply as much to banks as to MFIs.

The Government intervened in the operations of MFIs. It issued an ordinance restricting MFIs' recovery and lending operations. The ordinance put a control on client acquisition, extent of loan, terms of repayment, and places at which customers could meet for transactions. There were arrests of few staff members who ventured into customer habitat, thereby subduing any opposition to this ordinance. There was also stern warning from regulators that directors of NBFCs may also face arrest (Government of Andhra Pradesh, 2010).

This affected the recoveries drastically. The Figure 7 shows the write off ratio of SKS and India. This ordinance affected the recovery rates as the Government had indirectly supported defaults. People got away legally from paying their debts.

➤ **The Impact:** Some MFIs such as Star MicroFin Society, a small NGO-MFI, faced 0% repayment rate in urban operation areas and 2% in rural areas, as compared to 100% before the MFI ordinance. The impact was not limited to Andhra Pradesh, but it spread to the whole of India, and all MFIs were facing the pressure. Poor borrowers had to go back to informal borrowing. Banks started to feel the heat as SHG repayments were low and there was a possibility of default from MFIs. With ₹ 75 billion at stake, banks rolled out a corporate debt restructuring (CDR) plan for large MFIs. MFIs like Spandana, Share, Asmita, Trident, and Future Financial Services availed this restructuring plan to the amount of ₹ 70 billion. SKS and BASIX were the two MFIs who did not opt for this plan.



**Table 3. The Impact of the Andhra Pradesh Microfinance Crisis**

AP based MFIs	2001	2012	Decline (%)
No. of Branch	6,426	5,227	19
No. of Staff	55,512	39,067	30
Active Clients (million)	16	12	25
Loan Portfolio (million)	1,39,430	79,120	43
Disbursement (million)	1,91,800	62,900	67
PAR 60(%)	30	31	
Total Assets (million)	1,35,210	91,730	32
Net Owned Fund (NoF) (million)	31,490	25,380	19
Yield (%)	22	10	
Operating Expenses (%)	10	6	
Operational Self Sufficiency-OSS (%)	111	55	
Return on Asset (RoA)-(%)	2	-8	
Return on Equity (RoE)-(%)	2	-35	

Source: Adapted from Sa-Dhan. (2012). The Bharat microfinance quick report 2012 : Microfinance - growing against all odds. New Delhi.

In this CDR plan, MFIs had to repay the loans in 7 years and pay an interest rate of 12%. The CDR was not really helping in any sense as the underlying loans were delinquent and the borrowers were supported by the government not to repay, so this was just a slowing down of death for the microfinance institutions. Large MFIs were opting out for CDRs or moving out of Andhra Pradesh for survival, but small MFIs shut down their operations. SKS had to shut down 78 branches and cut 1200 jobs in Andhra Pradesh. The Table 3 summarizes the effects of the Andhra Pradesh crisis on the MFIs. The disbursement was reduced by 67% and staff declined by 30%, affecting the whole of the Andhra region.

The series of crises pushed India's microfinance sector's global rank from 14th to 22nd position in respect of regulation initiatives (Puhazhendhi, 2012). However, this crisis also paved way for more regulatory initiatives by the government after the Malegam Committee's report proposed setting up different categories of NBFC-MFIs, especially for priority sector lending, with a margin cap of 12%, interest rate cap of 26%, and numerous other measures, which are beyond scope of the present paper.

## Reasons for the Crisis : Over-Indebtedness

There can be multiple reasons for defaults - like borrowers who strategically default or run into unsustainable loans and wait for a bailout. The primary reason for defaults among the microfinance borrowers is their inability to repay. This means that rational borrowers find themselves in a situation where the household expenses go beyond the income. This indeed is defined as over-indebtedness. Over-indebtedness or debt trap is seen as the cause of the microfinance fiasco. In some countries, microcredit caused over-indebtedness among some borrowers, while in other countries, they are on the verge of getting trapped in over-indebtedness. This subject has been well-researched now. A borrower is said to be overly indebted if he finds it difficult to repay. Many researchers have tried to define and measure over-indebtedness of an individual. Kappel, Krauss, and Lontzek (2010) defined indebtedness as the ratio of total monthly instalments by total net monthly income:

$$\text{Indebtedness} = \frac{\text{Total Monthly installments on household debt}}{\text{Total monthly gross income of the household} - \text{Total monthly expenses of the household}} - 1$$

Indebtedness is converted to over-indebtedness as the indebtedness ratio increases. Many researchers have

**Table 4. Variables Used in the OID Index**

1	Remittances (in USD) per capita	Macro-level indicator
2	Market penetration	Industry level indicator
3	Growth rate of total loan portfolio	Industry level indicator
4	Quality and use of credit information system	Industry level indicator
5	Perceived commercial bank involvement	Industry level indicator
6	Perceived levels and trends in competition	Industry level indicator
7	Perceived investment flows	Industry level indicator
8	MFI liquidity	Industry level indicator
9	Average loan balance per borrower	Firm level indicator
10	Loan requirements and lending methodology	Firm level indicator
11	Productivity (borrowers per staff member)	Firm level indicator
12	Growth and market targets	Firm level indicator
13	Multiple lending	Firm level indicator
14	Consumer lending	Firm level indicator

Source: Adapted from V. Kappel, A. Krauss, & L. Lontzek (2010). Over-indebtedness and microfinance: Constructing an early warning index, in UMM workshop report (p. 6). Retrieved from <http://www.accion.org/Document.Doc?id=899>

assigned a threshold value, beyond which the condition of over-indebtedness is assumed. For example, Maurer and Pytkowska (2010) assigned a threshold value at 100%. This means that borrowers are not able to make ends meet, and 100% indebtedness ratio means that the family is left with no surplus income to meet their exigencies.

Parameters to measure over-indebtedness can be quantitative like defined above or qualitative, that is, perceived difficulty in repaying the loans. Whatever may be the definition, but over-indebtedness can be said to occur if the borrower is continuously facing difficulty in repaying the loan and is making great sacrifices to meet the loan obligation (Schicks, 2010). It does not include borrowers who deliberately run into high debts or wait for bail-out options. Schicks described the sacrifice-based indebtedness - borrowers reduce their food intake, reduce educational expenses or drop out of school/college, increase working hours or take up double jobs to increase their income, and so forth. If a borrower has taken a loan for an income generating process and expects the payoff after six months, he may have to sacrifice food or some spending to repay the loan for the first six months. The borrower can also opt for another loan from the current MFI's competitor to make ends meet. But this condition can also be called as over-indebtedness. So, it is not necessarily a default condition, but more of a pre-default condition. If this is captured early enough, it can help avoid default. This becomes very important when we are talking about a whole set of borrowers.

This arouses the need to analyze the portfolio of MFIs. Rosenberg (1999) arrived at some measures for portfolio repayments like on-time collection rate, current collection rate, cumulative collection rate, and portfolio-at-risk (PAR). The PAR is the most suitable measure. This is an international standard for measuring loan delinquencies. An aged PAR can provide feedback immediately. It cannot, however, provide an assessment for loan losses.

From the above discussion, it is clear that regulators and market participants have to rely only on repayment statistics, that is, by analyzing PAR, and so forth for getting information on the default situation. However, PAR does not come without any limitations. Due to the rapid growth of the loan portfolio of any MFI, the PAR will be masked and appear as low. Globally, MFIs recorded PAR30 between 2% and 3% (median) between 2005 and 2007 (Microfinance Information Exchange (MiX), 2009). This changed at the end of 2008, when growth slowed and many MFIs, largely irrespective of size and type, were confronted with severe portfolio quality problems (Consultative Group to Assist the Poor (CGAP), 2009). Even if they are good indicators, they cannot be good for MFIs to assess their portfolio quality. If we would like to get an insight into geography, it might be difficult as the situation will soon spin out of control without any restrictive measures. But this parameter cannot give an insight

into over-indebtedness. The whole set of defining and measuring indebtedness is a complex process. Regulators and MFIs cannot gauge indebtedness quickly.

So there arises a need of some early warning index. There has been an interesting study of creating an over-indebtedness early warning index (OID Index) by Kappel et al. (2010). This index can give an early warning about over-indebtedness. Many variables were considered in this study by Kappel et al. , and a few were shortlisted as per their significance, for example, supervision as one of the parameters was considered, but was not used in the index construction as there was not enough evidence on the MFIs' portfolio quality. The Table 4 shows the variables used in constructing the OID index.

All these variables were assigned equal weights, with three variables having higher weights, which are: "Quality and use of credit information system," "Loan requirements and lending methodology," and "Multiple lending". This was applied for 13 countries using six colour-coded categories : 1 to 10: dark green (overall score below 3.5), light green (score from 3.5 to below 5.0), yellow (score from 5.0 to below 5.5), orange (score from 5.5 to below 6.0), light red (score from 6.0 to below 7.5), and dark red (score at and above 7.5). The higher the score, the higher is the level of early-warning signals for over-indebtedness. This index can be used as a warning signal and regulators can make a move to avoid the crisis. Since this is an ordinal scale, comparing countries remains difficult.

This index is not without any drawbacks as data is a major issue for its success. The other drawback is that a country with a higher index can remain stable without any crisis, and a country with a lower index may be struck by a crisis. Further research may help to build this index in a robust way. In this case, household level indicators are not included, which is the main pointer of over-indebtedness, and will remain a challenge in terms of data collection. This modified indicator is a sure shot way of identifying over-indebtedness. Moreover, this index can also act as a guide for the stakeholders and policy makers. Further research in this area should open a whole new avenue for addressing microfinance default issues.

## Conclusion

The Andhra Pradesh crisis has been something of a turning point in public assessment of microfinance, with a suicide wave caused by widespread over-indebtedness badly tarnishing the sector's image in India as well as abroad. SKS was continuously cutting costs and loan officers were taking up more loan applications as compared to their other counterparts in the world. Some argued that SKS loan officers should not have taken up such a high number of loan applications. Moreover, this argument - of SKS taking up great number of loan applications - fails to consider the high population density of India as it ranked 24th out of 212 countries in 2010 (in terms of population density). So, in India, this was a very feasible situation. Additionally, SKS did not have their loans officers' salary pegged to the size of the loan portfolio or repayment rates like Compartamos Banco. So, loan officers pushing unnecessary loans to borrowers does not seem to be a very strong argument. A for profit company will strongly desire that their borrowers succeed in their entrepreneurial endeavours so that the company continues with business and makes profits, making the company look better to investors (Shaffer & Stephens, 2012).

Another contention against SKS for its fall is that SKS was charging a higher rate of interest. But looking at the costs and other MFIs across the world, the interest rates charged by SKS were not high. The interest rates charged by SKS in January 2011 were 24.55%, which is a reduced figure from the earlier rates of interest of 26.69%. This rate is not high if we try to compare the interest rates in other parts of the world or with the rates at which alternate financing is available to these borrowers. Moreover, the median interest rates for India were 24.06% (Mixmarket.org, 2013).

The blame that SKS adopted coercive practices for loan recovery by the Andhra Pradesh government and the subsequent promulgation of the ordinance also seem to be far-fetched. On the surface, the Andhra Pradesh government's action is seen as the reason for the fall of SKS; but it can only be seen as a catalyst in the process of the crisis. The analysis presented in this paper, digging deeper into all the aspects relating to the crisis, has shown

that the major reason for the fall of SKS is the over-indebtedness of the borrowers. Over-indebtedness can neither be tracked nor can we have early warning signals for it. SKS was reaching many underserved areas which were followed by other MFIs as well. These areas already had local money lenders. This was a trap for poor borrowers who were exposed to many options. Multiple lenders started targeting the same borrowers. The development of predatory lending between MFIs pushed down loans to their borrowers which were not required by them. Borrowers were not able to keep up with the number of loans and started to fall in the debt trap. The Government's intervention in the operations of the MFIs and support to the borrowers for not repaying the loans was the biggest hurdle. The reason for SKS's fall was not only Government intervention, but also the overall sector growth and lack of smart regulatory watch dogs. There is a natural push for maximizing the profits when we speak about the private investors, so with robust regulations, there can be consistent monitoring, helping the sector to have a more controlled growth.

## Implications and Limitations of the Study

The present paper has presented a case study of SKS microfinance in terms of quantitative analysis of their financials, innovative methods used in their operations, and their non-social mandates. We also discuss the Andhra Pradesh crisis in the field of microfinance. This study would help the regulators and practitioners to get insights into the crises happening in the microfinance sector. This study also throws more light onto the privatization of the microfinance sector, which was started by Compartomos Banco. There are many practices of SKS which can be of help to other microfinance institutions to become sustainable and increase their outreach.

This study is restricted only to the SKS and the Andhra Pradesh crisis, which is an inherent limitation of this paper. This study does not look at any other private microfinance company. The present study will enhance the insights into commercial microfinance and help the regulators and microfinance institutions to plan their strategies for the future.

## Acknowledgment

We would like to express our gratitude to Dr. Madhusoodanan T.P. (Director, Copal Amba, Bangalore) for his guidance and knowledgeable inputs for preparing this paper.

## References

- Airtel, SKS Microfinance tie up to offer package. (2008, July 18). *The Hindu*. Retrieved from <http://www.hindu.com/2008/07/18/stories/2008071853700500.htm>
- Akula, V. (2008). Business basics at the base of the pyramid. *Harvard Business Review*, 86 (3), 53-57.
- Akula, V. (2010) A fistful of rice: My unexpected quest to end poverty through profitability. Boston, MA: Harvard Business Press.
- Allianz takes Indian made micro-cover to the world. (2010, August, 10). *The Economics Times*. Retrieved from [http://articles.economictimes.indiatimes.com/2010-08-10/news/27615554\\_1\\_bajaj-allianz-insurance-product-premium-income](http://articles.economictimes.indiatimes.com/2010-08-10/news/27615554_1_bajaj-allianz-insurance-product-premium-income)
- Ashta, A., Khan, S., & Otto, P. E. (2011). Does microfinance cause or reduce suicides? Policy recommendations for reducing borrower stress. SSRN. DOI: <http://dx.doi.org/10.2139/ssrn.1715442>
- Association of Karnataka Microfinance Institutions (AKMI). (2010). Delinquency crisis in microfinance in Southern Karnataka. Retrieved from <http://indiamicrofinance.com/karnataka-microfinance-report-akmi.html>

- Augsburg, B., De Haas, R., Harmgart, H., & Meghir, C. (2012, September 12). Microfinance at the margin: Experimental evidence from Bosnia and Herzegovina. *SSRN*. DOI: <http://dx.doi.org/10.2139/ssrn.2021005>
- Bastiaensen, J., Marchetti, P., Mendoza, R., & Pérez, F. (2013). After the Nicaraguan non - payment crisis: Alternatives to microfinance narcissism. *Development and Change*, 44 (4), 861-885. DOI: 10.1111/dech.12046
- Bhatnagar, S., Dewan, A., Torres, M. M., & Kanungo, P. (2002). Empowerment case studies: Swayam Krishi Sangam. Retrieved from [http://siteresources.worldbank.org/INTEMPowerment/Resources/14661\\_SKS-web.pdf](http://siteresources.worldbank.org/INTEMPowerment/Resources/14661_SKS-web.pdf)
- Bill to replace MFI ordinance soon. (2010, December 4). *Fullhyd.com*. Retrieved from <http://news.fullhyderabad.com/hyderabad-news/bill-to-replace-mfi-ordinance-in-andhra-pradesh-soon-2752.html>
- Burki, H. B., & Shah, M. (2007). *The dynamics of microfinance expansion in Lahore*. Pakistan Microfinance Network, Islamabad and ShoreBank International Ltd. Islamabad, Pakistan. Retrieved from <http://www.microfinanceconnect.info/assets/articles/dynamics.pdf>
- Chakrabarti, R., & Ravi, S. (2011). At the crossroads: Microfinance in India. *ICRA Bulletin: Money & Finance*, July 2011, 125-148.
- Chanchani, M. A. (2010). Narayana Murthy's Catamaran invests Rs 28Cr in SKS. Retrieved from <http://www.vccircle.com/500/news/narayana-murthys-catamaran-invests-rs-28cr-in-sks>
- Chen, G., Rasmussen, S., Reille, X., & Rozas, D. (2010). Indian microfinance goes public: The SKS initial public offering. Focus Note, 65. Retrieved from <http://www.cgap.org/publications/indian-microfinance-goes-public-sks-initial-public-offering>
- Christensen, C. M., Baumann, H., Ruggles, R., & Sadtler, T. M. (2006). Disruptive innovation for social change. *Harvard Business Review*, 84 (12), 94-101.
- Consultative Group to Assist the Poor (CGAP). (2009). The impact of the financial crisis on microfinance institutions and their clients. Results from CGAP's 2009 opinion survey. Retrieved from <http://www.cgap.org/sites/default/files/CGAP-Brief-The-Impact-of-the-Financial-Crisis-on-Microfinance-Institutions-and-Their-Clients-May-2009.pdf>
- De Franco, M. (2010) Determinantes de la cartera mala en el mercado de las microfinanzas en Nicaragua. Borrador para discusión [Determinants of bad portfolio in the Nicaraguan microfinance market. Draft for discussion]. Managua: ASOMIF.
- Google Finance. (2013). SKS (SKSMICRO). Historical prices [daily, Aug 10, 2010-September 10, 2012]. Retrieved from <https://www.google.com/finance/historical?cid=12125324&startdate=Aug+20%2C+2010&enddate=sep+19%2C+2012&num=30&hl=en&ei=z6opU7GTHsuRkgWA2gE>
- Government of Andhra Pradesh. (2010). An ordinance to protect the women self help groups from exploitation by the micro finance institutions in the state of Andhra Pradesh and for the matters connected therewith or incidental thereto. Retrieved from <http://indiamicrofinance.com/wp-content/uploads/2010/10/Andhra-MFI-Ordinance.pdf>
- Huda, K., Lamhauge, N., & de Montesquiou, A. (2009). *SKS ultra poor pilot mid-term evaluation: Summary findings*. Washington, D.C., CGAP.
- Kappel, V. Krauss, A., & Lontzek, L. (2010). *Over-indebtedness and microfinance: Constructing an early warning index*. In UMM workshop report (p. 6). Retrieved from <http://www.accion.org/Document.Doc?id=899>
- Kumar, V., & Rozas D. (2010). SKS microfinance road to IPO: An inside story. *Microfinance Focus*. Retrieved from <http://www.microfinancefocus.com/news/2010/05/17/exclusive-sks-microfinance-journey-to-ipo-an-inside-story/>



- La Prensa.com. (2010). 67 mil microcréditos menos [67 million microloans less]. Retrieved from <http://www.laprensa.com.ni/2010/12/20/nacionales/46902>
- Lewis, J. C. (2008). Microloan sharks. *Stanford Social Innovation Review*, 6 (3), 54-59.
- Maurer, K., & Pytkowska, J. (2010). *Indebtedness of microcredit clients in Bosnia and Herzegovina, Results from a comprehensive field study*. European Fund for Southeast Europe (EFSE). Retrieved from <http://www.efse.lu/media/pdfs/studies/responsible-finance-studies/summary-overindebtedness-bih.pdf>
- Microfinance Focus. (2010, October 25). Exclusive: 54 microfinance-related suicides in AP, says SERP Report. Retrieved from <http://www.microfinancetransparency.com/evidence/PDF/12.25%20MF%20focus%20article%20suicides.pdf>
- Microfinance Focus. (2011, April 22). 6 microfinance crises that the sector does not want to remember. Retrieved from <http://www.microfinancefocus.com/6-microfinance-crises-that-the-sector-does-not-want-to-remember>
- Microfinance Information Exchange (MiX). (2009). The microbanking bulletin. Spring 2009, Issue 18. Retrieved from <http://www.themix.org/sites/default/files/MBB%2018%20Spring%202009.pdf>
- Mixmarket.org (2013). Profile reports of MFIs [Table]. Retrieved from <http://www.mixmarket.org/profile-reports>
- Mohan, L., & Potnis, D. (2010). Catalytic innovation in microfinance for inclusive growth: Insights from SKS Microfinance. *Journal of Asia-Pacific Business*, 11 (3), 218–239. DOI:10.1080/10599231.2010.500574
- Puhazhendhi, V. (2012). *Microfinance India: State of sector report 2012*. New Delhi, Sage Publications. Retrieved from [http://www.microfinanceindia.org/uploads/news\\_attachments/20130724120608\\_state-of-the-sector-report-2012.pdf](http://www.microfinanceindia.org/uploads/news_attachments/20130724120608_state-of-the-sector-report-2012.pdf)
- Reille, X. (2009). The rise, fall, and recovery of the microfinance sector in Morocco. CGAP. Retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/9486/567250BRI0CGAP1nance1Sector1Morocco.pdf?sequence=1>
- Rhyne, E. (2001). Commercialization and crisis in Bolivian microfinance. Retrieved from [http://www.accion.org/file\\_download.asp?f=2](http://www.accion.org/file_download.asp?f=2)
- Rosenberg, R. (1999). Measuring microcredit delinquency: Ratios can be harmful to your health. Occasional Paper. Retrieved from [http://www.microfinancegateway.org/gm/document-1.9.28868/1915\\_072.pdf](http://www.microfinancegateway.org/gm/document-1.9.28868/1915_072.pdf)
- Sa-Dhan. (2012). *The Bharat microfinance quick report 2012 : Microfinance - growing against all odds*. New Delhi.
- Schicks, J. (2011). *Over-indebtedness of micro borrowers in Ghana: An empirical study from a customer protection perspective*. Centre for European Research in Microfinance, Solvay Brussels School of Economics and Management, Working Paper. Retrieved from [http://www.cermi.eu/documents/CERMi\\_WP\\_-\\_Schicks\\_J.\\_-\\_August\\_2011.pdf](http://www.cermi.eu/documents/CERMi_WP_-_Schicks_J._-_August_2011.pdf)
- Shaffer, B., & Stephens (2012). Charging to teach a man how to fish: Why is that a bad idea? A case for the for-profit microfinance institutes. Retrieved from <http://library.milligan.edu/wp-content/uploads/undergraduate-research/soph-rc-Z012/shaffer-charging-to-teach.pdf>
- SKS Microfinance Limited (SKS). (2010). SKS draft red herring prospectus. Retrieved from <http://www.sebi.gov.in/dp/sksmicrofin.pdf>
- Srinivasan, N. (2009). *Microfinance India: State of sector report 2009*. New Delhi: Sage Publications.
- Srinivasan, N. (2010). *Microfinance India: State of sector report 2010*. New Delhi : Sage Publications.
- Srinivasan, N. (2011). *Microfinance India: State of sector report 2011*. New Delhi: Sage Publications.

- Sriram, M. S. (2010). *Commercialization of microfinance in India: A discussion on the emperor's apparel*. Working Paper W.P. No 2010-03-04. Indian Institute of Management, Ahmedabad.
- Swanson, B. (2007). The role of international capital markets in Microfinance. Paper presented at Columbia University Business School's research symposium, "*Credit Markets for the Poor*" April 20, 2007, New York, United States.
- Thorat, Y.S.P. (2006). Microfinance in India: Sectoral issues and challenges. Report commissioned by the National Bank for Agriculture and Rural Development: Towards a sustainable microfinance outreach in India - Experience and perspectives. Retrieved from [http://www.microfinancegateway.org/gm/document-1.9.../39678\\_file\\_22.pdf](http://www.microfinancegateway.org/gm/document-1.9.../39678_file_22.pdf)
- Vogelgesang, U. (2003). Microfinance in times of crisis: The effects of competition, rising indebtedness, and economic crisis on repayment behaviour. *World Development*, 31(12), 2085-2114. DOI : <http://dx.doi.org/10.1016/j.worlddev.2003.09.004>