The Tipping Point in Micro -Finance Industry

Amit A Rajdev,
Asst. Professor,
V.M. Patel Institute of Management, GanpatUniversity
aar02@ganpatuniversity.ac.in

Rabia Pathan,
Student,
V.M. Patel Institute of Management, Ganpat University.
rabiyapathan25@gmail.com

The transformation of micro-credit into micro-finance has changed the direction of industry. There is a paradigm shift in objective of micro-finance community from reducing inequality and inducing social change to self-sustainability and profitability. This shift divided scholars into two distinct schools of thought – the ‘welfarists’ and the ‘institutionalists’. The commercialization of industry has exposed the risks of this approach. The Indian micro-finance industry, being characterized by commercialization, multiple borrowing and discrepancy in lending practices has witnessed crisis. This paper examines a complete turnaround reflected in portfolio quality of micro-finance institutions at a global level and at the same time explores the factors responsible for crisis in Indian micro-finance industry.

Key words: Commercialization, Portfolio at Risk, Loan loss rate, Write off ratio

INTRODUCTION

Micro-finance is the provision of a broad range of financial services such as deposits, loans, payment services, money transfers and insurance to poor and low income households, and their micro-enterprises. In the development paradigm micro-finance has evolved as a need based policy and program to cater to neglected groups of society especially women, poor, rural, deprived etc. During 70s, the key players in micro-finance were non-profit, socially motivated lenders seeking to reach as many disadvantaged clients with credit as they were able to, given their limited budgets. The focus of these organizations was explicitly on reducing inequality and inducing social change. The early 1990s witnessed a shift in the donor community's overall approach to fighting world poverty. They started thinking about finding alternative sources of financial support for the sector. Making micro-finance institutions financially self-sufficient, through emphasizing self-sustainability and profitability on their part, was the immediate outcome of the donors' changed thinking and approach to the long-term survival of the sector.

LITERATURE REVIEW:

Chen, Ramussen & Reille (2010) observed that micro-finance in Pakistan was hit by wave of borrowers groups refusing to repay their loans in the late 2008 due to which micro-finance institutions faced significant repayment difficulties. Similarly, an article of Centre for Financial Inclusion (2011) found that Nicaraguan micro-finance industry suffered a profound crisis in 2009 and 2010 as a result of both the International downturn and the domestic '*No Pago*' (No Payment) movement. Despite heavy write-offs, members of the Nicaraguan microfinance institution association (known by its Spanish acronym, ASOMIF) have an estimated portfolio at risk of 19 percent. Further, Rhyne (2001) analyzed commercialization and crisis in Bolivian Micro-finance industry and found that consumer lending movement crashed in mid 1999. At the end of 1998, Acceso had 88,000 clients, a portfolio of $93 million, and delinquency of 19 percent (already excessive). By the end of 2000, Acceso had only 8,400 active clients, and a portfolio of $5.4 million. However, the real tipping point observed in Indian micro-finance industry on October 15 2010, when the government of Andhra Pradesh, India's fifth-most-populous state issued an ordinance prohibiting MFIs from collecting weekly repayments and reaching out to borrowers at their doorsteps, apart from making government approval mandatory for every second loan to a borrower. This was followed by a spate of suicides by poor borrowers allegedly owing to coercive recovery practices by MFIs. Soon, micro-finance industry went into trouble. The continued losses highlight the extent of the micro-lender's troubles, which culminated in the resignation of its high-profile founding chairman, Vikram Akula. Sukumar (2011) observed that Andhra Pradesh (AP) today has over 9.2 million defaulters listed on the credit bureaus of this country. All the MFIs have uploaded their credit history to three credit bureaus - Cibil, Equifax and High Mark. It is a harsh reality and is painful that AP has the distinction of highest rural defaulters on the credit history of credit bureaus.

The seeds of crisis were sown earlier in 2000 when Non-for Profit organization started converting into for-profit micro-finance institutions. The industry at that time was characterized by rapid growth, absence of regulatory body and entry of venture capitalists and private equity players. Raja, John Samuel and Rajshekhar (2011) observed that between 2006-07 and 2009-10, revenues of Share Micro-finance increased from Rs 62.9 crore to Rs 475.3 crore - a compounded annual growth rate (CAGR) of 96%. Net profit increased from Rs 1 crore to 108.7 crores at CAGR of 372%.

Micro-finance gradually became good business opportunity for venture capitalists and investment firms with a noble cause of “Serving poor”. Micro-finance pioneer, Prof. Muhammad Yunus warned earlier when SKS micro-finance went public saying, “"When you are making profits you are moving into the mentality of the loan shark (Tom Burgis, 2008)." Earlier donor funded micro-finance institutions started running behind poor to satisfy higher ROI targets thrown by venture capitalists. On the other side, as observed by Marr Ana & Tubaro Paola (2011), ‘Priority Sectors Lending’ (PSL) rules oblige banks, both public and private to direct 40% of their net credit (32% in the case of foreign banks) to agriculture and weaker sectors, including small businesses and deprived segments of society. Many banks find it cheaper and easier to meet these requirements indirectly, through loans to MFIs and leave to them the task of ‘covering the last mile’ to reach out to rural or poorer communities. Hence, a large and growing amount of wholesale loans have flowed from banks to MFIs, with an increase of about 200% over the years, has been considered an important factor for crisis too. Thus, large amounts of funds channelized in micro-finance industry generating a significant supply “push” behind the growth story.

Chen, Ramussen & Reille (2010) found that due to intense competition and oversupply of funds, micro-finance market transformed from a sellers' to buyers' market and generated two new market dynamics that altered basic market behaviour.

- Borrowers are less dependent on a single MFI.
- Borrowers can borrow larger amounts than before.

These dynamics resulted in erosion of MFI lending discipline and multiple lending. Most of the MFIs started giving loans to poor clients without assessing their capacity to repay. Ultimately poor beneficiaries started taking loan to repay old loans. The average household in the state had a minimum of three to four loans and penetration of micro-finance loans among poor households was found at 823% (Rajshekhar, M. 2010).

Multiple borrowing by micro-finance beneficiaries created pressure and resulted into failure in repayment and suicide. Thus, excessive rapid growth of the sector, lack of sufficient monitoring of clients and exorbitant interest rates have been often blamed for triggering clients' over-indebtedness, inability to repay and suicide (Marr Ana & Tubaro Paola 2011).

RESEARCH OBJECTIVES

The present research work is carried out with the following research objectives:

- To identify the factors responsible for crisis in Micro-finance industry in India.
- To analyze the trend of Micro-finance Industry by focusing on portfolio quality of different micro-finance institutions at global level.
- To compare the trends in performance of Non-Banking Financing Institutions (NBFIs) and Non-for Profit Institutions (NGOs) on the basis of portfolio quality.

METHODOLOGY

The present research work being descriptive cum exploratory in nature is divided into two parts; first being primary include a survey that helps to find out factors responsible for crisis while second part is trend analysis of Micro-finance industry. For primary research work, data were collected with the help of questionnaires considering three different categories of respondents that includes academicians, banking personal and employees of different micro-finance institutions belonging to Mehsana city. Non- Probability Convenience sampling method was selected and accordingly respondents were identified on the basis of their awareness about Micro-finance Industry. The sample size comprises of 110 respondents. Exploratory factor analysis was conducted to identify factors responsible for crisis. Moreover, to analyze trends in micro-finance industry data were collected for six fiscal years i.e. from 2006 to 2011. For trend analysis of portfolio quality, 577 micro-finance institutions were selected from 77 countries which again divided into Non-Banking Financial Institutions (278) and Non-for Profit organizations (299). Further, on the basis of size (total amount of assets), NBFIs and NGOs were sub-divided into three categories i.e. large NBFI(129) and NGOs (67), medium NBFIs (68) and NGOs (71) and small NBFIs (81) and NGOs (161). Each Micro-finance institution has data for a minimum of 4 years to a maximum of 6 years with majority of having 6 years data.

DATA ANALYSIS

The data analysis is divided into three parts:

5.1 Descriptive statistics

5.2 Factor analysis

5.3 Trend Analysis

DESCRIPTIVE STATISTICS

Table No. 5.1 indicates that 47 percent respondents believe that micro-finance has lost its identity. Almost 66 percent of the respondents believe that profit pose threat to industry and 74 per cent believe that RBI should cap the interest rates charged by micro-finance institutions. The 65 percent of respondents believe that mutual cooperative institution as the best delivery model of microfinance followed by non-for profit (30 percent) institutions. Thus, it can be said that profitability and commercialization of industry do not provide feasible solution for poverty alleviation.

Table No. 5.1 Descriptive Statistics

1.	**Micro-finance - losing its identity**				
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Yes	52	47.3	47.3	47.3
	No	58	52.7	52.7	100
	Total	110	100	100	
2.	**Profit Motivation - Threat to Industry**				
Valid	YES	72	65.5	65.5	65.5
	NO	38	34.5	34.5	100
	Total	110	100	100	
3.	**RBI - cap the Interest rates**				
Valid	YES	81	73.6	73.6	73.6
	NO	29	26.4	26.4	100
	Total	110	100	100	
4.	**Best Delivery Model for Micro-finance**				
Valid	Non profit Microfinance	33	30	30	30
	Mutual benefit microfinance	65	59.1	59.1	89.1
	For Profit Microfinance	12	10.9	10.9	100
	Total	110	100	100	

FACTOR ANALYSIS

Factors responsible for crisis in micro-finance industry were identified using exploratory factor analysis in SPSS software 16.0. Factor analysis was run using the Principal Component Analysis approach with varimax rotation. The result of Bartlett's test of sphericity (0.00) and KMO (0.670) indicates that the data are appropriate for factor analysis. Moreover, the result of Cronbach's alpha (0.682) justified the reliability of data.

In this study, factor analysis was carried out in two stages. In stage one; known as the factor extraction process, objective was to identify how many factors to be extracted from the data. Using principal component analysis, twelve items were extracted by five factors. Only the factors having latent roots or eigen value greater than one were considered significant; all factors having eigen value less than one were considered insignificant and discarded. The total variance explained by five factors accounted for 65.21 percent of total variance. In the second stage, all factors were interpreted and labeled.

Table No. 5.2 summarizes the five factors extracted using varimax rotation method. Factor 1, labeled, 'Commercialization & Unethical Practices' consists of statements related to commercialization of micro-finance industry and unethical business practices like charging usurious interests, forced loan recovery and multiple lending by micro-finance institutions. It accounts for 22.163 per cent of the total variance explained. Factor 2, 'Profit Motives' consists of two statements viz. change in mission of micro-finance institutions from alleviating poverty to chasing profit and volumes and acquiring funds from venture capitalists and private equity firms. It accounts for 11.54 per cent of the total variance explained. Factor 3, labeled as 'Soft regulation and lending practices' includes weak regulatory policy and failure in following sound lending practices by micro-finance institutions. It accounts for 11.44 per cent of total variance explained. Factor 4, labeled as 'Excessive Growth and Priority Norms' consists excessive growth in micro-finance industry and norms of priority sector lending resulting in huge supply of funds. It accounts for 10.51 per cent of total variance explained.

Table No. 5.2: Exploratory Factor Analysis

Sr. No	Factor	Factor Loading	Communalities	% of Variance Explained
1	**Commercialization & Unethical Practices**			**22.163**
1.1	Forced loan recovery by micro-finance institutions promoted crisis.	0.786	0.686	
1.2	Conversion of Non-profit organization into profit motivated institution resulted into crisis.	0.745	0.594	
1.3	Charging usurious interest rates from poor clients has fueled crisis.	0.672	0.530	
1.4	Multiple-lending by MFIs is responsible for crisis in Micro-finance industry.	0.671	0.537	
1.5	For-profit MFIs are not to be trusted for development agenda like financial inclusion.	0.504	0.432	
2	**Profit Motives**			**11.535**
2.1	Change in mission of MFIs from alleviating poverty to chasing profit and volumes caused crisis.	0.768	0.714	
2.2	Replacement of donor funds by venture capitalists and private investments fueled crisis.	0.746	0.668	
3	**Soft regulation and lending practices**			**11.436**
3.1	Weak regulatory policy is the root cause of crisis in micro-finance industry.	0.844	0.758	
3.2	Failure in following sound lending practices resulted in crisis like situation.	0.627	0.635	
4	**Excess growth and Priority Norms**			**10.512**
4.1	Rapid growth in micro-finance industry affected it adversely.	0.820	0.740	
4.2	Norms for Priority sector lending for banks has promoted crisis.	0.685	0.709	
5	**Andhrapradesh Ordinance**			**9.566**
5.1	The harsh regulatory ordinance by Andhra Pradesh government fueled crisis in India.	0.898	0.822	

Factor 5, 'Andhra Pradesh Ordinance' include only one statement related harsh regulatory ordinance of Andhra Pradesh government that prohibited growth of micro-finance institutions. It accounts for 9.57 per cent of total variance explained.

TREND ANALYSIS

PAR-30 & PAR-90

The Portfolio at Risk ratio measures the potential for future losses based on the current performance of the portfolio.

Table No. 5.3: Descriptive Statistics of Large NBFIs & NGOs

All Large NBFIs					All Large NGOs		
		N	**Mean**	**Std. Deviation**	**N**	**Mean**	**Std. Deviation**
Portfolio at Risk - 30 days	2006	85	4.187059	4.151950438	46	2.959565	5.450019
	2007	110	3.487909	4.159526723	59	3.834068	5.13966
	2008	122	4.56	6.050945558	64	4.088906	4.874238
	2009	124	6.888548	7.645778759	66	6.627424	12.01938
	2010	115	8.838957	11.62580142	66	7.400606	15.03884
	2011	94	8.313085	14.22760296	37	5.842162	12.71703
	Total	650	6.073815	8.945897144	338	5.225	10.21545
Write-off ratio	2006	82	0.940488	1.434206368	44	0.832727	1.285704
	2007	110	1.202364	2.19996077	57	0.782982	1.499649
	2008	121	1.520992	2.82497947	63	1.243651	1.766449
	2009	123	2.297886	3.619354904	65	2.36	3.378968
	2010	117	3.23359	4.985053429	64	2.514219	3.493315
	2011	97	3.729897	7.401517088	39	2.245128	2.613167
	Total	650	2.178754	4.307167834	332	1.691235	2.650854
Loan loss rate	2006	84	0.740595	1.334341001	47	0.679787	1.216627
	2007	112	0.974554	2.197341509	60	0.621833	1.522737
	2008	122	1.354918	2.917167268	66	1.055455	1.702404

	2009	126	2.07381	3.555850358	67	2.113582	3.262524
	2010	118	3.007034	4.826686554	64	2.166406	3.273399
	2011	98	3.314184	7.103935445	40	1.8105	2.557603
	Total	660	1.935727	4.178038171	344	1.42907	2.516797
Portfolio at Risk - 90 days	2006	82	2.89378	3.475933356	44	2.074773	3.644111
	2007	107	2.211682	3.027108492	62	2.639194	3.610231
	2008	122	2.948525	4.385552854	64	2.852344	3.69928
	2009	124	4.672339	5.515605814	66	5.351212	11.73624
	2010	115	6.104783	8.963931757	66	6.227424	14.74685
	2011	94	6.77766	13.86582055	37	5.018649	12.46099
	Total	644	4.273571	7.573328577	339	4.092478	9.692365

It measures more than the amount collected compared to the amount due, but the risk that the entire amount outstanding on a late loan will not be repaid.

Table No. 5.4: Descriptive Statistics of Medium NBFIs & NGOs

All Medium NBFIs					**All Medium NGOs**		
		N	**Mean**	**Std. Deviation**	**N**	**Mean**	**Std. Deviation**
Portfolio at Risk - 30 days	2006	35	4.414571	3.26519826	37	7.086216	13.169722
	2007	53	4.875283	4.97354293	57	5.565088	7.8954155
	2008	63	6.787302	6.29147431	63	6.91	10.231835
	2009	62	9.179516	7.87428777	67	8.309552	9.789214
	2010	50	9.9204	14.1326407	64	9.072188	14.195738
	2011	31	8.394194	6.48190084	37	10.52622	16.900407
	Total	294	7.366905	8.29288187	325	7.820185	11.951258
Write-off ratio	2006	33	1.753636	2.24547436	35	0.967714	1.5343788
	2007	52	1.498654	2.81055506	57	2.526316	4.7936251

	2008	62	3.252419	5.45010594	62	2.110806	3.1757479
	2009	61	3.72541	5.34952695	66	2.912727	4.7115872
	2010	50	4.0532	4.42914164	65	3.450923	5.2484527
	2011	33	3.484848	4.94853458	37	3.243243	4.8943403
	Total	291	3.032165	4.58839711	322	2.625124	4.4045281
Loan loss rate	2006	33	1.44303	1.9724675	35	0.840857	1.5144507
	2007	52	0.969808	3.19475151	59	2.319831	4.7614944
	2008	63	2.887778	5.24090255	62	1.908387	3.1392216
	2009	63	3.27254	5.00354809	67	2.624328	4.6760175
	2010	52	3.543269	4.21333677	65	2.777385	5.3542087
	2011	33	2.920303	4.93117664	37	2.431351	4.7461968
	Total	296	2.590439	4.45291017	325	2.249046	4.370412
Portfolio at Risk - 90 days	2006	33	2.297879	2.08219349	32	4.896563	12.091246
	2007	52	2.638846	3.09161589	54	3.539444	5.4374246
	2008	63	4.23127	4.69042968	63	5.066032	8.8271823
	2009	62	6.007097	6.20505515	67	5.760896	8.4358676
	2010	50	7.523	13.1590958	64	7.17625	13.633516
	2011	30	5.322	4.39454945	37	8.677027	16.652917
	Total	290	4.785759	7.03989877	317	5.783249	10.978101

The average PAR-30 as well as PAR-90 of all large categories of NBFIs and NGOs has continuously increased over six years period of time except last year which might be due to less number of micro-finance institutions reporting to mix-market.

Table No. 5.5: Descriptive Statistics of Small NBFIs & NGOs

All Small NBFIs					All Small NGOs		
		N	**Mean**	**Std. Deviation**	**N**	**Mean**	**Std. Deviation**
Portfolio at Risk - 30 days	2006	53	4.905094	7.891417593	101	8.31703	13.528959
	2007	56	4.216607	6.420830951	120	5.377583	7.41353724
	2008	59	7.366271	12.0334545	131	7.903664	10.7943695
	2009	64	9.813906	14.82181561	134	7.203731	8.86139992
	2010	58	4.95931	5.97702263	117	8.076667	13.9153061
	2011	20	5.3105	4.235037407	73	9.856164	16.2420751
	Total	310	6.298871	10.08845437	676	7.619053	11.7357382
Write-off ratio	2006	45	1.102222	2.2197296	84	1.965595	3.41538417
	2007	51	1.781176	3.703717941	113	2.272301	7.35709691
	2008	59	2.169661	4.784394159	120	2.445333	5.41089998
	2009	65	4.563231	16.09022754	134	3.133881	7.14605616
	2010	58	3.45069	9.604059972	128	1.698281	2.70924114
	2011	20	2.6075	3.537459503	73	2.928219	5.15674702
	Total	298	2.742785	9.124548785	652	2.402454	5.58780731
Loan loss rate	2006	46	0.993043	2.14640254	88	1.626023	3.32810309
	2007	57	1.235965	4.415820527	115	1.834957	7.25158221
	2008	64	1.523438	4.172013415	126	1.974683	5.40764299
	2009	71	3.557183	13.35497373	146	2.525479	6.53284973
	2010	57	2.728596	8.603427564	137	0.896861	6.29844714
	2011	21	1.99381	3.708612242	81	0.380617	16.5834638
	Total	316	2.099968	7.88701398	693	1.623867	8.0222807
Portfolio at Risk - 90 days	2006	27	3.506296	7.363626379	77	5.526623	10.1821153
	2007	38	2.994211	5.098479175	109	3.671835	6.44274487

	2008	55	4.969636	9.972723534	131	5.627481	9.5973071
	2009	63	6.997302	12.0707963	134	4.826716	7.22740407
	2010	58	2.753103	2.855754552	117	6.276068	12.5642448
	2011	20	2.677	2.359750433	73	6.520822	10.6349707
	Total	261	4.351839	8.344060881	641	5.335538	9.54391906

The same trend is found in case of other categories of micro-finance institutions except small NBFIs. (See Table No. 5.4 & 5.5). Therefore, it can be said that micro-finance institutions are facing the higher risk in terms of non-collection of loans distributed to their clients at global level.

Table No. 5.6: One Way ANOVA – Large NBFIs

		Sum of Squares	df	Mean Square	F	Sig.
PAR-30	Between Groups	2750.675	5	550.135	7.203	.000
	Within Groups	49188.195	644	76.379		
	Total	51938.870	649			
Write-off ratio	Between Groups	648.264	5	129.653	7.330	.000
	Within Groups	11391.786	644	17.689		
	Total	12040.050	649			
Loan loss rate	Between Groups	588.652	5	117.730	7.054	.000
	Within Groups	10914.854	654	16.689		
	Total	11503.506	659			
PAR-90	Between Groups	1819.988	5	363.998	6.624	.000
	Within Groups	35059.474	638	54.952		
	Total	36879.462	643			

The test results of one way ANOVA indicates significant differences exist in PAR-30 and PAR-90 of Large NBFIs (Table No. 5.6) as well as medium NBFIs (Table No.5.7). However, in case of small categories of NBFIs the significant differences are not found in PAR-90 (Table No. 5.8). In case of all categories of NGOs, significant differences are not found in PAR-30 as well as PAR-90 during the study period (Table No. 5.9, 5.10 & 5.11).

Table No. 5.7: One Way ANOVA – Medium NBFIs

		Sum of Squares	df	Mean Square	F	Sig.
PAR-30	Between Groups	1217.704	5	243.541	3.705	.003
	Within Groups	18932.460	288	65.738		
	Total	20150.164	293			
Write-off ratio	Between Groups	267.441	5	53.488	2.611	.025
	Within Groups	5838.042	285	20.484		
	Total	6105.483	290			
Loan loss rate	Between Groups	265.703	5	53.141	2.760	.019
	Within Groups	5583.677	290	19.254		
	Total	5849.381	295			
PAR-90	Between Groups	939.039	5	187.808	3.985	.002
	Within Groups	13383.851	284	47.126		
	Total	14322.890	289			

Write off Ratio & Loan loss Rate

The write off ratio and loan loss rate indicate percentage of amount written off during the year.

Table No. 5.8: One Way ANOVA – Small NBFIs

		Sum of Squares	Df	Mean Square	F	Sig.
PAR-30	Between Groups	1327.350	5	265.470	2.679	.022
	Within Groups	30121.716	304	99.085		
	Total	31449.066	309			
Write-off ratio	Between Groups	432.497	5	86.499	1.040	.394
	Within Groups	24294.948	292	83.202		
	Total	24727.445	297			
Loan loss rate	Between Groups	293.715	5	58.743	.943	.453
	Within Groups	19300.857	310	62.261		
	Total	19594.572	315			

PAR-90	Between Groups	755.586	5	151.117	2.221	.053
	Within Groups	17346.485	255	68.025		
	Total	18102.072	260			

However, the later is calculated after considering the values of loans recovered. The trend in write off and loan loss rate of all categories of NBFIs and NGOs is found to be positive and increasing except small categories of NGOs and NBFIs.

Table No. 5.9: One Way ANOVA – Large NGOs

		Sum of Squares	Df	Mean Square	F	Sig.
Portfolio at risk > 30 days	Between Groups	889.130	5	177.826	1.722	.129
	Within Groups	34278.628	332	103.249		
	Total	35167.757	337			
Write-off ratio	Between Groups	176.455	5	35.291	5.352	.000
	Within Groups	2149.491	326	6.594		
	Total	2325.945	331			
Loan loss rate	Between Groups	146.705	5	29.341	4.895	.000
	Within Groups	2025.949	338	5.994		
	Total	2172.654	343			
Portfolio at risk > 90 days	Between Groups	845.641	5	169.128	1.822	.108
	Within Groups	30906.734	333	92.813		
	Total	31752.375	338			

The average write off ratio, in case of all categories of NBFIs, falls in the range of 2.17% to 3.03% which is comparatively higher than the range of 1.69% and 2.63% of all categories of NGOs.

Table No. 5.10: One Way ANOVA – Medium NGOs

		Sum of Squares	df	Mean Square	F	Sig.
Portfolio at risk >	Between Groups	749.297	5	149.859	1.050	.388
30 days	Within Groups	45528.455	319	142.722		
	Total	46277.752	324			
Write-off ratio	Between Groups	177.024	5	35.405	1.849	.103
	Within Groups	6050.333	316	19.147		
	Total	6227.357	321			
Loan loss rate	Between Groups	105.705	5	21.141	1.109	.356
	Within Groups	6082.857	319	19.069		
	Total	6188.562	324			
Portfolio at risk >	Between Groups	763.496	5	152.699	1.272	.276
90 days	Within Groups	37320.414	311	120.001		
	Total	38083.910	316			

The same trend is observed in Loan loss rate which is the indicator of net amount written off during the year. Large NBFIs have started writing off 3% of their total loan portfolio as bad debts during last couple of years (Table No. 5.2). In case of Medium and Small NBFIs this proportion is near to 2% of loan portfolio (Table No. 5.3 & 5.4).

Table No. 5.11: One Way ANOVA – Small NGOs

		Sum of Squares	df	Mean Square	F	Sig.
Portfolio at risk >	Between Groups	1075.674	5	215.135	1.569	.167
30 days	Within Groups	91890.423	670	137.150		
	Total	92966.097	675			
Write-off ratio	Between Groups	173.503	5	34.701	1.112	.352
	Within Groups	20153.054	646	31.197		
	Total	20326.557	651			
Loan loss rate	Between Groups	336.925	5	67.385	1.047	.389

	Within Groups	44198.111	687	64.335		
	Total	44535.035	692			
Portfolio at risk > 90 days	Between Groups	556.427	5	111.285	1.224	.296
	Within Groups	57738.864	635	90.927		
	Total	58295.290	640			

The test results of one way ANOVA indicate significant differences exist in write off ratio and loan loss rate in both large categories NBFIs and NGOs (Table No. 5.5 & 5.8). However, we do not find any significant differences in write off ratio and loan loss rate of medium and small categories of NBFIs and NGOs (Table No. 5.6, 5.7, 5.9 & 5.10). Therefore, the large micro-finance institutions, both NBFIs and NGOs, have higher amount of bad debts over a period of time compared to medium and small size institutions.

CONCLUSION

The 30,000 crore micro-finance industry in India is facing crisis due to unethical practices and commercialized objectives of micro-finance institutions. Other factors that attributed to crisis include profit motives, soft regulation, excessive growth and priority norms and Andhrapradesh Governments' ordinance.

The trend analysis of portfolio quality of micro-finance institutions suggests deteriorating repayment rates and increasing the level of bad debts at international level. Medium and Large size NBFIs are having significant differences in their portfolio at risk compared all categories of NGOs. On other side, large NBFIs suffer from high loan loss rates compared to large NGOs. Thus, NBFIs that targets profitability and sustainability are facing higher risk and bad debts than non for profit organizations. However, medium and small NGOs do suffer from high loan loss rates than medium and small NBFIs. It is because NGOs are expected to provide small loans to marginal and extreme poor class while NBFIs targeting large amount of loans to not so poor people.

REFERENCES

An Intellecap White Paper (2010), Indian Micro-finance crisis of 2010: Turf War or a Battle of intentions, retrieved from www.intellecap.com

Andhra Pradesh Crisis is now hurting MFI's national interest, *The Economic Times*, retrieved from http://search.proquest.com/docview/867265150/fulltext/13681B149EA10A8416C/95?accountid=27540

Burgis Tom (2008, July 29), Microfinance pioneer warns against its commercialization, *Financial Times*, retrieved from http://search.proquest.com/docview/250108161/fulltext/13681B149EA10A8416C/49?accountid=27540

Chen, Greg, Stephen Rasmussen and Xavier Reille (2010). Growth and Vulnerabilities in Microfinance. Focus Note 61. Washington, D.C.: CGAP.

Marcus Taylor (2011), Freedom from poverty is not free: Rural development and the Micro-finance crisis in Andhra Pradesh, India, *Journal of Agrarian Change*, Vol. 11 No. 4, pg.484-504.

Marr Ana & Tubaro Paola (2011). Crisis in Indian Microfinance and a way forward: Governance Reforms and the Tamil-nadu Model, *Journal of International Development*, J. Int. Dev. 23, 996-1003.

Nicaragua's Micro-finance crisis: Looking back, what did we learn? *The Centre for Financial Inclusion*, retrieved September, 27 from http://cfi-blog.org/2011/01/24/nicaraguas-microfinance-crisis-looking-back-what-did-we-learn/

Raja D, John Samuel and Rajshekhar, M. (2011), Top 3 microfinance companies used poor as puppets, *The Economic Times*, retrieved from http://search.proquest.com/docview/862436469/fulltext/13681B149EA10A8416C/66?accountid=27540

Rajshekhar, M, (2010), Micro-finance what's wrong with it, *The Economic Times*, retrieved from http://search.proquest.com/docview/851942567/fulltext/13681B149EA10A8416C/60?accountid=27540

Rhyne Elisabeth (2001), Mainstreaming Microfinance: How lending to poor began, Grew and Came of Age in Bolivia, Connecticut: Kumarian Press: 2001.

Sukumar C R (2011, December 29), 10 million poor rural borrowers in AP may soon be labelled defaulters, *The Economic Times*, retrieved from http://search.proquest.com/docview/912856729/fulltext/13681B149EA10A8416C/79?accountid=27540.