Measurement and Determinants of Financial Awareness of Microfinance Clients

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ABSTRACT

The promotion of financial education for poor people in developing countries calls for work on several fronts; one of which is to develop a measure to evaluate the outcome of financial education in relation to broader development goals. This paper uses Microfinance Clients' Awareness Index (MCAI) to determine the level of financial awareness of microfinance clients. This index is a comprehensive measure that incorporates information on several aspects of financial awareness in one single number lying between 1 and 2, where 1 denotes complete ignorance and 2 indicates complete financial awareness of the microfinance product. Also, the factors that were associated with some degree of significance to MCAI were attempted to be identified Among different socio-economic variables, age group and highest education found to be t associated with the MCAI scores.

Keywords : *Microfinance, Financial Awareness, Financial Literacy, MFIs*

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INTRODUCTION

Microfinance has emerged as an important sector in many countries for providing financial services such as savings, credit and insurance to the poor. In India, a range of institutions in the public sector as well as the private sector, offers microfinance services. These can be broadly placed into two categories namely, formal institutions and semi-formal institutions. The former category comprises of apex development financial institutions, commercial banks, regional rural banks and cooperative banks that provide microfinance services in addition to their general banking activities and on the other hand, semi-formal institutions that provide microfinance services exclusively are referred to as microfinance institutions (MFIs). While both private and public ownership are found in the case of formal financial institutions offering microfinance services, the MFIs are mainly in the private sector.

The voluntary code of conduct developed by MFIN and Sa-Dhan[1] recommends that MFIs be fully transparent in the communication of loan details, interest rates and the calculation thereof, and lays special emphasis on client protection and good governance.

Further, regarding Financial Education of clients, Code of Conduct specifies that

1. MFIs must have a dedicated process to raise clients' awareness of the options, choices and responsibilities vis-à-vis financial products and services available.

2. New clients must be informed about the organization's policies and procedures to help them understand their rights as borrowers.

3. MFIs must ensure regular checks on client awareness and understanding of the key terms and conditions of the products/services offered/availed. (As part of internal audit systems or through some other regular monitoring)

This calls for perspicacious evaluation of policies formulated by MFIs regarding client education with respect to its utility for its clients and close examination of practices of MFIs so as to assess its level of compliance with the concerned policies.

LITERATURE REVIEW AND RESEARCH OBJECTIVES

The term 'financial literacy' can encompass concepts ranging from financial awareness and knowledge, including of financial products, institutions, and concepts; financial skills, such as the ability to calculate compound interest payments; and financial capability more generally, in terms of money management and financial planning. In practice, however, these notions frequently overlap.

Definitions for this term vary by source and context. Most originate in developed countries where financial literacy has received far more attention than in the developing world. However, the common foundation is the importance of having the skills and knowledge to make informed financial decisions (Cohen and Nelson, 2011). Hung et al. (2009) defines Financial literacy as "the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being." The Canadian Foundation for Advancement of Investor Rights (FAIR) defines (2009) financial literacy as "having the knowledge, skills and confidence to successfully carry out the financial transactions encountered in everyday life". Indian School of Microfinance for Women (ISMW, 2011) defines Financial Literacy as "Awareness, knowledge and skills to make decisions about savings, investments, borrowings and expenditure in an informed manner." Tustin (2010) defines "Financial literacy is the ability to understand financial terms and concepts and to translate that knowledge and skill fully into behavior." According to Task force on Financial Literacy –Canada (2011) "Financial literacy means having the knowledge, skills and confidence to make responsible financial decisions."

Reserve Bank of India (2008) has defined it as "capacity to have familiarity with and understanding of financial market products, especially rewards and risks, in order to make informed choices. Viewed from this stand point, financial education primarily relates to personal finance to enable individuals to take effective action to improve overall well being and avoid distress in matter that are financial" (RBI Report, 2008).

Organization for Economic Co-operation and Development (OECD) has defined financial education as "the process by which financial consumers/investors improve their understanding of financial products, concepts and risks, and through information, instructions and/or objective advise, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well being (OECD, 2005).

Thus it can be said that financial literacy is the ability to know, monitor and effectively use financial resources to enhance the well being and economic security of oneself, one's family and business, and also for improving the understanding of the financial service providers.

One of the big obstacles in designing research which evaluates financial literacy programmes is determining how to measure success. Most of these programmes aim to improve the overall ability of participants to make financial decisions that will positively impact their economic well-being. For the programmes which have specific outcomes, success can be defined by metrics such as lower rates of default on loans or changes in confidence levels on financial matters.

Gray et al.(2009) listed various indicators of financial well-being used in different research studies such as reduction in financial stress, reduced amount of time spent managing financial matters, motivation to plan ahead and set a financial goal, independent financial decision, reduced debt, reduced debt-service ratio, increased savings, successful financial or business negotiation, greater satisfaction with bank products or services etc.

While many organizations have provided documentary evidence suggesting that financial literacy education is effective, there is surprisingly little rigorous, academic evidence. Indeed, we are aware of no completed study in emerging markets testing the value of financial literacy. Clients unable to correctly evaluate loan offers will also not understand how much is to be gained by choosing the optimal loan. However, in India, many recent discussions within microfinance policy and regulatory circles have centred on the extent to which small borrowers understand their loans and the financial liability implicated therein (Tiwari et. al., 2008).

Although arguably MFIs had been providing continuous group training (CGT)[2] to their clients for years—to help clients understand how to calculate interest owed, repayments, or basic terms of their loans or savings products—there had been no systematic efforts or curricula based on a behaviour-change approach to promoting financial literacy for microfinance clients.

Besides, while the importance of financial education has been widely recognized, the literature on financial education lacks a comprehensive measure that can be used to measure the extent of financial awareness of microfinance clients.

Against this backdrop, the objective of this study is to develop a comprehensive indicator for measuring the extent and dimensions of financial awareness of the microfinance clients and examining socio economic factors affecting the level of financial awareness level. In order to fulfill the above objective empirically, an indicator, being named as Microfinance Client Awareness Index (MCAI) is developed. It takes value between one and two, 1 indicating complete ignorance of the product and 2 indicating complete financial awareness.

Further, this index is used to fulfill the following objectives:

- To measure dimensions and the overall financial awareness level of MFI clients.
- To examine the socio economic factors affecting the level of financial awareness of MFI clients.

The factors that are associated with some degree of significance to the level of financial awareness are attempted to be identified. For this purpose, following hypotheses are formulated.

- H_1: Age has significant impact on the financial awareness level of microfinance clients.
- H_2: The level of education has significant impact on the financial awareness level of microfinance clients.
- H_3: The annual household income has significant impact on the financial awareness level of microfinance clients.

RESEARCH METHODOLOGY

This study is conducted in the rural area of Varanasi district of Uttar Pradesh, India on account of the fact that most of the microfinance activities in India currently take place in rural area. The MFI clients' population in the Varanasi district is considered as universe for the proposed study.

Further the scope if this study is limited only to microfinance institutions that follow Grameen Group Model and are working in the private sector for offering services to its clients in the rural area of Varanasi district.

The data for the present study is collected in respect of four MFIs operating in Varanasi district. There were eight MFIs namely, working in the research area at the time of survey. Out of them four were NBFCs i.e. SKS Microfinance Ltd., Share Microfin Ltd., Utkarsh Microfinance Pvt. Ltd. and Bandhan Financial Services Pvt. Ltd. and four were working as Section 25 company namely Cashpor Microcredit, Nirmaan Bharti, Kashi Microcredit and Bhartiya Microcredit. Four out of eight private sector MFIs working in the research area are selected for this study on the basis of selecting top two MFIs belong to each category i.e. Section 25 Company(Non-Profit) and NBFCs (for-profit).

The sampling frame is chosen as clients having outstanding loan from MFI/MFIs in the rural area. The estimated number of total MFI clients in the selected villages were 6384 at the time of data collection. Four out of eight development blocks and fifteen villages per block were randomly selected and finally MFI clients were selected as described below. The sample size of MFI clients is determined by using the following formula:

$$n = N/(1+Ne^2)$$

In selecting client households, it was not possible to randomly select seven households from each village, because list of all the MFIs' clients in selected villages was not available. However, in order to ensure that the sample did not suffer from selection bias and enjoyed a level of randomization, the survey was conducted in a minimum of four hamlets per village. Additionally, no two respondents lived next door to each other; in other words, every other house was skipped. Besides, only those clients were surveyed who belong to at least one of the four MFIs selected for the study. After preliminary examination, 320 out of 420 were found completed and valid that constituted 76.2% response rate for the study. The data from MFI clients is collected through pre-tested, well structured questionnaire on the demographic profile, borrowing details and understanding of the different aspects of the loan they borrowed.

Qualitative information is collected through semi-structured interviews of the MFI officials (16 Field Officers, 12 Branch Managers and 12 other officials related to the area of Human Resource, Finance and Internal Audit departments of selected MFIs) operating in the area to analyze the policies and practices adopted by MFIs with respect to client education to understand the kind of training they provide to their clients.

To construct the composite indicator, 'MCAI', the sequence of the steps followed is based on the OECD-JRC handbook on constructing composite indicators (OECD-JRC,2008). The steps taken are developing a theoretical framework based on the literature review; selecting data on the basis of analytical soundness, measurability, relevance to the phenomenon being measured and relationship to each other; and conducting *univariate* and *multivariate analysis*.

The various statistical tools that were used in the study are: percentage analysis, mean, standard deviation, correlation analysis, principal component analysis, t-test and one way ANOVA. Weights based on principal components analysis are used in the present study.

For determining the influence of socio economic factors on the financial awareness level of MFI clients , t-test and one way ANOVA tests are used. The t-test is a parametric test that compares the means of two paired groups. If the P value of the test is smaller than a threshold (usually 0.05), one can reject the idea that the difference in the two samples is a coincidence, and conclude instead that the populations have different means. To confirm the results concluded by t-test regarding comparison of MFIs, one-way ANOVA is conducted. Analysis of variance is a procedure used for comparing mean values of different samples to see if there is sufficient evidence to infer that the mean of the corresponding population distributions also differ significantly.

MICROFINANCE CLIENTS' AWARENESS INDEX

The Microfinance Clients Awareness Index (MCAI) is a composite measure constructed from a set of 320 individual data of microfinance clients who belong to four different MFIs operating in the rural areas of Varanasi. A total of 13 indicators were analyzed and grouped into 2 main dimensions of financial awareness: (1) Knowledge of Loan Basics and Insurance Basics and (2) Basic Computing Skill and Financial Skill of microfinance clients.

The index has a pyramid structure: the Index is the weighted average of two pillars (***Awareness*** and ***Client Skills***). Each pillar is the weighted average of a variable number of sub-pillars and finally each sub-pillar is made by various indicators constructed from the survey questions.

The first pillar measuring ***Awareness*** uses 8 questions divided into 2 sub-pillars: *Loan Basics* (5 indicators) and *Insurance Basics* (3 indicators). This pillar aims at measuring the basic knowledge deemed necessary for microfinance clients to make informed borrowing decisions. It includes conceptual understanding of the joint liability[3] and insurance and the capacity to identify the interest rate of loan they borrow.

The pillar ***Client Skills*** gathers together 5 indicators grouped in 3 sub-pillars: *Basic Computing Skill* (2 indicators) that reflects their ability to calculate the total interest amount they pay on loan and the balance number of installments they are required to pay. The second sub-pillar, *Financial skill* (2 indicators) tests their ability to segregate principal and interest amount in the total installment amount and the third sub-pillar, *Comparing Products* (1 indicator) tests the ability to choose cheaper product out of the available products offered by different MFIs in their region.

More than 90% of the observations in the sample gave correct answers of the questions on their awareness of amount of loan, duration of loan, instalment amount that they pay every week and basic concept of joint-liability. The questions within second sub-pillar *Insurance Basics* assess their knowledge about the insurance product offered to them. Almost 60% of the respondents understand the basic idea of insurance and its benefits. They (63%) were also found aware of the amount of insurance premium they pay along with the weekly instalment of their loan. However, 79 % of them were not aware of the payouts and procedure of insurance claim if calamity occurred. Clients (58%) did not seem to know what their interest rates were. However, more than 75% of them were able to calculate actual total interest amount by applying basic computing skills rather than using the interest rates. For more complex questions related to segregation of principal and interest amount in each of the instalment they paid, more than one third of respondents chose not to attempt the questions. The values of indicators princi_repaid and int_paid are found equal to 1 in above 95% of cases.

Finally, only 18% of our respondents were able to choose the cheaper loan out of given options of loan products given their poor educational backgrounds. (Refer Appendix-I)

The principal component analysis on the data reveals the presence of 5 relevant factors explaining 65.21% of the variance of the dataset. Correlation matrix of the 13 variables have led to the extraction of 5 latent dimensions whereas MCAI counts 2 pillars and 5 sub- pillars. The first factor alone accounts for 18.1% of the total variance while the fifth one explain only 8.5% of the total variance. The rotation method used is 'Varimax Rotation Method'.

Table 1: Whole dataset: loadings of the principal components

Rotated Component Matrix[a]

	Component				
Variables	1	2	3	4	5
joint_lia	**.827**	.042	–.008	–.100	–.070
amt_loan	**.807**	–.063	.007	.021	.112
dur_loan	**.780**	.140	.003	–.222	–.204
inst_amt	**.584**	–.074	.042	.339	.213
ins_concept	–.107	**.792**	–.009	.022	.070
ins_prem	–.081	**.745**	–.134	.274	–.040
ins_claim	.099	**.723**	–.065	.083	.284
int_rate	.183	**.595**	.278	–.071	–.103
int_paid	–.012	.010	**.832**	–.135	.053
princi_repaid	.018	–.018	**.798**	.123	–.121
bal_inst	–.041	.072	–.216	**.747**	–.286
tot_int	–.060	.188	.177	**.706**	.217
cheap_loan	.000	.132	–.078	–.021	**.875**

Extraction Method: Principal Component Analysis. a. Rotation converged in 5 iterations.

The idea under PCA is to account for the highest possible variation in the indicator set using the smallest possible number of factors. With the MCAI data set there are five intermediate composites and they are aggregated by assigning a weight to each one of them equal to the proportion of the explained variance in the data set (Table 2). Looking at the nature of data linear aggregation method is used to construct the composite4.

OVERVIEW OF THE INDEX: SCORES AND RANKS

Table 3 presents the scores and ranks for the Microfinance

Table 2: Weights for the MCAI indicators based on principal components (PC) method for the extraction of the common factors

Pillar	Sub Pillar	Indicators	Weights
Awareness (0.53)	Loan Basics (0.28)	joint_lia	0.084
		amt_loan	0.080
		dur_loan	0.075
		inst_amt	0.042
	Insurance Basics and Interest Rate (0.25)	ins_concept	0.076
		ins_prem	0.067
		ins_claim	0.063
		int_rate	0.043
Skills (0.47)	Financial Skill (0.18)	int_paid	0.094
		princi_repaid	0.086
	Computing Skill (0.16)	bal_inst	0.085
		tot_int	0.075
	Comparing Products (0.13)	cheap_loan	0.13

Client Awareness Index. MFI 4 leads the group of surveyed MFIs, followed by MFI 3 and MFI 2. At the opposite end, MFI 1 scores 3.2% lower than average score.

MFI 4 has the best score in the pillars ***Awareness** as well as in the pillar **Skills.*** MFI 1 is on rank 2 in the pillar **Skills** but occupy the last position overall due to its poor performance in the pillar **Awareness.**

Probably the best way to compare Microfinance Clients' Awareness is making 100 the overall average and calculating the distance of each MFI from this average. Microfinance Client Awareness Index, distance from the overall average presents the results (figures given in the brackets in Table 3). The best performers have a score up to 5% higher than the regional average, while the low performers have up to 3% less. Awareness is the pillar where this gap is higher (reporting up to 5% higher and 7% lower) followed by Skills where gap among MFIs scores is lower.

SOCIO-ECONOMIC ASPECTS OF CLIENT AWARENESS

The questionnaire on microfinance clients' awareness contained a number of questions related to the socioeconomic status of the respondents: age, education, income level, etc.

It would be interesting to explore the relationship between client awareness and these socio-economic variables in order to identify the most vulnerable clients and their characteristics. Such an analysis would require the specification and estimation of an econometric model. Leaving this model for future analysis a faster way to relate microfinance client awareness (as measured by the MCAI) and the socio economic characteristics of the sample is to extract sub-samples, each of them possessing the desired socio-economic feature and calculate the Index value (including pillars and sub-pillars values). With this comparison we would like to offer a first hint of the most vulnerable MFI in the research area. We check the statistical difference between the full sample and the sample of respondents possessing a given socio-economic characteristic using the unpaired t-test and one way ANOVA. Below, for each socio-economic characteristic we present the results as differences with respect to the regional MCAI average of the full sample. The results of t-tests are reported at the end of the this section (Table 4). Mean, Standard Deviation and ANOVA results for socio-economic variables is shown in Table 5. This table reveals F-value that represents ANOVA value and p-value indicates significance at 95% confidence level.

Age

The age of respondents does not play very important role in their awareness: however, comparatively younger generations seem to be more skilled and aware than older generations. As is evident from the bar chart given below, the age group 21 to 30, seem to be more aware about microfinance and also more skilled. The highest difference between age groups is found in MFI 1 where respondents aged over-40 are up to 11% less aware than the youngest respondents (Table A2.1 in Appendix-II).

This is further confirmed by t-test conducted between means of full sample and the sub-sample of the respondents aged between 21-30 years. The difference is statistically significant at 5 %

Table 3. Microfinance Clients' Awareness Index Scores and Ranks of the Index and its pillars

	AWARENESS		SKILLS		MCAI	
	Scores	Ranks	Scores	Ranks	Scores	Ranks
Overall Average	**0.923 (100)**		**0.622 (100)**		**1.545 (100)**	
MFI 1	0.861 (93.3)	4	0.634 (101.9)	2	1.495 (96.8)	4
MFI 2	0.925 (100.2)	3	0.588 (94.5)	4	1.513 (97.9)	3
MFI 3	0.934 (101.2)	2	0.625 (100.5)	3	1.56 (100.9)	2
MFI 4	0.973 (105.4)	1	0.640 (102.9)	1	1.613 (104.4)	1

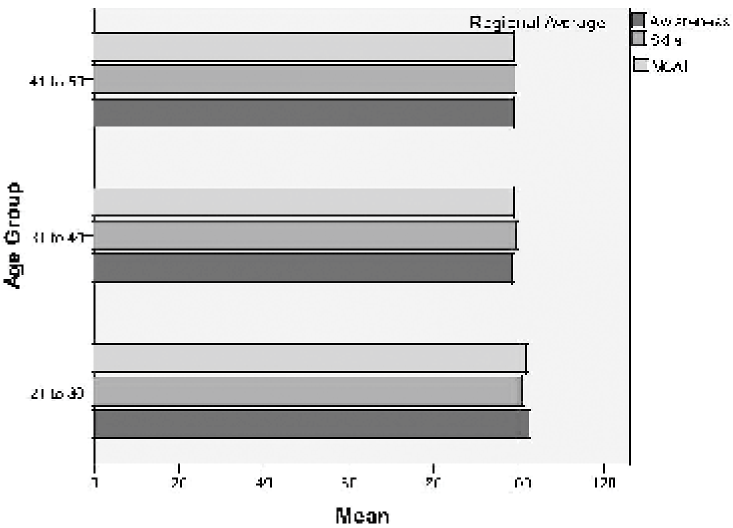


Figure 1. Regional average scores for the age group divided by the regional average

however, the difference between sub-samples of other age groups are not found statistically significant (Table 4).

Further, it is observed that there is significant difference between the awareness level of clients of different age groups with F value of 4.214 and p-value of 0.016 . The clients with the age group of 21-30 showed a mean score of 101.8 and clients with age group of 31-40 and 41-50 showed the mean score of 99.0 and 98.85 respectively. Thus we can say that clients of lower age group are quick to learn and retain about the product in compare to senior age group clients (Table 5) and hypothesis H1 that the age has significant impact on the financial awareness level of microfinance clients, is accepted.

Education

Education has probably an important role in explaining awareness. Lower levels of awareness are usually associated to low levels of education (no formal education). The same is true for both the pillars i.e. awareness of loan and skills of the microfinance clients. The highest gap is found for MFI 1 while the reverse is registered for MFI 4 where respondents with low education score 2% more than higher educated respondent (Table A2.2). The reason probably lies in the quality training programme that trains low-medium educated clients also to get acquainted with the basics of loan and insurance. Figure 2 below shows how distant is the Regional average of each sub-sample from the Regional average of the full sample. The higher gap between education cohorts is found in Awareness followed by Skills.

One way ANOVA test (Table 5) also reveals that there is significant difference between the financial awareness level of different level of formal education with F value 12.495 and p value as 0.000. The mean score of illiterate clients is 97.87which is far lower than clients educated upto higher secondary with mean 0f 103.05. Based on the results of both the tests, it can be concluded that lower formal education level leads to lesser awareness and understanding of the loan product. Thus the results suggest to accept the hypothesis H2 that the level of formal education has significant impact on the financial awareness level of MFI clients.

Annual household income

A household may have different sources of income and more than one household member may contribute to it. Hence the researcher tried to enquire about each and every source of income of the household and summed it up to calculate the annual household income.

Clients having their annual household income less than Rs. 50000 scored less than other income groups especially in the pillar Skills. Overall annual income of the household does not seemed to be decisive factor to explain the awareness level of the microfinance clients. T-test confirms this as we accept the null hypothesis (the difference between means of full sample and each sub-sample is not statistically significant at 5% significance level) in all the cases (Table 4). Similar results are observed while conducting ANOVA test. There is no significant difference between the responses of the respondents of various income levels with F value of 1.519 and p value of 0.209.

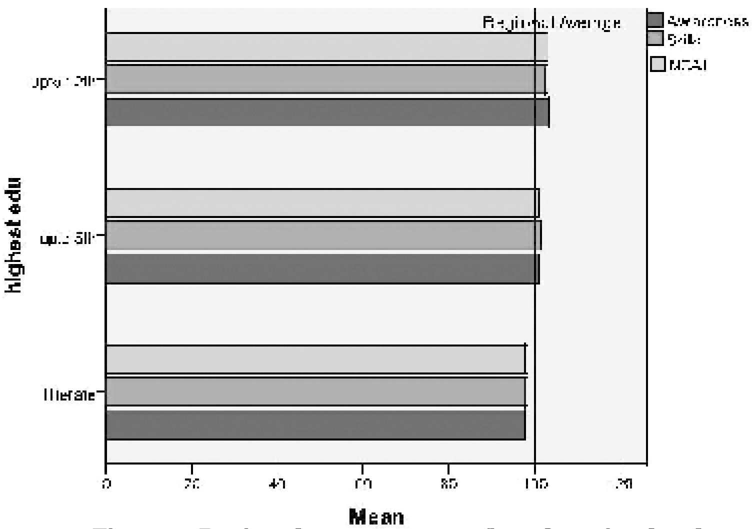


Figure 2. Regional average scores for education level divided by the Regional average scores for the full sample

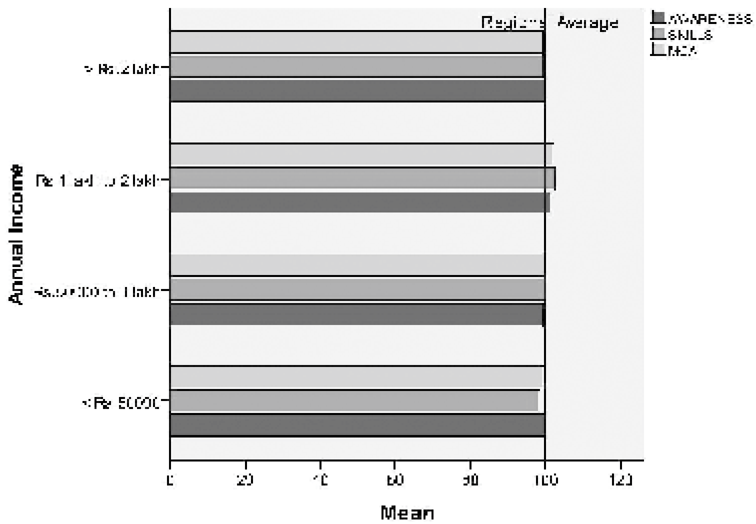


Figure 3. Regional average scores for income level divided by the Regional average scores for the full sample

No pattern has been observed between awareness level and annual income (Table 5). Hence it can be said that the annual household has no impact on the financial awareness level of microfinance clients and the hypothesis H_3 is rejected.

If we look at the data MFI wise , in MFI 4 income seems to have an inverse relationship with awareness: high income respondents (9% of the sample analyzed) result to be less aware than respondents experiencing income shortages. The reverse holds for the rest of MFIs. In MFI 1 there was no client belonging to the lowest income group of < Rs. 50000 per annum, whereas in MFI 3 there was not a single client belonging to the highest income group i.e. > Rs. 2 lakh annually explaining their policies regarding targeting efficiency(Table A2.3). A MFI said to be efficient if they reach the intended population i.e. poor strata of the society.

FINDINGS AND CONCLUSION

The findings of the study may be summarized as below:

Small borrowers are able to identify the size and duration of the loan as well as understand the concept of joint liability of their loan. They are able to understand the liability on their loan in terms of weekly repayments, rather than in terms of interest rates. In fact, they knew very little about the interest rate and are not able to segregate the principal and the interest amounts in the loan instalment. However, they are found aware of the total interest expense on the loan .

Majority of them are also found aware of basic concept of credit life insurance, which is offered along with credit on compulsory basis, and amount of insurance premium they are required to pay. However, they are not familiar with the amount and procedure of the insurance claim. Most of the microfinance clients are unable to pick cheaper loan among given borrowing alternatives from different sources.

The index (MCAI) developed can be used to compare the extent of financial awareness across different MFIs' clients and to monitor the progress of the MFIs with respect to clients' financial awareness over time. e.g. the finding of this study is that MFI 4 results to be the leading MFI followed by MFI 3, MFI 2 and MFI 1. However, pillar wise analysis of MFIs, give

Table 4: Unpaired t-tests for the equality of MCAI means between full sample and sub-samples based on a particular socio-economic characteristics

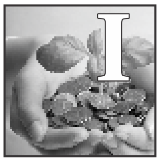
	Sub-sample	Full sample mean	Unpaired t-test-Difference significant (at 5%)	p-value
Mean MCAI for Age Groups				
21-30 years	101.80	100	Yes	0.0412
31-40 years	99.00	100	No	0.2217
41-50 years	98.85	100	No	0.4465
Mean MCAI for Highest Education				
Illiterate	97.87	100	Yes	0.0092
Primary Education	101.14	100	No	0.3143
Higher Secondary	103.05	100	Yes	0.0017
Mean MCAI for Annual Income Level				
< Rs. 50000	99.19	100	No	0.4100
Rs. 50000 to 1 lakh	99.65	100	No	0.7094
Rs. 1 to 2 lakh	101.84	100	No	0.0904
> Rs. 2 lakh	99.57	100	No	0.8381

Table 5: ANOVA Test for MCAI and socio economic indicators

Socio-economic Variables		Mean	SD	F Value	p-value
Age	21 -30 yrs	101.80	7.296	4.214	.016
	31 to 40 yrs	99.00	8.309		
	41 to 50 yrs	98.85	11.014		
Education	Illiterate	97.87	8.380	12.495	.000
	upto 5th	101.14	9.212		
	upto 12th	103.05	6.693		
Annual Income	< 50000	99.19	8.407	1.519	.209
	50000 to 1 lakh	99.65	8.621		
	1 lakh to 2 lakh	101.84	7.688		
	> 2 lakh	99.57	9.491		

different rankings. It is indicative of the weak area about which the clients of a particular MFI lack awareness.

We have also attempted to relate factors that are associated, with some degree of significance, to the Microfinance Client Awareness Index. Among different socio-economic variables, age and highest education found to be associated significantly with the MCAI scores.



MPLICATIONS/RECOMMENDATIONS

The result of the analysis have important implications.

1) First, to enhance the financial awareness of rural women, financial education is very essential as it can increase the knowledge of rural women and makes them better understand the details of loan product and enables them to be aware of the opportunities and choose the cheaper loan out of the various options available to them. Therefore initiating a policy that is capable of advancing the financial literacy programme to the rural women should be a priority agenda of the Indian government.

2) This study argues for regulation that would require financial institutions to provide clients with information which they are able to understand and use. It is both unreasonable and unrealistic to expect small borrowers to have a deeper understanding of their loans than borrowers who have greater access to information and finance. Thus, top-down regulation which works under the assumption that borrowers should be able to calculate and understand their interest rates will not succeed in protecting small borrowers.

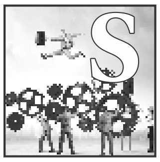
3) The policy making bodies (viz., RBI and NABARD in the Indian context) may use this feedback to measure the level of financial awareness among microfinance clients , analyse their policies and make suitable amendments to ensure the client protection. This study will be of great help to the government to know if MFIs are formally endorsing the principles of client education, educating the staff, translating the principles into policies and inclusion in the operating practices. This study also provides an empirical database about the level of financial awareness of microfinance clients in the research area.

4) MCAI has been conceived as an applied tool that should contribute to enhance rural women's understanding of the financial product as the results of the study have significant implications for industry as well as regulators. The scorecard can be served as the first step for MFIs to formulate training programmes for improved awareness as a means of protecting the vulnerable clients.

IMITATIONS OF THE STUDY

It has the following limitations.

1. Adequate, appropriate and comparable data for a large number of MFIs is the essence of a robust index. Many aspects of financial awareness in the present index, such as financial services related to savings and budgeting could not be incorporated as MFIs do not cover these aspects in their training programme.
2. This study , to develop an awareness index , is first of its kind and therefore, cannot be tested against any available benchmark.
3. Further, the scope of this study is limited to the clients of MFIs who follow Grameen Group methodology i.e. individual loans are lent to each member of the group by MFI official and group meetings are held only once in a week and that too in the presence of MFI field officer
4. The present study is confined only to rural area of Varanasi district and that too for four of the MFIs. The issue of generalizing the study is a matter of scope of future research and can be sorted out by collecting data for large number of MFIs of different regions across the country.



COPE FOR FUTURE STUDY

A summary of this study and copies of the instruments can be disseminated to networks of researchers, practitioners and policy makers interested in financial literacy of rural women, including the MFIs and SHG promoting agencies/NGOs.

In particular, there are several possibilities for building upon and expanding this work, including:

refinement of the client survey instrument in terms of translating it into regional languages, additional data collection and analysis to improve evidence for the validity of instrument, the collection of evidence to improve the reliability of instrument such as testing and retesting the survey and recruiting a larger more representative national sample, especially with clients from MFIs not extensively engaged in financial education and larger samples of clients from various racial and ethnic groups; and the development of curriculum materials for teaching financial education at the elementary level that is consistent with the conceptual framework described in this study.

NOTES

1. Sa-Dhan and MFIN are associations of microfinance institutions in India. The voluntary code of conduct is available at http://www.sa-dhan.net/corevalues.pdf
2. During continuous group training; punctuality, the necessity of paying weekly installments on time and joint liability are emphasized. Group members also learn the member's pledge'. By repeating this pledge, members promise to come to every meeting without fail, utilize the loan for the said purpose, pay in a timely manner, take group and centre responsibilities seriously (Tiwari et al., 2008).

3. Joint Liability refers to a kind of group lending mechanism in which the group ensures each of its members to get access to the loans directly from the MFI by providing joint liability (social collateral). Under joint liability each group member is made responsible for the loans of other group members. If one member defaults, the other group members are required to cover the loan from their own resources, and if they do not, they lose access to future loans. It is thus in each member's interest to ensure that the other members pay.

4. For detail process of construction of MCAI please refer to the research paper, 'Microfinance Clients Awareness Index' published in IIMB Management Review, Dec. 2015.

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APPENDIX I: Sample Statistics

Table A1.1 : Demographic Profile of Microfinance Clients (N = 320)

Characteristics	Categories	MFI1	MFI2	MFI3	MFI4	Frequency	Percentage (%)
Gender							
	Male	-	-	-	-	-	-
	Female	80	80	80	80	320	100
Age							
	21-30 years	27	24	48	15	114	35.6
	31-40 years	49	41	28	49	167	52.2
	41-50 years	4	15	4	16	39	12.2
Education Level							
	Illiterates	32	52	39	42	165	51.6
	Primary	16	4	29	18	67	20.9
	Higher Secondary	32	24	12	20	88	27.5
Annual Household Income (Rs.)							
	< 50000	-	40	48	14	102	31.9
	Upto 1 lakh	56	24	20	29	129	40.3
	Upto 2 lakh	16	12	12	30	70	21.9
	> 2 lakh	8	4	-	7	19	5.9
Number of outstanding loans							
	Single	-	48	52	12	112	35
	Multiple	80	32	28	68	208	65
Number of subsequent loans taken from the same MFI							
	First time borrowers	60	76	5	54	195	60.9
	Older Clients	20	4	75	26	125	39.1

APPENDIX II: Scores and Ranks of MFIs

Table A2.1: Scores and Ranks of all the MFIs based on Age Group

Age: 21 TO 30 Yrs	Awareness		Skills		MCAI	
	Scores	Ranks	Scores	Ranks	Scores	Ranks
Regional Average	**0.945**		**0.627**		**1.573**	
MFI 1	0.939	3	0.654	1	1.593	1
MFI 2	0.971	1	0.597	4	1.567	3
MFI 3	0.932	4	0.631	2	1.563	4
MFI 4	0.957	2	0.617	3	1.575	2

Age: 31 TO 40 Yrs	Awareness		Skills		MCAI	
	Scores	Ranks	Scores	Ranks	Scores	Ranks
Regional Average	**0.91**		**0.619**		**1.529**	
MFI 1	0.819	4	0.628	2	1.447	4
MFI 2	0.917	3	0.606	3	1.522	3
MFI 3	0.946	2	0.596	4	1.542	2
MFI 4	0.976	1	0.634	1	1.611	1

Age: 41 TO 50 Yrs	Awareness		Skills		MCAI	
	Scores	Ranks	Scores	Ranks	Scores	Ranks
Regional Average	**0.911**		**0.616**		**1.527**	
MFI 1	0.845	4	0.573	3	1.418	3
MFI 2	0.874	2	0.525	4	1.399	4
MFI 3	0.852	3	0.76	1	1.612	2
MFI 4	0.976	1	0.677	2	1.653	1

Table A2.2: Scores and Ranks of all the MFIs based on Education

Illiterates	Awareness		Skills		MCAI	
	Scores	Ranks	Scores	Ranks	Scores	Ranks
Regional Average	**0.903**		**0.609**		**1.512**	
MFI 1	0.808	4	0.591	3	1.399	4
MFI 2	0.917	2	0.57	4	1.487	3
MFI 3	0.873	3	0.64	2	1.513	2
MFI 4	0.985	1	0.643	1	1.628	1

Primary Education	Awareness		Skills		MCAI	
	Scores	Ranks	Scores	Ranks	Scores	Ranks
Regional Average	**0.931**		**0.631**		**1.562**	
MFI 1	0.785	4	0.663	1	1.448	3
MFI 2	0.809	3	0.63	2	1.439	4
MFI 3	0.999	1	0.624	3	1.623	1
MFI 4	0.979	2	0.615	4	1.594	2

Upto 12th	Awareness		Skills		MCAI	
	Scores	Ranks	Scores	Ranks	Scores	Ranks
Regional Average	**0.954**		**0.638**		**1.592**	
MFI 1	0.952	3	0.663	1	1.615	1
MFI 2	0.962	2	0.618	3	1.58	3
MFI 3	0.968	1	0.579	4	1.548	4
MFI 4	0.941	4	0.656	2	1.597	2

Table A2.3: Scores and Ranks of all the MFIs based on Annual Income

Annual Income	Awareness		Skills		MCAI	
< Rs. 50 k	Scores	Ranks	Scores	Ranks	Scores	Ranks
Regional Average	**0.922**		**0.61**		**1.532**	
MFI 1	-		-		-	
MFI 2	0.925	2	0.565	3	1.49	3
MFI 3	0.895	3	0.63	2	1.525	2
MFI 4	1.011	1	0.669	1	1.68	1

Annual Income	Awareness		Skills		MCAI	
Rs. 50 k to 1 lakh	Scores	Ranks	Scores	Ranks	Scores	Ranks
Regional Average	**0.917**		**0.622**		**1.539**	
MFI 1	0.855	4	0.625	2	1.481	4
MFI 2	0.911	3	0.604	4	1.515	3
MFI 3	0.978	2	0.61	3	1.589	2
MFI 4	1	1	0.639	1	1.639	1

Annual Income	Awareness		Skills		MCAI	
Rs. 1 - 2 lakh	Scores	Ranks	Scores	Ranks	Scores	Ranks
Regional Average	**0.935**		**0.638**		**1.573**	
MFI 1	0.853	4	0.654	1	1.507	4
MFI 2	0.943	3	0.645	2	1.588	2
MFI 3	1.012	1	0.63	3	1.641	1
MFI 4	0.945	2	0.63	3	1.575	3

Annual Income	Awareness		Skills		MCAI	
> Rs. 2 lakh	Scores	Ranks	Scores	Ranks	Scores	Ranks
Regional Average	**0.92**		**0.619**		**1.538**	
MFI 1	0.916	2	0.653	1	1.569	1
MFI 2	0.952	1	0.545	3	1.497	3
MFI 3	-	-	-	-	-	-
MFI 4	0.945	2	0.63	3	1.575	3

APPENDIX III

Table A3.1: Communalities – 13 Indicators

Indicators	Initial	Extraction
amt_loan	1.000	.668
dur_loan	1.000	.718
tot_int	1.000	.615
bal_inst	1.000	.692
ins_prem	1.000	.657
ins_claim	1.000	.624
ins_concept	1.000	.645
joint_lia	1.000	.700
inst_amt	1.000	.509
princi_repaid	1.000	.667
int_repaid	1.000	.713
cheap_loan	1.000	.789
int_rate	1.000	.481

Extraction Method: Principal Component Analysis