DEPARTMENT OF ECONOMICS,
MANAGEMENT AND STATISTICS

UNIVERSITY OF MILAN – BICOCCA

DEMS WORKING PAPER SERIES

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No. 296 – March 2015

Dipartimento di Economia, Metodi Quantitativi e Strategie di Impresa
Università degli Studi di Milano - Bicocca
http://dems.unimib.it/

Money Management and Entrepreneurial Training in Microfinance: Impact on Beneficiaries and Institutions

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Abstract. Most Microfinance institutions (MFIs) worldwide focus their efforts in relieving the poor from financial constraints through micro-loans. This research focuses on integrating a money management and entrepreneurial training plan to a lending program in a non-profit MFI in Kolkata, India. The paper's main purpose is to measure the marginal impact of training on the beneficiaries through a randomized control trial. Positive and significant effects are found on both institutional outcomes (number of missing or delayed repayments, average weekly savings) and financial management skills of the clients (ability to separate personal and business money, to track revenues and expenses, to calculate profits). Initiative and self-confidence measures also increase, while business outcomes and entrepreneurial skills of the participants exhibit no significant changes. The effects appear stronger on those for whom the training was compulsory, and for those who expressed more interest in the course before the beginning of the program. A formal set-up and incentives linked with the completion of the training are therefore advised when considering similar interventions.

Keywords — *microfinance, training programs, money management, entrepreneurship, difference-in-differences*

JEL classification— G21, O15, L31, I25

Acknowledgments

We wish to thank the following organizations for their support to the data collection phase: Institute for Indian Mother and Child (IIMC), Project for People, Social Innovation Teams (SIT). The usual disclaimers apply.

1. Introduction

Microcredit has gained significant importance in the last years as a mainstream development policy tool (e.g. Yunus, 2004, Aagaard, 2011; Guinnane, 2011). The idea that poverty can be alleviated by providing easy and affordable access to credit and to other financial services to low-income families has been widely supported in the literature (e.g. Evans et al., 1999; Morduch, 1999; Bauer et al., 2012), even if doubts on its impact remain (e.g. Copestake, 2007; Karlan and Zinman, 2011; Hermes and Lensink, 2011; Imai et al., 2012).

It is documented that, compared to credit-only institutions, Microfinance Institutions (MFIs) that offer a wider range of services (such as deposits and insurance products) have shown greater impact for alleviating poverty without comparatively registering a significant increase in operational costs (Churchill, 2002; Armedariz de Aghion and Morduch, 2005; Mata, 2006; Hartarska and Parmeter, 2009).

However, among the key improvements introduced in the Microfinance model, training programs (educational, medical, and entrepreneurial) have been so far of extremely limited use due to MFIs' willingness to undertake massive cost reduction and to the traditional lack of trust on the "innate capabilities" of the poor.

Yet, contrary to common beliefs related to "the lack of trust", the literature provides evidence that even borrowers with access to basic literacy can select profitable projects or/and can generate more cash out of a specific activity (Godquin, 2004). It has also been observed that sustained success in microfinance can depend on participants' literacy, numeracy skills, and microenterprise training (Coppock et al., 2011), and that better educated entrepreneurs have greater ability to understand and analyze complex information, resulting in more effective business decisions (Bhatt and Tang, 2002; Baklouti, 2013).

Therefore, one reasonable way to address the limited socioeconomic development of rural households seems to enhance rural entrepreneurship, as well as financial management skills (Afrin et al., 2008). Just as much as in the formal economy, these skills can be taught with specific training programs (Mortensen et al., 2005).

Indeed, the positive impact of financial literacy and entrepreneurship training on loan repayment and the accumulation of savings has been assessed through randomized designs (e.g. Giné and Karlan, 2008; Karlan, 2007; Karlan and Valdivia, 2011; Ashraf, Karlan, and Yin, 2006; Khavul, 2010), whereas there is evidence that borrowers who did not receive any training in relation to their business have a higher probability to default (Roslan and Abd Karim, 2009).

Development partners are therefore suggested to provide financial training and technical assistance to loan beneficiaries, in order to expect enhanced outputs and reduced default rates (Chowdhury and Mukhopadhaya, 2012; Ledgerwood, 1999).

More in detail, it must be noticed when loan providers start considering the introduction of financial training programs they need to select the optimal target and the best teachable moments so as to maximize programs' outcome. For instance, when analyzing the marginal impact of training, Bhatt and Tang (2002) show that while mandatory business training might be useful for the start-up entrepreneur, it can be burdensome for the existing one, thus inferring that the need for such kind of programs is actually greater at the early stages of a business, that is approximately just after the first grant installment has been received (Pretes, 2002).

Furthermore, since they are generally poorer and have lower education, it is unquestionable that women are more in need of financial literacy and business training (Armendariz and Morduch, 2005; Mayoux, 2001) and are expected to better respond to it. For instance, Field et al. (2010), conducting a field experiment on business training in India have found that returns are higher for women belonging to more restrictive social groups. Considering the empowerment effect of training itself, Ngo and Wahhaj (2012) suggest that women receiving complementary business training in an activity which requires their husbands' cooperation are more likely to benefit from access to credit than those who receive training in an autonomous productive activity that they can undertake independently within the household.

There is also evidence suggesting that borrowing by itself does not empower women (Alam, 2012; Holvoet, 2005). It is not by chance that the most successful microcredit programs are not confined to either credit provision or training only, but offer a group atmosphere and a safety net in which women can share information and set up networks. Specialized business training taking place into groups may therefore be crucial to this end (Mahmud, 2003). All these features may also help becoming more independent and increase self-esteem and confidence. For example, Edgcomb (2002), Cook et al. (2001), and Dumas (2001), use case methodology to analyze MFIs offering integrated business development training finding that the latter significantly improves microenterprise performance and generates microentrepreneurs' empowerment (Brau and Woller, 2004).

Finally, due to the wide variety of business operations serviced by microfinance, it is claimed that most part of the established training courses are excessively general in nature, with the result that they frequently do not achieve the purpose of actually improving the chances of success in business of the trainees (Eversole, 2003). Criticism on such mainstream training model points towards the introduction of better tailored and integrated educational projects.

The purpose of this study is to evaluate the impact of an entrepreneurial and money management training course within a microfinance institution. The marginal outcomes of the inclusion of this additional service are assessed through a randomized control trial, in order to test whether this program has actually brought tangible improvements in the business and cash flow management skills of the beneficiaries, and also possible advantages to the microcredit provider.

The study was conducted within the Institute for Indian Mother and Child (IIMC), a development non-governmental organization whose headquarters are located in the neighborhood of Kolkata, India. Its activities started in 1989, supporting basic health care and providing medicinal facilities to the people in the rural neighborhood of Sonarpur (in the south-west of Kolkata). Across the years the institution has increased the number of beneficiaries (130,000 per year for just the medical facilities, as of 2012) and has started providing a wider range of services such as education, health promotion, and integrated rural development. Among these several activities, since 1999 IIMC also provides financial services in the form of micro-loans to poor female beneficiaries. Credit occurs exclusively under the form of group-lending. However, beneficiaries are not jointly responsible for other members' loan.

The IIMC Microcredit Program, as of 2013, sponsored seven village banks with a total of 19,312 clients, all of which are women. The average loan disbursed was 2,045.45 Indian Rupees (INR), with 8,062 loans disbursed per year; the average deposits per person were 1,742.33 INR. The yearly interest rate charged was 10%, while deposits provided an interest rate of 4% per year. The sustainability indicator of the IIMC Microcredit service (total income / total expenses) was 0,92 in 2013.

For the purpose of our analysis, a number of microcredit beneficiaries at the IIMC have been randomly assigned to either *treatment* or *control* groups; only the treatment group received the training during compulsory weekly afternoon sessions.

A baseline survey was conducted before the intervention; the first follow-up survey took place two weeks after the completion of the course, while another survey was conducted three months later. In addition, the financial cash-flow data of both the treatment and the control group have been analyzed over a period of six months.

The training course contents were developed with the support of Freedom From Hunger (an international non-profit development organization widely recognized as one of the best for offering training courses in informal contexts and developing countries), the Indian Institute for Training and Development, the Indian Institute of Management, Calcutta, The Rural Finance Learning Centre of the United Nations, and the Community Empowerment Collective Society.

The empirical analysis is conducted using difference-in-difference (DID) estimation techniques. Evidence suggests that the course had a positive and significant impact on both the beneficiaries and the MFI. The beneficiaries improved their participation to working life and critically enhanced money management skills, whereas the MFI could enjoy a substantially reduced number of missed or delayed repayments, and an increase in average weekly savings. No significant impact has been found on business outcomes measures and on the frequency or entity of loan and withdrawal requests.

This article is organized as follows: Details of the intervention, the experimental design, and its intended effects are presented in section 2. The data and the estimation methods are illustrated in section 3. The last sections outline the results, the conclusions and policy recommendations (respectively sections 4 and 5).

2. Intervention

The objective of the first stage of the course (focused on money management) was to improve the use of loans made by the beneficiaries of microfinancial services and to improve their overall welfare through enhancing their accounting and planning skills.

The second stage of the course (focused on entrepreneurship) had, on the other hand, the target to encourage the women to a more direct involvement in the business activity, resulting in more participated decisions and improved business outcomes. It turns that another desirable consequence of the project was women's empowerment within the household.

The intervention also aimed at improving IIMC's self-sustainability, since the potential benefits of the course (increased savings, fewer missed repayments and reduced default rate thanks to better money management skills) were expected to overrun its downsides (increased costs of service). On the other hand, the expected impact on IIMC's cash flows still presented a certain degree of uncertainty, as a more rational cash flow planning achieved by the clients might either reduce or increase the loans' request according to each beneficiary's characteristics and risk aversion.

The lessons were developed taking into account the specific peculiarities of the local context, and to the largest possible extent trainers made use of posters, drawings, skits, role-plays and tales, in order to allow a full participation of the illiterate segment of the groups (about 25% of the total).

The five lessons that comprised the course dealt with the following topics: *i*) Loan use; *ii*) Profit and basic accountancy; *iii*) Reinvesting profits, savings, and separating the money; *iv*) Problems, solutions and innovations; *v*) Finding a new business.

Each lesson was followed by a homework, which focused on the topics covered during the lesson and had to be completed with data concerning the actual or projected expenses, revenues, and other financial variables of the beneficiary's household. The course culminated with drafting an informal business plan for a new business venture or an expansion of the current business. More details about the course contents, homework and business plan can be found in Appendixes 2 to 4.

Training began in January, 2010 and ended in April, 2010. All the groups completed the full pilot course plus an evaluation session for the business plan. The lessons had weekly frequency in all the selected groups.

2.1 Experimental Design

The training course took place within the meetings of the "Women Peace Council" (WPC) Program. The latter consists of borrowers from the IIMC Microcredit Program who meet with compulsory attendance to discuss the issues of the community and to engage in activities targeted to solve them. At the time of the first survey the WPC Program involved 21 groups of 11 women each. The groups belonged to four IIMC branches, namely Hatgacha, Chakberia, Kalyanpur and Hogolkuria, located in the south-east rural neighborhoods of Kolkata, West Bengal, India.

WPC members also engage in informal business activities such as paper bags, pens and pins making, and from time to time attend training sessions on health, hygiene and nutrition.[1] However, for the purpose of the analysis it is important to stress that no other policy changes, such as lending criteria, monitoring or enforcement, occurred along with the training.

Among all WPC members 59 were randomly chosen to participate to the training program with compulsory attendance. Another randomly chosen group of 59 WPC members − mimicking the composition of the treated group − have been associated to the control group. The latter did not receive any training.

In order to verify the role of motivation on the outcome variable the original sample has been integrated with 23 (non-WPC) volunteers who attended the lessons and 32 (also non-WPC members) volunteers who signed for the course but were purposefully not included in the training

[1] During the course, several religious holidays (belonging to different confessions) would have distracted a significant fraction of the group members; in such occasions the lessons were postponed for all the groups.

so as to make it possible to assign them to the control group. Volunteers were all borrowing from the IIMC Microcredit Program. Overall, treated and control groups consisted of 70 and 91 members respectively.

The distribution of household economic activities was known and has been comparable across the treatment and the control group, as shown in Table 1. In particular, the computed frequencies corresponding to each activity do not show evidence of substantial discrepancies between the two groups.

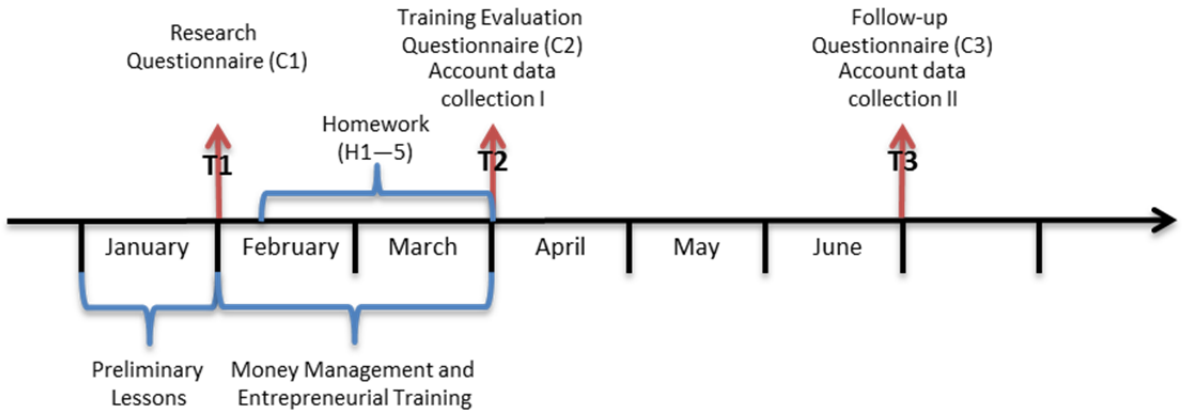
The impact of the training program has then been evaluated through a randomized control trial with the aim of comparing the effects on the treatment group with those on the control group of women.

Table 1: Main economic activity of the household, treatment and control group

Main economic activity	Treatment		Control	
	Occurrence	Frequency	Occurrence	Frequency
Farmer	15	18.29%	13	14.29%
Pisciculture	15	18.29%	5	5.49%
Shopkeeper	7	8.54%	8	8.79%
Labourer	14	17.07%	16	17.58%
Carpentery	6	7.32%	9	9.89%
Transport	8	9.76%	11	12.09%
Other	10	12.20%	25	27.47%
Unemployed	7	8.54%	4	4.40%

Observations: 173(76 treated, 91 control)

Figure 1 – Timeline of intervention and research



2.1 Intended effects

The first section of the training program had the aim to improve informal money management practices, such as keeping track of expenses and income at household level, calculating one's own profit, determining how much to reinvest in the business activity, how much to save and how much to use for personal consumption. Therefore, the first hypothesis we aim to test is whether the course had the marginal effect of improving money management practices.

Table 2: Measurement tools used to evaluate the effectiveness of the training

Hypotesis	Description	Time of Evaluation	Instrument of Evaluation[(a)]
Hypothesis H1	Acquisition of money management skills	During the course (T1-T2)	Homework (H1,H2,H3)
	Capacity to apply money management skills	At the completion of the course (T2), and three months after the completion of the course (T3) (impact evaluation against control group)	Training course evaluation questionnaire section 3 part 1 (C2), and Follow-up research questionnaire section 3 part 1 (C3)
Hypothesis H2	Acquisition of entrepreneurship skills	During the course (T1-T2)	Homework (H4,H5)
	Effectiveness on business activities and entrepreneurship	At the completion of the course (T2), and three months after the completion of the course (T3) (impact evaluation against control group)	Training course evaluation questionnaire section 3 part 2 (C2), and Follow-up research questionnaire section 3 part 2 (C3)
Hypothesis H3	Effectiveness of the money management skills acquired during the course on institutional and household variables	Three months after the completion of the course (T3) (impact evaluation against control group)	IIMC financial data (loans, savings and withdrawals) (F3)

[(a)] See Appendixes 3 and 4 for details on the content of questionnaires and homework.

The second section of the course had the purpose to teach the beneficiaries how to identify strengths and weaknesses of their current business, how to address basic business problems, to discover the most profitable market niches, and to successfully reach the customers. These improvements were intended to increase profits within the current business or represent a drive to establish new and profitable ventures. Hence, the second hypothesis to be verified is whether the course had the marginal effect of improving business outcomes and strengthening entrepreneurship. Such features have also been verified both at the completion of the course, and three months after the completion of the course.

The acquisition of both money management and entrepreneurial capabilities has been verified both at the completion of the course, and three months after the completion of the course.

The correct adoption of these practices should also lead to a more careful planning of the household's cash flows, thus resulting in fewer missing loan repayments and increased savings. In addition, household decision-making has also been monitored, so as to assess an eventual improvement in female empowerment (thanks to increased control of household cash flows and business involvement). For this reason, the third hypothesis we want to test is whether the course had the effect of inducing a more timely repayment of the loan and increasing savings, along with increasing women's empowerment.

The timeline of the intervention is reported in Figure 1, while Table 2 summarizes the measurement tools used to evaluate the effectiveness of the training program.

In the next sections the impact of the course on beneficiaries will be analyzed on a wide number of indicators, and results will be interpreted according to the hypotheses illustrated above.

3. Data and estimation methods

The main data sources of the research are the financial data about the beneficiaries and three questionnaires: a baseline survey handed out before the beginning of the course, an evaluation survey at the completion of the course, and follow-up survey handed out three months after the training program. The questionnaires included a variety of questions about demographic characteristics, financial variables of the household, and business practices (see Appendix 3).

The financial data collected at the IIMC are recorded in the group registers. The latter include all the transactions made by the beneficiaries both during group meetings and within the branches, plus information about loan disbursement, repayments, savings (deposits) and withdrawals. Furthermore, loan application forms contain additional information about current work activities and the intended

use of the loans. The collection of such data took place after the course and included all financial transactions of the beneficiaries with IIMC from November 2009 to June 2010.

The response rates for the questionnaires were respectively 90% for the treated group and 95% for the control group on the baseline survey; and 91% for the treated and 90% for the control group on the post-course evaluation survey. Finally, 93% of the treatment and 90% the control group responded to the follow-up survey.

The assessment of the impact of the training program makes use of difference-in-difference (DID) techniques, which assume the "normal" difference between treatment and control group from pre-treatment data, and compares it with the difference after the receipt of treatment.

Defining y_{it} as the outcome variable for individual i at time t, X_i as a dummy variable taking the value of 1 if the individual receives the treatment and 0 otherwise, T_t as a dummy variable taking the value of 1 in the pre-period and 0 in the post-period, and denoting the pre-period with t=0 and the post-period with t=1, a DID estimation is performed on the following equation:

$$y_{it} = \beta_0 + \beta_1 X_i + \beta_2 T_t + \beta_3 X_i * T_t + \varepsilon_{it} \qquad (1)$$

Since

$$p\lim \widehat{\beta_3} = (y_{11} - y_{01}) - (y_{10} - y_{00}) \qquad (2)$$

β_3 is a consistent estimate of the treatment effect. Other covariates have been included to increase the explanatory power of the model.

The validity of DID estimate is based on the assumption that the trend of the outcome variable prior to the treatment is the same for both the treatment and the control groups. However, defining a trend for the several dichotomous variables (yes/no answers to questionnaires) was impossible due to the on-the-spot nature of the answers and the limited time-span available before the first round of the survey. On the other hand, obtaining more than two rounds of interviews helped anyhow to reduce the importance of the assumptions regarding trend patterns and to test possible ambiguities or contradictions.

In addition, we attempted to test the presence of common trend relying on the borrowers' saving status, for which information is available for a lengthier period before the beginning of the training program (i.e., from April, 2009). Thanks to the high correlation with other institutional and financial measures (such as missing repayments, withdrawals, family income and expenditure) the outcome of the common trend test on savings can be extended to a considerable number of other dependent variables.

Table 3: Average difference between *control* and *treatment* group prior to the training

Average weekly savings, *control* - *treatment* group (Nov 09)	Average weekly savings, *control* - *treatment* group (Dec 09)	Average weekly savings, *control* - *treatment* group (Jan 10)
28.49-20.61=7.87	27.64-20.83=6.81	27.63-17.47=10.16
Average monthly increase in savings[(a)], difference *control/treatment* group (Apr 09-Jul 09)	Average monthly increase in savings, difference *control/treatment* group (Jul 09-Nov 09)	Average monthly increase in savings, difference *control/treatment* group (Nov 09-Feb 10)
94.20-56.87=37.33	118.98-74.49=44.49	120.14-77.97=42.17

[(a)] Monthly variation in savings without considering withdrawals. Observations: 173.

Table 4: F-test on average difference between *control* and *treatment* group prior to the training

	F-statistic, differences Nov 09- Dec 09	**Prob>f**	**F-statistic, differences** Nov 09- Jan 10	**Prob>f**
Average weekly savings	0.2642	0.6256	1.8421	0.2135
	F-statistic, differences Apr 09-Jul 09	**Prob>f**	**F-statistic, differences** Apr 09-Feb 10	**Prob>f**
Average monthly increase in savings[(a)]	0.6814	0.4098	0.3341	0.7162

[(a)] Monthly variation in savings without considering withdrawals. Observations: 173.

In details, an F-test has been performed on the differences between treatment and control groups from time to time before the training, so as to verify the hypothesis of their equality. The selected variables (both related to savings) and their evolution prior to the training are presented in Table 3, whereas the results of the F-test are reported in Table 4.

None of the F-statistics in Table 4 rejects the hypothesis of constant difference between the control and the treatment group, so that we can reasonably assume a common trend for savings and other correlated variables prior to the intervention.

Another key assumption of the DID estimation model is the random selection of the sample. As for the baseline sample of WPC members the validity of this assumption is unquestionable since randomness has been deliberately adopted in the aforementioned design of the treated/control groups.

Table 5: Description of the variables and summary statistics, Research Questionnaire submitted before the Training Program (February, 2010)

Variable[(a)]	Description	Average (T1)	Std.dev. (T1)
Average missing repayments per month,	Average delayed repayments per month, (with doubled repayment following week or all-in-one payments), Nov09/Feb10	0.8314	0.9122
Average missing repayments per month w/o double repayment	Average missing repayments per month (without doubled repayment the following week or later), Nov09/Feb10	0.0324	0.7449
Average weekly savings	Average weekly savings, Nov09/Feb10	23.4289	29.6593
Withdrawals	Withdrawal balance, Feb10	1643.497	2776.546
Average family income, monthly	Weighted average of daily/weekly/monthly average household income (INR), monthly basis	3232.108	2145.038
Average family expenditure, monthly	Weighted average of daily/weekly/monthly average household expenditure (INR), monthly basis	2197.486	2570.683
Wife working with the husband	Dummy variable, 1 if wife works together with husband	0.1977	0.3994
New business started with a loan	Dummy variable, 1 if a new business has been started through applying for a loan	0.4260	0.496
Decisions together within the household	Dummy variable, 1 if the decisions are taken together by husband and wife	0.7320	0.4444
Loan used for other purposes	Dummy variable, 1 if one or more past loans have been used mainly for purposes other than business	0.4474	0.4989
Personal and business money mixed	Dummy variable, 1 if personal and business money are mixed	0.8000	0.4013
Keeping track of revenues and expenditures	Dummy variable, 1 if revenues and expenditure are written somewhere on a regular basis within the household	0.1625	0.3701
Calculation of profit	Dummy variable, 1 if profit is calculated on a regular basis	0.1266	0.3336
Sharing business experiences within group	Dummy variable, 1 if business information is shared on a regular basis within the repayment group or Women Peace Council	0.3097	0.4639
Asking advice about business	Dummy variable, 1 if business advice is asked on a regular basis to wholesalers, professionals, coworkers	0.3097	0.4639
Intention to introduce a new product	Dummy variable, 1 if the borrower plans to introduce new products within three months	0.3444	0.4767
Intention to start a new business	Dummy variable, 1 if the borrower plans to start a new business (part-time or full-time) within three months	0.3028	0.4611
Interest in a free training	Dummy variable, 1 if interested in a free entrepreneurial training	0.9563	0.2052
Interest in a costly training	Dummy variable, 1 if interested in a costly entrepreneurial training	0.8291	0.3777
Last loan amount	Amount of last loan disbursed to borrower (INR)	4253.046	3713.826
Number of loans	Number of loans disbursed to borrower	2.0578	1.8574
Business inherited by relatives	Dummy variable, 1 if the business has been inherited by relatives	0.1696	0.3764
Knowledge of English/Hindi	Dummy variable, 1 if capable of speaking in Hindi or possessing a basic knowledge of English	0.5909	0.4932
Member of Woman Peace Council	Dummy variable, 1 if member of a Women Peace Council	0.6821	0.467
Course attendance	Number of lessons attended by treatment group members (above 65% to be included in the sample)	3.9512	0.8875

[(a)] Control variables in italics. Observations: 173.

Regarding the voluntary side of the sample, it must be highlighted that all women added to either group expressed their intention to attend the lectures. Hence, in terms of willingness to participate to the training, there should be no differences between the non-WPC volunteers who were admitted to the course, and therefore associated to the treated group, and those who have been deliberately excluded in order to allocate them in the control group.

Table 5 provides a description of the (institutional, household, money management, and business) variables considered for the evaluation of the impact of the intervention.

4. Results

4.1 Institutional and household outcomes

Table 6 reports the outcome of the DID estimates regarding the effects of the training program on the institutional and household variables. As aforementioned, several women were at the very early stage of their credit history at the time the training program took place. Therefore, variables related to borrowing or driven by borrowing have been observed for a relatively short time before the training period started. For this reason, the effects of the training program on credit-related features have been evaluated from the end of the training period – March 2010 (T2) – to June 2010 (T3). This also allows accounting for the impact that the overall set of notions learnt during the course had on institutional and household variables rather than evaluating the effect of a limited number of lessons.

Displayed are the coefficients (β_3) associated to the interaction term $X_i * T_t$ of equation (1) for different regressions, both including and excluding the set of covariates.

Table 6: Impact of training on institutional and household outcomes, DID estimates, March–June 2010

Dependent Variable	**Difference,** March (T2)–June 2010 (T3)				
	Treatment impact, without covariates	**P>|t|**	**Treatment impact, with covariates[a)]**	**P>|t|**	**R^2**
Average missing repayments per month	-0.7340	0.000***	-0.6284	0.000***	0.1999
Average missing repayments per month w/o doubled repayment	-0.7615	0.000***	-0.6499	0.000***	0.2450
Average weekly savings	4.7379	0.034**	3.7234	0.152	0.0266
Withdrawals	151.4199	0.465	336.2035	0.177	0.0031
Average family income, monthly	58.1614	0.800	-238.7485	0.224	0.0004
Average family expenditure, monthly	-480.1876	0.332	73.8165	0.889	0.0055
Wife working with the husband	0.0902	0.017**	0.0755	0.058*	0.0336
New business started with a loan	0.0028	0.957	0.0205	0.740	0.0000

Number of observations: 173. Each coefficient reported in the table corresponds to a separate regression.

[a)] Covariates include participation to WPC (compulsory/voluntary attendance), number of loans, last loan amount, business previously owned by relatives and knowledge of Hindi/English language.

(*) significant at 10% / (**) significant at 5% / (***) significant at 1%

Estimates provide evidence that the course had the positive effect of improving loan repayment performance and increasing savings. This pattern is reflected in the negative and significant parameter associated with average missing repayments per month (with and without doubled repayment the following week)[2] and in the significant and positive parameter associated to the amount of average weekly savings.

Once including the covariates the impact of training on savings accounts itself is significant only at 15% level, possibly due to the presence of withdrawals that create considerable noise as they are relatively large in magnitude and linked to events such as emergencies and weddings rather than to business activities. In relation to this, we suppose that the absence of significant changes on withdrawals is due to the relevant size of their random component.

4.2 Money management and entrepreneurship practices

The effects of the training program on business and money management practices, both evaluated at the end of the course (for the period January 2010 (T1) – March 2010 (T2)) and after three months from its end for the period January 2010 – June 2010 (T3), are presented in Table 7. [3]

Results are likely to suggest a substantial positive impact of the training on money management practices. In some cases, such as the ability to calculate profits, the delayed effects are stronger in magnitude compared to the improvements registered right after the end of the course, thus indicating a certain degree of persistency of the benefits achieved through the training. In some other cases, such as separation between personal and business money, and keeping track of revenues and expenses, the opposite occurs.

The effect on taking loans for purposes other than business activities is instead not significant, a fact that looks like a weak point of the course. Indeed, we expected a negative parameter associated to this variable since the concept of avoiding any form of loan drift was stressed from the very first lesson. The explanation for this evidence could be related to the fact that taking loans for emergencies and dowries (and so using credit as an insurance device) is a too rooted practice in Indian rural areas to be overtaken by a single course. Qualitative interviews testified, though, that the recipients normally intend to limit the resort to the loan to such unexpected events, whereas they rarely use borrowed money for personal consumption.

[2] It's possible to avoid negative consequences on future loans' conditions by doubling the repayment the following week, when one repayment is missing.

[3] Additional Tables (Logit regressions) are included in the appendixes.

Table 7: Impact of training on money management and business practices, DID estimates, March–June 2010 and January–June 2010

Dependent Variable	**Difference,** January (T1) – March 2010 (T2)				**Difference,** January (T1) – June 2010 (T3)			
	Treatment impact, without covariates	**P>|t|**	**Treatment impact, with covariates[(a)]**	**P>|t|**	**Treatment impact, without covariates**	**P>|t|**	**Treatment impact, with covariates[(a)]**	**P>|t|**
Decisions together within the household	0.1826	0.001***	0.1938	0.001***	0.2683	0.000***	0.2652	0.000***
Loan used for other purposes	-0.0189	0.767	-0.0513	0.454	0.0393	0.595	0.0157	0.842
Personal and business money mixed	-0.4780	0.000***	-0.4549	0.000***	-0.2569	0.000***	-0.2350	0.001***
Keeping track of revenues and expenditures	0.3092	0.000***	0.3338	0.000***	0.2168	0.006***	0.2033	0.017**
Calculation of profit	0.1411	0.001***	0.1120	0.006***	0.2881	0.000***	0.3006	0.000***
Sharing business experiences within group	-0.0101	0.862	-0.0406	0.510	0.2549	0.001***	0.2898	0.000**
Asking advice about business	n/a	n/a	n/a	n/a	0.4116	0.000***	0.4109	0.000***
Intention to introduce a new product	-0.0107	0.895	-0.0126	0.885	-0.0074	0.927	.0613	0.481
Intention to start a new business	0.2017	0.013**	0.2031	0.026**	-0.0464	0.570	-0.0016	0.985
Interest in a free training	0.0031	0.900	0.0019	0.951	0.0029	0.925	0.0036	0.922
Interest in a costly training	0.1513	0.001***	0.1862	0.001***	0.1466	0.002***	0.1721	0.001***

Number of observations: 173. Each coefficient reported in the table corresponds to a separate regression.

[(a)] Covariates include participation to WPC (compulsory/voluntary attendance), number of loans, last loan amount, business previously owned by relatives and knowledge of English language.

(*) significant at 10% / (**) significant at 5% / (***) significant at 1%

The observed impact on decision making within the household is strongly significant and positive, especially in the period after the end of the course. The explanation is probably due both to homework, which required the woman to intervene in business decisions, and to increased initiative and self-esteem. Furthermore, this corroborates the results found the previous section, namely the fact that women attending the training reported to have more likely joined their husbands' activities. In particular, putting together some pieces of evidence, one can infer that husbands are not simply willing to exploit the increased managerial capabilities acquired by their wives during the training, but rather that they intend to share also non-business related decisions with their partners, a fact that strengthens the conclusions concerning an overall increased degree of women's empowerment within the household.

With regard to the impact of training on entrepreneurship, results are less clear-cut. On the one hand, the estimated effect is significant on the variables attaining to the business attitude. In particular, sharing business information, discussing business experiences within the group, and asking advice about business resulted significant and with the expected sign after some time from the end of the course.

The entrepreneurial attitude didn't register other substantial changes apart from the fact that there seem to be some increasing intention to start a new business at the end of the course, although this intent rapidly faded. On the other hand, the intention to introduce new products remained unaltered.

The interest in another free training of the same kind didn't vary in a significant way (since it accounted for a considerable share of answers in both groups, even before the training); but the participants to the pilot course became much more motivated to pay for an extension.

Overall, analyzing the pattern of the outcomes in both periods T1–T2 and T1–T3, one can conclude that, while indicators regarding more "informal" features of money management (taking decisions together) and the conduction of business activities (asking advice and sharing information) surged through time, the magnitude of the impact of training on all the other aspects regarding money management and entrepreneurship, after positive initial results, tended to cease afterwards. Such a phenomenon concerns especially those practices implying constant attention and care, such as keeping track of the money, separating personal from business expenses, and looking for a new business.

4.3 Volunteer participants

The analysis of the outcomes has been thereafter concentrating on the possible different the effects of the training on WPC members, for whom attendance was compulsory, and on non-WPC members, all of whom voluntarily asked to participate to the course and were randomly associated to treatment and control groups. Results are reported in Table 8.

Comparing the WPC and non-WPC side of the sample (and so, its compulsory and voluntary side), it appears clear that the former took much more advantage from the course, since none of the variables of the non-WPC side provide significant parameters associated to the variable denoting participation to the training program (and therefore differences between the treatment and the control group), but the number of missing repayments and the implementation of profit calculation. However, even in these fields, the improvements of WPC members look more prominent.[4]

4.4 High or low interest in training before the course

Comparing the borrowers that at the beginning of the course declared to have high interest in an entrepreneurial training (measured by their intention to pay) versus those who had low interest, the outcomes are similar to the WPC/non-WPC analysis. Indeed, the former are likely to achieve significant improvements in several fields, while the latter perform better only with regard to missing repayments, separation of personal and business money, and intention to start a new business (Table 9). Considered altogether, WPC members and those who at first were willing to pay for the training have been the ones that benefited the most from this opportunity. As for the former group this effect might be due to the combination of the compulsory attendance required, the benefits stemming from the structured nature of WPCs, and the constant support received. For the latter group differences seem reasonably ascribable to the greater motivation and attention paid from the very first lesson.

[4] The parameter associated to profit calculation is larger in magnitude but less significant for non-WPC members.

Table 8: Impact of training on institutional/household variables, and on money management and business practices outcomes, DID estimates, January–June 2010, WPC and non-WPC members

Dependent Variable	WPC				Non-WPC			
	Treatment impact, without covariates	P>|t|	Treatment impact, with covariates[a]	P>|t|	Treatment impact, without covariates	P>|t|	Treatment impact, with covariates[a]	P>|t|
Average missing repayments per month	-0.8172	0.000	-0.6291	0.006	-0.5232	0.033	-0.4852	0.057
Average missing repayments per month w/o doubled repayment	-0.8065	0.000***	-0.6274	0.002	-0.6316	0.007***	-0.6137	0.020**
Total savings	5.1146	0.024**	4.2490	0.101	2.5599	0.629	2.0123	0.768
Withdrawals	180.2288	0.526	377.8197	0.251	109.6196	0.647	94.8656	0.751
Average family income, monthly	-233.4746	0.447	-455.9727	0.063*	578.5666	0.036	174.9782	0.569
Average family expenditure, monthly	-205.2542	0.738	581.9906	0.348	-839.3682	0.305	-968.1639	0.347
Wife working with the husband	0.1011	0.051*	0.0783	0.136	0.0476	0.220	0.0714	0.177
New business started with a loan	-0.0538	0.414	-0.0093	0.904	0.1116	0.138	0.0850	0.389
Decisions together within the household	0.3381	0.000***	0.3190	0.000***	0.0905	0.428	0.1346	0.308
Loan used for other purposes	0.0097	0.915	-0.0041	0.966	0.1032	0.413	0.0427	0.765
Personal and business money mixed	0.2739	0.001***	0.2543	0.002***	0.2009	0.076*	0.1587	0.214
Keeping track of revenues and expenditures	0.2382	0.011**	0.2527	0.013**	0.1407	0.317	0.0519	0.741
Calculation of profit	0.2798	0.003***	0.3064	0.002***	0.2885	0.037**	0.2920	0.066**
Sharing business experiences within group	0.2638	0.004***	0.3104	0.001***	0.2222	0.120	0.2429	0.120
Asking advice about business	0.5286	0.000***	0.5306	0.000***	0.1200	0.249	0.0773	0.529
Interest in a free training	-0.0179	0.563	-0.0284	0.430	0.0615	0.413	0.0705	0.510
Interest in a costly training	0.1429	0.008***	0.1508	0.011**	0.1615	0.084*	0.1914	0.114

Number of observations: 173. Each coefficient reported in the table corresponds to a separate regression.

Covariates include number of loans, last loan amount, business previously owned by relatives and knowledge of English.

(*) significant at 10% / (**) significant at 5% / (***) significant at 1%.

Table 9: Impact of training on institutional/household variables, and on money management and business practices outcomes, DID estimates, January–June 2010, high and low interest in training

Dependent Variable	High Interest				Low interest			
	Treatment impact, without covariates	P>|t|	Treatment impact, with covariates[a]	P>|t|	Treatment impact, without covariates	P>|t|	Treatment impact, with covariates[a]	P>|t|
Average missing repayments per month	-0.7091	0.000***	-0.5623	0.009***	-0.7196	0.009***	-0.8667	0.009***
Average missing repayments per month w/o doubled repayment	-0.7631	0.000***	-0.6366	0.002***	-0.7345	0.001***	-0.8135	0.003***
Total savings	4.5919	0.074*	3.1680	0.312	3.4794	0.340	4.8144	0.308
Withdrawals	-21.9224	0.922	146.9360	0.603	649.2083	0.117	1117.4580	0.135
Average family income, monthly	-48.7615	0.807	-328.3675	0.159	180.4167	0.806	-203.8636	0.615
Average family expenditure, monthly	-763.9862	0.089*	-356.4938	0.499	286.2500	0.853	2719.7130	0.169
Wife working with the husband	0.0743	0.055*	0.0435	0.276	0.1724	0.131	0.2063	0.199
New business started with a loan	-0.0265	0.599	-0.0296	0.641	0.0402	0.774	0.1706	0.454
Decisions together within the household	0.2743	0.000***	0.2706	0.000***	0.1571	0.434	0.0979	0.674
Loan used for other purposes	0.0249	0.760	-0.0176	0.838	0.2000	0.426	0.2620	0.394
Personal and business money mixed	0.2123	0.002***	0.1650	0.026**	0.4737	0.036**	0.5189	0.048**
Keeping track of revenues and expenditures	0.2108	0.014**	0.1796	0.061*	-0.0260	0.908	-0.0035	0.988
Calculation of profit	0.2751	0.001***	0.2722	0.003***	0.2381	0.281	0.2933	0.238
Sharing business experiences within group	0.2085	0.012**	0.2502	0.007***	0.3810	0.083*	0.4646	0.061*
Asking advice about business	0.4494	0.000***	0.4811	0.000***	0.3810	0.076*	0.3912	0.082*
Intention to introduce a new product	-0.0524	0.564	0.0294	0.771	0.3117	0.149	0.3872	0.096*
Intention to start a new business	-0.1221	0.184	-0.0909	0.377	0.4000	0.067**	0.5153	0.037**

Number of observations: 173. Each coefficient reported in the table corresponds to a separate regression.

Covariates include participation to WPC (compulsory/voluntary attendance), number of loans, last loan, business previously owned by relatives and knowledge of English.

(*) significant at 10% / (**) significant at 5% / (***) significant at 1%.

5. Conclusions

The primary objective of the study was to test the effectiveness of a money management and entrepreneurial training course on the beneficiaries; the objective was then declined in several hypothesis tests that had the purpose to evaluate the impact on a number of different variables.

The overall impact is definitely positive and significant, though several teachings didn't reach the desired effect.

The findings are presented in Table 10.

Table 10: Measurement types used to determine the effectiveness of the training

Description	Findings
Acquisition of management skills	42.68% of recipients completed correctly 100% of the homework; most of the recipients completed correctly 80% of the homework.
Capacity to apply the skills gained	Three months after the completion, 42.11% separates personal and business money, 76.32% keeps track of expenses and calculates profit (DID regression coefficients respectively 0.2350, 0.2033 and 0.3006, significant at 1%), significant improvements in sharing business info and asking advice. No significant differences in incorrect use of loans.
Effectiveness on money management	Significant reductions in delayed or missed repayments; increase in weekly savings (DID regression coefficients respectively -0.7340, 4.7379, significant at 1% and 5%). No significant impact on loan pattern, monthly income or consumption. No significant impact on withdrawals.
Effectiveness on business activities and entrepreneurship	No significant impact on new start-ups and new products introduction; no significant changes in number of women starting a part-time job or changing job. Significant differences in number of women joining the husband's job (DID regression coefficient equal to 0.0902, significant at 5%.

The money management fraction of the course (first three lessons) was undoubtedly more effective than the entrepreneurial side (last two lessons), probably due to the relative ease of application of the practices learned.

Significant effects were found on separation of personal and business money, keeping track of revenues and expenditures and basic accounting, that lasted even more than three months after the completion of the course (though a reduction of the impact was observed in time); as a result institutional outcomes such as the number of missing or delayed repayments and average weekly savings shown significant improvements.

On the other hand, only minor improvements were found on the entrepreneurial side: though practices such as sharing of business information and asking advice to customers or wholesalers registered a

significant rise, no impact was found on women starting a new job (part-time or full time), changing it, or introducing new products. A greater initiative and participation was reported (taking decisions together with the husband, working more often with him and monitoring the family business), but in order to induce to such radical changes in lifestyle and business practices major incentives and a formal set-up are required. The use of the loan for purposes other than business couldn't also be addressed.

Secondary objectives of the research included measuring the effectiveness of the course on voluntary and not-voluntary members, and on members with high or low interest in a training course.

Comparing the compulsory and voluntary side of the sample, it appears evident that the former took much more advantage from attendance, since none of the outcome variables of the voluntary side were found to have witnessed significant improvements but the number of missing repayments and the fraction of borrowers calculating their profit; even in these fields the improvements of compulsory members were more prominent.

The borrowers that at the beginning of the course had relatively high interest in an entrepreneurial training (measured by intention to pay) obtained more significant improvements in a number of skills and institutional outcomes, while for those who had low interest significant differences were found only in the number of delayed or missing repayments, interest in a costly training and intention to start a new business.

From a policy perspective, since the overall impact of the course was greater on members that were more interested in training and shown superior motivation since the very first lesson, or on members more active within the community and more tied to the MFIs programs, a formal set-up and compulsory lessons seem to be more effective. This might be due to the relative intrinsic difficulty of homework and the need of initiative and motivation to apply the practices (easier to be found in well-established groups or through limited monetary incentives associated with positive results).

More tangible improvements could be therefore obtained by formally integrating the courses within the Microcredit Program infrastructure.

A course administered by branch managers or collection officers − with the granted opportunity to reach higher credit limits once obtained adequate results in the homework and final test − might be the optimal set-up for similar interventions.

Such an increase of the credit limit could encourage the women to enhance their business activity or to start a new one, and could be a great incentive to the course attendance. On the other hand, it could ensure a proper use of the loan with its aim of promoting female empowerment, limiting its use for

personal consumption or collateral activities. This could also, on the microfinance institution's side, reduce default or delay rates and so operative costs.

Such a program would request a careful planning, greater expenses and efforts, but it would allow to: a) integrate a true empowerment program into the microfinancial platform, allowing a better use of the service and a full understanding of its possibilities from the beneficiaries; b) dramatically increase the relations of the group members with the branch managers and collection officers, that would become true agents of development on the field; c) motivate the women to participate to active working life, to money management and entrepreneurship, posing new target and objectives to be reached and encouraging upper education within the household.

Bundling training modules to microfinancial products seems overall to be a winning choice, from the perspective of both the MFIs and the borrowers. Though a careful design of the contents, fees, incentives and rewards is needed during scaling up, the advantages of training can by far exceed the costs for the MFI and help to achieve the objective of successfully helping the borrowers to exit poverty.

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Appendixes

Appendix 1: Logit Estimates

Dependent Variable	**Difference,** March (T2)–June 2010 (T3)				
	Treatment impact, without covariates	**P>|z|**	**Treatment impact, with covariates[(a)]**	**P>|z|**	**LR chi2**
Wife working with the husband	1.7187	0.031**	1.6297	0.064*	6.05
New business started with a loan	0.0028	0.957	0.0205	0.740	0.0000

Table A1: Impact of training on institutional and household outcomes, LOGIT estimates, March–June 2010

Number of observations: 173
Each coefficient reported in the table corresponds to a separate regression.
[(a)] Covariates include participation to WPC (compulsory/voluntary attendance), number of loans, last loan, business previously owned by relatives and knowledge of English language
(*) significant at 10% / (**) significant at 5% / (***) significant at 1%

Table A2: Impact of training on money management and business practices, LOGIT estimates, March–June 2010 and January–June 2010

Dependent Variable	**Difference,** January (T1) – March 2010 (T2)				**Difference,** January (T1) – June 2010 (T3)			
	Treatment impact, without covariates	**P>|z|**	**Treatment impact, with covariates[(a)]**	**P>|z|**	**Treatment impact, without covariates**	**P>|z|**	**Treatment impact, with covariates[(a)]**	**P>|z|**
Interest in a free training	0.1283	0.899	-0.0997	0.932	0.0790	0.924	0.0090	0.992
Interest in a costly training	2.1430	0.006***	2.4467	0.003***	2.1107	0.007***	2.4438	0.005***
Decisions together within the household	1.6102	0.003***	1.7584	0.005***	2.0326	0.000***	2.1121	0.000***
Loan used for other purposes	-0.1260	0.765	-0.3682	0.444	0.1931	0.593	0.0843	0.837
Personal and business money separated	2.097	0.000***	2.0415	0.000***	1.6423	0.000***	1.5999	0.001***
Keeping track of revenue and expenditure	1.3022	0.000***	1.5302	0.000***	0.8928	0.006***	0.8709	0.016**
Calculation of profit	2.7300	0.010***	2.5686	0.021**	1.2308	0.000***	1.3661	0.000***
Sharing business experiences within group	-0.0800	0.861	-0.3280	0.519	1.1350	0.001***	1.3192	0.001**
Asking advice about business	n/a	n/a	n/a	n/a	2.4686	0.000***	2.5718	0.000***
Intention to introduce a new product	-0.0437	0.894	-0.0654	0.863	-0.0308	0.926	0.2668	0.486
Intention to start a new business	0.8999	0.014**	0.9197	0.026**	-0.2025	0.567	-0.0265	0.948

Number of observations: 173

Each coefficient reported in the table corresponds to a separate regression.

Covariates include participation to WPC (compulsory/voluntary attendance), number of loans, last loan, business previously owned by relatives and knowledge of English.

(*) significant at 10% / (**) significant at 5% / (***) significant at 1%.

Appendix 2: Synthesis of the Course contents

Lesson 1 (Loan Use)

The first lesson is relatively brief compared to the others, since before its beginning the group was requested to fill up the first assessment questionnaire.

It focuses on the correct use of the loans obtained from IIMC, through the stories of three women that made different uses of it, with the relative consequences (strongly underlined to be easily comprehended); the cardinal points are avoiding to spend the loan for personal consumption or paying the installments with the loan itself without any investment.

Collateral points briefly touched and introductory to the second lesson are the division between money to be spent for personal consumption and business activities, and the advice to increase the communication about revenues, expenses and investments within the household.

This lesson has been designed as the first since a large number of IIMC borrowers use a great percentage of the loan for activities other than investment, a behavior that doesn't allow an effective exit from poverty in reasonable times; this concept will be reviewed in the following lessons.

Lesson 2 (Profit and basic accountancy)

The second lesson deals with the importance of keeping track of expense and income at household level, and consequently asks to try to calculate one's own profit.

To this end the principle of separation of the money is fully introduced, through a role-play that shows how a Bengali woman (even illiterate) can be conscious of her expenses in every field dividing them among different coloured boxes *(Cash-Box System)*, and then observe the evolution of her (or her husband's, in most of the cases) business (that would be impossible if considered only total expenses and revenues).

Further benefits guaranteed by these practices are the capacity to decide how much to reinvest in the business activity, how much to save and to use for personal consumption.

This lesson introduces the core of *money management* and its key principles, that will be reviewed and expanded during the following lessons.

Lesson 3 (Reinvesting the profit, savings and separating the money)

The third lesson is the direct prosecution of the second: the money division system is extended introducing possible loans that give a growth impulse to the activity. The same role-play is repeated, this time introducing loans, the concept of reinvesting the profits in the activity and the importance to gather savings or make deposits. It is also explained that credit dependency (very usual) is a negative element, and how to quantify the amount really necessary to request in a loan application.

This lesson also allows the beneficiaries to refine their calculation skills and to apply it to the household's business activity.

Lesson 4 (Problems, solutions and innovations)

The fourth lesson moves from the concept of money management to entrepreneurship (informal and in a small scale). Beginning with a tale, the students are asked to point out the problems in a specific business, which are the possible solutions and how to find them.

Then the lesson becomes a collective brainstorming: various examples of real business problems are requested to the women, and the group with the support of the teacher and translator looks for one or more suitable solutions. This drives the beneficiaries towards gaining a critical view towards their activities, analyzing solutions from different viewpoints and asking advice to third parties (included Microcredit officers, suppliers, customers, acquaintances active in the same field).

The lesson is definitely relational, and asks for a translator with knowledge of the local rural working condition.

Lesson 5 (Finding a new business)

The fifth lesson, also firmly relational, encourages the beneficiaries to examine new working opportunities in the nearby area and to analyze their feasibility in a wide range of aspects.

Presented through a story a situation analogous to most of the listeners' condition, they are requested to point out the pro and cons of each working alternative.

Thereafter cards are distributed to sub-groups of circa 5 people, and each group must identify the most adequate and profitable working possibility in the area from the point of view of:

- Meeting unmet demands/needs
- Learning what customers want
- Presenting an attractive package or service
- Calculate the costs of a new activity
- Testing the product/service

A discussion among the groups about the best alternative follows.

This lesson also seeks to develop the critical and innovational capacities of the beneficiaries, and to motivate them to exploit the Microcredit service directly starting a new business in a small scale. It is also the ideal conclusion of the pilot course.

Appendix 3: questionnaires

Research questionnaire (T1=C1), English version

General information

1. Name?
2. Are you a member of Women Peace Council?
3. Business Type? (NOT Woman Peace Council, any other activity you do)
4. Do you work together with your husband?
5. Was the business you run owned by any of your relatives before you?
6. Did you start a new business with a loan?
7. How many rupees do you earn every day? /Month
8. How many rupees do you spend every day? /Month

Borrower profile

Loans	Amount
1st loan	
2nd loan	
3rd loan	
4th loan	
5th loan	
6th loan	
others	

Savings amount

Weekly savings

Withdrawals	Amount
1st	
2nd	
3rd	
4th	

9. How much do you spend? (day or month, is the same)

Kind	Day	Month
Durable Goods (House, Tools, Savings)		
Personal Consumption (Food, Clothes, Tobacco,		
Health (Medicines, Hospitals)		
Business (Raw materials, Machines, Employees)		
Education (School)		

10. How much money do you save each day? (day or month, is the same)

Savings	Day	Month
Children – Education		
Emergencies (Health, Loss of work, Family Issues)		
Business (Future improvements)		
Personal Consumption (Clothes, TVs, Entertainment)		
House, Tools		

Entrepreneurial Training Interest

11. Imagine there would be a free entrepreneurial training available, would you be interested in joining?
12. And if you had to pay a small amount for it? (Shared with other group members)

Business Skills

13. Do you know some English words? (numbers, hello, goodbye, asking and telling name and country, how to bargain)
14. Do your husband make decisions regarding the business alone, or together with you?
15. Do you spend your loan money also for other things, apart the business? (like food, clothes, health, emergencies, education, house…)
16. Do you mix your personal and business money?
17. Do you keep track of your revenues and expenses in a book?
18. Do you calculate the seasonal/weekly profits of your business?
19. Do you know why you have to pay an interest on your loan, or receive an interest on your savings?
20. Do you get advice from anybody on how to run the business? From who?
21. Do you exchange thoughts with other women in your same business (about improvements, customers, places where to buy or sell)?
22. Do you buy raw materials /alone /together with others?
23. Do you ask to your customers, microcredit officers or suppliers advices on how to run your business?
24. Do you plan to add new products to your business in the near future? (if yes, name them)
25. Do you plan to start a completely new type of business in the near future? (if yes, tell what business)

Training course evaluation questionnaire (T2,C2 excludes section 2 "Training Feedback"), English version

General information

1. Name?
2. Business Type?
3. Husband Business type?
4. How many rupees do you earn every day? /Month
5. How many rupees do you spend every day? /Month

Training Feedback

6. Do you think the course was useful to you?
7. Would you advice it to your friends and husband?
8. What lesson did you prefer?
   - Loan use
   - Profit and separating the money
   - Managing the money, savings
   - Finding problems & solutions in the business
   - Identifying new businesses
9. What is the most important thing you learned from the course?
10. Would you do other lessons if possible?
11. What would you like to learn in another course?

Entrepreneurial Training Interest

12. Imagine there would be a free entrepreneurial training available, would you be interested in joining?
13. And if you had to pay a small amount for it? (Shared with other group members)

Business Skills

14. Do your husband make decisions regarding the business alone, or together with you?
15. Do you plan to spend your next loan money also for other things, apart the business? (like food, clothes, health, emergencies, education, house…)
16. Did you start to separate personal and business money? (or plan to)
17. Did you start to track of your revenues and expenses? (or plan to)
18. Did you start to calculate the weekly/weekly profits of your business? (or plan to)
19. Do you plan to exchange thoughts with other women in your same business (about improvements, customers, places where to buy or sell)?
20. Do you plan to ask to your customers, microcredit officers or suppliers advices on how to run your business/your husband business?
21. Do you plan to add new products to your business (or your husband's business) in the near future? (if yes, name them)
22. Do you plan to start a small or part-time job in the near future? Which one?
23. Do you plan to start a completely new type of business in the near future? (if yes, tell what business)

Follow-up research questionnaire (T3=C3), English version

General information

1. Name?
2. Business Type?
3. Husband Business type?
4. How many rupees do you earn every day? /Month
5. How many rupees do you spend every day? /Month
6. Microcredit group name?

Entrepreneurial Training Interest

7. Imagine there would be a free entrepreneurial training available, would you be interested in joining?
8. And if you had to pay a small amount for it? (Shared with other group members)

Business Skills

9. Do your husband make decisions regarding the business alone, or together with you?
10. Do you plan to spend the loan money also for other things, apart the business? (like food, clothes, health, emergencies, education, house…)
11. Do you separate personal and business money?
12. Do you keep track of your revenues and expenses?
13. Do you calculate the weekly/weekly profits of your business?
14. Do you plan to exchange thoughts with other women in your same business (about improvements, customers, places where to buy or sell)?
15. Do you ask to your customers, microcredit officers or suppliers advices on how to run your business/your husband business?
16. Did you add new products to your business (or your husband's business) in the last four months? Which ones?
17. Did you start a small or part-time job in the last four months? Which one?
18. Did you to start a completely new type of business in the last four months? Which one?

Appendix 4: Homework

Homework 1 (H1), English version

Homework 1 (H1), English version

Name:
Last Loan Amount:
Type of Business:

Things you bought with the loan	Amount	Price per unit	How did you use it?

Homework 2 (H2), English version

Name:
Last Loan Amount:

Costs		**Revenues**	
Cost 1	Amount	Revenue 1	Amount
Cost 2	Amount	Revenue 2	Amount
Cost 3	Amount	Revenue 3	Amount
Cost 4	Amount		
Cost 5	Amount		
Cost 6	Amount		
Cost 7	Amount		
Total Costs	Amount	**Total Revenues**	Amount

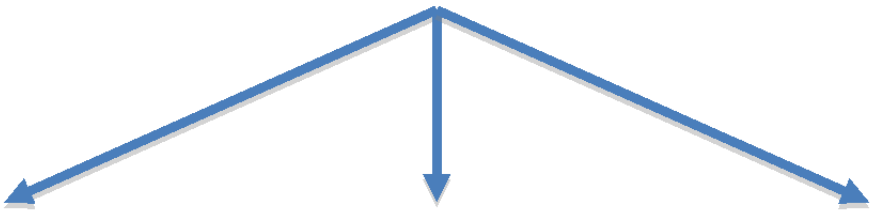
Type of Business:

Homework 3 (H3), English version

Name:
Last Loan Amount:
Type of Business:

Profit = Business Revenue – Business Costs

Profit =



Personal Consumption (e.g. food, clothes, tobacco..)		**Savings**		**Business Reinvestments**	

Homework 4 (H4), English version

Name:
Last Loan Amount:
Type of Business:

1. What is (are) the problem(s) in your business?
2. What is (are) the cause(s) of the problem(s)?
3. What solution(s) did you find?
4. How did you find this (these) solution(s)?
5. What did you learn from customers and other business people?

Homework 5 (H5), English version

Name:
Last Loan Amount:
Type of Business:

Business Idea:

When to do it:
How to do it:

Costs

Type	Amount	Type	Amount
1.		3.	
2.		4.	

Revenues

- For one single product sold?
- How many units do you think you could sell in one week/season?

How this idea:

- Meets unmet demands/needs?
- Learns what customers want?
- Presents an attractive package?
- Can be tested?

Who are your:

- Competitors?
- Customers?
- Suppliers?

Appendix 5: Treatment and Control group questionnaires respondents and accounts data collection

Group name	Research questionnaire (T1=C1)	Training evaluation questionnaire (T2 and C2)	Follow-up research questionnaire (T3=C3)	Financial Data
Hatgacha (g1)	26	30	21	19
Kehadah (g2)	30	20	19	19
Chakberia (g3)	16	11	10	11
Kalyanpur (g4)	20	15	16	17
Prasadpur (g5)	19	7	10	13
Total *treatment* group	**111**	**83**	**76**	**79**
Mollihatti (gc1)	8	8	6	8
Ragovpur (gc2)	10	8	8	10
Tehuria (gc3)	8	8	8	8
Chow Atatullah (gc4)	11	10	10	10
Keyapukur (gc5)	11	11	11	11
Hatgacha School (gc6)	10	10	10	10
Hatgacha Bank Groups (gc0)	19	15	15	19
Chakberia Bank Groups (gc0)	15	12	13	15
Total *control* group	**92**	**82**	**81**	**91**
TOTAL	**203**	**165**	**157**	**170**