Innovative and Interactive Ways To Improve The Financial Capability And Savings Of Women

Deepti Kc and Mudita Tiwari
IMTFI Fellows
ABSTRACT

The gender gap in financial inclusion (knowledge and usage) shows many women are not informed to make decisions on which products and services to take up as well as how to manage their long-term finances. Development experts argue that what women truly need is education and counseling on how to maximize the minimal funds they are investing and saving. At the same time, financial education is not enough if women do not have access to saving products. Lately, economists and researchers have experimented with savings tools beyond basic banking access, such as, a secure lockbox to safe keep money.

We conducted an experiment in Bihar, eastern state of India, with 203 women who were associated with Self Help Groups (SHGs). We attempted to understand if context-specific Financial Education (FE) helps women pay attention to their savings needs. We also provided an alternate savings tool- a lock box with a key- to understand if the savings products could improve their savings capability.

Findings suggest that providing a low-cost tool such as a lock box, along with the relatable FE modules, improved the savings behavior of women. A mere placement of the concept of daily savings in the minds of women brought about a change of behavior towards their perception over their own income. At the same time, their ability to place coins and small change in a lock box with a key provided a safe space for daily unnecessary expenses to be avoided, but also promoted a dialogue within the household itself about future-oriented thinking. Interestingly, as daily savings increased, women saved more with SHGs.
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The poor have the capacity to save. However, a key contributing factor to their inability to meet their savings goals is the absence of cleverly marketed and carefully tested financial products. These products cannot be limited to access to banking institutions, but also must include targeted and context-specific financial counseling. One major obstacle to financial inclusion is undoubtedly the gender disparity. The Global Findex Database 2014 states that 62 per cent of men above the age of 15 hold an account at a financial institution compared to 43 per cent of women. This data confirms the already well-known perception that women are marginalized in their participation in the financial marketplace.

Directing financial inclusion to reducing the gender disparity will result in better household dynamics for the poor. Findings reveal that households where women have more control over income—either through their own earnings, savings, or through cash transfers—are likely to increase spending on food and education. Studies have also implied that women are more responsive to savings solutions that reduce temptation spending and other saving barriers. However, the gender gap in financial literacy (knowledge and capability) shows many women are not informed to make decisions on which products and services to take up as well as how to manage their long-term finances. Thus, they often turn to risky and expensive informal savings products and services.

Many researchers are conducting social experiments that train, counsel, or motivate women to make better financial decisions.
One such study found women who were exposed to financial education training were more likely to save than those who were not. 

Development experts argue that what women truly need is education and counseling on how to maximize the minimal funds they are investing and saving. At the same time, financial education is not enough if women do not have access to saving products. Lately, economists and researchers have experimented with savings tools beyond basic banking access. The first study of this type introduced a lock box to respondents in a randomized controlled trial in Kenya. The findings show that supplying a secure lockbox to store money increased savings by 66 per cent. They also found positive impact for women with “below median decision-making power in the baseline.” The product led to a higher “self-perception” among the participants of their savings behavior and positively affected consumption decisions on durable goods.

Previous research findings and our own case studies motivated us to understand if context-specific and culturally relevant financial education training designed to help women pay attention to their short-term (less than a year) and long-term (longer than a year) savings needs. With an eye to the innovative project conducted in Kenya, we decided to provide alternate savings tools to our respondents, along with financial education, to understand if the savings products could improve their savings capability.

This report presents the findings of our experiment. We highlight how the context-specific and culturally relevant financial literacy program enhanced women’s attitudes towards saving and how the access to an alternative savings tool drastically changed women’s saving habits.
This study examined the impact of the financial education and alternative savings tool on women’s savings capability. We used a mixture of both qualitative and quantitative research methodologies to conduct the study. Two hundred and three women in seven villages in Gaya district in the state of Bihar, eastern state of India, were randomly selected. All women were living in villages that also had a Self Help Group (SHG) set up by the Government of Bihar under the program Bihar Rural Livelihoods Project (BRLP) or the Project Jeevika.

These 203 female respondents were randomly subdivided into five groups, with 40 women in each group.

- **Group A (Control):** Women received no intervention.
- **Group B (Treatment):** Women received an alternative saving tool: a lock box and a key.
- **Group C (Treatment):** Women received financial literacy training.
- **Group D (Treatment):** Women were provided with a financial diary to track their expenses, but they were neither given any financial literacy training nor any alternative savings tool.

*SHGs are village-level group savings entities, which interact with banks, social service providers, and business entities. Each participating member can save money in the SHG pooled account. The SHG is both a community meeting grounds and a liaison to access to loans, financial literacy training, and in some cases, education on livelihoods promotion programs.*
Group E (Treatment): Women received financial training, a lock box and a key as well as a financial diary.

Given the objective of the study was to understand how the savings behavior of women changed over time; we made multiple-visits (in the span of approximately two weeks between two visits) to the same respondents. Each woman was surveyed over the course of three months.

First Visit (Quantitative) A baseline survey, collected information on socioeconomic factors and financial behavior of women; women’s savings strategies; women’s relationship with existing formal and informal financial services; and challenges women face while managing their money. We tested women’s reading and mathematical skills using test materials provided by Pratham.10

Second Visit (Qualitative) Intervention, women who were randomly selected for treatment groups received the assigned intervention. Additionally, one-on-one discussion was conducted with women that received financial literacy training.

Third Visit (Quantitative) Mid-line survey, collected data on women’s financial behavior, post-intervention.

Fourth Visit (Qualitative) Focus Group Discussions with women. We tested if women understood the content of the stories and their retention of information.

Fifth Visit (Quantitative) End-line survey, during which we collected data on women’s savings post-intervention. We asked women if they faced any domestic disputes by being part of the study; if respondent’s spouse prevented her from using any formal institution; or saving tools separately.
TREATMENT AND CONTROL GROUPS BALANCE

In the baseline survey, we tested the literacy level of women and used it to assign a literacy score to each respondent. This literacy score measured the “on-the-spot” reading and quantitative abilities of women. Women were asked to read letters, words, paragraphs, and a short story. Their performance on these tests was used to assign a reading score. Similarly, the respondents were asked to identify numbers, perform a subtraction problem and a division problem, which was used to rate their quantitative skills. The maximum possible literacy score was 120, but 80 was the highest score attained by 11 per cent of women, while 53 per cent scored 0. The two-sample t-test gives a T-value of -1.8266, thus indicating there was no difference between the literacy score of women allocated to control and treatment groups (at 0.05 significance level).

In addition, 75 per cent of households owned land that was less than 1.29 acre (including household and agricultural land). With
the t-value of 0.8056, we concluded that there was no difference between the land ownership of the participants allocated to control and treatment groups (at 0.05 significance level).

Lastly, we scored women’s financial status based on a set of variables in relation to women’s access to formal financial services and their financial decision-making power within their households. The t-test reveals that the financial status of the treatment and control groups are comparable (at 0.05 significance level) with a t-value of 0.3637.

These tests verified that women that were randomly assigned to treatment and control groups were comparable based on their literacy level, land ownership, and their financial status.

**WOMEN AND THEIR FINANCIAL BEHAVIOR**

All women belonged to socio-economically disadvantaged groups, with the majority belonging to Other Backward Caste (48 per cent), Scheduled Caste (25 per cent) and Scheduled Tribes (11 per cent). The primary source of income for the households was
from non-agricultural labor jobs (47 per cent), own farm activities (17 per cent), agricultural wage labor jobs (13 per cent), remittances from outside (5 per cent) and government payments (1 per cent). Only 14 per cent had their own enterprises. Even though all households owned land, on average, the land size was 0.235 acres for housing and 0.38 acre in use for farming, indicating they were all marginal or smallholder farmers.

On average, the age of women in our study group was 34 years. In any household, on average, there were seven members with three children and two income generating household members.

All women were engaged with SHGs and 85 per cent of them were frequently depositing the required savings amount to their respective groups. Nevertheless, they were depositing the minimum required savings amount (between Rs. 10 per week), and had not increased their savings amount, mainly because they perceived they could not save more.
64 per cent women reported of their households having at least one bank account. Impressively, 62 per cent women had a separate bank account. 36 per cent women reported trying to open a No Frills Zero Balance account through banking agents, amongst which only half succeeded. The most encountered problems were long procedures (19 per cent), bank officials’ unwillingness to guide them through the process (17 per cent) and lack of relevant IDs (11 per cent).

Regarding the use of banking services, 52 per cent of women reported of their depositing money in the banks. 51 per cent reported of primarily keeping it at home or other informal strategies such as giving out interest-free loans (20 per cent) or keeping money with family or friends (21 per cent).

93 per cent of women reported saving separately from their husbands and other family members. Women reported that their savings were kept to cover unexpected expenses due to emergencies (60 per cent), health expenses (36 per cent) and children’s education fees (29 per cent). 49 per cent of women reported frequently hiding money from their husband and other family members. Only 17 per cent reported experiencing difficulties while keeping their savings with themselves.

71 per cent reported that they had visited banks at least once to withdraw or deposit money. The majority of bank account holders (90 per cent) had used the banking services at least once in the previous year, mostly to receive payment from the government. Almost no one used the post office as a means to save money due to either their lack of knowledge (43 per cent), saving through other means (29 per cent), not having a post office account (14 per cent), or living far away from the branch (14 per cent). Women were actively using mobile phones as well, even though they did not own one. For example, 70 per cent women did not personally own a mobile phone; however, 82 per cent reported using a mobile phone on the day of the survey.
**Financial Literacy and Alternative Savings Tools**

Our previous study in Dharavi, a slum in Mumbai, found that despite having a savings account, women were using different mechanisms to hide money in places such as food jars, inside a pile of clothes, a talcum powder box, rather than depositing their savings in banks. Many women were not aware of banking products and alternatives available to them, and many did not see value in frequently going to banks to deposit money. We found the similar trend in our study site too.

These findings motivated us to design context-specific financial education modules for women that addressed the knowledge gap about financial products and services as well as the underlying behavioral biases impacting the financial decisions of women.

We developed modules using a story telling approach through a series of comic books, which interactively talk about the (i)
financial indiscipline, temptation spending, and the financial risks of keeping cash on hand and other informal savings mechanisms; (ii) lack of financial awareness faced by relatable characters; and (iii) approachable solutions that reduce savings inertia in the long-term.

One aspect of the story focused on the individual’s potential to cut down on their temptation goods, or “non-essential items.” In a study that examined the common habit of excessive expenditure on temptation goods researchers found that most individuals were aware of the expenditures they needed to reduce. For example, a study revealed that of the 28 per cent of respondents who were able to name an expenditure they wanted to eliminate, 44 per cent marked that as alcohol and tobacco. Keeping this in mind, in our financial education training, we encouraged respondents to cut down on such expenditures to increase savings.
Stories were developed keeping the local context in mind, by including familiar physical locations and using local language to communicate information. The real life incidences described in the comic book highlight the importance of behavioral concepts such as financial discipline through prioritization and self-awareness, and loss due to delayed savings and temptation spending when attempting to save money over a long-term.

Stories highlighted the risks of using informal institutions and the benefits of using banking services or other formal channels such as government or local NGO promoted SHGs. By providing an example of a female vegetable vendor and how she was able to manage her finances for an emergency expense, the comic book story provided a point of reference that our women respondents could use as a comparison to analyze their own financial situation.
We tested financial literacy tools with migrant laborers in New Delhi and we found that the targeted and context-driven financial training was effective in increasing savings; however, lack of access to savings devices (or banking services) hindered the respondents’ ability to save as much as they had wanted to. Hence, for this experiment, we hypothesized that if a woman is informed about the process of savings, she will also need a savings device. Given the small-scale of this study, providing access to banks was not within our control; hence, we provided a low-cost savings device: a lock box (with a key which women kept) to understand whether an alternative savings method could increase savings (though we encouraged women to save with formal institutions). We asked women not to open the lockbox (soft commitment) until they visited banks or SHG meetings where they could deposit their savings.
A woman receiving the lock box and key

A woman trying using her key for the lockbox
Literate Women Visited Banks

We tracked if women visited banks or other formal financial institutions during this three-month study period after the intervention. In our study group, 64 per cent of households had a bank account. 30 per cent of women reported that at least one member visited the bank to deposit or withdraw money during the study period. 22 per cent of women reported that they themselves visited the bank to deposit or withdraw money in this three-month period. Our data reveals that literate women are more likely to visit banks because women that visited banks had a higher literacy score (30) compared to their counterparts (25) that did not visit banks. Additionally, from our baseline survey, we found that average daily savings of those households that primarily used formal savings channels far exceeded that of households who preferred informal savings channels. For example, such households saved a daily amount of Rs. 46 (7 $0.76) compared to Rs. 21 ($0.35) among other households that used informal saving channels.

Women Faced Intra Household Hurdles While Attempting to Change Their Savings Behavior

Women’s names were not included in the land or house title deeds (94 per cent) and they had very little control over the allocation of their income. For example, 66 per cent of women had a separate source of income; nonetheless, they could not decide how to spend their money. We assigned a score to each woman based on their responses to a number of questions about their decision-making ability in the household. On average, women in our study group scored 2, out of a total possible score of 12,
indicating women had no financial decision making ability within their own households.

By the fifth visit, women started opening up about challenges they face while dealing with their money. 59 per cent reported of husbands controlling their income and facing domestic disputes if they tried to use their money. 50 per cent of women admitted to hiding money from their husbands. It is to be noted that many women were not open to admitting their hiding strategies unless researchers visited them multiple times and gained trust.

Almost all women in our study (97 per cent) reported their husband being aware of their participation in our study. 50 per cent of women reported of their husband not being supportive of their participation in our study, particularly when they tried to save more money. 4 per cent of respondents reported facing continuous domestic disputes with their husband or other family members when they tried to save money after the intervention. 19 per cent of the women who received a lock box during the study hid it from their husband.

**Women shared their knowledge with their family and friends**

Data indicates the benefits of financial literacy training extending beyond women’s behavior. Those that received training were sharing their knowledge with others too. For example, 77 per cent of women that received training reported sharing the stories with others. Impressively, stories motivated women to improve their household’s financial behavior. For example, 73 per cent of women that received training reported discussing the household’s expenses, budget and savings with their husband, after listening to the stories. 59 per cent of women reported that they encouraged their children to save after listening to stories. These findings suggest that financial literacy training has a ripple effect as women expanded their knowledge with their family members.
Financial education improved the savings and perception about banking services

Eighty-five women were provided with financial literacy training. After the training, we tested the women’s level of understanding of various financial concepts such as a budget, compound interest, a No-Frills Account, the importance of saving, disadvantages of informal saving channels, as well as the advantages of formal savings institutions, and assigned a financial literacy score to each participant. Our regression analysis of increase in savings on financial literacy score (coefficient: 3.046 and t-value: 0.17) indicates that for each additional unit of the financial literacy score, there was an increase in savings by Rs. 3 ($0.05).

Research indicates that the poor are reluctant to use the formal institutions because they find the banking system unfamiliar, threatening, or stigmatizing, creating the perception that he or she is not a valued customer. The statement held true to our respondents as well. In the first visit, only 42 per cent women perceived banks as customer-centric and 64 per cent reported that they did not see the advantage in using banking services due to time-consuming banking procedures. The perceptions about the banks changed by the time we visited women for the fifth time. In the fifth visit, 76 per cent reported that they now believed banks to be customer-centric. Only 43 per cent of women were still not convinced about the advantages of banks due to their belief that visiting the bank involved time-consuming procedures.

An access to an alternative savings tool drastically improved the saving capability of women

Right after the intervention, we collected data on women’s bi-weekly savings on the third and the fifth visits. These were the savings women had kept at home; given to friends and relatives; deposited with banks, SHGs, and chit funds; or locked in the
alternative savings tool (a lock box) that we had provided. 94 per cent of the total of 83 women who received a lock box used it to save their money through the study period. Table 1 highlights the increase in bi-weekly savings between the third and fifth visits.

Table 1: Average bi-weekly savings of women in the third and the fifth visits

<table>
<thead>
<tr>
<th>Group</th>
<th>Bi-weekly savings collected in the third visit (after intervention)</th>
<th>Bi-weekly savings collected in the fifth visit (after intervention)</th>
<th>Percentage increased in savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women that did not receive any intervention (80 women) †</td>
<td>Rs. 177 ($ 2.70)</td>
<td>Rs. 180 ($ 2.85)</td>
<td>Increased by 1%</td>
</tr>
<tr>
<td>Women that received FE training only (40 women)</td>
<td>Rs. 246 ($ 4.10)</td>
<td>Rs. 265 ($ 4.42)</td>
<td>Increased by 8%</td>
</tr>
<tr>
<td>Women that received lock box only (40 women) ‡</td>
<td>Rs. 130 ($ 2.17)</td>
<td>Rs. 197 ($ 3.29 )</td>
<td>Increased by 51%</td>
</tr>
<tr>
<td>Women that received both lock box and FE training (43 women)</td>
<td>Rs. 179 ($ 2.89)</td>
<td>Rs. 254 ($ 4.09)</td>
<td>Increased by 42%</td>
</tr>
</tbody>
</table>

Clearly data indicates that while financial literacy is important, however, without a saving device, financial education alone has no significant effect. While financial literacy alone increased the savings by 8%, it was the provision of a lock box that significantly increased the savings.

† It is likely that women of this group might have heard our financial literacy stories as the first women that received training were sharing knowledge with others. It is likely these women were their neighbors or belonged to the same SHG. Second, many times, non-participant women also attended the training at the same time as these were given to the selected respondent. Hence, it is likely that some women (not all) might have attended the training given to their neighbors.

‡ ibid
increased the savings capability of women. This finding is in line with recent research conducted in Kenya that found that by supplying a secure place, like a lockbox, to store money, the savings of participants increased by 66%.\textsuperscript{15}

**OTHER FACTORS ALSO INFLUENCED WOMEN’S SAVINGS BEHAVIOR**

Providing financial literacy training and a saving tool was not the only reason to enhance the savings behavior of women. Our study indicated the presence of other factors, mainly women’s literacy, which influenced women’s motivation to save more.

As reported earlier, we assigned a literacy score to each woman. Our regression analysis suggests that the literacy score has a positive correlation with the increase in savings between the third and the fifth visits. Analysis suggests for every additional unit of a literacy score, there was an increase in savings by an average of Rs. 3 ($ 0.05) (the coefficient is 3.2 with a t-value of 1.5).

Second, women that promoted daughter’s education also saved more. At the same time, we noticed that literate women promoted daughter’s education. Women were asked to list all their children’s age, education level and their own aspirations for their children’s education. There was a gender disparity as mothers’ aspiration for their sons was higher compared to that for their daughters (for example, 65 per cent of sons’ mothers aspired their sons to graduate or attain higher level of education, only 44 per cent of daughters’ mothers aspired the same). At the same time, we found that average literacy score of women who wished for their daughters to graduate or attain a higher level of education as they did for their sons was much higher (literacy score 40) than for women who did not wish so (literacy score 19). Additionally, literate women had improved perception about their financial rights and they were the ones who could manage to control their income. These were the women who managed to save more after the training.
THE INTERVENTION INCREASED WOMEN’S SAVINGS WITH SHGs

During the baseline survey, we asked women about the location (or saving sources) and the total amount they have saved (or deposited) at the time of the interview. SHG was the most popular mode of saving for women as more than 80 per cent of women had deposited an average amount of Rs. 1,329 ($22) at the time of the survey. 42 per cent of women reported having savings of Rs. 4,430 ($74) in their bank accounts (though our data does not reveal if it is household savings or women’s own savings earmarked separately). At the same time, women kept their savings separately at home as well. For example, 37 per cent reported of hiding their average savings of Rs. 520 ($8.6) at home.

During the study, women increased their savings with SHGs. Almost all women were engaged with SHGs and 82 per cent reported of saving regularly with their groups. Women were meeting on a weekly-basis, and in every meeting the majority (87 per cent) was depositing Rs 10 ($0.16), a minimum required amount to be a member of a group. The average bi-weekly savings amount during the baseline survey was Rs. 20 ($0.33).

In the third visit, women that saved with SHGs had an average bi-weekly saving of Rs. 22 ($0.36). By the fifth visit, the average bi-weekly savings increased to Rs. 32 ($0.53). Impressively, there was a substantial increase in savings amongst women in treatment groups compared to control groups. For example, bi-weekly savings of women in control group increased from Rs 26 ($0.43) to Rs 31 ($0.51): 16 per cent increased in saving; whereas women in treatment group increased savings from Rs. 20 ($0.33) to Rs. 33 ($0.55), which is a 39 per cent increase in bi-weekly SHG savings.
Conclusion

Understanding the financial behavior of women in rural areas is a very crucial and progressive step towards eliminating poverty and finding solutions to empower women in the marketplace. While many women in our study were working from home, women did have a wide range of engagement in the economic fabric of the village. Their presence, not only in banks, but also while purchasing vegetables and managing household affairs, made them ideal clients for financial literacy and management training.

Our particular study in rural Bihar is a complement to a previous study, which found that “financial literacy alone is not enough if the poor are not provided with a place to save their money.” Therefore, we took the scope for financial literacy a step further by providing women with a lock box and key.

Financial literacy, according to our findings, is still integral and necessary. The study revealed that literacy does generate interest and motivation among women to save more. The mere placement of the concept of daily savings in the minds of the rural poor can bring about a change of behavior towards their perception over their own income. As we have seen in our study, financial literacy through comic book training brought about a positive perception about banks and bank procedures, as well as interest in engaging more actively with banking in the future.

As stated before, a crucial aspect of our study relates to daily savings. This is only possible through the introduction of a savings tool. Women cannot go to banks every day, especially if they are staying in rural areas. The engagement in Self Help Groups is a step forward but still amounts to minimal and not
daily engagement, as women visit SHGs once a week or in some cases, two weeks. Our data shows that women meet with SHGs on a weekly basis, but were only saving a minimum required amount. During the intervention, we were able to see a change in the behavior of women who were introduced to the notion and importance of daily savings.

Despite this, a very crucial aspect of promoting savings is an understanding of the obstacles to savings, especially in the case of women. Intra-household conflicts, joint control over income, as well as the male-dominated society within which women live where husbands are likely to take money from the house without having to ask, are all challenges to empowering the female member of the household. These are not insurmountable but require an understanding between a husband and wife, which is a message that we seek to spread through the comic book story.

As a result, by introducing a financial literacy training, while also providing women with a lock box, women who are often at home and making purchases that lead to excess change, or managing their children’s usage of the household income, can become more empowered in their own homes. Their ability to place coins and small change in a lock box with a key provides a safe space for daily unnecessary expenses to be avoided, but also to promote a dialogue within the household itself about future-oriented thinking. In addition, as women increase their daily savings, they have potential to increase their savings with banks, SHGs and other formal channels too.

The capacity to save often gets eaten by small purchases and a lack of awareness—something that our study found was moderated by the presence of the lock box and key. Money was already being hidden by women in various parts of the house, to keep the other household members from spending it and could now be kept in a place that cannot be easily opened and taken out.
If providing a low-cost tool such as a lock box, along with the relatable financial education modules, can improve the savings behavior of women, then the findings from this study can encourage NGOs and public policy makers to find very simple tools to implement to help the poorest of the poor increase their savings by a significant amount. This kind of an intervention is not only low cost, but also low maintenance and is the kind of short-term solution that is adaptable to the lifestyles and habits of the poor in India.

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