CONSUMER EDUCATION FOR BRANCHLESS BANKING OUTCOMES ASSESSMENT

FINO PAYTECH, INDIA

Written by Craig Tower
with Toby Robertson &
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Nov
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MFO
microfinance opportunities

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EXECUTIVE SUMMARY

This study is an outcomes assessment of the Consumer Education for Branchless Banking (CEBB) project implemented by Microfinance Opportunities with FINO PayTech (henceforth referred to as FINO) Fintech Foundation in India, and with the support of The MasterCard Foundation. The Foundation also supported MFO's CEBB project in the Philippines, Zambia, and Malawi, with the goal of understanding what role consumer education could play in helping microfinance institutions, telecommunications providers, and other service providers to increase the uptake and usage of their products as a way of assisting their clients to better manage their money.

THE CEBB PROJECT IN INDIA

In India, FINO provides biometric smartcards to clients to enable them to transact with their accounts through FINO's business correspondent agents, known as bandhus. The overall goals of the CEBB project in India were to increase card use among existing customers by providing them with information about the technical aspects of card use and to help clients with the knowledge and skills to manage their money in a way that facilitates savings through small and regular deposits to their bank accounts through access with the FINO card. The design was structured based on MFO's understanding of how to build the financial capabilities of low-income individuals by increasing their knowledge, skills, attitudes, and self-efficacy through trainings while simultaneously offering those individuals opportunities to reinforce their training lessons through the use of a low-cost and convenient financial service.

The CEBB project was designed to provide FINO clients with an initial training in using the card to access their accounts and manage their money while leveraging the presence of bandhus in client communities by equipping them with training materials to use when conducting transactions for clients. MFO designed a program including six hours of classroom session, a set of posters for the delivery of CE by professional trainers, a customer activity book for home use, and a flipbook for field training of clients by bandhus.

According to data provided by FINO, the CEBB project was implemented in 122 villages in the Mau and Jaunpur Districts of Uttar Pradesh, reaching 23,039 clients with direct classroom trainings, while 99 bandhus were trained in the use of the flipbook.

ASSESSING THE OUTCOMES OF THE FINO CEBB PROJECT

MFO conducted the outcomes assessment of the CEBB project in the Jaunpur and Mau Districts of Uttar Pradesh using mixed methods to assess a range of outcomes. Quantitative research was conducted to measure the amplitude of the training program's impact on client financial behavior and monitor the implementation of the CEBB training program. Simultaneously, qualitative research was conducted to assess the training program's impact on the level of client capabilities (knowledge, skills, attitudes, and self-efficacy) and the response to the program by clients and bandhus.

Quantitative methods

We used two quantitative methodologies to measure the amplitude of behavioral change resulting from the training program. We analyzed management information systems (MIS) data provided by FINO about their clientele in Mau and Jaunpur to measure changes in their use of the FINO smartcard during the study period. These data revealed transaction-by-transaction patterns of card use in the study population, providing information on the exact second when they used their cards, the size of their transactions, and the number of transactions during the study period. We used this data to analyze whether the CE had any impact on these factors among cardholders who received training.

We implemented Financial Diaries research to collect weekly data on the financial behavior of participants by recording all of their formal and informal financial transactions, including income, expenses, remittances, intrahousehold transfers (IHTs), loans, and gifts, as well as any life events that may have impacted their financial standing. These data can be used to construct an intimate portrait of individual financial behaviors, while in aggregate, these portraits create a mosaic of the financial life of the participants as a community and reveal patterns of behavior that correspond to participants' socio-demographic traits. For this project, the data were used to measure whether the CE training had any impact on financial behaviors outside of their use of the FINO card, such as changes in the frequency or deposit size into client home savings.

Qualitative methods

MFO used two qualitative methods to gather information on the study population. We used individual interviews with a selection of Diaries participants to gather further contextual data both on the financial behaviors that were recorded in the Diaries data and on the participants' responses to the FINO service and the CE training program. Additionally, interviews with non-Diaries FINO cardholders were used to gather data on both the implementation of the CE training outside the Diaries area and the cardholders' responses to the FINO service.

We conducted focus groups with FINO bandhus in order to better understand how they perceived the capabilities of their clients, what changes they observed in them since the introduction of the CE training, how they implemented the CE training for their clients, and what they thought about it.

Sample

Quantitative MIS Analysis: We constructed the MIS data sample from a database containing approximately 896,000 cards issued in the Jaunpur and Mau Districts of Uttar Pradesh before the project start. Of these, 495,822 cards were issued in areas of Jaunpur and Mau where the CE training was being implemented in a total of 1,599 villages. When we analyzed the data for card use, we found that 75,333 of the cards issued in CE training Treatment areas were used for one or more transactions in 1027 villages, meaning that 420,489 cards in 567 villages were issued but never used. We conducted our MIS analysis using data on the cards that were actually used.

Quantitative Financial Diaries: We gathered Diaries data from a total of 187 respondents, 83 in Jaunpur and 104 in Mau. In total, 92 of the respondents resided in Treatment areas where the CE training was offered, and 95 resided in Comparison areas where it was not. Diaries data were collected for a total of 37 weeks, but the first four weeks of data were discarded to eliminate inclusion of inaccuracies as a

result of enumerator and respondent error due to lack of familiarity with the research procedures. In the end, we analyzed a total of 33 weeks of data between December 1, 2011 and July 12, 2012 from Jaunpur respondents and 32 weeks of data from Mau respondents where data collection began one week later on December 8, 2011. However, because of delays with the field implementation of the CE, data were only collected from Diaries participants for three weeks after the end of the CE implementation period in June 2012.

Qualitative Interviews: We interviewed a total of 31 FINO clients for the outcomes assessment, including 23 in Jaunpur and 8 in Mau. Because we wanted to compare the experience of Diaries clients with those who did not take part in the study, but should have received CE, we included a total of 11 FINO card users who did not take part in the Diaries research. We also interviewed 6 Diaries Control respondents and 14 Diaries Treatment respondents to understand what differences existed between those who were supposed to receive the CE and those who were not.

Qualitative Focus Groups: We surveyed a total of 25 FINO bandhus in a set of four focus group discussions, including two in Jaunpur and two in Mau. We conducted three focus groups with high activity bandhus and one with low activity bandhus in an effort to understand if their transactional activity corresponded to differences in their understanding and implementation of the training, or perception of client capabilities.

FINDINGS:

Our findings in this outcomes assessment study help to explain the impact of the biometric card on FINO users, the extent of CE implementation in the Treatment area, and the impact of the CE on those users who received the CE training.

FINO Card:

FINO clients with a biometric smart card did not fundamentally change their financial behavior. Most did not use their cards at all - only 5.1% of the cards issued in the study area were used during the research period. Our analysis of the Diaries data shows that this is part of a larger behavioral pattern, as most Diaries participants only used financial services to receive remittances or government payments. Still, the very appeal of the FINO card is that it should be easier and more convenient than other services for low-income villagers – what was preventing participants from using it? The interviews provide the answer: bandhus in the research areas were not making regular visits to their customers, at least according to the majority of clients interviewed. Our analysis of the Diaries data supports this conclusion, as FINO card users in the Diaries Treatment area used their cards on more days than other card users. We believe that this is because FINO pushed the trainings, which required the presence of bandhus, in the Diaries Treatment areas. In those areas, bandhus circulated more in their assigned communities, giving clients more opportunities to transact.

Among customers who did use their cards, the Diaries data revealed a behavioral pattern: when clients received income or transfers in a given week in excess of their expenses, they tended to keep some to tide them over in later weeks. They engaged in short term savings to prepare for short term shortfalls. This behavior was demonstrated in both the pre- and post- periods of the CEBB intervention.

Extent of Implementation:

Our Diaries questionnaire asked respondents if they had received CE training. Early in the collection phase, we saw very little evidence that any Treatment participants in the study area had actually been given the CE training, which led us to inquire with FINO about the status of the program. As a result, FINO redoubled its efforts to provide instruction to clients. We learned that the Diaries tool can be useful in monitoring implementations, but we also learned that, according to the data we gathered, the implementation did not go according to plan. Our interviews with non-Diaries cardholders reinforced this conclusion, as only one had received any CE training. Our conclusion is that the implementation in the Jaunpur and Mau Districts was weak except for those areas where the Diaries treatment participants resided.

Impact of CE:

We designed the consumer education on the assumption that clients would have regular opportunities to use their biometric cards and that the CE training program would be implemented more or less uniformly throughout the study areas in Jaunpur and Mau. It should be clear from the findings already discussed that those conditions did not hold. We believe that the impact of the CE training program was powerfully affected by irregularities in FINO service and in CE implementation in the study zone.

We have already explained that more customers were trained in CE where the Diaries were implemented and that more days of usage per card were recorded in those areas as well. We also learned through the interviews that the majority of clients who received CE felt either that it was useful in helping them to use their FINO card or manage their money or that it would have been – had they received visits from their bandhu. The inability of clients to apply general CE messages without visits from their bandhus suggests that even with increased knowledge and access to services, some clients may have lacked the personal resources in income, discipline, or family support to change their financial behaviors, even at home. We also found that significant numbers of clients who received CE felt that it helped to convince them of the security of FINO services.

We also learned from focus groups with bandhus that they found the training to be effective in helping clients to trust and use FINO services and to better manage their money. We also learned that bandhus found the CE flipbook to be an effective recruitment tool, and that they tended to use it with new customers. The positive reaction of bandhus to the CE training may have encouraged them to visit communities that received CE more often, helping to explain the increase in transaction days in those communities.

Given the limitations of the study, we expected to find no impact of CE on behavior. Still, our analysis of the Diaries data revealed one significant potential sign of the impact of CE on the behavior of women. In the three-week period after receiving CE, women who were trained received higher amounts of transfers and decreased the amount they borrowed compared to the period before they were trained. This was not the case in women who did not receive CE. We believe that result may be a result of the CE because it suggests the application of forethought in requesting larger transfers while seeking fewer loans, and demonstrates a greater ability to save, though over a much shorter term than the CE encourages.

INTRODUCTION

The Consumer Education for Branchless Banking project is an initiative of Microfinance Opportunities, supported by funding from The MasterCard Foundation, conducted with four countries in Africa and Asia.

In India, MFO partnered with FINO Fintech Foundation to design and implement a consumer education campaign to support the uptake and use of the FINO biometric smart card, which allows clients to transact with their accounts through banking correspondent agents using point-of-service card readers. The original pilot project was launched in Jaunpur and Mau Districts of Uttar Pradesh.

This report describes the CEBB initiative and the general design of the outcomes assessment. It then presents the design, sampling, and results of the qualitative and quantitative research used to collect data on the impact and response to the consumer training program.

FINO CEBB PROJECT DESCRIPTION

FINO partnered with MFO to create a consumer education program that was delivered in training sessions by FINO's trainers and reinforced by FINO's bandhus, or business correspondent agents, during their visits to consumer communities.

The specific objectives of the consumer education strategy developed by FINO are as follows:

1. To increase the use of FINO smart cards among the more than 31 million enrolled customers at the time of the project
    i. To promote regular use of FINO smart cards so that customers make deposits in their account on a consistent basis (e.g. daily, weekly)
    ii. To promote the benefits (i.e. value proposition) of FINO card
    iii. To promote the FINO card as a savings tool
    iv. To build customer trust of FINO card through improved knowledge of how system works
    v. To build customer trust of FINO brand and institutionalize relationship with customer through improved knowledge of FINO and options for customer recourse
2. To improve the financial capabilities of customers, particularly around savings
    i. To increase skills to develop and attain savings goals
    ii. To improve knowledge to evaluate various savings options
    iii. To empower customers to make informed financial decisions
    iv. To increase knowledge to evaluate financial products
    v. To increase skills to use and manage additional financial products

MFO and FINO developed a consumer education curriculum focused on these issues. The core materials were drawn from MFO standard Savings and Budgeting modules, with additional content focused on the nature and use of branchless banking.

The trainings consisted of an initial workshop of two three hour sessions, in which key messages on saving strategies, branchless banking and formal finance in general. The workshop was delivered over the course of two days. Small groups no larger than 30 customers participated in each workshop in order to maximize interaction and encourage participation. Bandhus then delivered brief face-to-face trainings to reinforce key messages and encourage card use in their assigned communities.

Three types of tools were used to impart the consumer education content to consumers: 1) training posters; 2) customer activity books; and 3) bandhu flip books. The training posters and the picture books were employed during the workshop; the activity books were distributed to customers to keep. Bandhus continued to deliver consumer education during their ongoing, one-on-one interactions with customers in their communities. With the aid of the flip book, bandhus reinforced key messages about saving and the FINO card that customers learned during the training workshop.

FINO customers were trained in the consumer education program from March 2012 – June 2012 in the Jaunpur and Mau Districts of the state of Uttar Pradesh.

The CEBB initiative was implemented in the Jaunpur and Mau Districts of the province of Uttar Pradesh. FINO reported that 122 villages in those districts were reached by the training program through 732 trainings which reached 23,039 clients. They also reported that 99 bandhus were trained in the use of a flipbook to be used in ad hoc trainings of customers.

Table 1: CEBB Initiative

Outputs	Actual	Target	% of Target Achieved
Number of villages covered	122	122	100
Number of beneficiaries trained	23,029	21,960	105
Number of completed workshops	732	732	100
Number of bandhus trained	99	122	81

DESIGN OF THE OUTCOMES ASSESSMENT

In this study, our purpose was to track the impact of consumer education both by documenting typical household and business transaction patterns and by identifying key junctures when the households and/or enterprise owners practice behavior which was introduced and advocated for in the consumer education sessions.

This includes the enhanced used of the branchless banking technology. As such, the impact research was intended to delineate the role of consumer education in helping households embrace the new technology, engage with formal finance, and thereby enhance their ability to smooth consumption, decrease their vulnerability, and take on income-generating investments.

METHODOLOGY

In our outcomes assessment, we gathered and analyzed both quantitative and qualitative data on the impact of and response to the CE program in order to triangulate findings. We expected quantitative measures to provide data on the financial behavior of FINO card holders, while we expected qualitative measures to provide data on the motivations and context of their behaviors, as well as their attitudes towards the CE initiative.

We implemented this study in a subset of those pilot communities, along with matched comparison communities served by FINO but not included in the consumer education pilot.

We gathered quantitative data on financial transactions in the Jaunpur and Mau Districts of Uttar Pradesh from two sources:

1. FINO's management information systems (MIS) database, which included data on the transactions of FINO customers; and
2. Financial Diaries conducted with participants from households with active FINO cards, divided between households in CE Treatment areas and Control households in non-Treatment areas.

Our aim with Diaries research is to establish a comprehensive picture of the financial inflows and outflows of low-income households by gathering data on income, spending, savings, lending, cash transfers and investment. To do so, a group of trained fieldworkers interviews a group of participants every week, during the study period. They employ a simple survey tool to capture all cash and non-cash resources coming into and out of the household.

In impact assessment, Diaries research focuses on the clients of a specific service at a specific institution, looking for correlations between the service and changes in behavior. The Financial Diaries capture precisely what happens during the implementation, including the causal chains that produce

impact. It is a view inside the household "black box," which has tended to remain obscured in assessment research.

Furthermore, our use of Diaries for impact assessment gives us the opportunity to use "Diaries-like" data that our implementing partners gather as a matter of course in their business activities. In the case of FINO, such data included the date and amount of the transaction involving a FINO card and link it to some basic information about the customer (with all identifiers scrubbed), such as their village of residence, when they opened their account, and the number and type of accounts linked to their card. These data reside in the management information systems (MIS) of FINO which agreed to share the MIS for our analysis of a large sample of card-holders while using the Diaries to provide detailed contextual data that will help us to understand the patterns emerging from the analysis of the MIS data.

In addition to the quantitative data, we collected qualitative data in two ways:

1. Individual in-depth interviews, or IDIs, with a subset of Financial Diaries participants selected on the basis of an analysis of the patterns of financial transactions as revealed in the Diaries; and
2. Focus groups which were held with FINO's business correspondents, or bandhus.

Data from in-depth interviews and focus groups enable us to explore more deeply the causal stories behind the behavior observed in the Diaries and MIS data. In particular, these qualitative data focus on the motivations and intentions behind the behavior observed. In addition, we use the qualitative data to develop insights into changes in knowledge and skills among participants that resulted from consumer education.

RESEARCH QUESTIONS

The study sought to identify changes in *behavior* as defined in the Learning Agenda dated March 9th 2011. In particular it looked at and tried to answer the following questions:

Usage

- Does exposure to the consumer education increase use of branchless banking, measured by the number of transactions, compared with those not exposed?
- Are the use patterns sustained over time? If not, how and under what circumstance do these patterns change over time?

Saving

- Does exposure to consumer education result in the accumulation of savings in FINO-related bank accounts, i.e. do deposits exceed withdrawals?

Use of other financial services

- Does exposure to consumer education affect the likelihood that clients use other financial services through their FINO card or otherwise (e.g. loans, remittances, microinsurance)?

Household risk management

- Does exposure to consumer education increase the use of branchless banking resources to respond to emergencies?

Household cash flow management (lump sums)

- Does exposure to consumer education result in households using branchless banking to smooth consumption?
- What sources of cash inflows result in card-holders depositing money into their savings through their card, and is this behavior affected by consumer education?

Intra-household dynamics

- Does exposure to consumer education increase the likelihood that a woman, in a household where a man is the head of household, uses branchless banking?
- Does exposure to consumer education by one member of a household result in increased use of branchless banking by other members of the household who hold FINO cards?

SAMPLE

We conducted all research, both qualitative and quantitative, with the study population in the Jaunpur and Mau Districts of Uttar Pradesh. Specific information on sampling strategies and populations is provided below for each aspect of the study.

QUALITATIVE RESEARCH

RESEARCH DESIGN

We conducted the qualitative assessment research to provide information on two aspects of the CE program for FINO clients.

First, we used the qualitative research to explore changes in knowledge and attitudes about money management and FINO services. Second, we used the research as a complement to the quantitative research analysis being done through Diaries research and the analysis of FINO MIS data. Capturing behavioral data was a secondary goal of the qualitative research for the FINO outcomes assessment, and the data that were captured were either self-reported by clients or from the perspective of bandhus.

We gathered most behavioral data on the money management of participants through the quantitative data, which can more accurately reflect the financial transactions of participants. We asked some behavioral questions of qualitative research participants in order to elicit stories about financial behavior and responses explaining how or why participants did or did not change their behavior. The qualitative research was conducted in January 2013, six months after FINO had implemented CE training workshops in Jaunpur and Mau, meaning that they may have had difficulty in recalling details of the workshops and the tools, but that there was some time for behavior changes to take effect.

In order to triangulate impact findings about the CE program, we conducted research both with clients and with FINO bandhus. We used interviews with clients to gather data about their individual financial transaction patterns, while we implemented focus groups with bandhus to gather data on the general response patterns of bandhus and clients to the CE program.

We intended to use research with clients to directly assess any changes to their knowledge and attitudes, as well as their reaction to the CE program. We divided participants according to their anticipated exposure to the CE program. We sought to represent FINO clients who had been exposed both to formal CE training and to bandhu CE reinforcement training with flipbooks. We did this in the research by sampling the Diaries Treatment participants and a sample of FINO cardholders participating in the CE program. We formed a comparison group of Diaries Control participants to provide a point of reference to assess any patterns of self-reported change among trained clients when compared to clients who had not been trained.

Research with bandhus

We conducted FGDs with bandhus to gather information on the experience and opinions of bandhus around the CE training, including their perspective on its reception by and effects on FINO clients. Specifically, in FGDs, we sought bandhu opinions on the training that they had received on the CE materials, the CE messages, and the posters, activity books, and flipbooks. We also asked them for their feedback on the information needs and challenges faced by clients and whether they thought that client behavior had changed as a result of exposure to these messages. Finally, we questioned the bandhus

on whether or not they were the right channel for the delivery of CE messages and on their opinions of their general role with FINO.

Research with clients

We conducted research with both FINO Diaries participants and with cardholding clients who were not part of the Diaries research. We sampled non-Diaries participants to ascertain whether the experience of clients in the Diaries research zones differed from the experience of clients who did not take part in the Diaries research.

We asked all participants about their response to the CE training that they received from both CE trainers in the classroom and from bandhus in the field, as well as their response to the CE posters and activity books. We also asked them to self-report on any changes in their behavior that occurred over the months that corresponded with the implementation of the CE program to assess whether there were any changes that may not have shown up in the Diaries or MIS data. We queried Diaries participants about specific financial behaviors based on the Diaries research: day-to-day cash flow management, planning for the future, and financial services use.

SAMPLE

Samples for the outcomes research were drawn for interviews from FINO clients and for FGDs from bandhus in the pilot CE program area in the districts of Jaunpur and Mau.

Interview sample

All of the participants in the interviews for the outcomes assessment were selected on the premise that they were either FINO cardholders[1] or lived in households with a FINO cardholder[2]. The sample of interviewees was divided into two groups: those who participated in the Financial Diaries research, and those who were FINO cardholders but had not been part of the research. The Diaries participants were further subdivided based on their inclusion in the Treatment or Control segments of the Diaries sample. As Table 2 illustrates, the Non-Diaries and Diaries Treatment samples were similar in numbers and distribution, with a preponderance of participants from Jaunpur. The Diaries Control segment, by contrast, was about half the size of the others, and had a larger proportion of participants from Mau than Jaunpur.

[1] The initial IDI sample of Non-Diaries Card Users included one minor, whose data was subsequently excluded from the analysis. This did not impact the quality of the analysis, since the pilot interview was of adequate quality to use as a replacement.
[2] Most Diaries participants were cardholders, but some lived in households with FINO cardholders but did not have their own FINO card.

Table 2: Interview Sample by District

Sample	Jaunpur	Mau
Non-Diaries Card User	10	1
Diaries Control	2	4
Diaries Treatment	11	3
Total	23	8

Participants were selected based on patterns of activity that were found in their transactions data, either from the MIS database for general FINO cardholders, or from the Diaries database for Diaries participants. As a result, the sample is not random, but was selected based on the assumption that the interviews could not only illustrate patterns of CE exposure, but also complement the quantitative transactions data analysis.

Further analysis of the sample can be found in Annex 1: Additional Data on Qualitative Sample, but the most noteworthy points are these:

- Most of the sample was married, with only two Non-Diaries Card Users being widows and one Diaries Treatment participant being a widower.
- The vast majority of all participants were Hindu, with a sole Muslim in the Diaries Treatment segment.
- Diaries Control individuals were more likely to be of a higher caste than members of other segments, which may help to explain why they had smaller households and fewer children than participants in other groups.
- Half of the Non-Diaries Card Users report being unemployed, while only one third of the Diaries Control and one fifth of the Diaries Treatment group are unemployed.
- Levels of educational attainment among participants in all samples varied, with no patterns that could be expected to impact analysis.

FGD Sample

The bandhu participants were drawn from Jaunpur and Mau. Initially, we planned to sample high and low activity bandhus in each district. However, the Mau bandhus were overwhelmingly high activity, and the only low activity bandhus could be found in Jaunpur. Therefore, the sample, as shown in Table 3, includes two high activity FGDs in Mau, and one high and one low activity FGD in Jaunpur.

Table 3: Sample information, bandhu participants

FGD ID	Number of bandhus	Average months since joining	Average number of transactions per month	Activity level
Jaunpur 1	8	17.6	682.0	High
Jaunpur 2	7	15.4	17.2	Low
Mau 1	6	21.2	965.6	High
Mau 2	4	20.8	1134.5	High
Total	25	18.4	636.3	n/a

The average number of transactions per month per bandhu was 636, with the low activity bandhus registering only 17 per month on average. The two Mau groups averaged 1050 transactions per month, while the high activity group in Jaunpur only averaged 682 transactions per month. The reason for these disparities between the two districts is not clear from the outcomes research. The FGDs revealed that all of the bandhus hold other jobs across districts; although, it is possible that more bandhus in Jaunpur hold jobs or engage in economic activities that require more of their time, taking away from the time they are able to devote to serving their FINO clients.

Limitations of the Study

1. *Exposure of participants to the CE program was more limited than anticipated*. Because the sample was selected intentionally rather than randomly, the goal was not to accurately represent the proportion of FINO clients who actually received CE. However, in terms of sample selection, overwhelming lack of exposure suggests one of two things. One possibility is that the program rolled out as planned, but that the sample selection process unintentionally identified an unusually large proportion of clients who were not exposed to the training. The other possibility is that the program was not as robust as was reported, and that the large proportion of clients unexposed to CE in the sample is a reasonable approximation of the real extent of the CE exposure in the field. More importantly, the information on impacts of CE is drawn from a smaller sample than was intended, and the conclusions about the CE program itself are not as reliable as we hoped.
2. *Some lines of questioning received weak responses from client participants,* such as those pertaining to changes in behavior over the past year. It is not clear whether the questions were comprehensible to the clients or not. It is possible that, despite the pilot-testing of the questionnaire, certain questions were not translated in the most meaningful way. Perhaps clients would have better been asked to say if their spending had changed since a particular event or festival had occurred, giving them a more familiar time frame to deal with. It is also possible that without a possibility to practice the money management knowledge and skills contained in the CE, such as how to track income and expenses, because of limited or lack of access to the FINO service, clients did not have the capabilities to respond to the questions.

QUALITATIVE FINDINGS

MFO intended to incorporate the views of participants with different roles in the program into the research design. The findings do in fact illustrate the differences between the perspective of bandhus as service providers, and clients as service recipients. However, the research design assumed that the environment which enables clients to transact was functioning, as according to the FINO service model, and that that bandhus were regularly visiting their clients to facilitate their transactions. This turned out not to be the case; the findings revealed profound frustration on the part of clients, who reported that bandhus did not visit them on a regular basis, as they expected. This created negative attitudes towards FINO, which may have also affected responses to the CE program. Furthermore, Non-Diaries Card Holders reported that they had not received CE training from FINO, which negatively affected their ability to provide opinions on the CE program and serve as a comparison group to the Diaries Treatment participants.

Because most Diaries participants had little chance to use their FINO cards, few card transactions were recorded, and the IDI questions on transactions that were intended to reveal motivations behind those transactions produced little data for that purpose. However, by examining the descriptions that Diaries participants provided about their money management practices, it was possible to develop a picture of how these participants could use their cards, how the service was performing according to the FINO model, and what support they would probably need from FINO in order to do so. In this report, this information is presented in the form of profiles of Diaries participants based on their likelihood of using the FINO card in a stable and functional operating BB environment.

The findings on participant response to the CE program show that both bandhus and clients had a positive attitude towards the CE itself, and that the CE was viewed as useful in training clients in both FINO service use and money management.

- Most bandhus found the training was effective in helping clients to trust and use FINO services;
- Most bandhus felt that the training helped clients manage their money better through saving and reducing unnecessary expenses;
- Most bandhus did not train existing customers, because they felt that the CE was most useful in addressing lack of trust among new customers.

Substantial numbers of clients agreed with the bandhus about the positive effects of the CE training on their attitudes and behavior:

- Half thought that it helped them to better manage their money;
- One third thought the training helped them better use FINO services;
- A significant number felt that their money was more secure with FINO after receiving the training.

Complaints from bandhus and clients centered around challenges with the service itself rather than the CE:

- Bandhus were disappointed that promised services, like remittances and access to state welfare payments, were not rolled out, which limited their marketing and commissions;

- Clients complained that infrequent bandhu visits limited their ability to apply the CE lessons with the FINO card.

The Prospects for Client use

Though FINO card use was low, we were able to analyze the Diaries data and related IDI data to understand how clients might use the FINO service, when it became fully functioning. To do this, we analyzed the IDI data, and then conducted further analysis of the Financial Diaries data to identify any patterns that were described by the IDI participants, but not recognized in the initial Diaries analysis. Some patterns were found, but the analysis also revealed profiles of who was likely and who was not likely to use the FINO card, if the service had been delivered as planned. We based the profiles on the understanding of participant behavior that emerged during the Diaries research and as a result of the analysis of the IDI data.

We developed the profiles based on a variety of factors, including: current knowledge, attitudes and behavior around the FINO card; current behavior around other financial services such as savings, loans, and remittances; cash flow management, including patterns of incomes and expenses; planning behavior; and risk management behavior. With the exception of the model customer, the profiles are composites of participants to show how they might have used the card in a more satisfactory operational environment.

We have divided profiles into four different users. The model user represents the participant with the card use and financial management behavior that is as close to the ideal outcome as possible. Because the research only revealed one model user, his profile describes only his behavior, rather than model users as a group. Likely users are those whose money management skills and available resources make them very good candidates for card adoption, and possible users are those who have more challenges facing them, but who could potentially benefit from using the FINO card. Unlikely users are those whose combination of money management behaviors and financial resources pose significant barriers to FINO card adoption.

It is important to note that no women were model users or likely users, while they were found in the possible or unlikely users group. This is because of the lower levels of economic activity combined that they described in their interviews combined with limiting attitudes based on their age, level of education, or status in their households. Women had more limited economic lives and access to resources, which impairs their ability to set money aside for savings. In order for providers to overcome the negative attitudes that these women tended to harbor about their ability to save, it is imperative to provide them with quality consumer education packaged with messages of empowerment, thereby enabling them to discover money management capacities that they had as yet not recognized in themselves.

Model user:

Sochan[3] is a married OBC skilled laborer with two children. He supplements the income he gets from masonry work with income he earns as a farm laborer under the MNREGA scheme. He usually earns no income in December and January prior to the paddy sowing season.

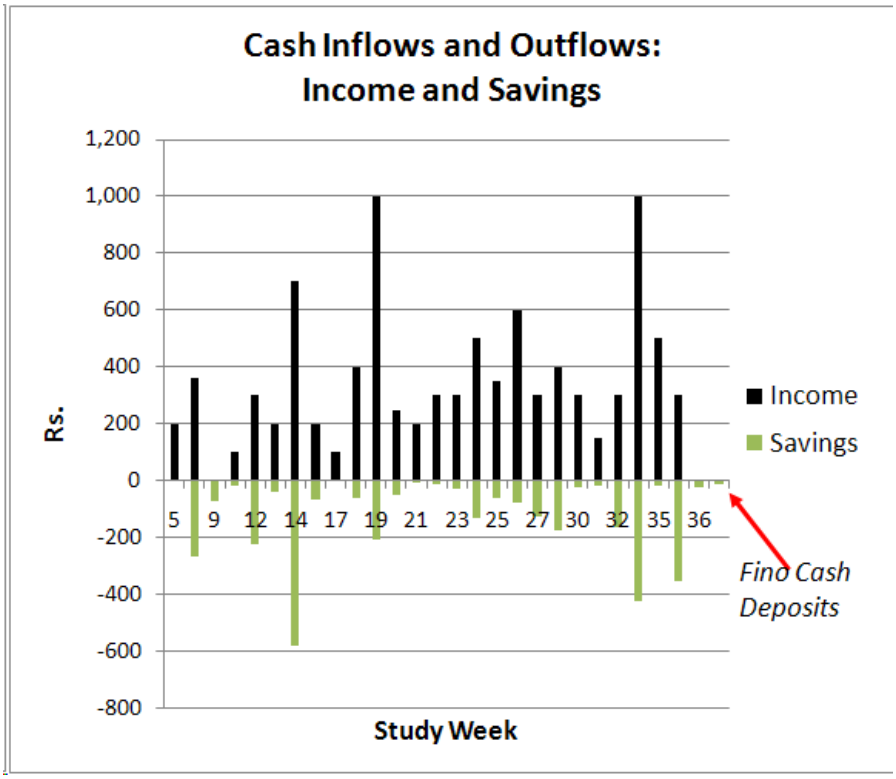
[3] A pseudonym has been used to protect the privacy of the participant.

Sochan regularly saves money at home after he has made all his usual purchases of groceries and other staples. On average, he saves about 30% of his weekly income, or Rs. 130, in weeks when he earns money. He plans for his future cash flow requirements, weeks in which he does not earn income, and emergencies using these savings, and only borrows and lends money occasionally.

While he has a bank account, he only opened it to receive his MNREGA wages and finds it impractical to use for saving because the distance to the nearest bank branch would make frequent deposits costly in terms of time and travel. His FINO card is therefore his only active access point to formal financial services, whose benefits he appreciates. Having received nearly a dozen visits from his bandhu during the study period, he seems to be satisfied with the utility and ease of access that the FINO card offers, though he is only depositing small amounts. For quicker access to cash, he still prefers to save money at home. If his MNREGA wages were distributed through FINO, and he were assured to have quick access to his money, he might be willing to leave a portion of the wages in the account in between direct deposits, thereby increasing his balance and perhaps the amount and frequency of cash deposits from other sources.

There are two keys to Sochan's ready adoption of the FINO card. The first was that his bandhu visited him regularly. This allowed Sochan to build familiarity and trust with the bandhu and the FINO institution, and offered him opportunities to transact when he needed to. The second was Sochan's good money management practices. Sochan is not wealthy or well-placed in society; he does not even have a full-time job, but he knows which financial behaviors can help him cope with his uneven income, and appreciates the benefits of formal financial services for people in his position. And yet, it seems that he still requires further encouragement in order to fully adopt the FINO card, which could be provided through more active bandhu reinforcement of CE messages in the field, and through the receipt of his MNREGA payments through his FINO card.

Figure 1: Sochan's Income and Savings Behavior

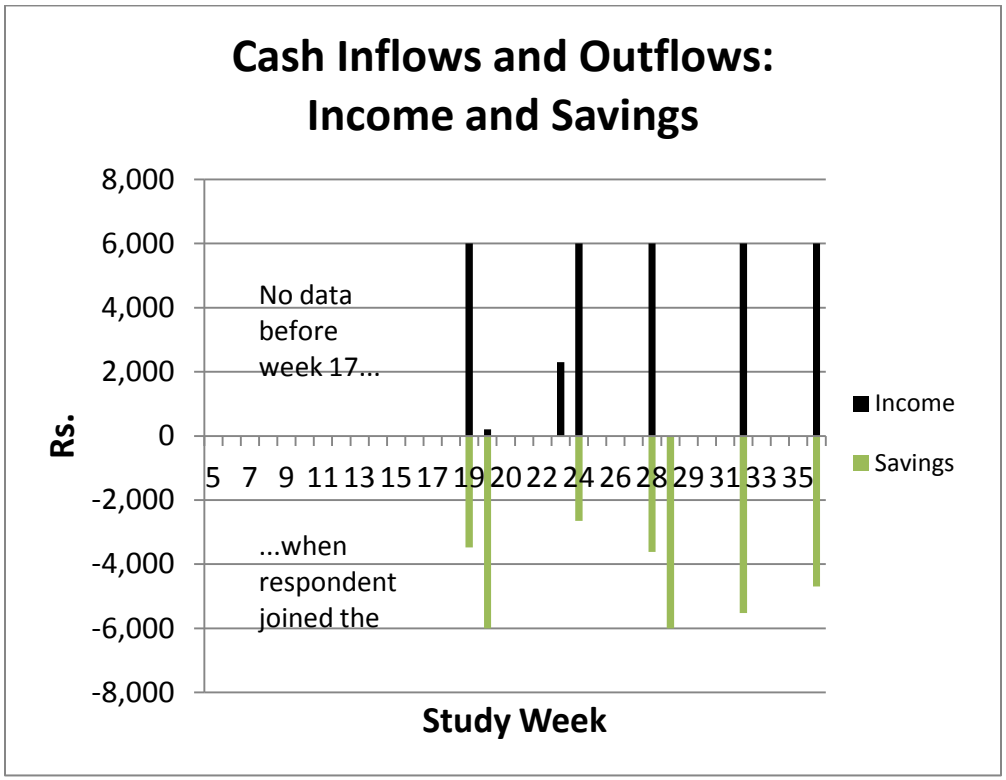


Likely users:

Likely users have active economic lives, strong income-generating activities, which are often diverse, and experience with formal financial services, even if their actual use varies from occasional to frequent. In addition to having good income sources, they are active home savers, and tend to use their income and savings to cover most of their expenses. They tend to plan their large expenses, paying for them either through savings, intra-household transfers (IHTs), or loans. However, likely users do not show strong risk management planning, which could be used to convince them to begin or increase their use of the FINO card. Likely users often have an upper caste background, which may help to access resources more easily than lower caste members of their communities. It is also notable that none of them are active users of remittances. They may or may not currently have FINO cards, but seem likely to understand the potential benefits of the service. As mentioned above, the likely users found in the IDIs were all male. This is not a coincidence, as males tend to have more active financial lives, particularly outside their households, and receive more social messages of empowerment than women regarding their ability to manage money.

Likely users primarily would need awareness and information about the service, and opportunities to use it. They would not need as much reinforcement of CE messages because of their existing behaviors, but might appreciate information about how they could better manage risks by building on their current savings behavior. For example, Rama received a regular monthly income during the period when he was in the study. He saved that income at home. With some awareness about the utility of the FINO card, Rama could quite easily shift from saving at home to saving in his bank account using his card (Figure 2).

Figure 2: Rama's Income and Savings



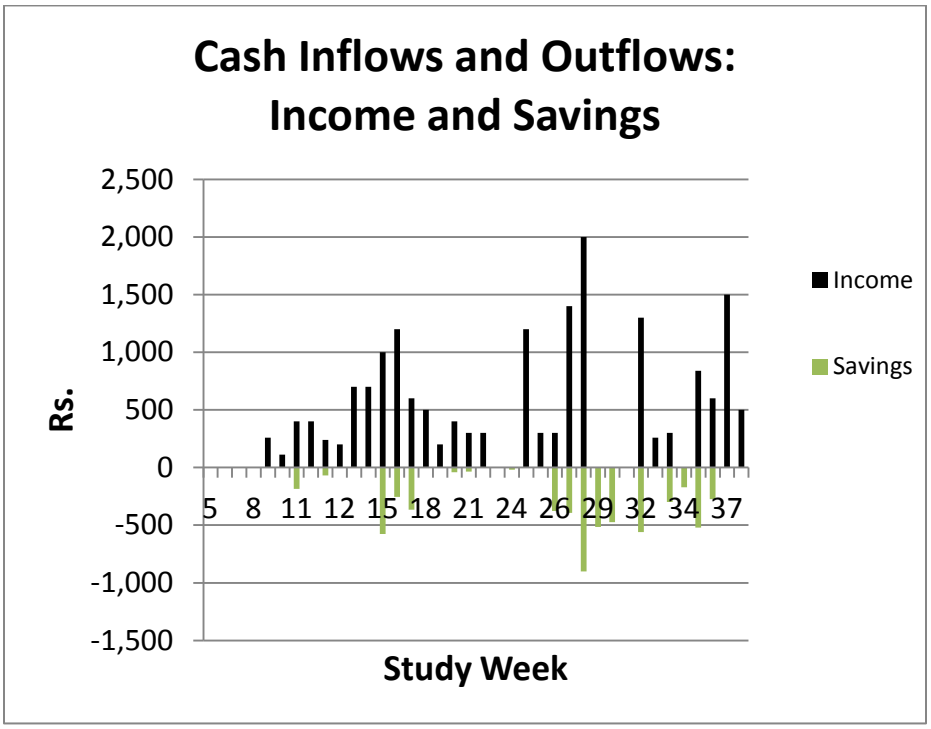
Possible users:

Most of the possible users are Scheduled or Other Backward Caste members, though there are some Upper Caste members as well. Possible users often have intermittent, but sustaining incomes, either from their own income-generating activities, remittances, or IHTs from family members. They show some positive financial behaviors, usually maintaining home savings, or to a lesser degree planning ahead. Most also have a bank account, opened for reasons such as receiving remittances, MNREGA wages, or school scholarship money but use it occasionally to rarely. Their future planning often does not extend to risk management. Many are very active remittance users, and could be attracted to FINO if this service were actively marketed to them. They often show signs of not fully understanding or trusting FINO's service, however.

There were some interesting gender differences between the male and female possible users. Male possible users outnumbered female possible users by a very large ratio. Furthermore, male users were financially active and most had some type of formal accounts, but they did not understand how the FINO card worked or its value to them. Female users were very active financially particularly with home savings and remittances, and used formal accounts for savings or remittances. However, they also felt disempowered due to their age, lack of education, or the subordinate financial role that they played in the household.

Possible users would require additional training from their bandhus, or exposure to early adopters, to convince them to use the service actively. Increasing the visibility of bandhus in their communities would also help possible users to build trust in agents and in FINO as an institution, while giving such users ad hoc opportunities to transact. For example, Vijay saves fairly regularly and could be in a position to use the FINO card to keep some of the larger sums he currently earns.

Figure 3: Vijay's Income and Savings



Unlikely users:

Like possible users, most of the unlikely users are from Scheduled or Other Backward Castes. Unlikely users have erratic and low income streams through remittances, intrahousehold transfers, and seasonal wage labor, which limit their ability to control the timing and planning of their expenses. Only half of the unlikely users tend to save, even at home. Like possible users, many have bank accounts but only use them to receive transfers or government payments. This group is the least likely to understand the FINO card or to see its benefits.

Most of the unlikely users were male, but there were still some telling differences with the single unlikely female user. Specifically, while all of the unlikely users had erratic income streams, the males tended to occasionally use formal services, while the woman did not. In fact, when she signed up for her FINO card, she did not understand what the card was or why she was signing up:

> *My photo was clicked in the school, and after that the pradhan (leader) gave me a card. I heard about it from some other villagers. Everyone was clicking his photo (sic) and I also joined them. I didn't get any information about it that time.* (Female Treatment participant, Jaunpur)

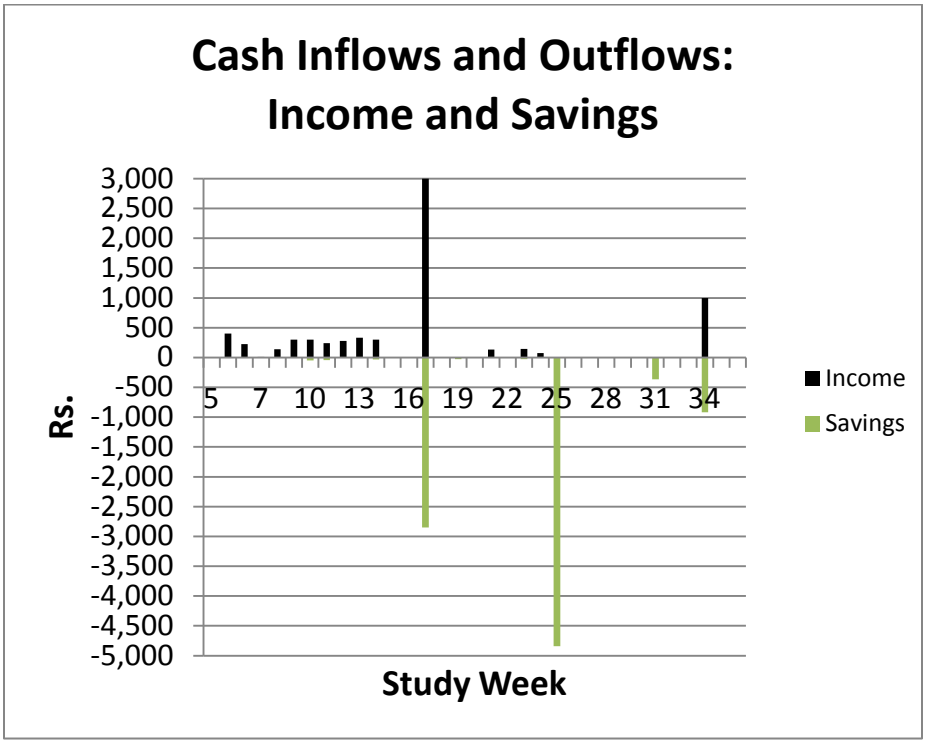
Her enrollment story is not unique, and shows the way in which her lack of resources and empowerment impact her everyday decisions, including sharing her personal information and having her picture taken for purposes she did not fully comprehend, with little apparent benefit to her.

It seems that the life circumstances of unlikely users would have to change for them to begin using the FINO card. They would be most likely to use the card for remittances, and probably at the insistence of senders with an understanding of FINO and trust in its services. The willingness of unlikely users to receive money through FINO would be increased through higher visibility of bandhus in their

communities, and especially through word of mouth from friends and family members with experience using the card themselves.

For example, Ravi had very sporadic income throughout the study and saved very little, except on four occasions. On the first occasion he sold a goat, spent some of the money the same week, and the kept the rest for future spending. On the second occasion, he received a large loan of Rs.6,000 from a neighbor, which he put aside for future use – the loan inflow is not shown in the Figure 4 because it was not income. On the third occasion, he got money from a family member and put some of it aside. And on the fourth occasion, he earned some money working and put a lot of it aside.

Figure 4: Ravi's Income and Savings



Response to CE: FINO Bandhus

Focus groups with bandhus were conducted to understand how bandhus were trained, what their response was to their training, whether they attended any CE trainings for clients, how they used and perceived the CE materials, and what responses they observed from FINO clients to the CE program.

The majority of bandhus had a very positive attitude about the CE campaign. Most bandhus thought that their clients needed information to build their trust of FINO, such information about the security features of the service and that FINO partnered with Union Bank, a trusted state bank. Bandhus also thought that messages about FINO services should highlight convenience, and that money management messages needed to address the process of savings, such as distinguishing between wants and needs and reduction of unnecessary expenses. Bandhus also thought that their training was effective in preparing them to train clients, and a small number felt that the client education should be done by trainers. They thought that their own biggest challenge was dealing with FINO's technology, but this

was reportedly a secondary concern for their clients, who they said were interested in accessing additional products from FINO that were not yet available.

Bandhu training in use of CE materials

Bandhus in FGDs were asked if they had received training in how to use the flipbook, how long the training was, and how they felt about the training that they received. Bandhus were generally positive about the training, particularly because they felt that the training helped improve client trust of FINO. However, a small number of bandhus complained that it did not take into account their everyday duties and realities in the field, such as working with illiterate clients whom they thought difficult to train.

All of the bandhus confirmed that they had received training through use of the flipbook. Their recall of the length of the training varied, and at times the bandhus talked about the length of the sessions they received, while at other times they discussed the duration of the training period in days. While it is possible that the training times varied for different groups of bandhus, most bandhus placed the training time from 90 minutes total to 5 hours total, divided over 2-3 days.

The bandus cited the lessons on savings as the element of training that was most valuable, followed by the information on the link between FINO and Union Bank (a state bank that is one of the clients of FINO; its logo appears on a page in the flipbook along with all the other large banks that FINO works with across India as a way to instill confidence and trust in clients). On the value of savings lessons, one bandhu said that the most useful part of training was

> *"...the part where the example of saving 10 Rs per day was given. It is easy to remember for the people in the village and for us to train them."* (Active 2, Jaunpur)

Another bandhu's comment illustrates the value of showing FINO's institutional affiliations with other large financial organizations:

> *"The training was good but we could not get trust of people without the monogram of Union Bank on FINO card and Flip Book. In the beginning people didn't know about FINO."* (Active, Mau)

When asked about what could be improved in their training, some bandhus appeared to confuse the content that they learned in the CE training with the general FINO training that they received in order to become bandhus. Some bandus discussed additional services that FINO could offer. For instance, some said that it would be helpful to have additional training on presenting insurance to customers, while others suggested that FINO offer pensions. In terms of CE topics, bandhus felt that the training should take their daily concerns more into account:

> *"I should learn all the issues of Bandhus, what are the problems they are facing in the field during daily work. When I will give them their solutions, it will give them confidence and it will improve their interest to learn more and perform better."* (Active 2, Jaunpur)

More specifically, one bandhu explained that the savings register seemed helpful, but became difficult for bandhus to explain when interacting with customers:

> *"In training, the idea of developing register (for budgeting) was helpful and it was very hard to implement in the field. It is good for the people, who get fixed salary but most of the people in village are not earning fixed money daily so it was very hard to implement."* (Active 1, Jaunpur)

Bandhus were also asked about the length of time for the training. They were divided in their responses to the question, but the number who felt the training should be longer was about equal to the number who felt that the training should be shorter. Considering that a number thought the training time was adequate, it does not appear that the duration should change based on bandhu opinion.

Bandhu views on the information needs and challenges of clients

The moderators asked the Bandhus a series of questions about their clients' information needs and challenges, including what information their clients wanted, how they preferred to receive it, and how they responded to the topics of the CE campaign. Bandhus generally thought that clients needed concrete assurances of the safety of their saved money. Bandhus also stated that clients valued their role in information delivery because of their role as members of their community rather than outside agents. They thought this was particularly true of illiterate clients, who sought information through discussion and interaction. FINO's technology was a secondary concern for clients, according to the bandhus.

When asked about what information their clients needed most, bandhus overwhelmingly said that clients wanted information about the security of their funds with FINO, and that the link with Union Bank helped them to ease their customers' concerns:

> *"They said that your company is doing work right now but when it will run away. Then we told them that we are workers of FINO and it works for Union bank."* (Active 2, Jaunpur)

Bandhus also said that their customers needed information about the technology, how to get their account balance, and the maximum balance they could hold in a FINO account.

The researchers also asked the Bandhus how their clients preferred to get information about FINO, including talking to bandhus, seeing the flipbook, or through other channels. Overwhelmingly, bandhus thought that their clients preferred getting information through discussions with bandhus, as the representatives of FINO. The reason they gave for this was that the bandhus are familiar, or from the same area as the clients, which increases their trust in the security of FINO:

> *"Because we belong to that village they think that we will not defraud them, so they prefer to get information by talking to us."* (Active, Mau)

In addition, one bandhu agreed with the dialogic approach towards the reinforcement training, mentioning that their illiterate customers find it easier to absorb information through discussion than through printed materials such as the flip book, if it were used by itself. Half as many comments from bandhus indicated that clients liked getting information from the flip books. In most cases, bandhus said that the customers liked the flip books as part of a discussion with bandhus. In other words, clients did not necessarily appreciate the flip books on their own, when they were asked to discuss their specific qualities, but saw them as a tool to be used in conversation with bandhus. While this might seem intuitive, it suggests that bandhus understood the role that flipbooks were supposed to play in

educating clients, and that the flipbooks were a tool to assist the rather than something to replace their discussions with clients.

When asked about the challenges of explaining FINO to clients, bandhus again mentioned trust as a big concern, because potential clients initially feared that FINO would turn out to be a fraudulent, fly-by-night organization based on negative experiences with other financial service providers. Two less pressing challenges that bandhus faced in explaining FINO service to clients, were helping them to understand the technology, and demonstrating the value of FINO's technology if clients are not able to send remittances.

Bandhus had conflicting ideas about the reliability of the service they provided. On the one hand, they said that when they explained FINO in the community, some potential clients had doubts that bandhus would visit regularly in order to allow customers to perform transactions. On the other hand, some bandhus said that clients had no problems with the reliability of the service once they had signed up. This is clearly at odds with the complaints of clients about the lack of visits from bandhus.

Bandhus' response to the customer training workshops

The moderators asked the Bandhus if they participated in any training workshops for clients, how they participated, and what the response of their clients was to the workshops. The responses indicate that bandhus were highly involved in the organization, and delivery of the workshops. Bandhus also thought that clients responded very positively to the training they received, and as a result, their trust in FINO and knowledge of budgeting changed for the better.

Nearly all of the participating bandhus said that they had participated in workshops with their clients. Their involvement in the workshops, included promoting the workshops to clients before they were to be held, introducing trainers to the clients, and demonstrating the use of POS devices during the workshops.

They also asked the Bandhus how clients responded to the workshops. Given the fact that bandhus did not lead the workshops, they may not have been as sensitive to the response of clients as the trainers would have been. Bandhus reported that clients were positive about the workshops, without providing much additional information about their responses. In isolated instances, bandhus said that clients increased their trust or awareness of FINO, and one said that the trainings increased the transaction frequencies of clients. Other bandhus thought that the training should be more dramatic in order to keep clients' attention and increase their recall of its content.

Bandhus also felt that most of the clients were able to understand the workshops and that the clients benefitted from them. Generally, they estimated that 50-80% of their clients understood the content, but pointed out that illiterate clients had more difficulty than others in comprehending the material. Bandhus felt that the biggest benefits that the clients received were increased trust in the service and changes in their financial behavior:

> *"When we use to tell them [about the service] they trusted it very little, but because of training they completely trust FINO."* (Active, Mau)

> *"Their lavish [unnecessary] expenses were reduced."* (Active 2, Jaunpur)

"They started to save more money and time." (Active 2, Jaunpur)

About half as often, bandhus said that customers increased their knowledge about money management, particularly budgeting, as a result of the workshops.

Bandhu response to the posters

In the FGDs, the researchers asked bandhus for their observations about the use of the posters in the CE training sessions. While it was the role of the trainers to use the posters in training clients, bandhus who observed the trainings had some feedback about these tools. Notably, bandhus felt that the poster on Sita's Family Budget was the most useful, probably because it was one they could relate to personally.

Bandhus cited several posters when they were asked which ones were the most useful. The most frequently mentioned, from most to least, were:

Table 4: Bandhu views on the most effective CE posters

Name of poster	How often mentioned
Sita's Family Budget	Most mentioned
Benefits of My Account through FINO Savings Strategies	Frequently mentioned
Features of My Account through FINO Sita's Family Savings Plan	Single mention

Bandhus commented separately that the most effective posters were the ones with messages or stories with which clients could associate. Sita, the character in Sita's Family Budget, was intended to be a character that they could relate to, and in interviews, clients reported that was the case. While bandhus did not provide extensive commentary on the posters, it seems likely that clients, in the trainings they attended, were responding to this particular poster because they felt an affinity for the character Sita.

Bandhu response to the campaign messages

The moderators asked Bandhus which messages were effective overall in helping clients to understand the FINO service, and which ones were effective in helping clients to manage their money better. The most useful message in conveying the value of the FINO card was that the FINO card allows clients to transact without going to the bank, followed by messages about how to save using FINO. The most useful messages in managing money were how to distinguish between wants and needs, and how to reduce unnecessary expenses.

The recall of the groups varied, and the Jaunpur Active group said that they could not remember any of the messages. However, based on recall of the other groups, the most effective messages were as follows:

Table 5: Bandhu views on the campaign messages

Name of Campaign	How often mentioned
FINO card means no trips to the bank	Most mentioned
Incremental savings can add up to large amounts	Frequently mentioned
Instructions on how to save Saving money reduces impulse purchases	Single mention

The messages (above) reflect the statements of the bandhus and are intended to convey the meaning of what they said rather than to replicate the messages directly. What is evident, is that clients were attracted to banking from home, whether for convenience or to avoid being seen too much in public. Messages about how to save with the card were also attractive.

When discussing which messages were the most useful in helping clients to manage their money, bandhus felt that the most important messages were that clients should distinguish between their wants and needs, and that they need to reduce their unnecessary expenses in order to save. Bandhus repeated the content of a few of the messages, in some cases providing examples of how the messages could be effectively conveyed to their customers. For example, one bandhu offered the following recollection:

> *"They should decrease their lavish expenses like if they need to use a light bulb then they must use cheap one rather than a more expensive one. This will save money, because both are doing the same work."* (Active, Jaunpur)

The fact that the bandhu took away this message shows that he understood the content of the training and was ready to deliver the message easily to clients.

Bandhu response to the activity books

The moderators in the FGDs asked Bandhus about the value of the activity books and their messages in helping customers to manage and save money. Bandhus were positive about the books as tools for customers to improve their financial management, and that messages about incremental savings were appreciated. Some felt that the messages were understandable to their customers because of the use of pictures, and that they were particularly meaningful for women who otherwise have few savings options. However, this was not a universal feeling, as there was one bandhu who felt that the books were only useful to literate customers.

The bandhus pointed out specific messages that they thought were useful. The messages that bandhus emphasized were that saving incrementally can lead to building large lump sums, and the importance of planning as a family:

> *"The most important role of this book was to meet with family members and decide about the income and expenditure of the house. Accordingly you can manage your money."* (FGD Active 2, Jaunpur)

> *"It is shown how to save money step by step and [how] it becomes a large amount. Through this story they understand the importance of saving and they save money".* (FGD Inactive 3, Jaunpur)

Not only were the bandhus able to discuss the messages and how they could be practiced by their clients, they also felt that their clients related to the stories in a way that made it easier to understand the essential messages:

> *"Yes they relate to the stories. They think and discuss with us that if a poor family like Sita can save money, they can do it also".* (FGD Inactive, Jaunpur)

Sita's story is particularly relatable to the clients. This was especially true of female clients, who bandhus said benefitted most from the FINO service, due to the small amounts of money that they handled, and the social restrictions which kept them confined to their houses:

> *"Women cannot go outside of the home and they are responsible for the saving at home. If they cannot save, men cannot save a single penny. And they are always eager to save and so they are more active than men."* (FGD Active, Jaunpur)

By contrast, bandhus felt that the messages were not as useful for men. This was not, however, due to the messages themselves, but due to the way men typically handle money, as implied in the quote above, and stated directly in the following quote:

> *"Men are less active with FINO than women as they cannot save. Their unnecessary expenses like bidi (cigarettes) and alcohol are much more than women."* (FGD Active 2, Jaunpur)

In other words, men are more susceptible to spending their money on unnecessary expenses, particularly vices, in part because, unlike women, who are largely expected to spend most of their time in their houses, men are free to roam where they may be tempted to make impulse purchases. At the same time, the Diaries data showed that women tended to be more economically inactive in general, and therefore would not be financially able to make impulsive purchases to the degree that men were able to do so.

Bandhu response to the flipbooks

The moderators asked Bandhus a series of questions about the flipbooks, in order to understand their experience with the books, and responses to them. Bandhus in the FGDs understood that the flipbooks were not primarily marketing tools, but they still used them most often with new customers, particularly women, and those who could not read. Bandhus said that they found the flipbooks helpful to most of their customers, and also reported that the books helped them remember details of the FINO service that they otherwise could not. While the money management messages were deemed useful, bandhus felt that the messages around security features were the most important, and that they were effective in increasing client trust in the quality of the services. However, the flipbook could not help bandhus repair the trust of clients who expected a broader range of services to be offered by FINO based on previous marketing promises. As mentioned previously, the comments of bandhus must be considered in light of the testimony of clients, who claimed that they received very little exposure to the books by their bandhus and very few visits from their bandhus.

Bandhus understood that the primary purposes of the flipbooks were to educate clients on money management, and to provide them with technical information on the operation of POS devices. One bandhu also noted that the flipbook can help to increase the trust of clients in the FINO service.

The moderator also asked bandhus how helpful the flipbook was in explaining FINO card services to clients, and they responded by reporting the proportion of clients who they felt benefitted. Most of the bandhus, but only active ones, said that the flipbook benefitted 50 to 70 percent of their clients. Slightly fewer bandhus believed that the flipbook benefitted 70 to 100 percent of their clients. One bandhu mentioned that the flipbook serves as a good tool for bandhus to remember how to explain the service to clients, particularly because the pictures support their explanations. One bandhu stated that the flipbook was not effective for illiterate clients, though this view was not common and seems to contradict the statements of other bandhus.

When moderators asked bandhus how often they took the flipbook out with them to visit clients, three said that they did so always, while two said that they did so sometimes. One of the bandhus explained that his reason for not carrying the flipbook was due to his knowledge of his customers:

> *"It is compulsory to carry flip book for meetings with new customers, but for meetings with old (longstanding) customers it is not necessary. However, some old customer may forget things and we need to explain everything again".* (FGD Active 2, Jaunpur)

This bandhu felt that he knew which customers had been exposed to the flipbook, and that he therefore did not have to show it to them again.

As a follow up, to triangulate bandhu statements about carrying the flipbook, the moderators also asked if they leave it behind sometimes. Their responses to this question were similar to their responses about whether they always carry the flipbook with them. Some bandhus in each FGD said that they always take the flipbook, while in most FGDs, bandhus said that they carried the flipbook only sometimes.

The moderators asked the Bandhus if they used the flipbook with every customer. Bandhus repeated that they often did not use the flipbook with existing customers, as expressed above, but an equal number said that they did not use the flipbook with educated customers:

> *"We don't use the flip book for educated people because they were able to understand [the service] but for illiterate people we use this book."* (FGD Active, Mau)

Some bandhus also said that they used the flipbook with women because they are more receptive to the savings messages it contains:

> *"Women like the Sita's family budget picture and they just begin to think that if a lady like this can save money then why can't they?"* (FGD Active, Jaunpur)

This seems to indicate that bandhus are using the flipbook selectively, based on who they feel needs to understand the service or who they think will be most receptive to the messages. Based on what they said, educated clients and men are less likely to be shown the flipbook by bandhus. While exposing women and under-educated clients to the messages is positive, the flipbook was not intended as a tool to reach only a small segment of the FINO client base.

When asked how long they spend with customers reviewing the flipbook, two thirds said that they used more than 20 minutes, one quarter said 10 to 20 minutes, and a handful said five to ten minutes. Therefore, it seems that when bandhus are training clients using the flipbook, according to their reports, most are doing so for a relatively substantial amount of time. The intent of the flipbook was for bandhus to discuss individual CE messages during a series of regular, short visits with their customers over time (not for bandhus to discuss the entire flipbook during a single visit with customers).

When bandhus cited the topic that they use the most with clients, they said it was how to save money, followed by budget planning, and then reducing expenses. One bandhu linked the budgeting section to savings in this way:

> *"We use the budget planning section frequently because this helps to increase their savings. And people react spontaneously after discussion on savings"* (FGD Active, Jaunpur)

The bandhus who were able to discuss the sections they use most, emphasized topics about money management, suggesting that they saw the value in improving the clients' knowledge and skills, rather than just selling them further on the FINO service.

The moderators asked Bandhus which messages were the most effective in teaching clients about FINO. Most bandhus felt that the information on security features of the service was the most important in this regard, though in some cases they mentioned the use of fingerprints and in others, the use of a URN number. Interestingly, the next most common answer was the budgeting section, though all these answers were from one FGD and may not be reflective of the sample as a whole. Other answers cited, were the information on the convenience of the service, basic information about FINO, and saving information.

Bandhus also felt that the flipbook helps to increase clients' trust in FINO services. Bandhus most often said that they believed the explanation because it was systematic, meaning step-by-step, which was easy for them to understand. Others said that the flipbook explains the connection to Union Bank, shows how they can save, and explains how FINO benefits women. However, two bandhus in a Jaunpur FGD mentioned that the flipbook did not reflect the reality of the service provided:

> *Voice 1: Yes it's a little bit helpful. But there are lot of gaps between messages and services delivered. Other services should be added.*
>
> *Voice 2: Yes, it is around 60% helpful. But if more services get added to this that will be more helpful*. (FGD Active, Jaunpur)

In their minds, there were two problems. First, one bandhu complained that the services provided do not match what the flipbook promises. Second, the services offered are not as extensive as the services that clients desire. It's not clear what messages in the flipbook describe services that are not offered, or if this is a general complaint by these bandhus about the appeal of FINO services to clients and potential customers.

Bandhus also did not offer many ideas about the topics that were most effective in helping their clients manage their money, but the one that came up the most frequently was budget planning. Others included saving, reducing unnecessary expenses, and one bandhu said that they were all equally effective. Bandhus did not offer any further thoughts as to why they thought these messages were effective.

The most common questions that FINO customers have for bandhus concern access to further services, like remittances, and government payments of welfare or pension payments, which have been promised to begin soon, such as this bandhu in Jaunpur:

> *"Some people ask about the possibilities of money transfer or would they able to get pension or they receive money from their relative who were outside?"* (FGD Active, Jaunpur)

A smaller number of questions concern the security of client funds or if interest is earned. Some individual comments concerned how long it takes to activate the card, how to tell the balance of your account if you are not transacting, and the probability of receiving insurance payouts through the FINO scheme, though insurance was not yet available in the CE campaign area at the time.

Bandhu views on behavior change among clients

The moderators asked Bandhus a set of questions about behavior change among their clients to compare to the FINO client responses. Their knowledge of the actual financial behaviors of clients is limited, but they stated that clients showed increased trust in FINO services, reduced transaction time compared to using bank services, saved more money, and decreased their unnecessary expenses.

When asked what changes they saw in clients, bandhus said that clients showed increased trust in FINO, a decrease in the number of questions, and an increase in savings. They also said that clients saved time, and decreased their unnecessary expenses, though these are probably speculations on the part of bandhus.

Moderators also asked Bandhus what, if any, specific behavior changes they noticed in women. A small number said that women trusted the FINO service more, and others again said that they reduced their unnecessary expenses though it is difficult to see how they could determine that. Some felt that women were also saving more, and one said that women were saving confidentially.

Bandhu opinions on FINO work

In order to understand the general working conditions of bandhus, the moderators asked bandhus what was satisfying and challenging about their work as bandhus, as well as how the CE program affected their work. Bandhus felt that they earned respect in the community from their role with FINO, and that they enjoyed working with clients. The biggest challenges they faced were troubleshooting the technology, and maintaining relationships with customers who expected additional services as originally promised by FINO.

The greatest satisfaction that bandhus cited from their work with FINO was that their role raised their own social profile in their communities.

> *"Our respect and trust is increasing among people."* (FGD Active, Jaunpur)

Bandhus felt that their relations with community members and community leaders improved as a result of the role they played. In addition, they appreciated the convenience of working as a bandhu, as it permitted them to work in their communities. Finally, some bandhus said that it was satisfying to please their customers, and that as their transaction volume went up, their compensation would also increase. Bandhus also felt that the main benefit that their clients received from their work was primarily through not spending time and money to transact, but also in giving them the opportunity to begin saving their money.

The biggest FINO work performance challenges they felt were primarily related to technology use and the limitations in the operation of the FINO cash-handling system. Their complaints included that they had a hard time maintaining float, as this Jaunpur bandhu explained:

> *"If someone wants to do emergency transaction and we don't have money to give them as transaction."* (FGD Active, Jaunpur)

They also had technological difficulties with their POS machines, the network, or with electricity that made it difficult for them to serve clients.

They also reported difficulties based on what services they were able to offer, which they seemed to feel created distance between them and their clients:

> *"The promises we made while making card (enrolling clients) like remittance money, MNREGA and pension are not being fulfilled."* (FGD Active, Jaunpur)

Other bandhus used the term "promise" to refer to the marketing pitches they used to enroll clients, which suggests that the failure to deliver these services has decreased the trust of clients in FINO as a whole and in bandhus in particular. Some bandhus also complained that it was difficult to find clients at the right time, or that they had to make many repeat visits to find them.

CE role of bandhus

In addition to asking how the CE campaign affected the behavior of their customers, the moderators asked bandhus what they thought about reinforcing key CE messages to their clients using the flipbooks in the field, after they had participated in workshops with CE trainers. As well as, what, if any, benefits they received from the CE program. Bandhus were not strongly for or against educating their customers, but they generally acknowledged that their CE role increased customer knowledge of FINO services, and increased awareness of FINO in the community, leading to increased transactions, and more efficient recruiting.

Bandhus did not have strong opinions on training their customers. Some felt that the CE training was actually helpful to them, as it increases FINO's visibility, and makes it easier for them to recruit new clients:

> *"It is nice because it increases awareness and people get attracted towards us."* (FGD Active, Jaunpur)

In the same FGD, a different participant said that training customers actually saved him time on his recruiting activities. Another benefit was identified by a bandhu in the FGD with inactive members, who thought that the training increased customer knowledge:

> *"This type of training should be held again, because it helps our customers to increase their knowledge as well as their confidence and they will get benefits".* (FGD Inactive, Jaunpur)

This bandhu saw increased customer knowledge as a benefit in itself. One bandhu, however, felt that trainers, not bandhus, should train their clients, but he did not elaborate on his reasons for this. Overall, bandhus were not opposed to training their clients.

Even though bandhus were not unanimous in support of training their customers, they cited several advantages that occurred to them when they did so. First and foremost, they said that their transactions and income increased. Some also felt that they saved time, learned how to describe FINO better, or built trust with their clients, all of which were beneficial in their perspective.

Response to CE: FINO Clients

One of the main findings of the assessment research is that among the sampled Diaries participants, CE was delivered exclusively to Treatment participants. No Control participants reported receiving any training. This is a positive result in terms of the implementation of the program, as it suggests that the CE training was delivered selectively in Treatment areas and not in Control areas according to the Diaries research design. At the same time, very few of the Non-Diaries Card Holders reported any exposure to the CE training, suggesting that training was focused on those areas where the Diaries research was being conducted, while in non-Diaries communities where CE was to be implemented, little exposure was achieved. This echoes the earlier findings of the Diaries research, which revealed that CE was not being implemented in Diaries communities until MFO's intervention during the pilot. Overall, this suggests that the CE was not fully implemented.

The main lesson of the research on clients was that the response to the training was largely contingent on the activity of bandhus. Clients who received training, but few or no bandhu visits, were not able to apply the training content (in-person training, poster, activity book) by saving with their bandhus, which limited their ability to transact more, build their skills, and change their money management behaviors. While a third of the clients who received training found it effective in learning about FINO services, and half thought it was useful in learning about money management, greater improvements in knowledge, attitudes, and reported behaviors would be expected if clients had more opportunities to apply the training lessons through transactions with the FINO card. At the same time, the inability or unwillingness of CE recipients to apply the more general financial management lessons of the training without bandhu interactions, suggests that their self-efficacy was limited.

Use of and response to the CE training and materials

The importance of bandhus was repeatedly reemphasized in these interviews, as participants noted that without regular visits, many felt unable to practice what they learned in their sessions with FINO trainers. The interviews also revealed that not only were the Control group participants not exposed to CE as planned, but that only one of Non-Diaries Card Holders was exposed, therefore most comments on CE are drawn from the Diaries group. Most participants who received the training thought that it could help them use their FINO cards, and manage their money, but a significant number of those,

particularly OBC or Scheduled Caste members, complained that they could not realize the full value of the training due to the lack of visits from their bandhu.

Furthermore, the behavior of FINO personnel affected most of participant responses about CE, since the training was delivered by FINO trainers and the FINO services and ancillary training (via the flipbook) was delivered by bandhus. Because bandhus did not visit clients with the regularity they anticipated, few clients were exposed to the bandhu flipbooks. The FINO clients interviewed did not provide extensive commentary on the CE program or materials. This is probably because the clients had little exposure to bandhus and to the flipbooks, as both would tend to increase client recall of the FINO CE training, and probably result in more positive attitudes towards FINO and the CE. This is particularly worth noting because the clients were exposed to the CE training six to seven months prior to the collection of qualitative data for the outcomes assessment.

The detailed analysis in the next two sections describe how clients responded first to the CE training, and then to the client activity books.

Response to the CE training

The detailed analysis of responses from Diaries participants about who received CE training showed that over two-thirds of the Diaries Treatment participants did receive training. Of the Treatment participants who did not receive training, the majority was unaware of the training, and one had not received a card. By contrast, none of the Control participants reported attending any training. Of these, half said that the reason was that they didn't have a FINO card, and the other half said that they were unaware of the trainings.

Overall, about half of the total participants in Jaunpur and Mau received training across Treatment and Control groups. Of the total attendees, 9 were female, while one was male. All attendees but one (in Mau) said that the trainers used posters during the CE sessions.

When asked about the usefulness of the CE training in regards to FINO card use, nearly one third of the participants who were exposed to the training said that it was helpful to them in using their FINO card, one third said that is was not helpful, and one third said that the training seemed helpful but they could not say definitively, because their bandhu had not visited them or had only visited them very soon after receiving their cards. One Jaunpur participant complained, "It is useful. But no one came (to conduct transactions)." Those who said the training was useful in helping them to conduct card transactions were all women, and while they had varied education levels, they were all OBC members. Of those who said that the training was useful but they had not been visited by bandhus, the majority were OBC and Scheduled Caste members, with one from an Upper Caste background.

When asked about the usefulness of the training in changing how they manage their money, nearly half said that the training was useful, while a quarter said that it was useful, but complained that they had not been visited by their bandhus. All of those who said the training was useful in managing their money were from Other Backward Castes, and had some secondary education or had completed primary education, while the one third who said it was not useful were from Scheduled Castes and had no schooling. One participant in Jaunpur noted of the CE that "it is useful, because they told us that if you earn 100 rupees, you should try to save money from it. I am a farmer so I can save some money daily, and after some time I can buy a bull."

All but one of the participants who received training was exposed to the posters. When asked whether the posters were useful in helping them to use the card, one third of those who had seen them said yes, while half said no (the remainder did not answer the question). However, when asked if the posters were useful to them in managing their money, one third still said yes, while another third said that the posters were not helpful, but because their bandhus did not come to conduct transactions with them. When asked which poster they remembered most, nearly half of those who had received training were able to do recall one of them, spread evenly across districts, castes, and education levels.

Asked to recall an example of a lesson from the CE, one third of the participants who had been exposed to the posters were able to volunteer a lesson without prompting. The messages they remembered included the guideline to save 10% of one's income, the lessons of Sita's story, and "you will not face any problem in saving money, depositing money, or withdrawing money, because bandhu will come to your home [to transact]."

Still, one third of the participants exposed to the CE, including two in Jaunpur and one in Mau, stated that they had started saving more money since receiving the training. One participant complained that the bandhu hadn't come to facilitate transacting, but still was saving more money after the training was complete: "Yes, I try to save some money for future but the bandhu doesn't come." This and other comments suggest that some clients may have been lacking in personal resources (income, discipline, family support) to effectively apply the lessons of the CE whether or not their bandhu was visiting them.

Response to the customer activity book

Responses to questions about the activity book appear later on in the interview transcripts, and at this point, it is evident in the transcripts that some participants were frustrated to have to repeat that their bandhus did not visit them, and therefore could not apply the CE lessons. Most of the participants received a book, and all who did, read it and most shared it with others. However, most participants were not actively using the book, due to a lack of bandhu visits.

Over half the Treatment group participants received the book, including the majority of those who were exposed to the CE training. Most of the Jaunpur Treatment participants received a book, but only one participant in Mau received one. All of the participants who received a book said that they read the book themselves, and two thirds of those said that they also shared the book with others.

The participants reported generally being unable to actually use the lessons of the activity book. None said that they used the "my family budget" worksheet, while only two reported using the savings strategy or savings plan section of the activity book. However, it is worth noting that when asked if they used the savings strategy section, half of the participants took the opportunity to complain that their bandhus did not visit them. At this point in the interview, some interviewees appear, even in the transcripts, to have become frustrated as they repeatedly said that without visits from their bandhu, they were unable to apply the CE lessons.

For several of the sections, including "savings strategies," "Sita's family savings plan," "Features of your bank account through FINO," "Benefits of your bank account through FINO," "Sita's FINO savings register," and the troubleshooting section, only a small number of participants stated that they found them to be of value. Again, many explained that this information was of little use to them without visits from their bandhus, especially "Features of your bank account through FINO," and "Sita's family savings

plan." When asked about the troubleshooting section, a majority either said that they had forgotten or that they had no reason to refer to it without actual FINO activity, suggesting the importance of application for recall of CE lessons. Still, one third of those who received training said that they found the troubleshooting information useful.

When asked where to find the balance or the transaction amount on a FINO transaction receipt, only one participant was able to describe either, saying that the transaction amount was on the bottom of a receipt. However, considering the number of participants who were unaccustomed to transacting due to the lack of visits from their bandhus, it would be expected that most would not recall such information.

Self-reported behavior change

Moderators asked participants in the Diaries Treatment and Control groups and in the cardholder group if they had changed various financial behaviors over the past year. Participants had difficulty responding to these questions, but this may again have been due to lack of recall in the absence of planned follow up visits by bandhus.

The specific behaviors they were asked about included:

1. Changes in how they think about gifts or loans;
2. Changes in how they ask for money when in need;
3. Changes in who they ask for money when in need;
4. Changes in how much money they ask for when in need;
5. Changes in how they give money to people;
6. Changes in who they give money to;
7. Changes in how much they give to people who ask for it.

It appears that participants had difficulty answering these questions, as no substantial answers emerged from this line of questioning.

However, questions around exposure and response to CE revealed two important points that could help to explain the lack of response. First, participants seemed only to recall lessons when given opportunities to apply their knowledge. Very few of the participants, in either the Diaries or cardholder groups, were visited by bandhus, hence very few could apply the CE training. It was clear from the CE questioning that FINO clients were disappointed in the lack of visits that they received from bandhus, and the CE reminded them of the possibilities that the FINO card offered. This was especially true of participants from lower social castes and with lower levels of education.

QUANTITATIVE RESEARCH: FINO MIS DATA

SUMMARY OF FINDINGS

Card use

The data on FINO card transactions show that card use, between September 2011 and February 2013 in the Mau and Jaunpur districts, where the study was conducted, was very low:

- Only 5.1 percent of the approximately 896,000 cards issued in the two districts before September 1, 2011 were used at all in the period of the study;
- Only two percent of the cards were used on six different days during the period of the study.

Those who used their FINO cards did show an increase in their overall balances, on average Rs. 130. However, there was no correlation between this finding and the availability of CE in a participant's village, or how much activity was recorded on a card. This suggests that the increase in overall balances was not due to the CE program, nor did frequent use necessarily result in increased savings. Put simply, balance increases were not a result of card users regularly saving small sums to accumulate a larger lump of funds for future use, but must be anomalous or the result of factors that cannot be measured through an analysis of the MIS or program implementation data.

Impact of CE

The lessons from the CE did very little to change the use of the FINO cards. This is not surprising given the very erratic availability of bandhus to process transactions and to help reinforce the CE lessons.

The one difference between the Treatment and Control areas is that existing Treatment card users transacted with their cards on more days as a result of the CE than existing Control card users. Because availability of CE correlated positively with the number of days that cards were used, even when other possible factors were taken into account, the CE probably accounted for the difference. We think that the CE program increased the number of days that bandhus were available to serve customers in the Treatment area compared to the Control area, despite the erratic service. Possible reasons include:

- CE raised the expectations of consumers who demanded better service from the bandhus;
- CE prompted the bandhus to make themselves more available;
- Bandhus felt better equipped to serve customers once they were given the tools provided through the CE.

DATA CONSTRUCTION

Data sources and preliminary construction of dataset

FINO supplied data on cardholders and their transactions in the Mau and Jaunpur districts of Uttar Pradesh between September 2011 and February 2013. This data contained information for approximately 896,000 cards issued before September 1, 2011. However, the transactions data showed

transactions for a total of approximately 187,000 cards. The data showed 3.14 million transaction records for these 187,000 cards in the period from September 1, 2011, to February 28, 2013.

For the quantitative analysis, only the 21 geographical blocks containing at least one treatment village were included in the dataset. Of the 122 treatment villages (100 in Jaunpur and 22 in Mau), cardholder data was found for 113 (91 in Jaunpur and all 22 in Mau). Among these 113 villages with cardholders, 108 villages were found with cardholders for whom one or more transactions were recorded. (87 in Jaunpur and 21 in Mau). Issues with the cardholder data caused a loss of records in the final dataset, meaning that it is possible that cardholders and transactions were recorded in other treatment villages as well.

In total, the initial dataset contained 495,822 cards in 21 blocks with at least one treatment village, for a total of 1599 villages. Of that number, 75,333 cards in 1027 of these villages had recorded transactions, a total of 1.95 million transactions. Thus, no activity was recorded for 420,489 cards and for 567 villages. Further exclusions were then applied based on an examination of transactions records as described in the next section.

Anomalous transaction records and exclusions from data

Several potential anomalies were found in the transactions records. First, there was a cluster of transactions of under the minimum of Rs 10, most consisting of transactions of Rs 1. Secondly, there was a highly unbalanced group of transactions of Rs 10,000, 96.4% of which are withdrawals, and which have a net value of –Rs 24.4 million (as against a positive net value of +Rs 5.6 million for all other transactions). There was also a smaller cluster of transactions of Rs 10,025, all of which were deposits.

Because no plausible explanation for these unusual clusters of transaction records could be found, all transaction clusters less than Rs 10 were excluded, as were cards with transactions over Rs 10,000. This further reduced the transactions in the final dataset by 2.9% from 1.95 million to 1.90 million. More importantly, the number of cards defined as active was reduced by 23.0% from 75,333 to 57,961, including over 15,000 cards with only a single deposit or deposit-withdrawal pair of Rs 1. The net value of transactions increased from –Rs 18.8 million (–Rs 250 per card used) to +Rs 3.3 million (+Rs 57 per card used), due largely to the exclusion of debit records of Rs 10,000.

DESCRIPTIVE ANALYSIS AND DESIGN OF MEASURES OF MEANINGFUL FINO ACTIVITY

MFO found many paired transactions where a deposit of the minimum amount Rs 10 was made via a FINO card, only to be reversed by a debit of the same amount seconds or minutes later. These paired transactions account for the entire transaction history of a substantial proportion of active cards. A second frequent pattern was found where multiple deposits or withdrawals in the same or a similar amount made within seconds or minutes of each other. This appears to involve splitting a more substantial transaction into several smaller ones.

These patterns of reversals and split transactions presumably reflect the financial incentives on bandhus, who are paid a small incentive by FINO for each transaction performed, unrelated to the transaction amount. A bandhu's total commissions therefore depend on the volume of transactions performed. Anecdotal reports from the field suggest that bandhus often require first-time users to make a token

deposit and withdrawal on the pretext that is required for activation. A small proportion of users did this repeatedly, implying that they are colluding with the bandhu to maximize his commissions.

In order to remove the influence of this apparently opportunistic behavior on measures of activity, the analysis mainly utilized net amounts deposited or withdrawn per day in which the cardholder made one or more transactions using FINO. Therefore, net activity is defined in terms of days on which there is a non-zero net flow, retaining only meaningful account activity, though some information about the use of FINO for money management within a single day may have been lost.

Further details on the design of the measures of meaningful activity may be found in Annex 1.

ANALYSIS OF THE IMPACT OF THE CE PROGRAM ON TOTAL AND MEANINGFUL ACTIVITY

Formulation of impact models

The analysis of the impact of the CE program is focused on various measures of total and 'non-trivial' activity. The measures of total activity are:

- the percentage of cards in issue with positive activity – i.e. one or more transactions
- the mean number of days with positive activity per card in issue
- the mean number of transactions per card in issue.

The measures of 'non-trivial' activity are:

- the percentage of cards in issue with 'non-trivial' activity – i.e. one or more days with a net inflow or outflow
- the mean number of days with 'non-trivial' activity per card in issue
- net total inflow or outflow per card in issue
- net total inflow or outflow

Although intended to be conducted as a randomized controlled trial, in practice the CE was assigned to locations with systematically higher rates of FINO activity. This requires the use of econometric methods that attempt to control for systematic dissimilarities between the treatment and non-treatment groups, based on certain critical assumptions.

Locations and months in which no activity recorded

Activity was much higher in treatment than in non-treatment locations. The mean number of active months was 11.6 for treatment locations but 4.0 for non-treatment locations (with a mean of 4.5 months), or 7.0 if weighted by cards in issue (6.2 in non-treatment locations and 12.2 in treatment locations). The analysis is therefore run on three subsets of the data:

- the full balanced panel of 1599 locations and 18 months, including location-months in which no activity was recorded
- an unbalanced panel consisting only of location-months in which positive activity was recorded (7,529 location-months in 997 locations)

- a balanced panel of the 124 locations (95 non-treatment and 29 treatment) in which activity was recorded in all 18 months.

Timing of treatment

Figure 5: Percentage completion of treatment in treatment locations

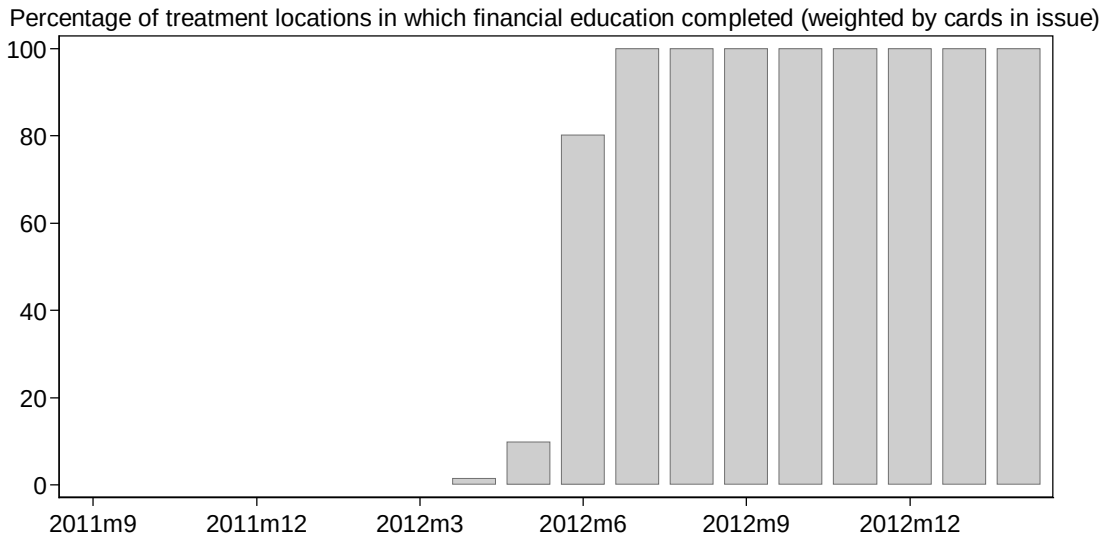


Figure 5 depicts the timing of the CE. For the purposes of monthly analysis, treatment locations were assumed to have completed their training if the reported end-date of training was on or before the 15th day of the month. When looking at the monthly charts of outcomes in the next section, June 2012 can be treated as the approximate start of the post-treatment period.

Results

Summary of regression analysis

The data in Annex 3: Regression Analysis of MIS Data show the results of a fixed effects regression analysis of the FINO data. The analysis focused on changes in non-trivial transactions, as defined earlier in this report. The table shows the results for three different dependent variables: the number of cards used, the number of days on which cards were used, and the net daily inflow of cash onto the FINO cards. These variables capture different potential effects of CE on consumer behavior. In the case of the number of cards used, the hypothesis is that CE helped people who had not been using their cards to understand the benefits of the card and enabled them to act on that understanding. In the case of the number of days on which the cards were used, we are measuring the effect of CE on the frequency of use of the card, by both existing and new users – the education demonstrated the benefits of the card to both types of user. And, in the case of net inflows, we are measuring the effect of CE on people's willingness to deposit more money into their account through their card, regardless of the number of times they used the card.

We modeled the impact of CE using three different sets of location and month combinations: all locations and all months; locations and months in which there was activity during the period of the

study, including months of activity in locations where there was no activity in other months; and locations where there was activity in all the months of the study. Finally, we modeled the impact using two different specifications, which differ in whether they take into account underlying temporal trends in the data or not. The specification that takes into account underlying temporal trends in the data is the more conservative specification.

The analysis suggests that CE had no impact on the number of card users, nor on the amounts deposited on to the cards. Given the number of problems the MIS data reveal about FINO's system in Mau and Jaunpur, these results are not surprising. It is highly unlikely that any of the lessons from the CE would have revealed themselves in a change in use of the FINO cards. The qualitative data tells us that those who received the CE wanted to put what they learned into practice, but did not get the chance.

The only statistically significant impact we found was on the number of days during which the cards were used, when underlying temporal trends were taken into account. This suggests that the CE had no impact on the number of card users, but it does seem to have had an impact on the number days on which cards were used. Briefly stated, *existing* card users were using their cards on more days as a result of the CE. This is a puzzling result, if we only look at the impact on consumers. Why would CE have an impact on the number of days people used their cards?

One possibility is that the CE had its impact on the supply side, by increasing the number of days that bandhus were available to serve customers. This may be because the CE raised the expectations of consumers who demanded better service from the bandhus, or because the CE prompted the bandhus to make themselves more available. The latter explanation might be grounded simply in the fact that the CE mobilized both customers and bandhus to show up to workshops, thus catalyzing further interactions. Or it might be that bandhus felt better equipped to serve customers once they were given the tools provided through the CE. The qualitative data suggests that either of these explanations might be the case.

QUANTITATIVE RESEARCH: FINANCIAL DIARIES FINDINGS

INTRODUCTION

The intention of the Diaries study was to track changes in behaviour resulting from the CE program. The Diaries also served as a mechanism to monitor the implementation of the program by FINO, as the Diaries research was conducted before, during and after the scheduled implementation of the program. It was through the Diaries, that MFO was able to uncover the fact that the CE program did not take place on schedule. MFO extended the Diaries study in response to this finding to ensure that we were able to gather data from people after the CE program had been implemented. Unfortunately, the delays in the CE program were so extensive that there were only, on average, three weeks of post-program data to analyse and in which to identify changes, thus diminishing the statistical power of the analysis considerably. Nevertheless, the Diaries data have proven to be a rich source of data for understanding how people in the study area manage their money, and this section of the outcomes assessment report contains considerable information on this.

SUMMARY OF FINDINGS AND IMPLICATIONS FOR FINO CARD USE

As noted above, the purpose of the Diaries was to track changes in behaviour due to the CE program. Difference-in-difference analysis of the impact of CE on saving and financial service use showed no impact. But the analysis suggests that for women exposed to CE, there was a significant increase in the receipt of transfers (intrahousehold transfers, cash gifts, and remittances) and an offsetting decline in funds sourced from borrowing following the consumer education. The increase in transfer receipts from other people cannot be attributed to CE, but their response to that – decreasing their borrowing, may have been.

Beyond the impact data, we looked at the income, expenditures, and financial transfers of our respondents. The data paint a complex picture that has important implications for the market for financial services.

The men in the sample recorded higher and more frequent occupational earnings than women. Most women (88.5%), including all of the Upper Caste female respondents, were classified as primarily non-earning, although they were clearly engaged in household labour and in many cases also in household income-generating activities, but without conducting associated monetary transactions such as sales of produce. None of the women were in regular employment. Men recorded occupational earnings in 54.9% of weeks and occupational outgoings in 8.4% of weeks, compared with earnings in only 13.4% of weeks and occupational outgoings in only 2.1% for women. On average, men had net weekly occupational income of Rs 445, compared with only Rs 53.8 for women. As a result, if people in this market started saving 10% of their earnings on their FINO card, one would expect that men would be depositing about Rs.40, and women only about Rs.5.

On average, both men and women spent more on personal and household expenditure than they received in net occupational income, and depended on transfers and borrowing to make up the gap. For all groups, personal and household expenditures were positively related to occupational income, transfers and borrowing-related inflows in the same week, which in turn were negatively related with each other. This suggests that variations in inflows have a significant and rapid impact on expenditure in the same week, implying imperfect consumption smoothing. On the other hand, the fact that the coefficients are significantly less than one implies that not all receipts translate directly into expenditure in the same week, and conversely that expenditure is not limited entirely to contemporaneous receipts. This implies at least some degree of smoothing of expenditure with respect to the timing of inflows. In other words, people were retaining money from week to spend in another – engaging in short-term savings to manage their cash flow and consumption. The implication of this for FINO card use is that there is a possibility that people could deposit the surplus in one week for use in another, but only if they knew that the money would be easily accessible when they needed it.

Respondents received more transfers of all forms in weeks when they did not earn money. The most significant difference was in intra-household transfers, followed by cash gifts received from outside the household. Remittances were affected the least. This suggests that household members are the first recourse when individuals find that their weekly earnings are insufficient, and that remittances are less tightly linked to very short-term income fluctuations. This finding also raises the question as to whether people might be better able to make up for lost income through remittances if they were able to receive them easily through their FINO card. There was evidence in the Diaries data that many respondents had relatives in cities in India who would occasionally send them money.

Use of financial accounts was very low. Respondents received monetary payments via non-cash methods in fewer than one per cent of weeks (0.7% for men and 0.5% for women), while the number of payments made by these means was virtually nil. Deposits to and/or withdrawals from financial accounts were made by men in 2.6% of weeks and by women in 1.8% of weeks. The most common use of financial accounts was to receive a payment, often employment-related, which was then immediately withdrawn as cash from a bank branch. There were very few FINO transactions reported in the Diaries data. These last two findings point to a surprise in the data – we were expecting to see many more people using their FINO cards to withdraw money from an account that had been credit due to some kind of G2P transfer such as MNREGA. The data show that this did not occur. But the data also tell us what we might see if FINO cards were used in such a way – people would most likely withdraw the full amount of the transfer at one time. One potential role for CE in the future is to provide some education around the benefits of keeping the proceeds of such a transfer in an account rather than withdrawing it all at once.

SAMPLE COMPOSITION

Locations and dates

Table 6: Financial diaries respondents by district and treatment

District	Treatment	Comparison	Total
Jaunpur	44	39	83
Mau	48	56	104
Total	92	95	187

Enumerators gathered diaries for 187 respondents in 20 villages in the Jaunpur and Mau districts of Uttar Pradesh between November 2011 and July 2012. Between six and 11 respondents were surveyed in each village.

In Jaunpur, we tracked 44 respondents from six treatment villages in the Badla Pur geographical block in which consumer education was carried out, and 39 from six comparison villages in the Jalal Pur geographical block where it was not. In Mau, we tracked 48 respondents from five treatment villages in the Ratanpura geographical block, and 56 from five comparison villages in the Badraon block. A full breakdown of the sample by district, block, location and treatment is given in Table 21 of Annex 9: Additional Tables.

Diary collection spanned 37 consecutive calendar weeks. We discarded the first four completed weekly interviews for each respondent from the data used for analysis to allow for bedding-in of the relationship between fieldworker and respondent and resolution of any teething issues. The data retained for analysis spans 33 weeks (32 in Mau) from the week commencing Dec 1, 2011 (Dec 8, 2011 in Mau) through the week commencing Jul 12, 2012.

Further details on the locations and dates of interviews may be found in Annex 5: Diaries Location and Dates Tables.

DEMOGRAPHIC AND OCCUPATIONAL CHARACTERISTICS

Table 7: Age and gender of diaries respondents

	%			*N*		
	Men	**Women**	**Total**	**Men**	**Women**	**Total**
Under 25	9.2	2.6	6.4	*10*	*2*	*12*
25-34	18.3	17.9	18.2	*20*	*14*	*34*
35-44	25.7	37.2	30.5	*28*	*29*	*57*
45-54	30.3	28.2	29.4	*33*	*22*	*55*
55 or over	16.5	14.1	15.5	*18*	*11*	*29*
Total	100.0	100.0	100.0	*109*	*78*	*187*

The sample consisted of 109 men (58.3%) and 78 women (41.7%). The mean age of respondents was 42.3 years and was very similar for men (42.2) and women (42.3), although men's ages were somewhat more dispersed.

Table 8: Relationship of diaries respondents to head of household

	%			*N*		
	Men	**Women**	**Total**	**Men**	**Women**	**Total**
Household head	75.2	16.7	50.8	*82*	*13*	*95*
Spouse	3.7	74.4	33.2	*4*	*58*	*62*
Adult offspring	18.3	-	10.7	*20*	-	*20*
Parent	0.9	2.6	1.6	*1*	*2*	*3*
Sibling or in-law	1.8	6.4	3.7	*2*	*5*	*7*
Total	100.0	100.0	100.0	*109*	*78*	*187*

Household heads and their spouses were overrepresented in the sample: although the mean household size was 7.4 (7.2 for men and 7.7 for women), 75.2% of men were the head of their household and 74.4% of women were the wife of the household head. A further 16.7% of women were themselves the head of household, while fewer than 4% of men were husbands of a female household head.

In other categories, 18.3% of men were sons of the household head, but there were no adult daughters of heads of household in the sample. A small number of respondents were a parent, sibling or in-law of the head of household.

Table 9: Occupation and caste of diaries respondents by gender

	%			*N*		
Men	**Other castes**	**Upper castes**	**Total**	**Other castes**	**Upper castes**	**Total**
Employment	3.4	10.0	4.6	*3*	*2*	*5*
Self-employment: agriculture	9.0	20.0	11.0	*8*	*4*	*12*
Self-employment: non-agriculture	23.6	30.0	24.8	*21*	*6*	*27*
Labour	42.7	5.0	35.8	*38*	*1*	*39*
Uncertain	1.1	5.0	1.8	*1*	*1*	*2*
Not earning	20.2	30.0	22.0	*18*	*6*	*24*
Total	100.0	100.0	100.0	*89*	*20*	*109*

	%			*N*		
Women	**Other castes**	**Upper castes**	**Total**	**Other castes**	**Upper castes**	**Total**
Employment	-	-	-	-	-	-
Self-employment: agriculture	4.5	-	3.8	*3*	-	*3*
Self-employment: non-agriculture	4.5	-	3.8	*3*	-	*3*
Labour	4.5	-	3.8	*3*	-	*3*
Uncertain	-	-	-	-	-	-
Not earning	86.6	100.0	88.5	*58*	*11*	*69*
Total	100.0	100.0	100.0	*67*	*11*	*78*

Among men, 18.3% of respondents were from Upper Castes, while 81.7% were from Scheduled or Other Backward Castes. Fewer than 5% of men were in regular employment. The most frequent male occupation was wage labour (42.7%), followed by agricultural and then non-agricultural self-

employment (23.6% and 9.0% respectively). Agricultural self-employment ranged from small-scale cultivation and animal husbandry to larger-scale cereal growing by Upper Caste landowners. The 22.0% of men who were not earning were somewhat less likely to be heads of household (33.3% of male non-heads of household were non-earners, as opposed to 18.3% of household heads), although the difference was not highly statistically significant (p=0.14). Non-earning status was also not significantly correlated with age or caste.

Among women, 14.1% of respondents were from Upper Castes, while 85.9% were from Scheduled or Other Backward Castes. Most women (88.5%), including all of the Upper Caste female respondents, were classified as primarily non-earning, although they were clearly engaged in household labor and in many cases also in household income-generating activities, but without conducting associated monetary transactions such as sales of produce. The 11.5% of women who did receive earnings with some frequency were involved in wage labor or in agricultural or other self-employment. None of the women was in regular employment.

More detailed breakdowns of the occupation and caste composition of the respondents are shown in Table 22 and Table 23 of Annex 9: Additional Tables.

ANALYSIS

MFO conducted the analysis on data aggregated to totals per respondent per week using the concepts described in the previous section. The first part describes a partitioning of the sample into 'outlier' and 'non-outlier' groups; the second part provides a descriptive analysis of economic flows and money-holding; the third uses econometric techniques to assess the impact of the consumer education; and the fourth provides further econometric analysis of patterns of economic behavior.

Further partitioning of the sample was necessary in order to prevent individuals with significant numbers and volume of outlier transactions from skewing the results. Details on how the partitioning was performed may be found in Annex 6: Partitioning of Sample.

DESCRIPTIVE ANALYSIS OF ECONOMIC FLOWS AND MONEY HOLDING

External monetary economic flows

Table 15 in Annex 7: Tables on Economic Flows and Money Holding summarizes gross monetary inflows and outflows and net flows for respondents in the non-outlier group.

Average net weekly flows were very modestly positive for both men and women (Rs 112 for men and Rs 58.5 for women). On average, men made a higher value of gross weekly transactions (Rs 831 in inflows and Rs 719 in outflows) than women (Rs 497 in inflows and Rs 438 in outflows).

Participants spent more than they made. On average both men and women spent more on personal and household expenditure than they received in net occupational income, and depended on transfers and borrowing to make up the gap. Men and women were net recipients of all categories of transfer. They were also net borrowers during the period of diary recording.

- *Men earned more money from work than women.* Men recorded occupational earnings in 54.9% of weeks and occupational outgoings in 8.4% of weeks, compared with earnings in only 13.4% of weeks and occupational outgoings in only 2.1% for women. On average men had net weekly occupational income of Rs 445, compared with only Rs 53.8 for women.
- *Men spent more on personal and household expenses than women.* Men recorded personal and household expenditure in 92.7% of weeks at an average of Rs 535 (including zero-earning weeks, and net of a small amount of non-occupational income). Women recorded such expenditure in 74.1% of weeks at an average of Rs 350.
- *Participants used transfers and loans to pay for the gap between their expenses and earnings.* Net transfers and borrowing covered the resulting shortfalls between net earnings and net expenditure (Rs 89 per week for men and Rs 297 for women).
  - *Women received more cash per week through transfers than men.* Both men and women were, on average, net recipients of each category of transfer (intra-household transfers, cash gifts outside the household, and remittances), with men receiving Rs 148 net per week and women Rs 304 net per week from such sources. Men received Rs 43 in net IHTs, Rs 36 in net cash gifts, and Rs 69 in remittances, while women received Rs 171 in net IHTs, Rs 64 in net cash gifts, and similarly Rs 69 in remittances). Women received transfers significantly more frequently than men (in 42.0% as opposed to 16.6% of weeks) and made transfers significantly less frequently (in 7.6% as opposed to 19.7% of weeks).
  - *Men borrowed slightly more per week than women. Men on average obtained Rs 54.2 per week from net borrowing and lending activity, consisting mainly of average weekly borrowing of Rs 76.3 less average weekly repayments of Rs 21.0. Women obtained Rs 51.1 in net borrowing per week, consisting of Rs 96.1 in fresh credit less Rs 44.9 in loan repayments. Lending, and receipt of repayments on sums lent, was negligible.*

It is not clear why participants earned more than they spent. The shortfall in occupational income relative to expenditure is a striking feature of the diaries data. Clearly, it is not possible for expenditure to exceed net economic income indefinitely unless ongoing injections such as donations and remittances from outside the survey population are sufficient to subsidize the difference. Moreover, in a random sample of the target population, both sides of transactions among community members (and among household members in the case of IHTs) would be represented with equal probability and their net sum would be zero in expectation. While it is not possible to identify whether the counterparties to transfer and credit transactions were within or outside the target population from which respondents were drawn, neither of these two propositions appears to hold.

Household heads in the sample were not transferring enough money to explain the average weekly gap between earnings and expenses. The imbalance in IHTs, for example, does not appear to be due to the overrepresentation of household heads and their spouses among the respondents. Mean weekly net IHTs for household heads and their spouses were in fact lower than for other, underrepresented household members (Rs 39.8 as opposed to Rs 60.0 respectively in the case of men, and Rs 168.4 as opposed to Rs 206.7 respectively in the case of women).

Loans and loan repayments should have balanced out in the data overall, but they did not. The increase in indebtedness implied by the diaries is notable in two ways. First, the sources of lending typically appear to have been neighbors or co-villagers of respondents. Under random sampling of households

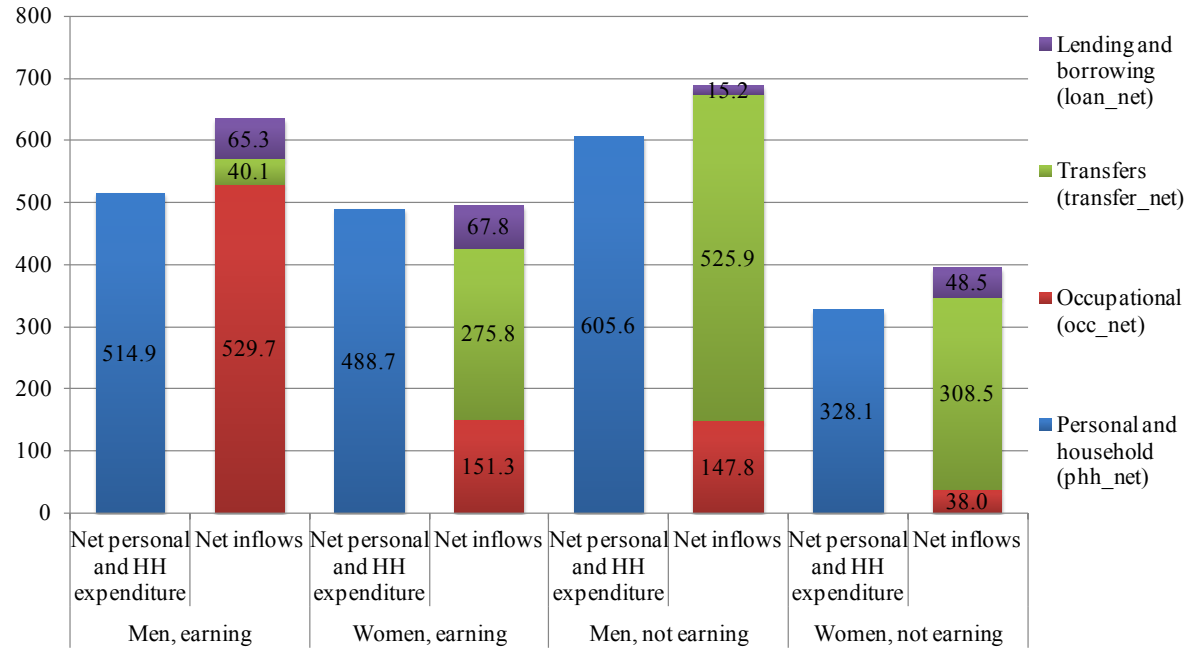
one would thus expect both borrowing (loanp_in) and lending (loanp_out) to be approximately equally represented, yet virtually no lending activity was recorded. Secondly, new loans (loanp_in) exceed loan repayments (loanr_out) by a factor of roughly three among men and roughly two among women. Provided loans are paid off, or repaid with interest sufficient to cover expected losses from default, loans obtained and repayments made should approximately cancel over the long term.

Possible reasons for these imbalances include seasonal effects or reciprocation/repayment in kind. Inaccuracies in reporting and classification are also possible explanations.

Among men, sons were the primary givers of transfers overall, and wives were the primary recipients of transfers within the household. Table 16 in Annex 7: Tables on Economic Flows and Money Holding shows the breakdown of recorded transfers (IHTs, cash gifts and remittances) by recipient or provider, for men and women in the non-outlier group. Among men, who are primarily heads of households and to a lesser extent their sons (see earlier commentary to Table 8), sons are the majority source of all three transfer types. Father and brothers are also contributors as well as, within the household, wives. Over three-quarters of IHTs paid (by value) are to wives, while cash gifts are primarily to unspecified relatives, but also significantly to non-relatives.

Women received more transfers from husbands and sons and also gave them most of their transfers within the household. Among women, who are predominantly wives of household heads and in a smaller proportion of cases household heads in their own right (Table 8), husbands and sons are the providers of almost all transfers received, and the beneficiaries of IHTs paid. As with men, cash gifts paid are primarily to unspecified relatives and to non-relatives.

Figure 6: Net personal and household expenditure and net inflows – non-outlier group



Sons provided most transfers of all kinds, including remittances, to men. Table 7 shows the breakdown of recorded transfers (IHTs, cash gifts and remittances) by recipient or provider, for men and women in the non-outlier group. Among men, who are primarily heads of households and to a lesser extent their sons (see earlier commentary to Table 8), sons are the majority source of all three transfer types. Father and brothers are also contributors as well as, within the household, wives. Over three-quarters of IHTs paid (by value) are to wives, while cash gifts are primarily to unspecified relatives, but also significantly to non-relatives.

Husbands and sons provided most transfers of all kinds, including remittances, to women. Among women, who are predominantly wives of household heads and in a smaller proportion of cases household heads in their own right (Table 8 previously), husbands and sons are the providers of almost all transfers received, and the beneficiaries of almost all IHTs paid. As with men, cash gifts paid are primarily to unspecified relatives and to non-relatives.

Figure 6 shows personal and household expenditure compared with net inflows for respondents in the non-outlier group split by gender and additionally by earning status.

Movements via financial accounts

Table 10: Sources and Beneficiaries of Interpersonal Transfers – Non-Outlier Group Table 16: Sources and beneficiaries of interpersonal transfers – non-outlier group

Men

Providers/beneficiaries by volume (N) and value (val) in percent	**Received**						**Given**			
	IHTs		Cash gifts		Remittances		IHTs		Cash gifts	
	N	*val*	N	*val*	N	*val*	N	*val*	N	*val*
Spouse	36.7	*24.8*	1.3	*1.9*	-	-	56.4	*75.7*	-	-
Father	12.1	*10.0*	12.8	*23.7*	9.8	*13.3*	1.4	*0.2*	-	-
Mother	5.6	*4.8*	-	-	-	-	21.3	*12.0*	0.4	*0.3*
Brother	2.4	*4.7*	11.5	*5.9*	15.7	*16.6*	-	-	0.4	*1.3*
Sister	-	-	-	-	-	-	0.3	*0.1*	1.2	*1.7*
Son	41.1	*54.9*	60.3	*59.5*	70.6	*64.2*	16.6	*8.6*	0.8	*6.1*
Daughter	2.0	*0.8*	-	-	-	-	3.7	*3.0*	1.2	*1.5*
Other or unspecified relative	-	-	10.3	8.3	-	-	0.3	0.4	53.9	61.1
Non-relative	-	-	3.8	*0.6*	-	-	-	-	42.2	*28.1*
Unknown	-	-	-	-	3.9	*6.0*	-	-	-	-
Total	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*

Women

Providers/beneficiaries by volume (N) and value (val) in percent	**Received**						**Given**			
	IHTs		Cash gifts		Remittances		IHTs		Cash gifts	
	N	*val*	N	*val*	N	*val*	N	*val*	N	*val*
Spouse	68.0	*75.3*	31.9	*40.4*	62.2	*59.1*	29.5	*36.5*	0.9	*17.5*
Father	-	-	2.6	*1.2*	-	-	-	-	-	-
Mother	0.3	*0.1*	1.7	*0.7*	-	-	-	-	-	-
Brother	-	-	2.6	*1.0*	-	-	-	-	-	-
Sister	-	-	-	-	-	-	-	-	-	-
Son	25.4	*18.3*	43.1	*43.0*	30.5	*35.3*	45.9	*52.6*	2.8	*4.8*
Daughter	1.5	*0.9*	1.7	*1.0*	-	-	6.6	*2.2*	5.5	*16.9*
Other or unspecified relative	4.7	5.4	11.2	5.1	1.2	2.2	18.0	8.7	45.0	28.0
Non-relative	-	-	5.2	*7.5*	-	-	-	-	45.9	*32.8*
Unknown	-	-	-	-	6.1	*3.3*	-	-	-	-
Total	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*

Table 17Table 17 in Annex 7: Tables on Economic Flows and Money Holding shows mean weekly changes in cash holdings and financial account balances. Respondents received monetary payments via non-cash methods in fewer than one per cent of weeks (0.7% for men and 0.5% for women), while the number of payments made by these means was virtually nil. Deposits to and/or withdrawals from financial accounts were made by men in 2.6% of weeks and by women in 1.8% of weeks. The commonest use of financial accounts was to receive a payment, often employment-related, which was then immediately withdrawn as cash. (Remittances received electronically are not included in these tables but were treated as cash inflows once withdrawn.)

Over the study period, men and women generally transferred money from their financial accounts to cash. On average both men and women wound down their financial account balances over the period of the study and by implication (since total monetary flows were net positive) increased their holdings of cash. Men's financial account balances fell on average by Rs 35 per week while their implied cash holdings rose by Rs 147 per week. Women's financial account balances fell on average by Rs 26 per week while their implied cash holdings rose by Rs 85 per week. These are means over all respondents and weeks, although most respondents showed no financial account activity in any week.

Table 11: FINO transactions in Financial Diaries

District	Block	Village	Resp. ID	Gender	Week	Location	Amount deposited (withdrawn)	Total net deposits (withdrawals)
Jaunpur	Badla Pur	Badlapur Khurd	430.2	female	33	home	10 -10	0
		Machhaligaon	410.1	male	32	home	10	10
			411.1	male	32	home	10	10
		Merha	414.1	female	32	home	10 -10	0
			417.1	female	32	home	10 -10	0
Mau	Ratanpura	Kanso	131.1	female	27	village	110	110
		Madauli Badhanpur	119.1	female	35	home	20 10	30
			122.1	female	21	home	2100	2100
			123.1	female	21	home	200	250
					36	home	50	
			124.1	female	36	home	20	20

The extent of FINO use among respondents was very small. Table 11 lists all FINO transactions in the diaries. Ten out of 187 respondents used their card, but only on one occasion each except for one respondent (who used it twice). Three instances concern 'ghost' transactions of the kind documented in our analysis of FINO transactions records, whereby the cardholder deposits the minimum amount of Rs 10 only to withdraw it again immediately. Only three respondents made deposits greater than Rs 30. One made a substantial deposit of Rs 2100. These figures are in fact broadly in line with our analysis of the database of FINO transactions among cardholders in the areas covered by the diaries.

All of the FINO card activity was in treatment locations. It is worth observing that all of the FINO card activity was in treatment locations, and almost all of it occurred after the training end-dates, implying that it was prompted by the consumer education.

IMPACT OF CONSUMER EDUCATION

This section analyses the impact of the consumer education. The impact of consumer education on saving or dissaving is analyzed with respect to three measures of residual funds in each week, defined as net earnings after personal and household expenditure, but differing in the extent to which transfers and borrowing are included.

Details on the impacts on savings and the impacts on monetary holdings may be found in Annex 8: CE Impact on Savings and Monetary Holdings, Diaries Data.

Impact analysis – quantitative summary

It is important that the results of the impact analysis be seen in the context of the imperfectly randomized exposure of respondents to consumer education (with treatment and comparison groups from different geographical areas), and the short post-intervention histories in the treatment group (less than three weeks on average). Both of these facts, which were not part of the original design but were the result of practical implementation issues, have significant implications for the possibility of clear-cut impact evaluation. Imperfect randomization necessitates the use of methods (difference-in-differences and fixed effects panel regression) involving an assumption that, but for the consumer education, the treatment and comparison respondents on average differ by the same amount in each period (which is an issue of model specification). Even if this strong assumption is true, the paucity of post-treatment observations and the degree of statistical variation in the series means that, the estimated models may not be capable of rejecting the hypothesis that there is no effect even if in reality there was (which is an issue of statistical power).

For instance, a natural hypothesis regarding the effect of consumer education is that it might lead to respondents to allocate greater funds in each week to saving, either by curbing their spending given their net earnings, or else possibly by earning more through greater effort while not increasing their expenditure. This is not supported by the models, in the sense that they are consistent with there having been no such effect. Yet it is possible that such an effect did exist, but was not detectable by the analysis for reasons of model specification or statistical power. To illustrate this possibility, the panel regression models for the first savings measure (net earnings less personal and household expenditure – occphh_net) were re-estimated on pseudo-data in which Rs 100 was added to this measure for all treatment respondents post-intervention. The resulting coefficients are +158.5 for men and -2.0 for women and are statistically clearly insignificant (the p-values are 0.33 and 0.98 respectively). In other words, the models do not reject the hypothesis of zero impact even when a sizeable and systematic treatment effect is artificially introduced in the data.

With these limitations in mind, the analysis of the Diaries data did reveal one significant, potential impact of the CE on the money management behavior of women. Those exposed to CE received significantly higher amounts of transfers, while decreasing the amount they borrowed, in the period after they received CE in comparison to the period before. Women who did not receive CE experienced no such changes.

There is no direct evidence that these differences are attributable to the CE, but it is possible that they are. The CE was intended not only to educate and inform, but to empower participants to change their behavior. Furthermore, in the qualitative research, half the participants felt that the CE did, in fact, help them to manage their money better. *For women*, who are often dependent on family members for funds via remittances and intra-household transfers, the work of requesting funds requires them to give a rationale for those requests. By encouraging participants to reduce their debts, the CE provides a powerful argument for the request for increased transfers by women, as evidenced in the Diaries data. The decrease in borrowing is also a possible outcome of the CE training, and fits in with a general

pattern of more successful income smoothing on the part of women with increased money tracking and budgeting capabilities.

CONCLUSION

FINO CARDS:

Availability of the FINO card did not appear to fundamentally change the financial lives of clients in the study area. Clients in the Diaries used all financial services infrequently. The fact that clients used only 5.1 percent of all the FINO cards issued before September 1, 2011, suggests that card availability did not significantly impact the financial lives of most FINO clients. Furthermore, those who did use their cards did not seem to use them as instructed in the CE, and encouraged by FINO, as a tool to slowly accumulate savings. In fact, when most participants did use financial services, it was to receive a payment of some kind, such as a remittance or a government to person (G2P) payment in the form of scholarship money or social welfare payout.

The Diaries research also showed that when participants did receive income and transfers in excess of their needs in a given week, they tended to keep some of that money to spend in another, later week. However, they did not have the tendency to depend on remittances to cover short-term deficits. In other words, participants used intra-household transfers and income balances as a way to accumulate savings in anticipation of future expenses in the short term, but would not request funds from faraway relatives to cover such costs. This was true throughout the study period.

The possibility exists to increase FINO use, by offering such services to clients and simultaneously educating them to accumulate savings by not withdrawing the full balance from their accounts on receipt of such a payment. This would require a change in the way the cards are marketed and how consumers are educated, but could lead to more meaningful savings accumulation than through incremental deposits. It would also generate a positive response from bandhus, who complained that their commissions were limited by the range of services that FINO offered customers through the biometric card.

IMPACT OF CE:

The qualitative data suggest that more customers were trained in CE where the Diaries research was being conducted, probably due to pressure FINO placed on its field staff, to ensure the implementation of the CE initiative. Data from the Diaries reinforce this finding, as they show that clients actually used their cards on more days, since bandhus usually attended the trainings and so would have been more accessible in client communities to provide transaction services. In the qualitative research, about one third of the clients believed that the CE helped them effectively use their FINO cards, and a significant number felt that the service was secure. Though in light of the low usage overall, these sentiments may be a reflection of the increased availability of bandhus after training sessions were completed.

The qualitative research provided some evidence as to why the CE may have changed the behavior of bandhus. Most bandhus found that the training was effective in helping clients to trust and use FINO services. Most bandhus also felt that the training helped clients manage their money better through saving and reducing unnecessary expenses.

Substantively, the lessons from the CE did very little to change the use of the FINO cards. This is not surprising, as the availability of bandhus was still very erratic and clients complained frequently in

interviews that the bandhus were not able to process transactions and help reinforce the lessons from the FE. Moreover, most bandhus did not provide reinforcement training to existing customers, because they felt that the CE was most useful in addressing lack of trust among new customers. For their part, many customers seemed to feel unable to apply lessons without organizational support from FINO, which suggests that their lack of income or support was as problematic as the lack of visits by their bandhus.

Given the limitations of the study, we did not expect to find any impact of CE on behavior. Nevertheless, the analysis of the Diaries data did reveal one significant, potential impact of the CE on the money management behavior of women. Those exposed to CE received significantly higher amounts of transfers, while decreasing the amount they borrowed, in the period after they received CE in comparison to the period before. Women who did not receive CE experienced no such changes.

ANNEXES

ANNEX 1: ADDITIONAL DATA ON QUALITATIVE SAMPLE

There were some noteworthy differences between the age and household characteristics of the segments (Table 1). The Diaries Treatment participants were the oldest with an average age of 48, had the highest number of children. Non-Diaries Card Users, by contrast, had the highest average household size at 8.6, and the median average age at 42 and number of children at 2.8. The Diaries Control participants were the youngest, with the smallest average number of children and household members.

Table 1: Age and household information, IDI participants

Sample	Average age	Avg no. of children	Average HH size
Non-Diaries Card User	41.6	2.8	8.6
Diaries Control	37.0	2.0	4.7
Diaries Treatment	48.1	3.3	6.5
Total	43.7	2.9	6.8

The gender and marital status data on the IDI participants are displayed in Table 2 along with information on religion. The data reveal that women constituted the majority of every sample, though proportionally they were around one third of both the Diaries Control and Non-Diaries Card User segments, and nearly four-fifths of the Diaries Treatment segment.

Table 2: Gender, marital status, and religion, IDI participants

	Gender		Marital Status		Religion	
Sample	Female	Male	Married	Widowed	Hindu	Muslim
Non-Diaries Card User	7	3	8	2	10	0
Diaries Control	4	2	6	0	6	0
Diaries Treatment	11	3	13	1	13	1
Total	22	8	27	3	29	1

The self-reported data on caste categorization in Table 3 shows some interesting differences between the segments. The Non-Diaries Card User and Diaries Treatment segments had similar overall proportions of participants by caste, when the three Other Backward Caste (OBC) groups are taken together. This is especially true when compared to the Diaries Control group, which consisted of about one-third upper caste, fifty percent Scheduled Caste, and less than one-fifth OBC individuals. In other words, the Diaries Control individuals were more likely to be of a higher caste than members of other segments, which may help to explain why they had smaller households and fewer children than participants in other groups.

Table 3: Caste categorization, IDI participants

Sample	Muslim OBC	OBC - Peasant	OBC - Service	Scheduled Caste	Upper Caste
Non-Diaries Card User	0	3	1	5	1
Diaries Control	0	0	1	3	2
Diaries Treatment	1	4	2	5	2
Total	1	7	4	13	5

The main occupation of participants, shown in Table 4, shows some further differences that may help to paint a picture of the socio-demographic differences between the groups. For instance, half of the Non-Diaries Card Users report being unemployed, while only one third of the Diaries Control and one fifth of the Diaries Treatment group are unemployed. The Diaries Treatment and Diaries Control groups had the largest proportions of wage laborers, while the Diaries Treatment group had the highest proportion of farmers and those engaged in business.

Table 4: Main occupation, IDI participants

Sample	Un-employed	Wage labor	Farmer	Self-employed	Salaried	Business
Non-Diaries Card User	5	2	0	1	2	0
Diaries Control	2	2	1	0	1	0
Diaries Treatment	3	4	4	0	1	2
Total	10	8	5	1	4	2

The Diaries Treatment segment showed the largest internal disparities in terms of education of all the segments (Table 5). Nearly two-thirds had no formal schooling at all, while the remaining third had at least completed secondary education. By contrast, only two-fifths of the Non-Diaries Card User group was unschooled, while half had completed primary or had some secondary education, and one-tenth had some post-secondary education. The Diaries Treatment segment had the most educational diversity, with two-fifths having no education, a fifth having some primary, another one-fifth having some secondary, and small proportions having completed primary or postsecondary education.

Table 5: Highest level of education, IDI participants

Sample	No schooling	Some primary	Primary complete	Some secondary	Secondary complete	Post secondary
Non-Diaries Card User	4	0	1	4	0	1
Diaries Control	4	0	0	0	1	1
Diaries Treatment	6	3	1	3	0	1
Total	14	3	2	7	1	3

ANNEX 2: DESIGN OF MEASURES OF MEANINGFUL FINO ACTIVITY

Table 6: Segmentation of FINO card users into 'trivial' and 'non-trivial'

	% of cards used			% of cards in issue		
	Comparison	Treatment	Total	Comparison	Treatment	Total
Trivial users (no days with net activity)						
1 day	52.2	39.6	49.1	5.4	7.8	5.7
2+ days	6.1	9.7	7.0	0.6	1.9	0.8
Trivial users	**58.3**	**49.3**	**56.1**	**6.0**	**9.8**	**6.6**
Non-trivial users (1+ day with net activity)						
1 net-active day	15.4	17.8	16.0	1.6	3.5	1.9
2-5 net-active days	11.0	12.5	11.4	1.1	2.5	1.3
6-20 net-active days	5.9	8.4	6.5	0.6	1.7	0.8
21+ net-active days	9.4	12.1	10.0	1.0	2.4	1.2
Non-trivial users	**41.7**	**50.7**	**43.9**	**4.3**	**10.0**	**5.1**
Total	**100.0**	**100.0**	**100.0**	**10.3**	**19.8**	**11.7**

Table 6 provides a breakdown of cards used and cards in issue according to net activity defined in this way. Of the cards in issue at September 1, 2011, 11.7% were used for one or more transactions in the subsequent 18 months. However, as many as 56.1% of cards used (6.6% of cards in issue) were used only trivially in the sense that no net inflow or outflow was made on any day in the 18-month period. The great majority of these, or 49.1% of all cards used, were used on a single day only, typically involving only a pair of transactions consisting of a deposit followed quickly by a corresponding withdrawal, and often in the minimum amount of Rs 10.

The remaining 43.9% of cards used (5.6% of cards in issue) were used non-trivially in the sense that they showed a net flow on at least one day in the 18-month period. However, fewer than a quarter showed a net flow on more than 20 of the 547 calendar days spanned by the data. These represent 10.0% of all cards used, or 1.2% of all cards in issue at the start of the period.

It is clear from the data that the number of cards that were used for transactions that resulted in a change in the card's balance by the end of the transaction day is far smaller than the number of cards in circulation. Fewer than one card in a hundred (0.89%) was used to make a net deposit or withdrawal on 36 days, an average of twice a month, or more.

Table 7: Flows and active days of 'non-trivial' FINO users

	Number of net-active days in period				
	1	2-5	6-20	21+	**All**
%	36.4	26.0	14.8	22.9	**100.0**
Mean net-active days (days with non-zero net flow)					
Days with net inflow	0.9	2.0	8.4	67.8	**17.6**
Days with net outflow	0.1	0.8	2.4	17.7	**4.6**
Total	1.0	2.8	10.8	85.5	**22.2**
Mean daily flow on net-active days (Rs)					
Mean daily net inflow	86.2	147.3	83.6	34.1	**42.0**
Mean daily net outflow	101.7	150.4	217.0	122.8	**131.1**
Mean daily net flow	71.1	62.4	17.3	1.6	**5.9**
Total flows in period (Rs)					
Total daily net inflows	79.3	293.9	703.5	2,313.3	**738.3**
Total daily net outflows	8.2	119.7	516.5	2,175.9	**608.1**
Total net flow	71.1	174.2	187.0	137.4	**130.2**

Table 7 gives detail of the activity of 'non-trivial' FINO users. The mean number of net-active days among such users is 22.2, although this is influenced by a small proportion of especially high-frequency users (the median is only two days). Non-trivial users on the whole accumulated modest balances over the 18 month period, with a mean excess of deposits over withdrawals of Rs 130. However, the balances accumulated are unrelated to the number of net-active days.

ANNEX 3: REGRESSION ANALYSIS OF MIS DATA

Table 8: Two-way fixed effects estimates of impact of CE on 'non-trivial' FINO activity

I - Dependent variable: Cards with 1+ days of non-zero net flow as % of cards in issue

	All locations and months		Location-months with positive FINO activity		Locations with positive FINO activity in all months	
	(i)	(ii)	(i)	(ii)	(i)	(ii)
'Treatment effect' (δ)	0.44 *	-0.20	0.16	0.07	-0.33	0.02
	(0.232)	(0.157)	(0.317)	(0.222)	(0.614)	(0.428)
Differential trend (γ)		0.07 ***		0.01		-0.04
		(0.025)		(0.044)		(0.085)
Locations	28,782	28,782	7,259	7,259	2,232	2,232
Location-months	1,599	1,599	937	937	124	124

II - Dependent variable: Number of days with non-zero net flow per card in issue

	All locations and months		Location-months with positive FINO activity		Locations with positive FINO activity in all months	
	(i)	(ii)	(i)	(ii)	(i)	(ii)
'Treatment effect' (δ)	0.08 ***	0.04 **	0.06	0.05 **	0.04	0.07
	(0.027)	(0.015)	(0.041)	(0.023)	(0.089)	(0.055)
Differential trend (γ)		0.00 **		0.00		0.00
		(0.002)		(0.003)		(0.006)
Locations	28,782	28,782	7,259	7,259	2,232	2,232
Location-months	1,599	1,599	937	937	124	124

III - Dependent variable: Total net flow per card in issue (Rs)

	All locations and months		Location-months with positive FINO activity		Locations with positive FINO activity in all months	
	(i)	(ii)	(i)	(ii)	(i)	(ii)
'Treatment effect' (δ)	0.95	0.42	0.68	0.54	-0.84	2.21
	(0.704)	(0.430)	(1.144)	(0.664)	(2.392)	(1.490)
Differential trend (γ)		0.06		0.02		-0.34 *
		(0.061)		(0.113)		(0.199)
Locations	28,782	28,782	7,259	7,259	2,232	2,232
Location-months	1,599	1,599	937	937	124	124

IV - Dependent variable: Sum of net daily inflows per card in issue (Rs)

	All locations and months		Location-months with positive FINO activity		Locations with positive FINO activity in all months	
	(i)	(ii)	(i)	(ii)	(i)	(ii)
'Treatment effect' (δ)	-1.16 *	-0.92 **	-0.55	-1.32 *	1.02	-0.94
	(0.633)	(0.442)	(1.032)	(0.684)	(2.033)	(1.147)
Differential trend (γ)		-0.03		0.09		0.22
		(0.054)		(0.104)		(0.207)
Locations	28,782	28,782	7,259	7,259	2,232	2,232
Location-months	1,599	1,599	937	937	124	124

V - Dependent variable: Sum of net daily inflows per card in issue (Rs)

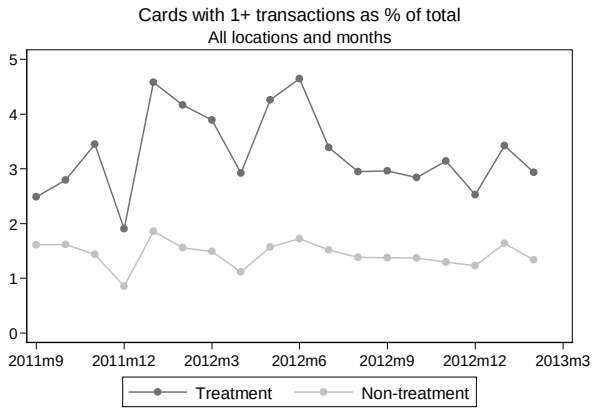
	All locations and months		Location-months with positive FINO activity		Locations with positive FINO activity in all months	
	(i)	(ii)	(i)	(ii)	(i)	(ii)
'Treatment effect' (δ)	-0.21	-0.50	0.13	-0.78	0.18	1.26
	(0.204)	(0.344)	(0.356)	(0.567)	(0.699)	(1.119)
Differential trend (γ)		0.03		0.11 *		-0.12
		(0.037)		(0.062)		(0.107)
Locations	28,782	28,782	7,259	7,259	2,232	2,232
Location-months	1,599	1,599	937	937	124	124

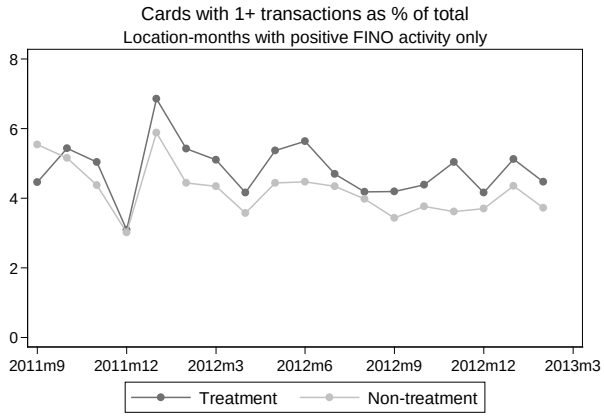
Estimates from two-way fixed effects regression. Standard errors in parentheses cluster-robust at the level of locations. Asterisks denote statistical significance at 1% (***), 5% (**) and 10% (*).

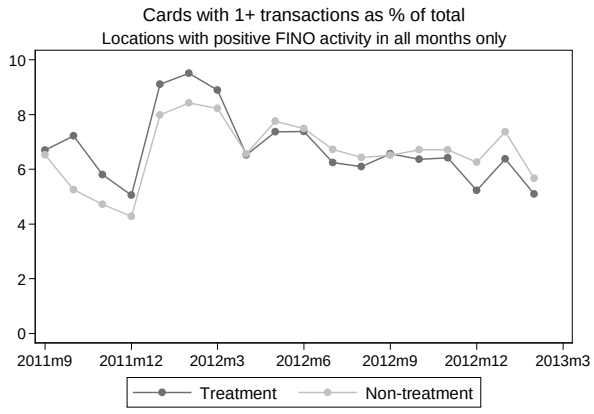
ANNEX 4: MIS DATA ANALYSIS FIGURES

Active cards

Figure 1: Percentage of cards in issue with 1+ transactions in month

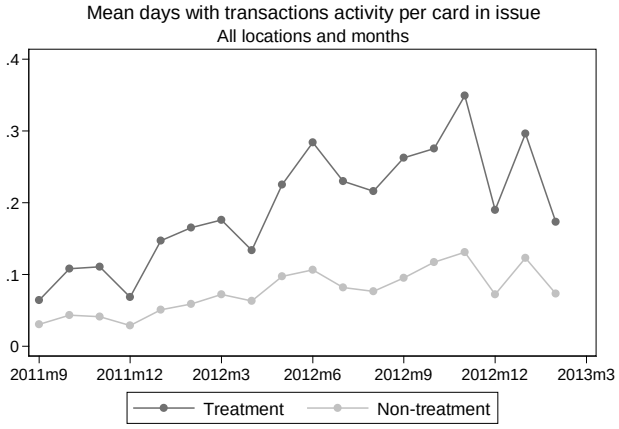


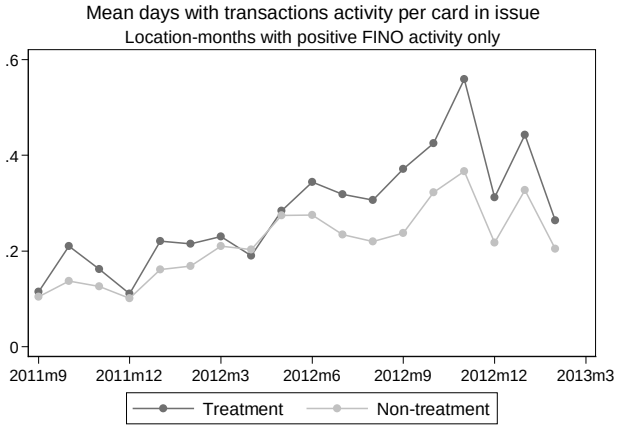


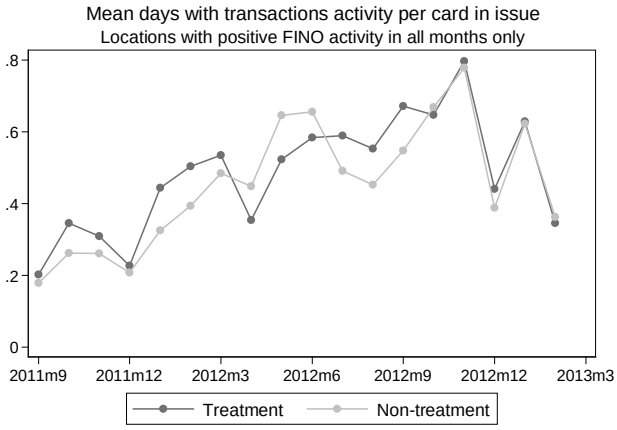


Frequency of activity

Figure 2: Mean days in month with 1+ transactions per card in issue

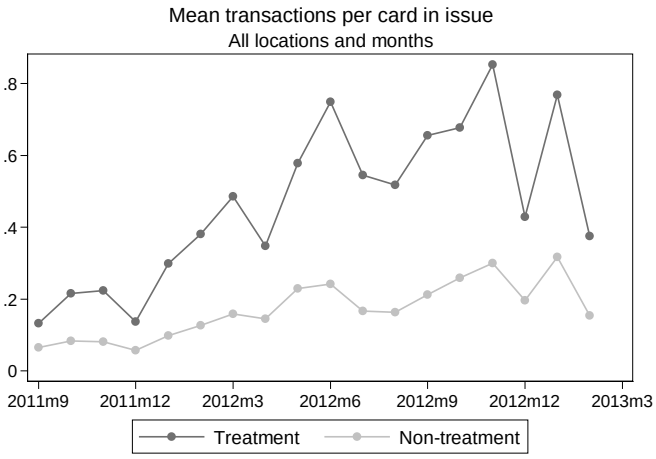


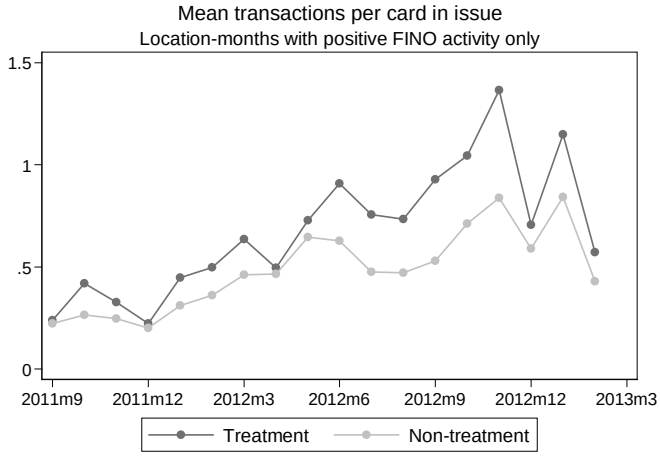


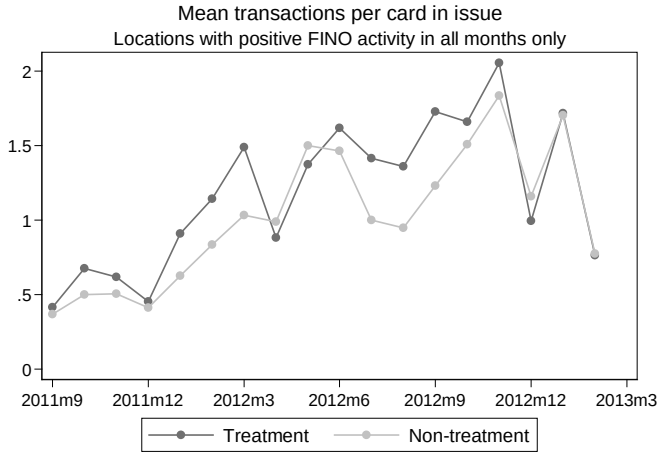


Volume of transactions

Figure 3: Mean number of monthly transactions per card in issue

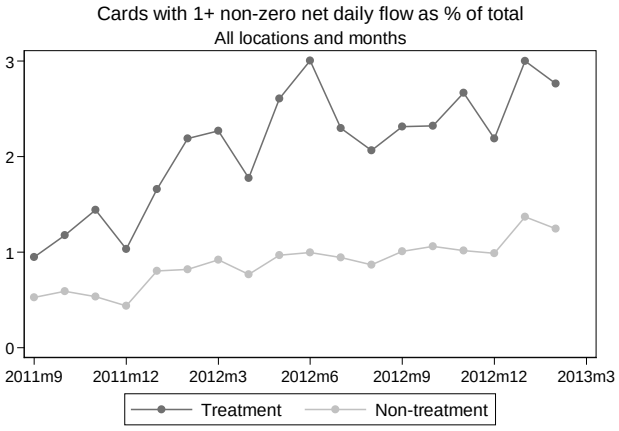


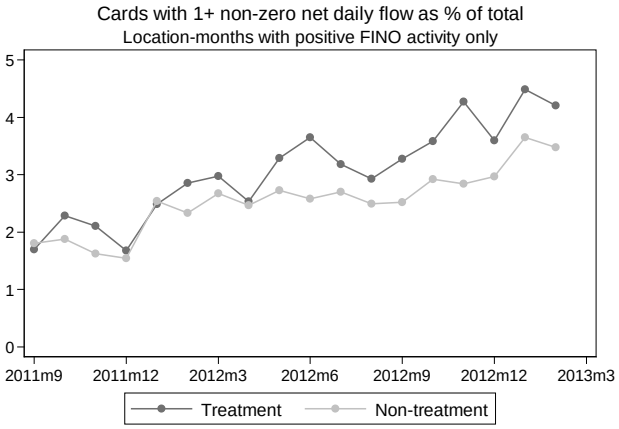


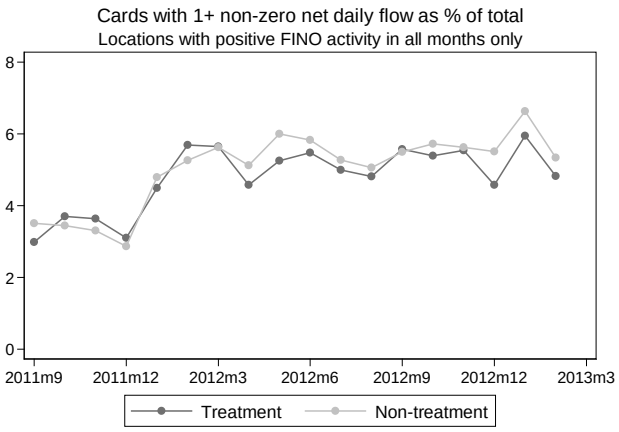


Cards with non-trivial activity

Figure 4: Percentage of cards in issue with 1+ days of non-trivial activity (non-zero net flow) in month

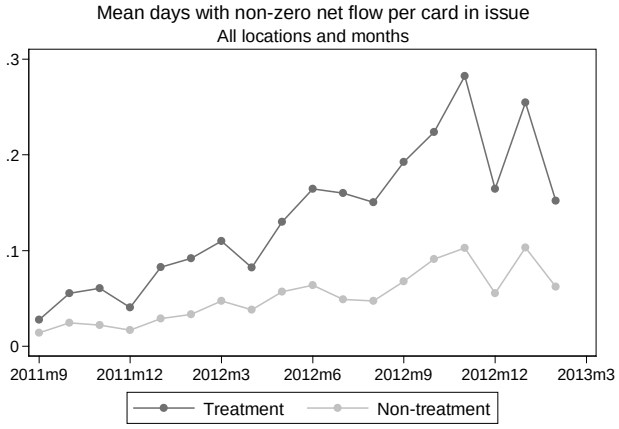


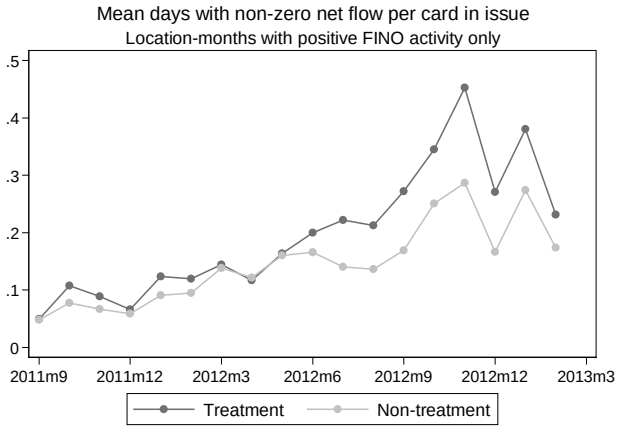


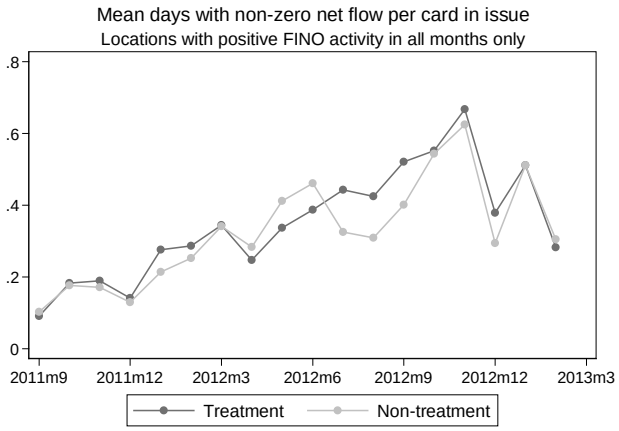


Frequency of non-trivial activity

Figure 5: Mean days in month with non-zero net flow per card in issue

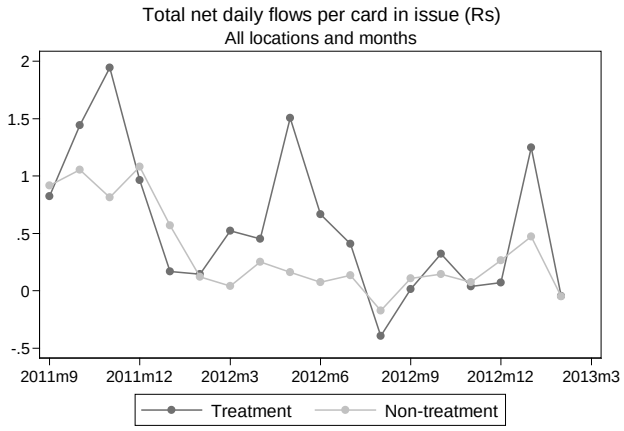


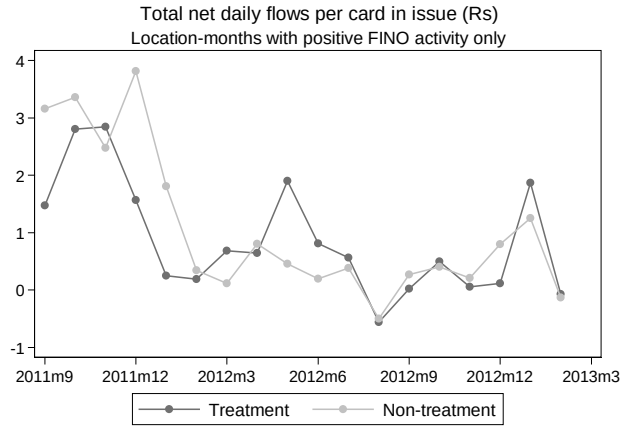




Total net flow

Figure 6: Mean monthly net flow per card in issue





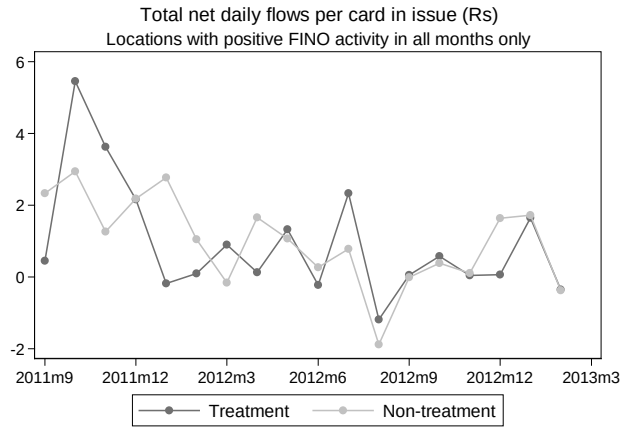


Figure 7: Mean monthly sum of net daily inflows per card in issue

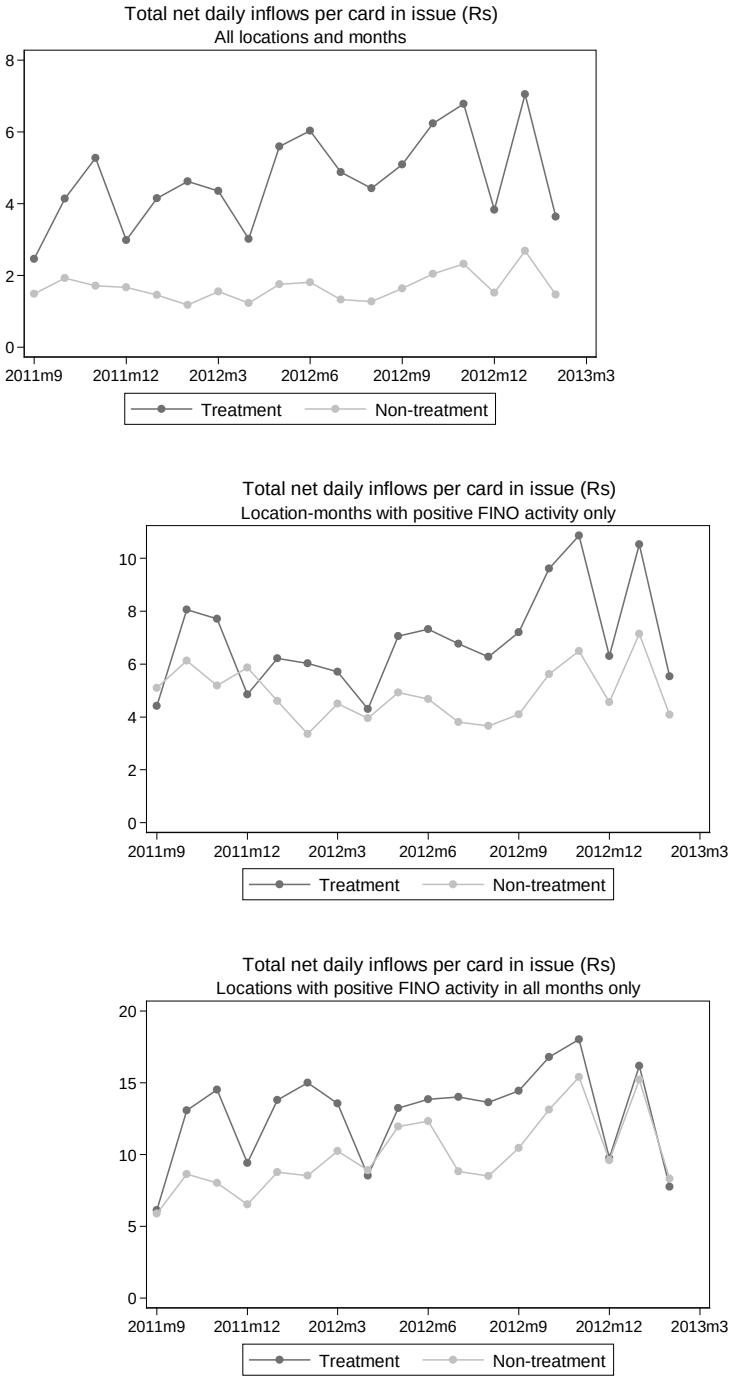
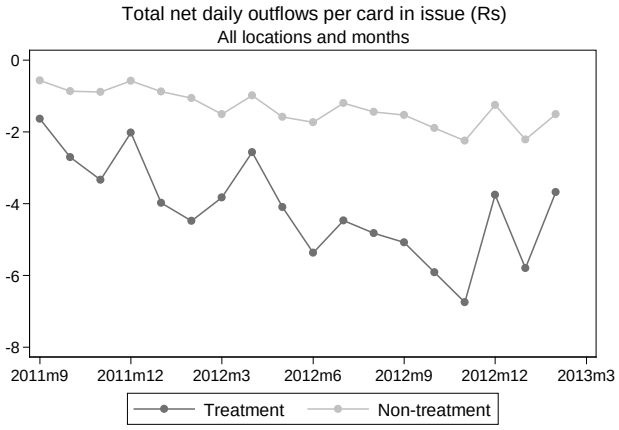
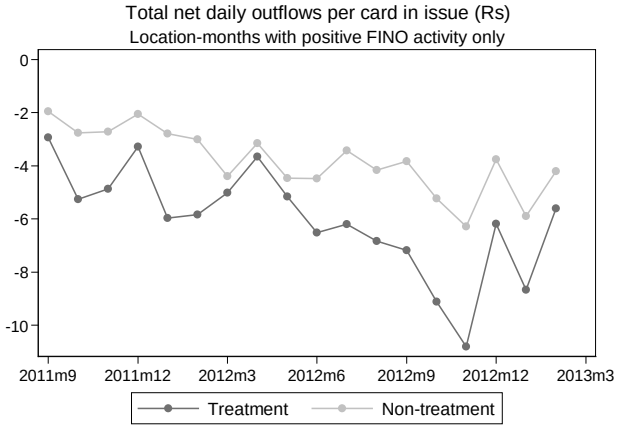
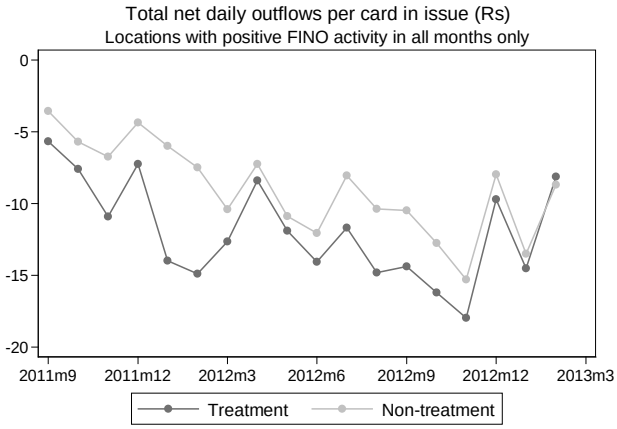


Figure 8: Mean monthly sum of net daily outflows per card in issue







Additional figures

Figure 9: Percentage of cards in issue with 1+ transactions per month, by geographical block

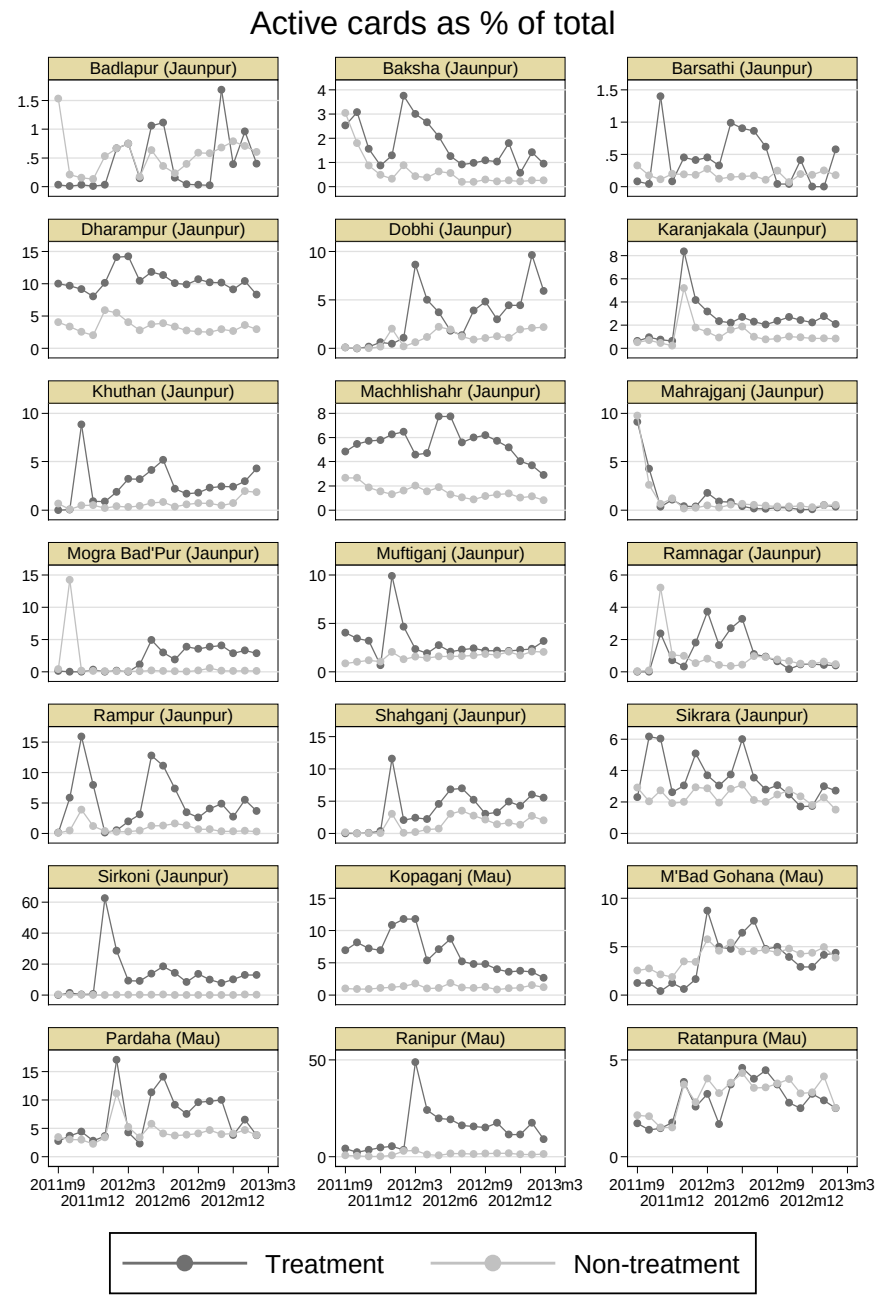


Figure 10: Percentage of cards in issue with 1+ days of non-zero net flow, by geographical block

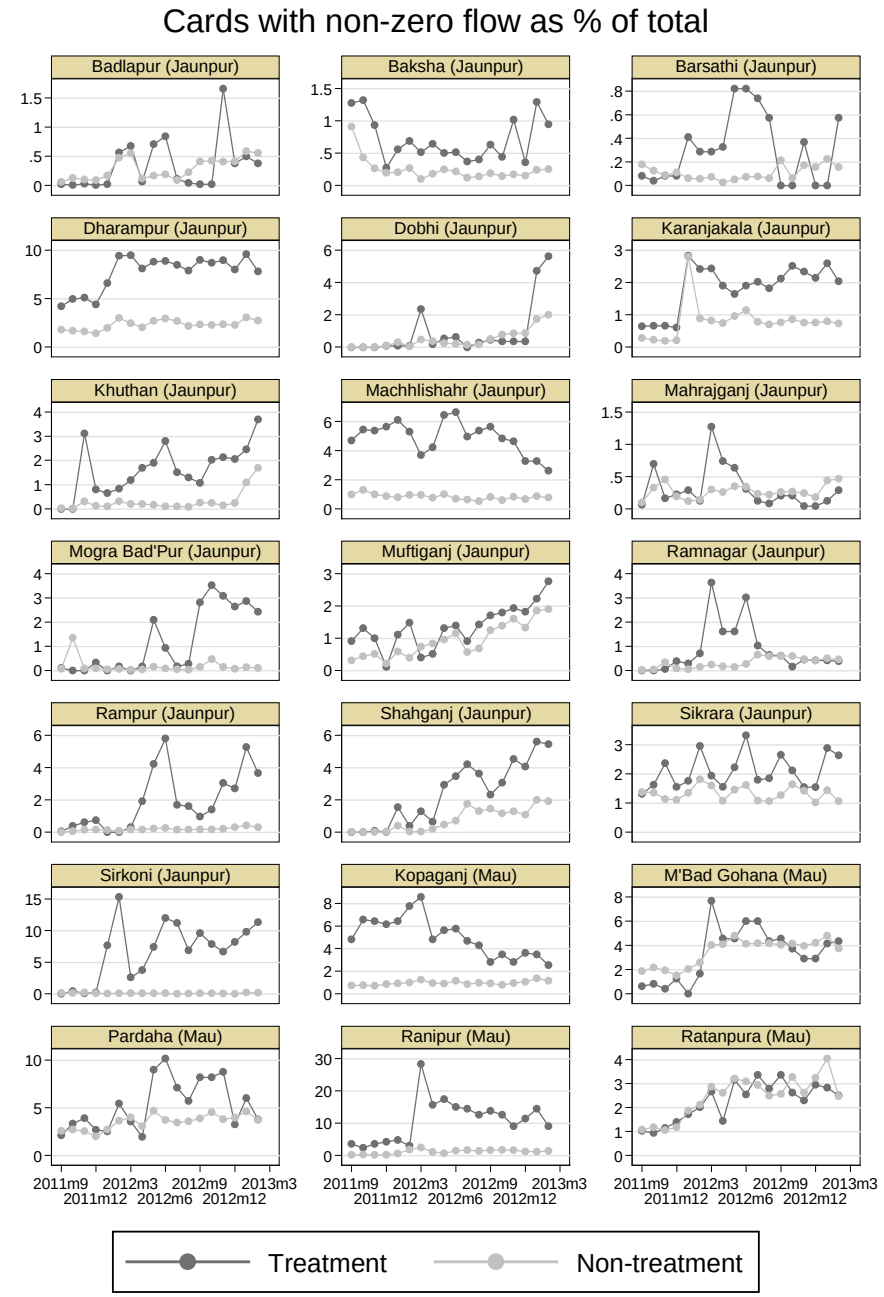


Figure 11: Mean days with non-zero net flow per card in issue per month, by geographical block

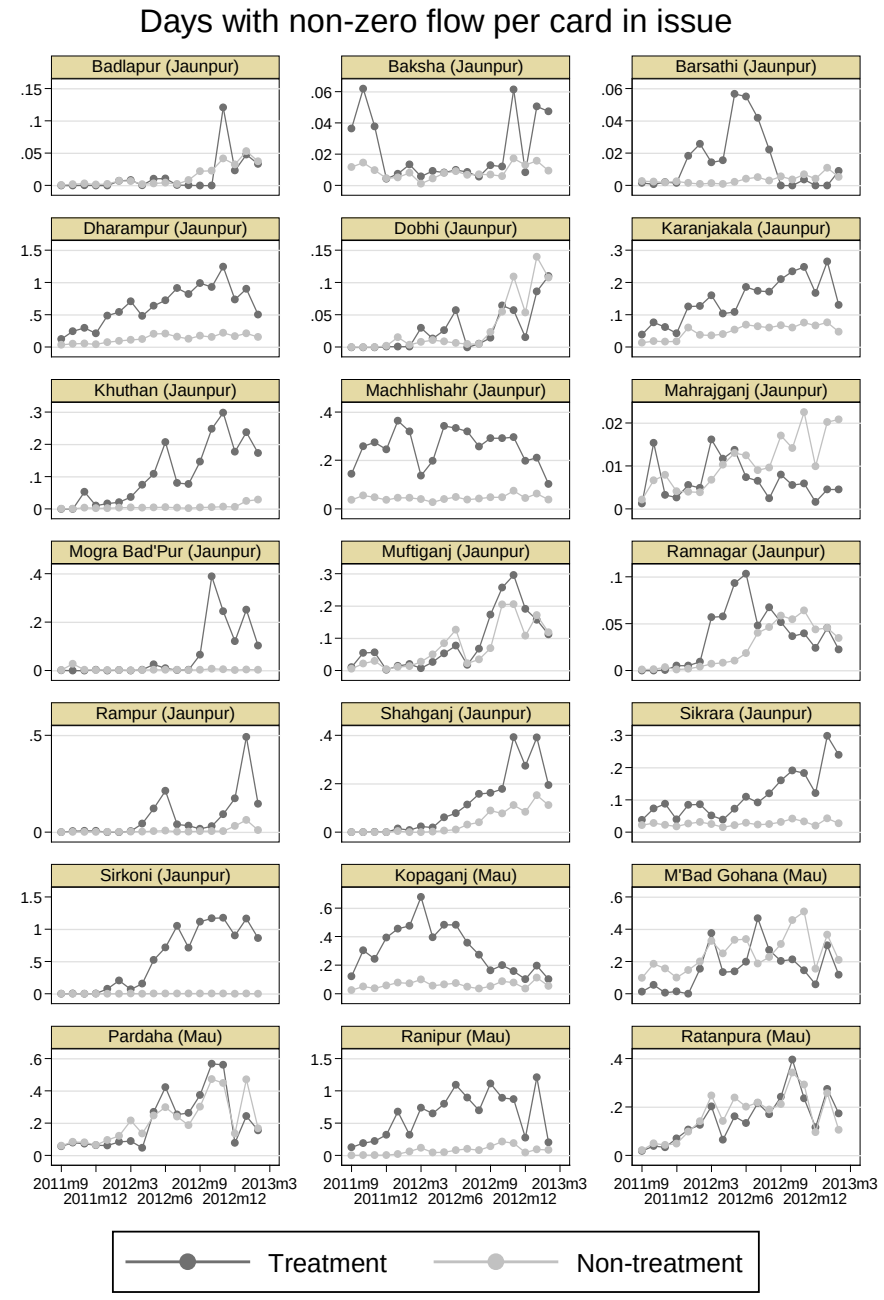


Figure 12: Mean monthly net flow per card in issue, by geographical block

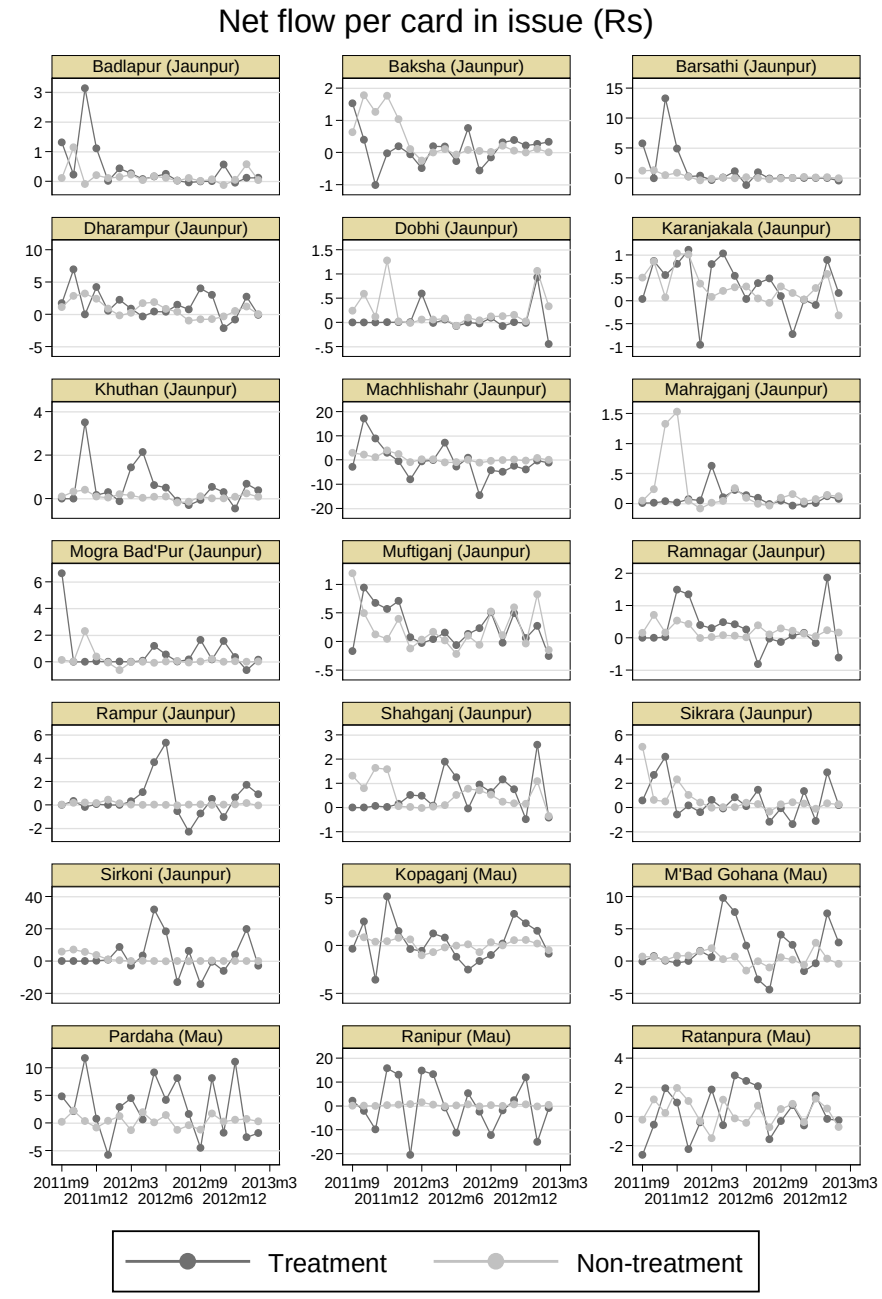


Figure 13: Mean monthly sum of net daily inflows per card in issue, by geographical block

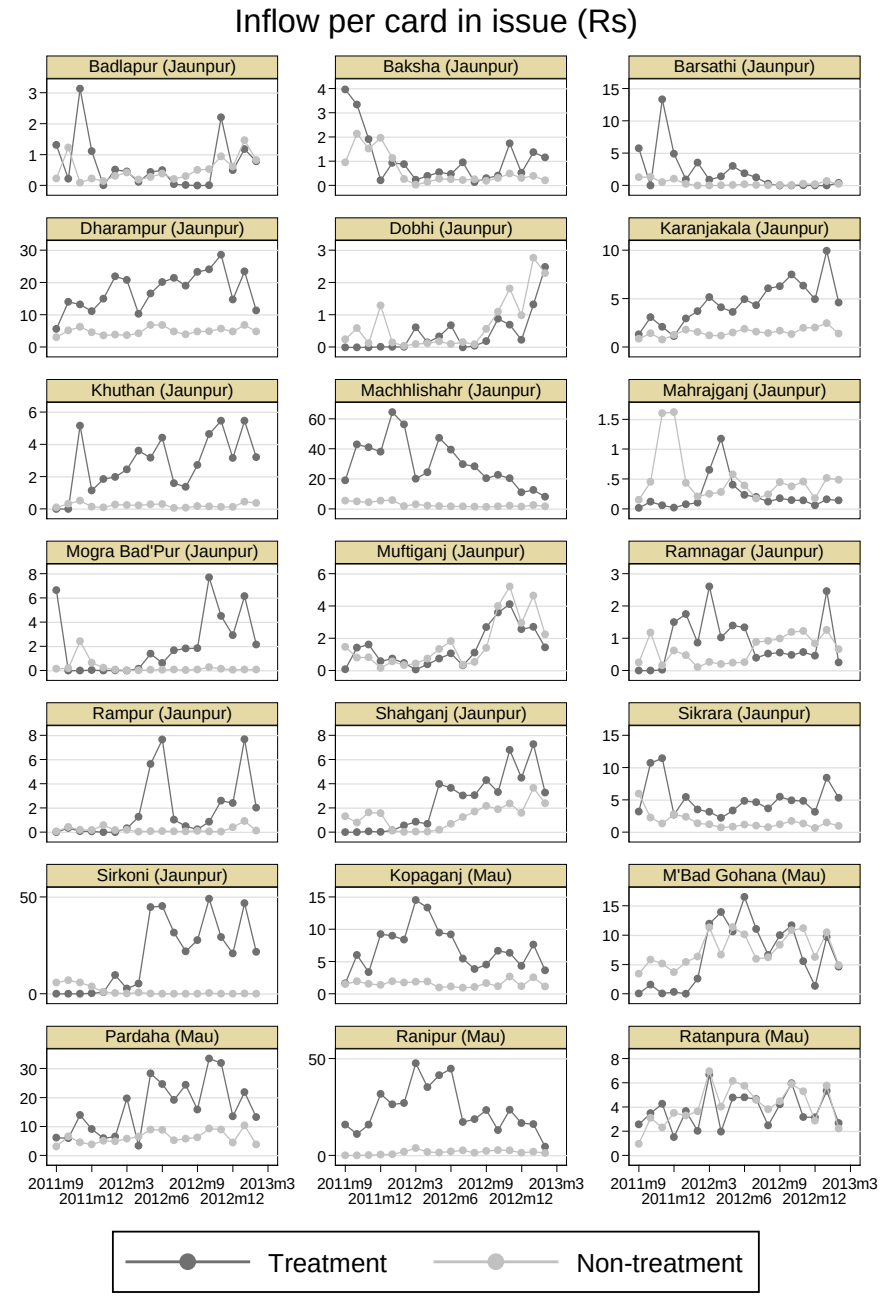
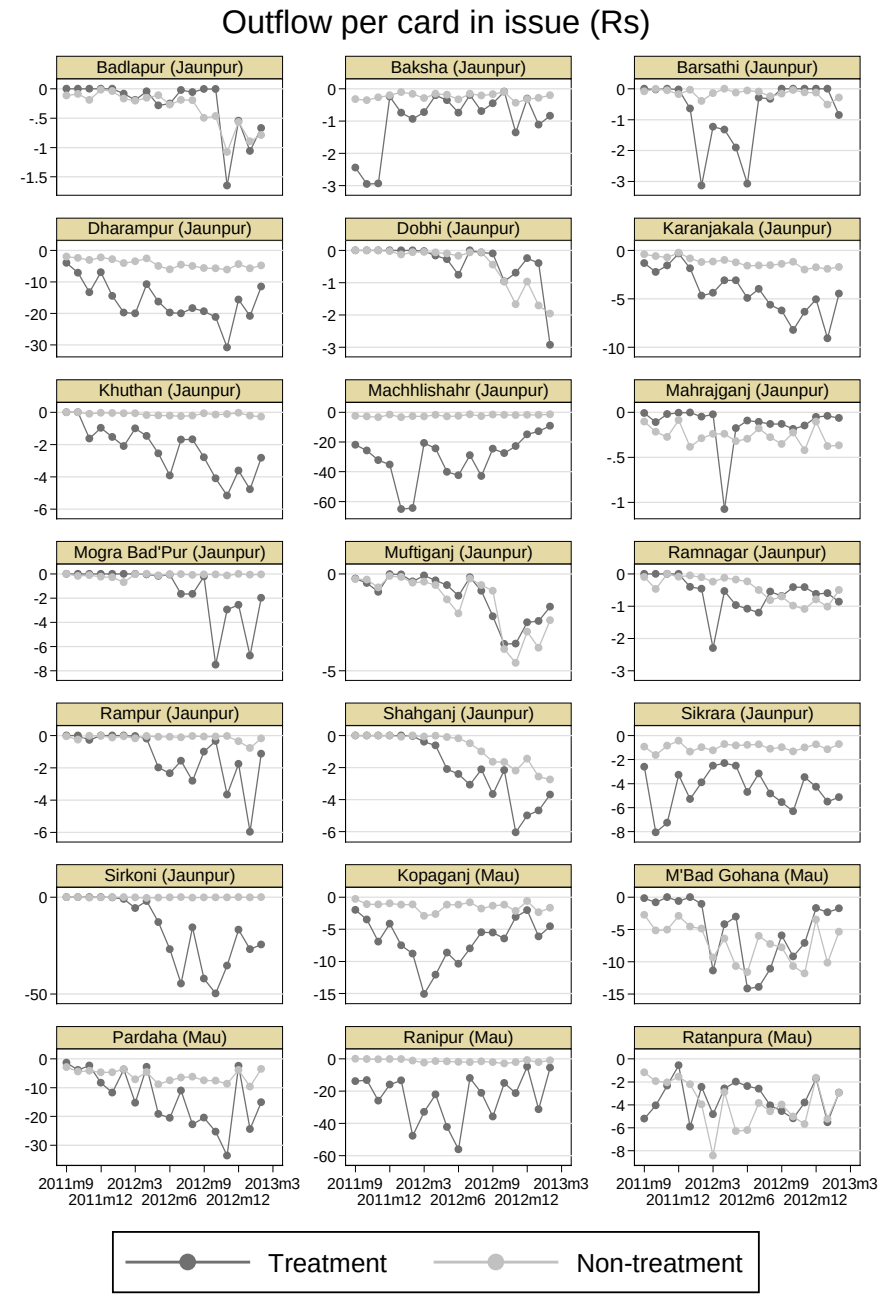


Figure 14: Mean monthly sum of net daily outflows per card in issue, by geographical block



ANNEX 5: DIARIES LOCATION AND DATES TABLES

Table 9: Mean interview weeks per respondent by district and treatment status

District	Treatment	Comparison	Total
Jaunpur	27.9	28.5	28.2
Mau	27.6	29.6	28.7
Total	27.8	29.2	28.5

Respondents were not available for interview some weeks of the study. On average respondents were interviewed in 28.5 weeks (after discarding the first four interviews). Ninety-five per cent of respondents were interviewed in 20-32 weeks, with a median of 30 interviews per respondent. The lowest number of interviews was six and the highest was all 33.

Table 10: Mean interviews per respondent (treatment group) pre- and post-intervention

Period	Mean weeks
Pre-intervention	24.8
Post-intervention	2.9
Total	27.8

The consumer education sessions were completed toward the end of the diaries collection period, on June 15, 2012, in the Jaunpur treatment villages and on dates between June 26 and 29, 2012, in those in Mau. As a result, the post-intervention histories of the treatment group respondents are very short. The number of post-intervention interviews per treatment respondent ranged from zero (for four respondents) to a maximum of five, with a mean of 2.95.

Table 11: Proportion of weeks in which no transactions reported

	Monetary or in-kind	Monetary
Men	3.9%	4.2%
Women	22.4%	23.3%
Total	11.7%	12.2%

Respondents reported no monetary receipts or outgoings in the preceding week in 12.2% of interviews. This statistic differed sharply by gender (4.2% for men and 23.3% for women), reflecting an insulation of women from monetary exchange that was evident in the data more generally.

ANNEX 6: PARTITIONING OF SAMPLE

Table 12: Net external monetary flows per week – all respondents

Men (109 respondents, 3084 respondent weeks)

	% non-zero	mean	sd	min	p5	p25	p50	p75	p95	max
phh_net	94.0	-1,098.5	4,667.4	-134,745	-3,360	-786	-382	-173	-	18,015
occ_net	54.9	767.6	8,466.1	-120,000	-	-	120	600	2,000	337,375
transfer_net	35.5	257.0	2,911.2	-32,851	-500	-	-	-	1,640	122,685
loan_net	9.6	113.2	2,844.8	-49,300	-	-	-	-	300	100,000
tot_net	86.3	39.2	7,797.3	-165,490	-1,624	-177	1	178	1,538	329,679

Women (78 respondents, 2241 respondent weeks)

	% non-zero	mean	sd	min	p5	p25	p50	p75	p95	max
phh_net	75.0	-438.2	1,664.9	-53,500	-1,515	-450	-160	-	-	18,400
occ_net	12.8	58.5	472.8	-6,949	-	-	-	-	400	18,000
transfer_net	46.4	365.4	1,806.6	-23,350	-	-	-	400	1,980	60,000
loan_net	12.0	78.5	1,133.0	-10,000	-	-	-	-	250	31,000
tot_net	63.1	64.3	2,191.5	-53,500	-631	-1	-	64	814	60,000

All (187 respondents, 5325 respondent weeks)

	% non-zero	mean	sd	min	p5	p25	p50	p75	p95	max
phh_net	86.0	-820.6	3,726.6	-134,745	-2,385	-627	-294	-96	-	18,400
occ_net	37.2	469.1	6,459.2	-120,000	-	-	-	350	1,400	337,375
transfer_net	40.1	302.6	2,506.7	-32,851	-275	-	-	100	1,760	122,685
loan_net	10.6	98.6	2,286.2	-49,300	-	-	-	-	260	100,000
tot_net	76.5	49.8	6,101.5	-165,490	-1,167	-90	-	129	1,171	329,679

Key: phh: personal and household; occ: occupational; iht: intra-household transfers; loan: all loan flows; tot: total

Summary statistics for net external monetary flows by economic purpose are presented in Table 12. A detailed breakdown of gross inflows and outflows is presented in Table 13 of the Annex.

Weekly mean net flows in each category are in the range 3Rs 1000, and the mean weekly total is modestly positive (Rs 49.8). However, the data show an extremely high dispersion of total and constituent flows; for example, net occupational income or expenditure ranges from –Rs 120,000 (due to a capital purchase of agricultural equipment) to +Rs 337,375 (due to receipt of a lump sum pension payment) around a mean of Rs +469.

In order to mitigate the impact of such extreme outliers on the analysis, the sample was partitioned into an 'outlier' and a 'non-outlier' group, where the outlier group was defined as respondents who, in any week, had a transactions in the 99th percentile of non-zero gross inflows or outflows in any of the four aggregates. This strategy of splitting respondents according to the presence of one or more outliers was preferred to simply trimming the sample of respondent-week observations on the grounds that respondents with extraordinary inflows or outflows in one week may show different behaviour in other weeks, and should be treated separately.

Table 13: Partitioning of sample according to presence of outliers

	Treatment	Comparison	Total
Non-outlier group	77	71	148
Outlier group	15	24	39
Total	92	95	187

	Men	Women	Total
Non-outlier group	79	69	148
Outlier group	30	9	39
Total	109	78	187

The outlier group consisted of 39 respondents (30 men and nine women), leaving 148 respondents in the non-outlier group (79 men and 69 women) on whom the analysis was focused (Table 13).

Table 14: Net external monetary flows per week for non-outlier and outlier groups

	Non-outlier group					Outlier group				
	Men (79 respondents, 2191 respondent weeks)					*Men (30 respondents, 893 respondent weeks)*				
	% non-zero	mean	sd	min	max	% non-zero	mean	sd	min	max
phh_net	92.7	-535.0	851.3	-11,400	9,062	97.3	-2,481.0	8,415.6	-134,745	18,015
occ_net	56.2	445.2	925.6	-4,500	11,000	51.5	1,558.6	15,644.3	-120,000	337,375
transfer_net	33.5	147.6	837.0	-3,000	10,000	40.4	525.2	5,241.3	-32,851	122,685
loan_net	9.0	54.2	680.4	-4,640	15,000	10.9	257.9	5,177.3	-49,300	100,000
tot_net	84.0	112.0	1,047.1	-5,120	13,480	91.8	-139.3	14,401.4	-165,490	329,679
	Women (69 respondents, 1966 respondent weeks)					*Women (9 respondents, 275 respondent weeks)*				
	% non-zero	mean	sd	min	max	% non-zero	mean	sd	min	max
phh_net	74.1	-350.4	649.2	-8,132	-	81.8	-1,065.5	4,380.3	-53,500	18,400
occ_net	13.7	53.8	294.6	-6,949	3,400	6.5	92.1	1,097.3	-700	18,000
transfer_net	44.9	304.0	733.5	-3,000	8,000	57.5	804.7	4,754.2	-23,350	60,000
loan_net	12.9	51.1	700.5	-5,350	14,000	5.5	274.5	2,632.8	-10,000	31,000
tot_net	61.5	58.5	746.3	-5,453	13,767	74.2	105.8	5,938.7	-53,500	60,000

Key: phh: personal and household; occ: occupational; iht: intra-household transfers; loan: all loan flows; tot: total

Table 14 summarises net external monetary flows for men and women after partitioning the sample into outlier and non-outlier groups. The means in the non-outlier group are somewhat smaller than in the outlier group, while the standard deviations are smaller by an order of magnitude in all cases. The analysis henceforth is focused on the non-outlier group.

ANNEX 7: TABLES ON ECONOMIC FLOWS AND MONEY HOLDING

Table 15: External monetary inflows and outflows per week – non-outlier group

Men (79 respondents, 2191 respondent weeks)

	mean	sd	min	p5	p25	p50	p75	p95	max	% non-zero	mean non-zero
phh_in	8.2	243.5	-	-	-	-	-	-	10,000	0.2	4,499.9
phh_out	543.2	822.0	-	-	145	329	620	1,644	11,400	92.7	586.0
phh_net	-535.0	851.3	-11,400	-1,644	-620	-329	-145	-	9,062	92.7	-577.2
occ_in	532.8	1,026.8	-	-	-	200	650	2,000	11,997	54.9	971.2
occ_out	87.6	528.9	-	-	-	-	-	350	9,600	8.4	1,043.6
occ_net	445.2	925.6	-4,500	-	-	170	600	1,700	11,000	56.2	791.7
iht_in	*92.8*	*476.8*	-	-	-	-	-	*525*	*8,000*	*10.8*	*858.0*
iht_out	*49.5*	*238.6*	-	-	-	-	-	*304*	*4,890*	*12.2*	*406.2*
cashgift_in	*51.9*	*401.7*	-	-	-	-	-	-	*8,000*	*3.5*	*1,475.9*
cashgift_out	*16.2*	*95.4*	-	-	-	-	-	*100*	*2,000*	*8.8*	*185.0*
remit_in	*68.6*	*570.6*	-	-	-	-	-	-	*10,000*	*2.3*	*2,949.0*
remit_out	-	-	-	-	-	-	-	-	-	-	-
transfer_in	213.3	827.5	-	-	-	-	-	1,000	10,000	16.6	1,284.1
transfer_out	65.7	259.2	-	-	-	-	-	400	5,000	19.7	333.3
transfer_net	147.6	837.0	-3,000	-370	-	-	-	1,000	10,000	33.5	441.2
loanp_in	*76.3*	*647.5*	-	-	-	-	-	*205*	*15,000*	*5.9*	*1,295.1*
loanp_out	*1.0*	*34.1*	-	-	-	-	-	-	*1,500*	*0.2*	*575.0*
loanr_in	-	-	-	-	-	-	-	-	-	-	-
loanr_out	*21.0*	*213.8*	-	-	-	-	-	-	*4,640*	*3.3*	*638.6*
loan_in	76.3	647.5	-	-	-	-	-	205	15,000	5.9	1,295.1
loan_out	22.0	216.4	-	-	-	-	-	-	4,640	3.5	635.3
loan_net	54.2	680.4	-4,640	-	-	-	-	200	15,000	9.0	599.9
tot_in	830.6	1,403.9	-	-	-	500	1,000	3,300	15,000	73.5	1,130.3
tot_out	718.6	1,027.0	-	-	202	436	840	2,371	11,997	94.5	760.6
tot_net	112.0	1,047.1	-5,120	-900	-88	4	173	1,230	13,480	84.0	133.4

Women (69 respondents, 1966 respondent weeks)

	mean	sd	min	p5	p25	p50	p75	p95	max	% non-zero	mean non-zero
phh_in	-	-	-	-	-	-	-	-	-	-	-
phh_out	350.4	649.2	-	-	-	145	402	1,400	8,132	74.1	473.2
phh_net	-350.4	649.2	-8,132	-1,400	-402	-145	-	-	-	74.1	-473.2
occ_in	72.6	272.2	-	-	-	-	-	500	3,400	13.4	542.3
occ_out	18.8	204.1	-	-	-	-	-	-	7,000	2.1	901.0
occ_net	53.8	294.6	-6,949	-	-	-	-	400	3,400	13.7	392.9
iht_in	*183.2*	*455.1*	-	-	-	-	*150*	*1,000*	*5,000*	*32.3*	*566.4*
iht_out	*12.2*	*125.4*	-	-	-	-	-	-	*3,000*	*2.8*	*429.3*
cashgift_in	*76.0*	*491.5*	-	-	-	-	-	*249*	*10,000*	*5.8*	*1,310.7*
cashgift_out	*11.6*	*131.7*	-	-	-	-	-	*15*	*4,051*	*5.0*	*231.2*
remit_in	*68.6*	*400.1*	-	-	-	-	-	-	*6,500*	*4.2*	*1,645.1*
remit_out	-	-	-	-	-	-	-	-	-	-	-
transfer_in	327.9	751.4	-	-	-	-	400	1,500	10,000	42.0	781.3
transfer_out	23.9	181.4	-	-	-	-	-	100	4,051	7.6	314.9
transfer_net	304.0	733.5	-3,000	-	-	-	350	1,500	8,000	44.9	677.6
loanp_in	*96.1*	*707.1*	-	-	-	-	-	*300*	*14,000*	*7.7*	*1,250.9*
loanp_out	*0.7*	*16.2*	-	-	-	-	-	-	*450*	*0.2*	*350.0*
loanr_in	-	-	-	-	-	-	-	-	-	-	-
loanr_out	*44.2*	*399.5*	-	-	-	-	-	*200*	*12,000*	*5.8*	*762.8*
loan_in	96.1	707.1	-	-	-	-	-	300	14,000	7.7	1,250.9
loan_out	44.9	399.8	-	-	-	-	-	200	12,000	6.0	748.8
loan_net	51.1	700.5	-5,350	-100	-	-	-	260	14,000	12.9	395.8
tot_in	496.5	1,064.5	-	-	-	117	520	2,000	14,000	58.3	851.0
tot_out	438.0	853.1	-	-	14	184	492	1,667	13,770	75.2	582.3
tot_net	58.5	746.3	-5,453	-578	-	-	62	777	13,767	61.5	95.1

Key: phh: personal and household; occ: occupational; iht: intra-household transfers; cashgift: cash gifts; remit: remittances; transfer: all transfers; loanp: loan principal; loanr: loan repayments; loan: all loan flows; tot: total

Table 16: Sources and beneficiaries of interpersonal transfers – non-outlier group

Men

Providers/beneficiaries by volume (N) and value (val) in percent	**Received**						**Given**			
	IHTs		Cash gifts		Remittances		IHTs		Cash gifts	
	N	*val*	N	*val*	N	*val*	N	*val*	N	*val*
Spouse	36.7	*24.8*	1.3	*1.9*	-	-	56.4	*75.7*	-	-
Father	12.1	*10.0*	12.8	*23.7*	9.8	*13.3*	1.4	*0.2*	-	-
Mother	5.6	*4.8*	-	-	-	-	21.3	*12.0*	0.4	*0.3*
Brother	2.4	*4.7*	11.5	*5.9*	15.7	*16.6*	-	-	0.4	*1.3*
Sister	-	-	-	-	-	-	0.3	*0.1*	1.2	*1.7*
Son	41.1	*54.9*	60.3	*59.5*	70.6	*64.2*	16.6	*8.6*	0.8	*6.1*
Daughter	2.0	*0.8*	-	-	-	-	3.7	*3.0*	1.2	*1.5*
Other or unspecified relative	-	-	10.3	8.3	-	-	0.3	0.4	53.9	61.1
Non-relative	-	-	3.8	*0.6*	-	-	-	-	42.2	*28.1*
Unknown	-	-	-	-	3.9	*6.0*	-	-	-	-
Total	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*

Women

Providers/beneficiaries by volume (N) and value (val) in percent	**Received**						**Given**			
	IHTs		Cash gifts		Remittances		IHTs		Cash gifts	
	N	*val*	N	*val*	N	*val*	N	*val*	N	*val*
Spouse	68.0	*75.3*	31.9	*40.4*	62.2	*59.1*	29.5	*36.5*	0.9	*17.5*
Father	-	-	2.6	*1.2*	-	-	-	-	-	-
Mother	0.3	*0.1*	1.7	*0.7*	-	-	-	-	-	-
Brother	-	-	2.6	*1.0*	-	-	-	-	-	-
Sister	-	-	-	-	-	-	-	-	-	-
Son	25.4	*18.3*	43.1	*43.0*	30.5	*35.3*	45.9	*52.6*	2.8	*4.8*
Daughter	1.5	*0.9*	1.7	*1.0*	-	-	6.6	*2.2*	5.5	*16.9*
Other or unspecified relative	4.7	5.4	11.2	5.1	1.2	2.2	18.0	8.7	45.0	28.0
Non-relative	-	-	5.2	*7.5*	-	-	-	-	45.9	*32.8*
Unknown	-	-	-	-	6.1	*3.3*	-	-	-	-
Total	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*

Table 17: Changes in financial accounts and cash balances – non-outlier group

	Men (79 respondents, 2191 respondent weeks)						*Women (69 respondents, 1966 respondent weeks)*					
	mean	**sd**	**min**	**max**	**% non-zero**	**mean non-zero**	**mean**	**sd**	**min**	**max**	**% non-zero**	**mean non-zero**
Payments via financial accounts												
Received	26.4	385.8	-	11,000	0.73	3,621.9	5.8	98.3	-	3,000	0.51	1,138.0
Made	-	-	-	-	-	-	0.4	15.8	-	700	0.05	700.1
Net	26.4	385.8	-	11,000	0.73	3,621.9	5.4	97.1	-	3,000	0.46	1,186.7
Account deposits and withdrawals												
Deposits	1.2	22.5	-	815	0.68	179.0	1.8	49.7	-	2,100	0.36	507.1
Withdrawals	62.6	554.2	-	11,000	1.96	3,187.4	33.4	391.3	-	10,000	1.48	2,264.2
Net	-61.3	554.8	-11,000	815	2.56	-2,399.6	-31.6	394.6	-10,000	2,100	1.83	-1,725.3
Net addition to money in financial accounts	-34.9	401.0	-10,000	815	1.8	-1,910.6	-26.2	382.8	-10,000	2,100	1.4	-1,904.9
Net addition to cash holdings	146.9	1,061.8	-5,120	13,480	84.0	174.9	84.6	769.2	-5,453	13,767	61.4	137.8
Net addition to total money holdings	112.0	1,047.1	-5,120	13,480	84.0	133.4	58.5	746.3	-5,453	13,767	61.5	95.1

ANNEX 8: CE IMPACT ON SAVINGS AND MONETARY HOLDINGS, DIARIES DATA

Impact on savings

The impact of consumer education on saving or dissaving is analysed with respect to three measures of residual funds in each week, defined as net earnings after personal and household expenditure, but differing in the extent to which transfers and borrowing are included:

- net occupational earnings less net personal and household expenditure, but before transfers and borrowing (occphh_net)
- net occupational earnings less net personal and household and expenditure, plus net transfers, but before borrowing (occphhtran_net)
- net occupational earnings less net personal and household and expenditure, plus net transfers and net funds from borrowing (tot_net).

In a fully randomised controlled trial, the impact of an intervention can be assessed relatively simply by comparing outcomes in the treatment and non-treatment groups, because, unless by chance, there are no systematic differences between the two groups which might obscure the comparison. In this case, however, the consumer education experiment was imperfectly randomised (treatment and comparison groups were in distinct geographical areas), and therefore we use a 'next-best' approach to analysis, using econometric techniques that allow for the possibility of systematic differences between the treatment and comparison groups, but which are subject to certain assumptions.

Table 18: Pre/post-intervention change in savings measures for treatment and comparison groups, and difference-in-differences

Non-outlier group - Men
(79 respondents, 2191 respondent weeks)

Variable	Comparison			Treatment			DiD	s.e.	p
	pre	post	diff	pre	post	diff			
occphh_net	-177.6	-240.5	-63.0	10.2	-28.2	-38.3	24.6	154.1	0.804
occphhtran_net	9.1	-81.1	-90.2	125.1	49.3	-75.8	14.4	130.4	0.563
tot_net	61.1	-43.7	-104.8	177.9	149.5	-28.5	76.3	107.8	0.792

Non-outlier group - Women
(69 respondents, 1966 respondent weeks)

Variable	Comparison			Treatment			DiD	s.e.	p
	pre	post	diff	pre	post	diff			
occphh_net	-300.7	-195.6	105.1	-305.6	-280.3	25.2	-79.9	64.0	0.694
occphhtran_net	-41.7	-79.3	-37.6	47.2	129.4	82.1	119.7	52.1	0.120
tot_net	7.5	-14.5	-21.9	106.3	120.1	13.8	35.7	52.1	0.792

Key: occphh_net=occ_net+phh_net; occphhtran_net=occ_net+phh_net+transfer_net; tot_net=occ_net+phh_net+transfer_net+loan_net
Standard errors cluster-robust at the level of respondents.

Table 18 shows the average change in each of the three savings measures pre- and post-intervention for the treatment and comparison groups, and the differential change in the treatment group relative to the comparison group (the difference-in-differences, DiD). A similar table for the full set of gross inflows and inflows is given in the Annex at Table 26.

The difference-in-differences estimate of the impact on some outcome variable *Y* is the mean pre/post change in the treatment group minus the mean change in the comparison group:

$$\hat{\delta} = \left(\bar{Y}_{TREATMENT,POST} - \bar{Y}_{TREATMENT,PRE}\right) - \left(\bar{Y}_{COMPARISON,POST} - \bar{Y}_{COMPARISON,PRE}\right)$$

In a regression framework this can be estimated from the equation:

$$Y_{it} = \beta_0 + \beta_1 POST + \beta_2 TREATMENT + \delta(POST * TREATMENT) + \varepsilon_{it}$$

where Y_{it} is an observation on *Y* for individual *i* in period *t*, POST is a dummy variable equal to one for observations in the post-treatment period, TREATMENT is a dummy variable equal to one for individuals in the treated group, and ε_{it} is a random error. In the case of repeated observations on the same individuals (as in the diaries), cluster-robust standard errors can be used to account for potential correlation of the error term among observations on the same respondent.

The difference-in-differences strategy allows the mean level of *Y* to be systematically different between the treatment and comparison groups, and for it to change between periods, but involves the critical assumption that, without intervention, the treatment group would have undergone the same mean change in *Y* between the pre- and post-intervention periods as the comparison group that was not subjected to treatment. Thus, the change in the comparison group's behaviour is assumed to define the counterfactual for the treatment group, and the treatment group's deviation from this counterfactual is equated with the effect of treatment.

The first row of Table 18 shows that, for men, the first of the three potential savings measures (net earnings less personal and household expenditure – occphh_net) was lower in the comparison group than in the treatment group prior to the consumer education (–Rs 178 as opposed to +Rs 10). In the post-intervention period, it fell among both groups, by Rs 63 (to –Rs 241) in the comparison group, and by Rs 38 to (–Rs 28) in the treatment group, i.e. by somewhat less than in the comparison group. Thus, men's post-treatment weekly savings on this measure were Rs 25 higher in the treatment group than implied by the change in the comparison group (DiD=24.6), which is potentially attributable to the consumer education.

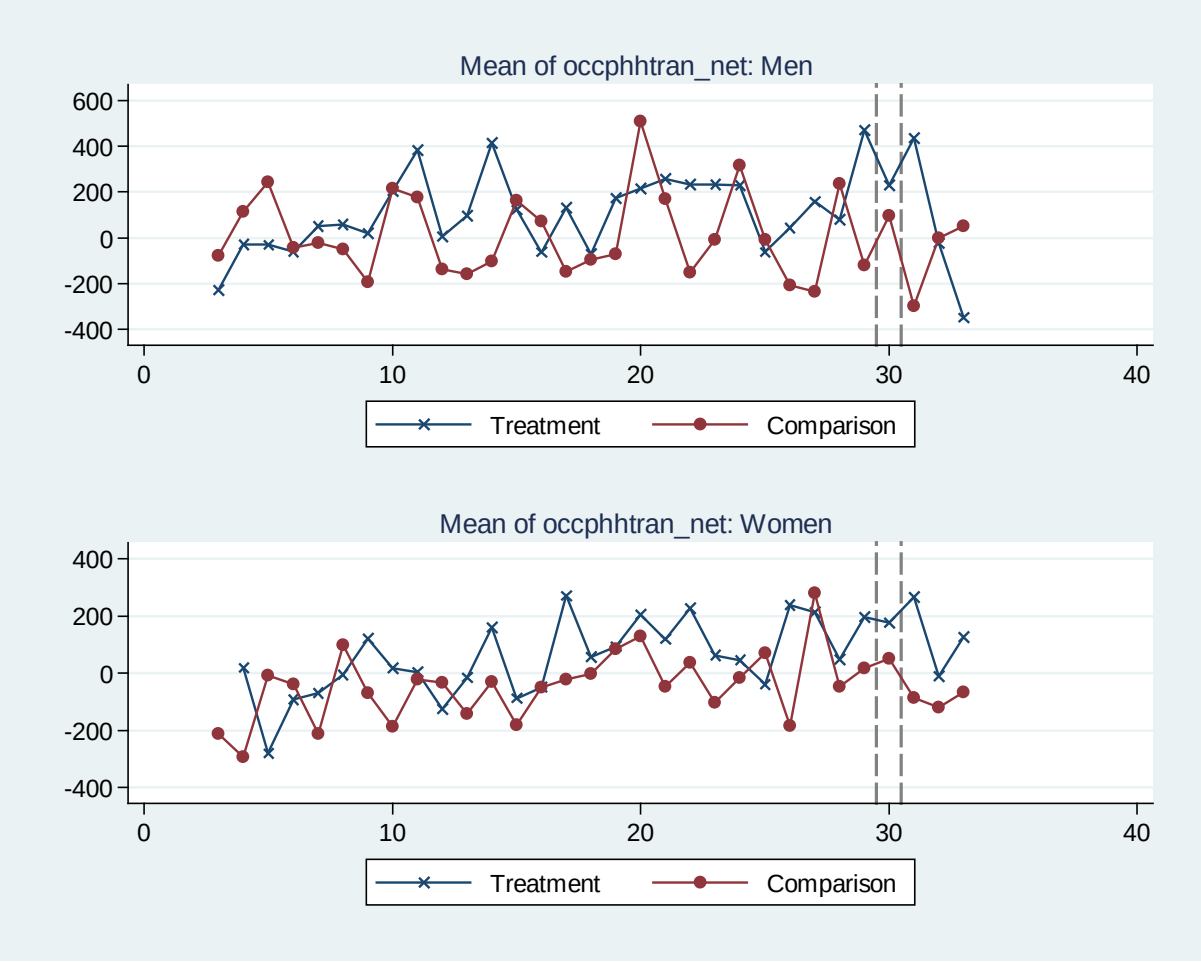
However, this difference-in-differences is small and the associated p-values show that it was clearly insignificantly different from zero. Successively adding net transfer receipts (occphhtran_net) and net funds obtained from borrowing (tot_net) to the measure of savings similarly leads to small positive differences-in-differences for men, implying a potential positive effect due to the consumer education, but again these are statistically insignificant.

Thus the DiD analysis does not provide clear positive evidence that men's savings behaviour was affected by the consumer education.

Among women, savings on the first measure were similar in the comparison and treatment groups in the pre-intervention period and rose in the post-intervention period, but more strongly in the comparison group. This results in a negative DiD (-79.9), but it is statistically insignificant. When net transfers are added, however, this is reversed and a relatively large positive DiD (+119.7) is observed, which moreover has a low p-value of 0.12, though still outside conventional statistical significance thresholds. In the third measure, with the addition of net inflows from borrowing, the DiD falls again to a low positive level and is clearly insignificant.

Thus, for women, the DiD analysis suggests that there may have been a significant increase in transfer receipts and an offsetting decline in funds sourced from borrowing following the consumer education.

Figure 15: Mean weekly savings (residual net income after personal and household expenditure and net transfers but before loans and repayments) for men and women in treatment and comparison groups



X-axis is calendar week index (1-33). Vertical grey lines are latest training dates in Jaunpur and Mau respectively. Only data points based on 20 or more respondents shown.

Figure 15 shows mean weekly savings using the second measure (occphhtran_net) for treatment and comparison group respondents by gender. Charts for all three of the savings measures are given in Figure 16.

In order to probe these results further we use a closely related but slightly more sophisticated econometric technique which takes account of the fact that the same individuals are observed repeatedly over time, but not all are represented in each week (we have an 'unbalanced panel'), with the result that the composition of the sample means is variable between periods. It also allows for variable factors in each calendar week potentially affecting respondents equally across the board. This is a two-way fixed effects (panel) regression of the form:

$$Y_{it} = \alpha_i + \alpha_t + \delta D_{it} + \varepsilon_{it}$$

where α_i is an individual-specific component common to all time periods, α_t is a period-specific component common to all individuals, and D_{it} is a dummy variable equal to one for observations on individuals in the treatment group in periods following the date of treatment (which can vary across individuals). The estimate of the treatment effect, which is constrained to be constant in all periods, is $\hat{\delta}$.

(A more flexible panel regression allows the treatment effect to vary as a function of time since treatment:

$$Y_{it} = \alpha_i + \alpha_t + \delta_1 D_{1\,it} + \delta_2 D_{2\,it} + \cdots + \delta_{max} D_{max\,it} + \varepsilon_{it}$$

where $D_{j\,it}$ is a dummy equal to one in the j^{th} week following individual i's treatment and δ_j is the associated effect of treatment at that stage, restricted to be constant for all individuals. This would allow one to test the possibility that the treatment effect might grow or decline over time, or both. However, with only three post-intervention weeks on average, this model was not explored.)

Table 19: Two-way fixed effects estimates of the impact of consumer education on savings measures and gross inflows and outflows

Non-outlier group - Men
(79 respondents, 2191 respondent weeks)

Dependent variable	coeff.	s.e.	p
occphh_net	58.5	162.8	0.721
occphhtran_net	-55.6	159.4	0.728
tot_net	11.2	147.4	0.939

Non-outlier group - Women
(69 respondents, 1966 respondent weeks)

Dependent variable	coeff.	s.e.	p
occphh_net	-102.0	75.5	0.181
occphhtran_net	151.6 *	83.0	0.072
tot_net	62.7	63.8	0.329

Dependent variable	coeff.	s.e.	p
occ_in	372.3 *	214.4	0.086
occ_out	59.4	38.4	0.126
occ_net	312.9 *	183.8	0.093
phh_in	107.5	100.0	0.286
phh_out	361.9 **	157.0	0.024
phh_net	-254.4	188.6	0.181
iht_in	*-45.7*	*52.9*	*0.390*
cashgift_in	*-91.0*	*58.9*	*0.126*
remit_in	*62.5*	*52.8*	*0.240*
transfer_in	-74.2	93.2	0.429
iht_out	*28.4*	*23.5*	*0.231*
cashgift_out	*11.5*	*10.4*	*0.270*
remit_out	-	-	-
transfer_out	39.9	25.9	0.127
transfer_net	-114.1	93.7	0.227
loanp_in	*75.9*	*110.6*	*0.495*
loanr_in	-	-	-
loan_in	75.9	110.6	0.495
loanp_out	*0.7*	*1.1*	*0.503*
loanr_out	*8.3*	*17.4*	*0.635*
loan_out	9.0	17.6	0.610
loan_net	66.9	115.5	0.564
tot_in	481.5 *	259.0	0.067
tot_out	470.3 **	187.1	0.014
tot_net	11.2	147.4	0.939

Dependent variable	coeff.	s.e.	p
occ_in	10.0	35.3	0.778
occ_out	3.9	5.1	0.442
occ_net	6.0	34.8	0.863
phh_in	-	-	-
phh_out	108.0	72.5	0.141
phh_net	-108.0	72.5	0.141
iht_in	*50.1*	*35.9*	*0.168*
cashgift_in	*56.3*	*77.7*	*0.471*
remit_in	*144.0 * *	*80.5*	*0.078*
transfer_in	250.4 **	116.4	0.035
iht_out	*5.5*	*12.8*	*0.668*
cashgift_out	*-8.7*	*10.5*	*0.409*
remit_out	-	-	-
transfer_out	-3.2	15.8	0.841
transfer_net	253.6 **	113.4	0.029
loanp_in	*-45.5*	*43.0*	*0.294*
loanr_in	-	-	-
loan_in	-45.5	43.0	0.294
loanp_out	*0.6*	*0.6*	*0.301*
loanr_out	*42.8*	*35.2*	*0.228*
loan_out	43.4	35.2	0.222
loan_net	-88.9	58.4	0.133
tot_in	214.9 *	112.7	0.061
tot_out	152.1 *	86.4	0.083
tot_net	62.7	63.8	0.329

Estimates from two-way fixed effects regression. Standard errors cluster-robust at the level of respondents. Asterisks denote statistical significance at 1% (***), 5% (**) and 10% (*).

Table 19 gives the resulting coefficient estimates, standard errors and p-values for the two-way fixed effects model estimated on the three savings measures (upper table) and on each of the constituent series for inflows, outflows and net flows (lower table). Because of the additive nature of the models, the coefficients on the aggregate measures in the upper table can be decomposed into sums of coefficients on constituent measures in the lower table.

The estimates of the impact of the consumer education on the three savings measures in the upper tables are qualitatively very similar to those obtained from the difference-in-differences analysis for both men and women. For men, the impacts are small and statistically insignificantly different from zero. For women, there is a negative but statistically insignificant effect on residual income after personal and

household expenditure but before transfers and borrowing, a large and positive effect once net transfers are added (which is statistically significant at the 10% level), and a small and insignificant coefficient once net funds from borrowing are further added.

The lower table suggests that there were in fact statistically significant different changes in gross flows between men in the treatment and comparison groups, but that these netted out. Specifically, relative to the counterfactual implied by the comparison group, male treatment respondents' total gross inflows and outflows increased in the post-intervention period by very similar and hence offsetting amounts: inflows (tot_in) by Rs 481 and outflows (tot_out) by Rs 470 per week. These increases were largely due, respectively, to increases in gross occupational earnings (occ_in) by Rs 372 per week and in personal and household expenditure (phh_out) by Rs 362 per week. All of these effects are statistically significant at least at the 10% level. Net transfers fell (transfers received fell and transfers made rose), while net borrowing increased, but these effects are not statistically significant.

Thus, following the consumer education, male treatment group respondents both earned and spent significantly more than implied by their pre-treatment behaviour and by the trend in behaviour of the comparison group, but with no significant net impact on savings. However, it is questionable whether this should be attributed to the consumer education itself.

Among women in the treatment group, the fall in the first savings measure by Rs 102 was essentially entirely due to higher personal and household expenditure (phh_out) rather than to any change in gross earnings or occupational expenses (occ_in or occ_out). This effect is somewhat outside statistical significance. The reversal of the finding once net transfers are added into the savings measure (occphhtran_net) reflects a highly significant increase in net transfers of Rs 254. This in turn is entirely due to an increase in transfers received (transfer_in) rather than a decrease in transfers paid (transfer_out), and primarily to an increase of Rs 144 in average remittances received per week (remit_in), although both IHTs and cash gifts from outside the household also increased. The impact on overall residual funds (tot_net) is reversed back towards zero by a decrease (relative to the implied level) in weekly net borrowing inflows of Rs 89, due to both a decrease in fresh credit (loanp_in) and an increase in repayments (loanr_out) in roughly equal measure.

Thus, there is evidence that, on average, the women who were exposed to consumer education subsequently increased their transfer income, and allocated this increase partly to greater spending on personal and household expenditures, but partly also to borrowing less and repaying more. Again, however, the causal role of the consumer education in these outcomes is uncertain. The contribution of remittances from outside the community to the increase in transfer income suggests it may have been due to factors unconnected with the consumer education, and the response in terms of reduced borrowing and increased repayment, while consistent with the debt management principles taught in the program, is not necessarily inconsistent with how these women would have responded to such an increase anyway (this issue is returned to in the more general analysis in a later section).

Finally, consideration should be given to the overall impact on household financial behaviour implied by these results. Survey data was not gathered at household level, but since most households contain both men and women, some sense of this impact can be obtained by summing the coefficients from the models for each gender. Overall there was an increase in net occupational income, remittance receipts and personal and household expenditure, but the effects on net IHTs, cash gifts and borrowing are of

opposite sign and are roughly offsetting: men gave more and received less in transfers, and borrowed more, while women did the reverse. This at least raises the possibility that one effect of the training was to steer a larger portion of household financial resources – or control of these resources – from men to women, albeit with rather little impact observed on the external behaviour of the household financial system in aggregate.

Impact on monetary holdings – cash and financial accounts

Table 20: Two-way fixed effects estimates of the impact of consumer education on financial account flows

Non-outlier group - Men
(79 respondents, 2191 respondent weeks)

Dependent variable	coeff.	s.e.	
finacx_in	*174.0*	*156.4*	*0.269*
finacx_out	-	-	-
finacx_net	174.0	156.4	0.269
finaci_in	*-2.1*	*1.6*	*0.192*
finaci_out	*261.1*	*166.4*	*0.121*
finaci_net	-263.2	166.2	0.117
finac_net	-89.2	63.4	0.164
cash_net	100.5	150.4	0.506
tot_net	11.2	147.4	0.939

Non-outlier group - Women
(69 respondents, 1966 respondent weeks)

Dependent variable	coeff.	s.e.	
finacx_in	*-5.2*	*6.1*	*0.391*
finacx_out	*-1.1*	*1.1*	*0.318*
finacx_net	-4.2	5.4	0.441
finaci_in	*-0.7*	*1.5*	*0.634*
finaci_out	*-22.3*	*19.1*	*0.249*
finaci_net	21.5	19.0	0.262
finac_net	17.4	16.8	0.306
cash_net	45.4	63.7	0.479
tot_net	62.7	63.8	0.329

Key: finacx: payments received or made using financial accounts; finaci: account deposits or withdrawals; finac_net: total net movement into or out of financial accounts; cash_net: change in cash holdings; tot_net: change in total monetary holdings (net total inflows and outflows)

Using the same panel regression estimation method as in the previous section on flows classified by their economic purpose, Table 20 decomposes the impact on total flows (tot_net) into impacts on cash holdings and financial account balances.

All of the coefficient estimates are statistically insignificant. Men's net additions to cash holdings per week (cash_net) are estimated to have increased by Rs 101 per week following the consumer education, as against a higher rate of reduction of their financial account balances (finac_net) by Rs 89.2 per week. The latter breaks down principally into an increase (relative to the counterfactual) in payments received from others via financial accounts (finacx_in) but a more than offsetting increase in amounts withdrawn (finaci_out). However, the p-values are well outside statistical significance thresholds. Among women the estimated coefficients are very small and likewise insignificant.

Overall, therefore, the analysis does not find evidence of a shift in patterns of cash and financial account holdings following the consumer education, either in external payments to and from financial accounts, or in internal account deposits and withdrawals by respondents. This finding needs to be viewed in the context of the very low baseline level of financial account use and constraints on the availability of reliable and accessible financial services to the survey population. This observation includes FINO, which does not appear to be providing an adequate platform for meaningful financial inclusion in its current form.

ANNEX 9: ADDITIONAL TABLES

Table 21: Financial diaries respondents by district, block, location and treatment

District	Block	Location	Treatment	Comparison	Total
Jaunpur	Badla Pur	Badlapur Khurd	8		8
		Birbhanpur	7		7
		Kewatli Kalan	7		7
		Machhaligaon	6		6
		Merha	8		8
		Rampur	8		8
		Total Badla Pur	**44**		**44**
	Jalal Pur	Asbaranpur		6	6
		Chak Sudisukul		8	8
		Chaktari		6	6
		Lahangpur		6	6
		Mahuwari		7	7
		Rampur Soiri		6	6
		Total Jalal Pur		**39**	**39**
	Total Jaunpur		**44**	**39**	**83**
Mau	Ratanpura	Jagdishpur	8		8
		Jamalpur Buland	8		8
		Kanso	8		8
		Madauli Badhanpur	8		8
		Makhna	7		7
		Sahupur	9		9
		Total Ratanpura	**48**		**48**
	Badraon	Baniyapar Tahir		9	9
		Bhatauli Umatiya		11	11
		Ibrahimabad		10	10
		Izrar		9	9
		Muzar Buzurg		9	9
		Patkhauli		8	8
		Total Badraon		**56**	**56**
	Total Mau		**48**	**56**	**104**
Grand Total			**92**	**95**	**187**

Table 22: Occupations of diaries respondents

	%			*N*		
	Men	**Women**	**Total**	**Men**	**Women**	**Total**
Employment	1.8	-	1.1	*2*	-	*2*
Mixed employment/self-employment	2.8	-	1.6	*3*	-	*3*
Self-employment: agriculture	11.0	3.8	8.0	*12*	*3*	*15*
Self-employment: non-agriculture	21.1	3.8	13.9	*23*	*3*	*26*
Self-employment: mixed	3.7	-	2.1	*4*	-	*4*
Mixed labour/self-employment	4.6	-	2.7	*5*	-	*5*
Labour: agriculture	4.6	1.3	3.2	*5*	*1*	*6*
Labour: non-agriculture	1.8	-	1.1	*2*	-	*2*
Labour: unidentified	24.8	2.6	15.5	*27*	*2*	*29*
Uncertain	1.8	-	1.1	*2*	-	*2*
Not earning	22.0	88.5	49.7	*24*	*69*	*93*
Total	100.0	100.0	100.0	*109*	*78*	*187*

Table 23: Caste of diaries respondents

	%			*N*		
	Men	**Women**	**Total**	**Men**	**Women**	**Total**
Upper Castes	18.3	12.8	16.0	*20*	*10*	*30*
Muslim Upper Castes	-	1.3	0.5	-	*1*	*1*
Scheduled Castes	35.8	50.0	41.7	*39*	*39*	*78*
Other Backward Castes - Service	13.8	15.4	14.4	*15*	*12*	*27*
Other Backward Castes - Peasant	30.3	20.5	26.2	*33*	*16*	*49*
Muslim OBC/Pasmanda	1.8	-	1.1	*2*	-	*2*
Total	100.0	100.0	100.0	*109*	*78*	*187*

Table 24: External monetary inflows and outflows per week – all respondents

Men (109 respondents, 3084 respondent weeks)

	% non-zero	mean	sd	min	p5	p25	p50	p75	p95	max
phh_in	0.2	17.2	460.6	-	-	-	-	-	-	20,000
phh_out	94.0	1,115.7	4,650.5	-	-	175	383	794	3,376	134,745
occ_in	52.7	935.8	8,214.0	-	-	-	150	700	2,540	337,375
occ_out	10.6	168.2	2,285.9	-	-	-	-	-	610	120,000
iht_in	*10.7*	*141.8*	*961.0*	-	-	-	-	-	*570*	*26,000*
iht_out	*12.4*	*54.3*	*268.5*	-	-	-	-	-	*317*	*4,890*
cashgift_in	*4.4*	*149.3*	*2,377.8*	-	-	-	-	-	-	*122,685*
cashgift_out	*11.3*	*65.8*	*894.7*	-	-	-	-	-	*150*	*32,851*
remit_in	*2.6*	*96.1*	*1,232.1*	-	-	-	-	-	-	*50,000*
remit_out	*0.1*	*10.1*	*412.6*	-	-	-	-	-	-	*22,000*
transfer_in	17.5	387.1	2,832.3	-	-	-	-	-	2,000	122,685
transfer_out	21.6	130.2	1,020.9	-	-	-	-	-	500	32,851
loanp_in	*6.1*	*193.9*	*2,561.0*	-	-	-	-	-	*300*	*100,000*
loanp_out	*0.3*	*8.2*	*397.3*	-	-	-	-	-	-	*22,000*
loanr_in	*0.2*	*8.3*	*262.9*	-	-	-	-	-	-	*10,000*
loanr_out	*3.4*	*80.8*	*1,267.6*	-	-	-	-	-	-	*49,300*
loan_in	6.2	202.2	2,573.9	-	-	-	-	-	300	100,000
loan_out	3.8	89.0	1,327.9	-	-	-	-	-	-	49,300
tot_in	71.2	1,542.3	9,056.3	-	-	-	500	1,000	5,000	337,375
tot_out	95.7	1,503.1	5,936.8	-	35	243	515	1,037	4,757	165,490

Women (78 respondents, 2241 respondent weeks)

	% non-zero	mean	sd							
phh_in	0.0	8.9	422.5	-	-	-	-	-	-	20,000
phh_out	75.0	447.1	1,616.8	-	-	5	160	450	1,520	53,500
occ_in	12.4	75.3	460.5	-	-	-	-	-	500	18,000
occ_out	1.9	16.9	191.9	-	-	-	-	-	-	7,000
iht_in	*32.5*	*212.7*	*723.7*	-	-	-	-	*200*	*1,000*	*22,719*
iht_out	*4.0*	*39.5*	*624.2*	-	-	-	-	-	-	*23,350*
cashgift_in	*6.1*	*120.5*	*1,478.7*	-	-	-	-	-	*300*	*60,000*
cashgift_out	*5.3*	*21.3*	*371.5*	-	-	-	-	-	*21*	*16,360*
remit_in	*4.5*	*95.2*	*631.3*	-	-	-	-	-	-	*14,000*
remit_out	*0.0*	*2.2*	*105.6*	-	-	-	-	-	-	*5,000*
transfer_in	42.7	428.5	1,736.4	-	-	-	-	425	2,000	60,000
transfer_out	9.0	63.0	732.8	-	-	-	-	-	102	23,350
loanp_in	*7.3*	*122.8*	*1,115.3*	-	-	-	-	-	*300*	*31,000*
loanp_out	*0.2*	*0.6*	*15.1*	-	-	-	-	-	-	*450*
loanr_in	-	-	-	-	-	-	-	-	-	-
loanr_out	*5.2*	*43.6*	*429.7*	-	-	-	-	-	*50*	*12,000*
loan_in	7.3	122.8	1,115.3	-	-	-	-	-	300	31,000
loan_out	5.4	44.2	429.9	-	-	-	-	-	100	12,000
tot_in	58.1	635.6	2,265.3	-	-	-	140	600	2,200	60,000
tot_out	76.3	571.3	1,867.7	-	-	23	209	550	1,892	53,500

Key: occ: occupational; phh: personal and household; iht: intra-household transfers; cashgift: cash gifts; remit: remittances; transfer: all transfers; loanp: loan principal; loanr: loan repayments; loan: all loan flows; tot: total

Table 25: Sources and beneficiaries of transfers received and made – non-outlier group

Men

% volume (N) and value (val)	**Received**						**Given**			
	IHTs		Cash gifts		Remittances		IHTs		Cash gifts	
	N	*val*	N	*val*	N	*val*	N	*val*	N	*val*
Spouse	36.7	*24.8*	1.3	*1.9*	-	-	56.4	*75.7*	-	-
Father	12.1	*10.0*	12.8	*23.7*	9.8	*13.3*	1.4	*0.2*	-	-
Mother	5.6	*4.8*	-	-	-	-	21.3	*12.0*	0.4	*0.3*
Brother	2.4	*4.7*	11.5	*5.9*	15.7	*16.6*	-	-	0.4	*1.3*
Sister	-	-	-	-	-	-	0.3	*0.1*	1.2	*1.7*
Son	41.1	*54.9*	60.3	*59.5*	70.6	*64.2*	16.6	*8.6*	0.8	*6.1*
Daughter	2.0	*0.8*	-	-	-	-	3.7	*3.0*	1.2	*1.5*
Other/unspecified relative	-	-	10.3	8.3	-	-	0.3	0.4	53.9	61.1
Other	-	-	3.8	*0.6*	-	-	-	-	42.2	*28.1*
Unknown	-	-	-	-	3.9	*6.0*	-	-	-	-
Total	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*

Women

% volume (N) and value (val)	**Received**						**Given**			
	IHTs		Cash gifts		Remittances		IHTs		Cash gifts	
	N	*val*	N	*val*	N	*val*	N	*val*	N	*val*
Spouse	68.0	*75.3*	31.9	*40.4*	62.2	*59.1*	29.5	*36.5*	0.9	*17.5*
Father	-	-	2.6	*1.2*	-	-	-	-	-	-
Mother	0.3	*0.1*	1.7	*0.7*	-	-	-	-	-	-
Brother	-	-	2.6	*1.0*	-	-	-	-	-	-
Sister	-	-	-	-	-	-	-	-	-	-
Son	25.4	*18.3*	43.1	*43.0*	30.5	*35.3*	45.9	*52.6*	2.8	*4.8*
Daughter	1.5	*0.9*	1.7	*1.0*	-	-	6.6	*2.2*	5.5	*16.9*
Other/unspecified relative	4.7	5.4	11.2	5.1	1.2	2.2	18.0	8.7	45.0	28.0
Other	-	-	5.2	*7.5*	-	-	-	-	45.9	*32.8*
Unknown	-	-	-	-	6.1	*3.3*	-	-	-	-
Total	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*	100.0	*100.0*

Table 26: Pre/post-intervention change in gross inflows and outflows for treatment and comparison groups, and difference-in-differences – non-outlier group

Non-outlier group - Men

(79 respondents, 2191 respondent weeks)

Variable	Comparison			Treatment			DiD	s.e.	p
	pre	post	diff	pre	post	diff			
occ_in	472.8	299.5	-173.4	602.3	690.6	88.3	261.6	113.9	0.441
occ_out	81.5	58.1	-23.4	90.4	144.1	53.6	77.0	40.6	0.190
occ_net	391.4	241.3	-150.0	511.9	546.5	34.6	184.6	90.0	0.701
phh_in	8.1	-	-8.1	-	83.3	83.3	91.4	83.0	0.318
phh_out	577.0	481.9	-95.1	501.7	658.0	156.3	251.4	108.8	0.155
phh_net	-568.9	-481.9	87.0	-501.7	-574.7	-73.0	-160.0	135.8	0.593
iht_in	*102.9*	*113.0*	*10.1*	*80.6*	*88.7*	*8.1*	*-2.1*	*53.6*	*0.881*
cashgift_in	*43.9*	*60.6*	*16.7*	*59.1*	*51.0*	*-8.1*	*-24.8*	*41.3*	*0.846*
remit_in	*84.3*	-	*-84.3*	*61.5*	*62.5*	*1.0*	*85.3*	*53.2*	*0.986*
transfer_in	231.1	173.6	-57.5	201.2	202.2	1.0	58.5	79.6	0.990
iht_out	*27.8*	*6.3*	*-21.5*	*69.9*	*105.1*	*35.1*	*56.6* *	*18.3*	*0.058*
cashgift_out	*16.6*	*7.9*	*-8.8*	*16.4*	*19.6*	*3.3*	*12.0*	*7.6*	*0.668*
remit_out	-	-	-	-	-	-	-	-	-
transfer_out	44.4	14.2	-30.2	86.3	124.7	38.4	68.7 **	18.9	0.046
transfer_net	186.7	159.5	-27.3	114.9	77.5	-37.5	-10.2	77.0	0.628
loanp_in	*80.6*	*37.4*	*-43.2*	*71.5*	*116.7*	*45.2*	*88.4*	*120.0*	*0.707*
loanr_in	-	-	-	-	-	-	-	-	-
loan_in	80.6	37.4	-43.2	71.5	116.7	45.2	88.4	120.0	0.707
loanp_out	*1.7*	-	*-1.7*	*0.6*	-	*-0.6*	*1.1*	*0.5*	*0.235*
loanr_out	*26.9*	-	*-26.9*	*18.0*	*16.5*	*-1.5*	*25.4*	*14.0*	*0.915*
loan_out	28.6	-	-28.6	18.6	16.5	-2.1	26.5	14.0	0.881
loan_net	51.9	37.4	-14.5	52.8	100.2	47.3	61.9	122.5	0.700
tot_in	792.6	510.5	-282.1	875.0	1,092.8	217.8	499.9	180.4	0.231
tot_out	731.5	554.2	-177.3	697.1	943.3	246.2	423.6 *	129.1	0.060
tot_net	61.1	-43.7	-104.8	177.9	149.5	-28.5	76.3	107.8	0.792

Table 27: Pre/post-intervention change in gross inflows and outflows for treatment and comparison groups, and difference-in-differences – non-outlier group

Non-outlier group - Women

(69 respondents, 1966 respondent weeks)

Variable	Comparison			Treatment			DiD	s.e.	p
	pre	post	diff	pre	post	diff			
occ_in	88.0	51.5	-36.5	63.0	51.1	-11.9	24.6	27.0	0.660
occ_out	38.5	35.7	-2.8	0.4	4.1	3.7	6.5	4.0	0.365
occ_net	49.5	15.8	-33.7	62.6	47.0	-15.6	18.1	27.6	0.574
phh_in	-	-	-	-	-	-	-	-	-
phh_out	350.2	211.4	-138.8	368.2	327.3	-40.9	98.0	60.3	0.500
phh_net	-350.2	-211.4	138.8	-368.2	-327.3	40.9	-98.0	60.3	0.500
iht_in	*159.2*	*92.9*	*-66.3*	*212.8*	*203.1*	*-9.7*	*56.7*	*29.5*	*0.743*
cashgift_in	*60.7*	*33.3*	*-27.4*	*86.8*	*140.6*	*53.8*	*81.1*	*61.6*	*0.386*
remit_in	*63.5*	*5.2*	*-58.3*	*77.6*	*88.5*	*10.9*	*69.2*	*58.4*	*0.853*
transfer_in	283.5	131.4	-152.0	377.2	432.2	55.0	207.0	88.3	0.536
iht_out	*11.6*	*13.0*	*1.4*	*13.0*	*10.2*	*-2.8*	*-4.2*	*8.0*	*0.728*
cashgift_out	*12.8*	*2.1*	*-10.7*	*11.4*	*12.3*	*0.9*	*11.6*	*10.4*	*0.933*
remit_out	-	-	-	-	-	-	-	-	-
transfer_out	24.4	15.1	-9.3	24.4	22.5	-1.9	7.4	12.9	0.882
transfer_net	259.0	116.3	-142.7	352.8	409.7	56.9	199.6	90.5	0.532
loanp_in	*88.9*	*78.1*	*-10.7*	*114.0*	*21.7*	*-92.3*	*-81.6* ***	*31.9*	*0.005*
loanr_in	-	-	-	-	-	-	-	-	-
loan_in	88.9	78.1	-10.7	114.0	21.7	-92.3	-81.6 ***	31.9	0.005
loanp_out	*1.4*	-	*-1.4*	*0.3*	-	*-0.3*	*1.1*	*0.3*	*0.319*
loanr_out	*38.4*	*13.3*	*-25.0*	*54.7*	*30.9*	*-23.7*	*1.3*	*17.4*	*0.178*
loan_out	39.7	13.3	-26.4	54.9	30.9	-24.0	2.4	17.4	0.173
loan_net	49.2	64.8	15.6	59.1	-9.3	-68.3	-84.0 **	33.4	0.045
tot_in	460.3	261.0	-199.3	554.2	504.9	-49.3	150.0	87.0	0.573
tot_out	452.9	275.5	-177.4	447.9	384.8	-63.1	114.3	59.4	0.292
tot_net	7.5	-14.5	-21.9	106.3	120.1	13.8	35.7	52.1	0.792

Figure 16a: Mean weekly savings measures for men and women in treatment and comparison groups – non-outlier sample

1) Residual net earnings after personal and household expenditure (before net transfers and net borrowing)

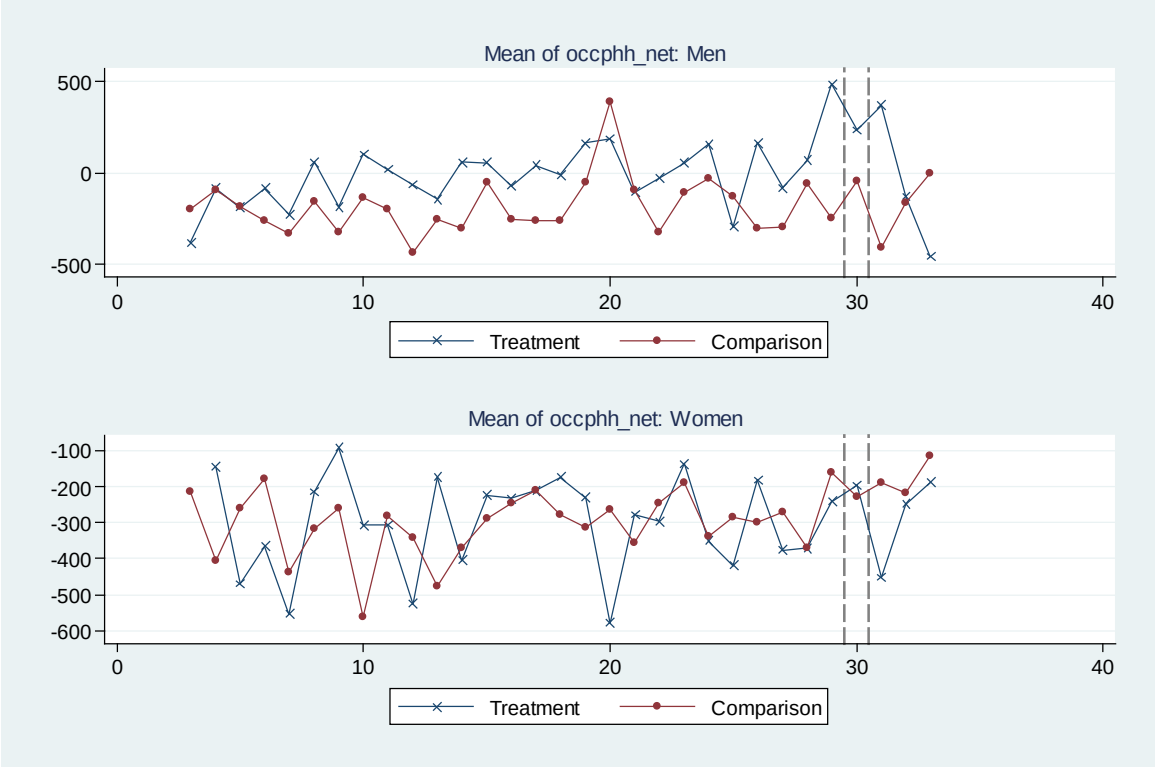


Figure 17b: Mean weekly savings measures for men and women in treatment and comparison groups – non-outlier sample

2) Residual net earnings after personal and household expenditure and net transfers (before net borrowing)

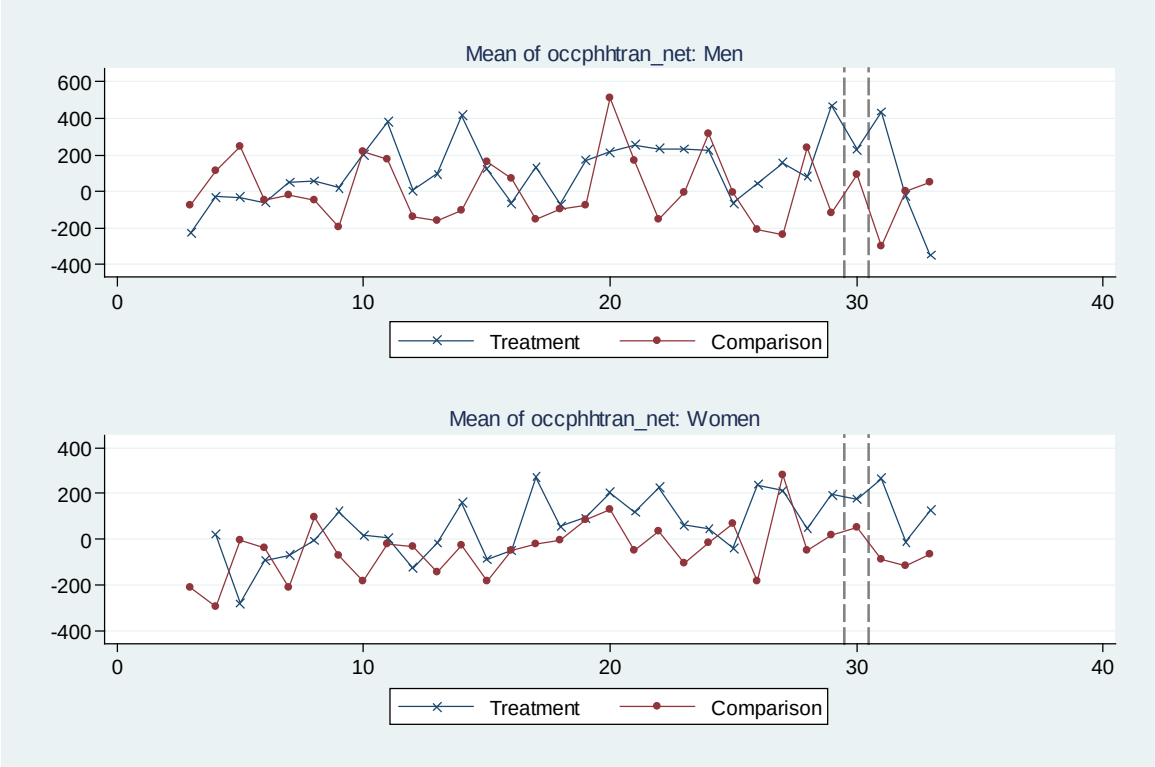


Figure 18c: Mean weekly savings measures for men and women in treatment and comparison groups – non-outlier sample

3) Residual net earnings after personal and household expenditure, net transfers and net borrowing

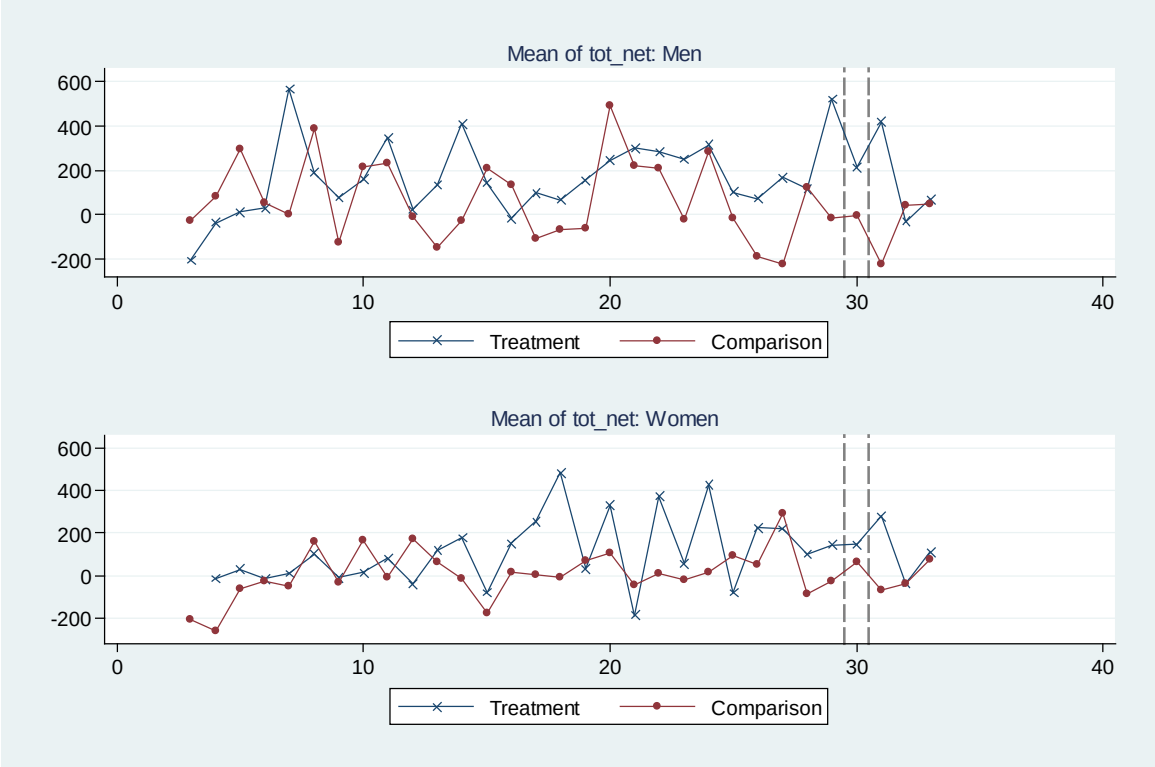


Table 28: Relationship of personal and household expenditure to net occupational income, transfers and borrowing/lending – non-outlier group

Dependent variable: phh_net				
	Men, earning	Women, earning	Men, not earning	Women, not earning
L.phh_net	-0.008	0.115 *	0.060	-0.051 **
occ_net	0.357 ***	0.532 ***	0.423 **	0.308 ***
L.occ_net	0.002	0.128	-0.021	0.005
transfer_net	0.541 ***	0.646 ***	0.222 **	0.340 ***
L.transfe~et	0.004	-0.078	0.099 *	0.061 ***
loan_net	0.460 ***	0.560 ***	0.538 ***	0.295 **
L.loan_net	0.016	0.074 *	-0.019	0.013
Obs.	1616	261	458	1581
Respondents	62	9	17	60
Mean weeks	26.07	29.00	26.94	26.35
R2 within	0.35	0.65	0.32	0.29
R2 between	0.676	0.971	0.786	0.822
R2 overall	0.390	0.746	0.376	0.360

Table 29: Models of interdependence of net occupational income, transfers and borrowing/lending (conditional on personal and household expenditure) – non-outlier group

Dependent variable: occ_net

	Men, earning	Women, earning	Men, not earning	Women, not earning
L.occ_net	-0.041	-0.113	-0.044	-0.036 ***
phh_net	0.533 ***	0.569 ***	0.529 **	0.052 *
L.phh_net	0.017	-0.003	-0.020	0.002
transfer_net	-0.497 ***	-0.458 ***	-0.189 **	-0.035 *
L.transfe~et	-0.059	0.000	-0.098 **	-0.014
loan_net	-0.372 ***	-0.627 **	-0.641 **	-0.031 *
L.loan_net	-0.042	-0.072	0.001	-0.004
Obs.	1616	261	458	1581
Respondents	62	9	17	60
Mean weeks	26.07	29.00	26.94	26.35
R2 within	0.22	0.53	0.28	0.03
R2 between	0.666	0.764	0.479	0.006
R2 overall	0.278	0.521	0.291	0.023

Dependent variable: transfer_net

	Men, earning	Women, earning	Men, not earning	Women, not earning
L.transfe~et	-0.044	0.124	-0.188 ***	-0.110 ***
phh_net	0.322 ***	0.899 ***	0.589 ***	0.599 ***
L.phh_net	0.015	-0.147 **	0.095	0.025
occ_net	-0.197 ***	-0.597 ***	-0.401 ***	-0.363 *
L.occ_net	-0.035	-0.065	-0.118 ***	-0.128 **
loan_net	-0.173 **	-0.636 ***	-0.796 ***	-0.306 ***
L.loan_net	-0.020	-0.044	-0.087 *	0.013
Obs.	1616	261	458	1581
Respondents	62	9	17	60
Mean weeks	26.07	29.00	26.94	26.35
R2 within	0.20	0.62	0.20	0.24
R2 between	0.401	0.925	0.133	0.728
R2 overall	0.220	0.655	0.193	0.294

Dependent variable: loan_net

	Men, earning	Women, earning	Men, not earning	Women, not earning
L.loan_net	-0.041	-0.060	0.016	-0.075 *
phh_net	0.378 **	0.778 ***	0.232 **	0.575 ***
L.phh_net	-0.025	-0.039	0.012	0.065 *
occ_net	-0.204 ***	-0.813 ***	-0.221 *	-0.359 ***
L.occ_net	0.009	-0.080	-0.018	-0.095 *
transfer_net	-0.239 ***	-0.634 ***	-0.130 **	-0.339 ***
L.transfe~et	0.089	0.079	-0.034	-0.062 *
Obs.	1616	261	458	1581
Respondents	62	9	17	60
Mean weeks	26.07	29.00	26.94	26.35
R2 within	0.19	0.64	0.22	0.20
R2 between	0.036	0.546	0.104	0.319
R2 overall	0.179	0.628	0.209	0.201

Asterisks denote statistical significance at 1% (***), 5% (**) and 10% (*), based on standard errors robust to correlation of errors for each respondent.

Table 30: Models of interdependence of net occupational income, transfers and borrowing/lending (without conditioning on personal and household expenditure) – non-outlier group

Dependent variable: occ_net

	Men, earning	Women, earning	Men, not earning	Women, not earning
L.occ_net	-0.043	-0.010	-0.064 **	-0.037 ***
transfer_net	-0.256 ***	-0.135	-0.091 ***	-0.017
L.transfe~et	-0.062	-0.007	-0.056 **	-0.012
loan_net	-0.157 ***	-0.441	-0.458 *	-0.016 **
L.loan_net	-0.038 *	0.010	-0.003	-0.004
Obs.	1616	261	458	1581
Respondents	62	9	17	60
Mean weeks	26.07	29.00	26.94	26.35
R2 within	0.04	0.32	0.08	0.01
R2 between	0.000	0.205	0.022	0.214
R2 overall	0.029	0.233	0.059	0.001

Dependent variable: transfer_net

	Men, earning	Women, earning	Men, not earning	Women, not earning
L.transfe~et	-0.043	0.062	-0.122 ***	-0.095 ***
occ_net	-0.100 ***	-0.292	-0.174 ***	-0.224
L.occ_net	-0.036	0.063	-0.088 **	-0.161 **
loan_net	-0.031 ***	-0.322	-0.546 ***	-0.163 ***
L.loan_net	-0.014	-0.007	-0.036	0.024
Obs.	1616	261	458	1581
Respondents	62	9	17	60
Mean weeks	26.07	29.00	26.94	26.35
R2 within	0.03	0.08	0.07	0.04
R2 between	0.000	0.648	0.491	0.662
R2 overall	0.019	0.041	0.032	0.009

Dependent variable: loan_net

	Men, earning	Women, earning	Men, not earning	Women, not earning
L.loan_net	-0.051 **	0.047	0.029	-0.068
occ_net	-0.085 **	-0.705 ***	-0.141	-0.220 ***
L.occ_net	-0.001	0.083	-0.014 *	-0.087 ***
transfer_net	-0.043 **	-0.238	-0.088 *	-0.173 ***
L.transfe~et	0.092	0.089	-0.007	-0.018
Obs.	1616	261	458	1581
Respondents	62	9	17	60
Mean weeks	26.07	29.00	26.94	26.35
R2 within	0.02	0.35	0.10	0.04
R2 between	0.011	0.038	0.103	0.050
R2 overall	0.019	0.295	0.079	0.024

Asterisks denote statistical significance at 1% (***), 5% (**) and 10% (*), based on standard errors robust to correlation of errors for each respondent.