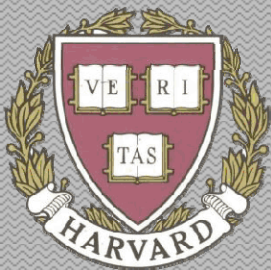


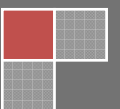
July
2008

ENHANCING CLIENT OPPORTUNITIES

CURRENT OVERVIEW OF CMF-SEWA BANK RESEARCH
PROJECTS



SUBMITTED BY CMF AND HARVARD RESEARCH TEAM



EXECUTIVE SUMMARY

1. Overview of Completed Activities

Since 2005 CMF and SEWA have collaborated on a series of research projects aimed at identifying opportunities for improving financial access to poor women in Ahmedabad.

We have completed an evaluation of the business training and financial literacy program which examined whether the effects of these programs varied by social mobility of clients and presence of friends during the training. CMF and the Indian School of Micro-finance organized a one day conference on this on July 5, 2008, **main proceedings of the same were presented in CMF's last newsletter.**

CMF has helped SEWA Bank develop a reliable unique identification code for each client in the Bank's computerized transactions database. **These codes were adapted by SEWA Bank MIS and helped** in eliminating many errors from the database. We presented the cleaned code to SEWA Bank in July 2006, with supplements in later months.

2. Household surveys

In 2005 CMF undertook a baseline survey to examine the use of guarantors in micro-finance but due to unforeseen practical difficulties SEWA Bank was unable to complete this intervention. As a result the income survey was also halted. However, the clients who were surveyed were entered into the business training program, and the survey data was used in analyzing this survey.


3. Proposed research use of CMF mapping project and SEWA database cleaning: Does location matter?

Since 2007 CMF has been mapping (based on electoral commission data) residential structures in five areas in Ahmedabad – Dariapur, Behrampura, Gomtipur, Amraiwadi, and Naroda. Preliminary results (attached) suggest geographic clustering of client saving and borrowing activity. This dataset, combined with the cleaned transactions database, provides a unique opportunity to examine the impact of access to financial services and clients' economic well-being and business outcomes.


We propose a 15-minute questionnaire to clients in the five study areas in Ahmedabad asking household assets and businesses to generate measures of economic well-being as well as some questions on household's social connections.

4. Periodic reports from CMF to SEWA Bank

Based on feedback from SEWA Bank, we propose to submit printed reports with interim results to SEWA Bank on a regular basis, such as once every two months. Ami Bhavsar – CMF's



Research Associate in Ahmedabad – will also be able to provide presentations in Gujarati. These meetings can also provide a forum for SEWA Bank to comment on our findings.



OVERVIEW OF CMF-SEWA BANK RESEARCH PROJECTS

1. Past work and current research outputs

In 2005 CMF researchers discussed possibilities for research that could be useful to SEWA Bank and also lead to broader research insights into optimal micro-finance practices. The first proposal was to examine the use of guarantors in micro-finance by way of a change in guarantor requirements that would be randomly phased-in across bank branches. As a baseline for this intervention, we started an income survey of approximately 5,000 clients who would be affected by the intervention – mainly current SEWA clients who had not yet taken loans. Unfortunately, SEWA Bank later determined that the implementation of this field experiment would be too complex, so we had to terminate this research project. The income survey was also halted.

The first year of CMF-SEWA involvement did, however, generate outputs useful to SEWA Bank, most importantly a reliable unique identification code for each client in the Bank's computerized transactions database that enabled the Bank to find all of a client's accounts in the computerized database. The cleaning of the database necessary to produce a unique identification code for each client had begun before we started working with the Bank. While SEWA Bank had made much progress in this data cleaning, several problems remained when we began work on this project. To illustrate, in the data from May 2006, the unique ID based on the Bank's cleaning suggested that there were 16,826 clients with unsecured loans but no savings account. Our cleaning algorithm cut these errors down considerably: in the same data, our ID identifies only 1,171 clients with unsecured loans but no savings account. We gave a presentation on this work at SEWA Bank in July 2006. In the following months CMF researchers discussed issues regarding its implementation with FINO researchers, and handed over updated versions of the cleaning to SEWA Bank in November 2006 and again in March 2007, with additional supplements in June 2007.

2. Business Training

We have completed an evaluation of business training and these results **were** discussed in the conference organized with Indian School of Microfinance on July 5th in Ahmedabad. Detailed analysis of the same work is ongoing.

3. Proposed research use of database cleaning: Does Location Matter?

An ongoing CMF Mapping project has used electoral rolls for Ahmedabad city, available from the election commission web site, to “map” residential structures in five areas of Ahmedabad – Dariapur, Behrampura, Gomtipur, Amraiwadi, and Naroda. The areas also experienced large increases in the number of SEWA clients between 1998 and 2004.

Mapping proceeds as follows: After generating a final list of residential locations to map in an area, surveyors find each neighbourhood using maps that accompany the electoral rolls. Once they locate a neighbourhood, they record the latitude and longitude of the neighbourhood, along with some basic information about the neighbourhood such as access to schools and health facilities. They obtain this information by asking residents of the neighbourhood.

Once locations are mapped, these data can be used together with SEWA Bank’s transactions database to examine how access to financial instruments including savings and loan accounts spread across Ahmedabad via expansion in SEWA Bank activity between 1998 and 2004. In this report we use data from Behrampura and Amraiwadi to show how these data can be used to examine how increases in the number of saathis working in an area improved clients’ access to financial services.

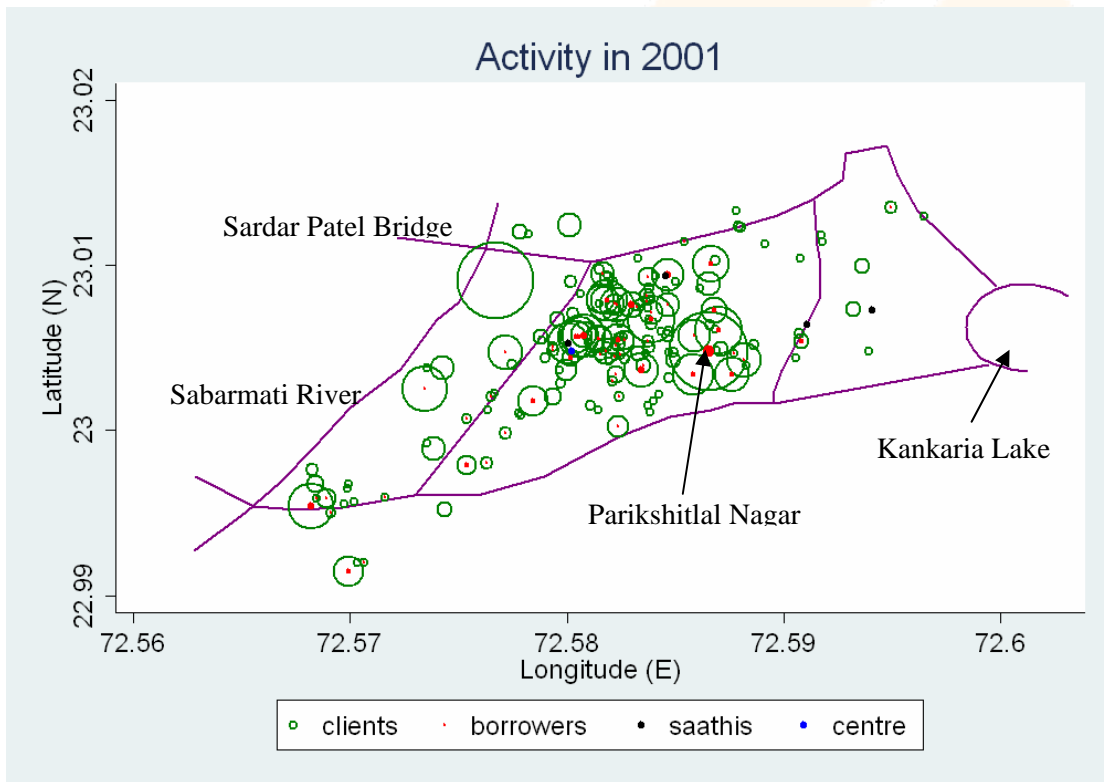
- The analysis considers the sample of clients who opened their first account with SEWA Bank between January 1998 and November 2000, just before the formalization of the saathi system.
- Figure 1 is a satellite image of Behrampura. Purple lines outline some major features – roads, bridges, the river, and Lake Kankaria – that will also appear on later plots.

FIGURE 1: BEHRAMPURA



- Figure 2 depicts borrowing activity by SEWA clients in 2001.
 - The size of the green circles is proportional to the number of clients in the study who lived at each location in that year.
 - The size of the red circles is proportional to the number of those clients who opened an unsecured loan in that year.
 - “Active” saathis’ residential locations are indicated with black points, and Behrampura Bank Centre with a blue point.¹
- Main finding: there is a visible concentration of SEWA clients and borrowers near Behrampura centre and three of the four “active” saathis in this year.

FIGURE 2



¹ For a given year, we include only those saathis who operated for more than one quarter, and were authorized to collect loan payments.

Figures 3 and 4 depict the changes in these patterns in 2002 and 2003.

FIGURE 3

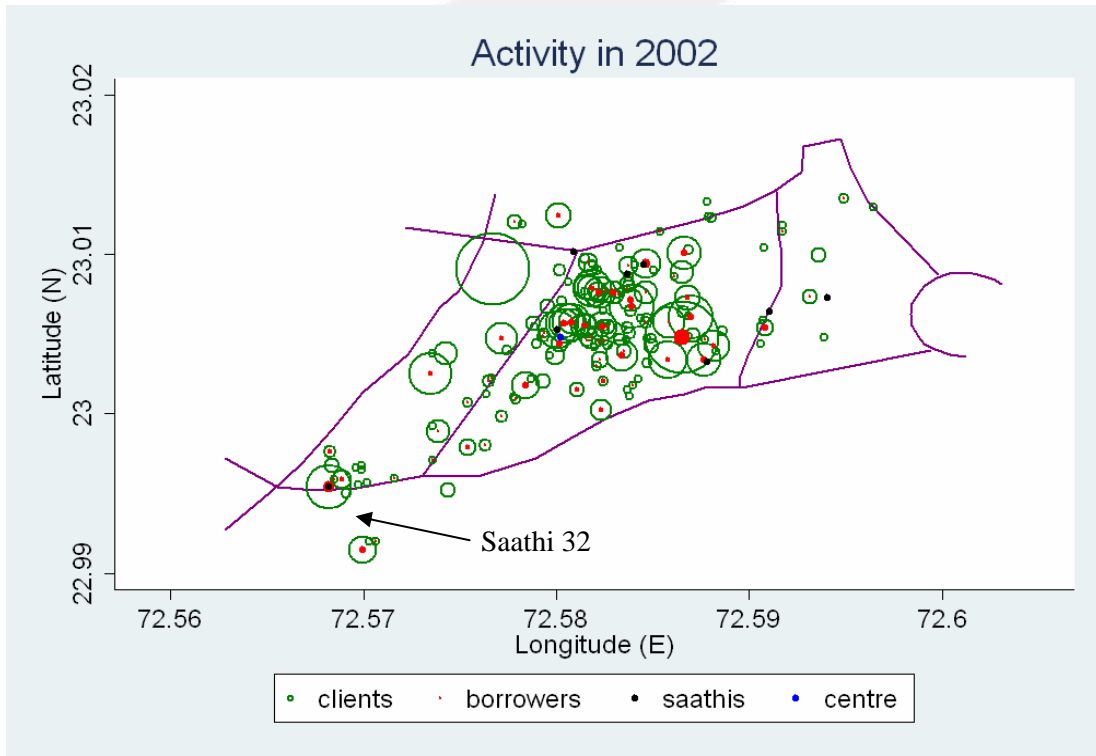
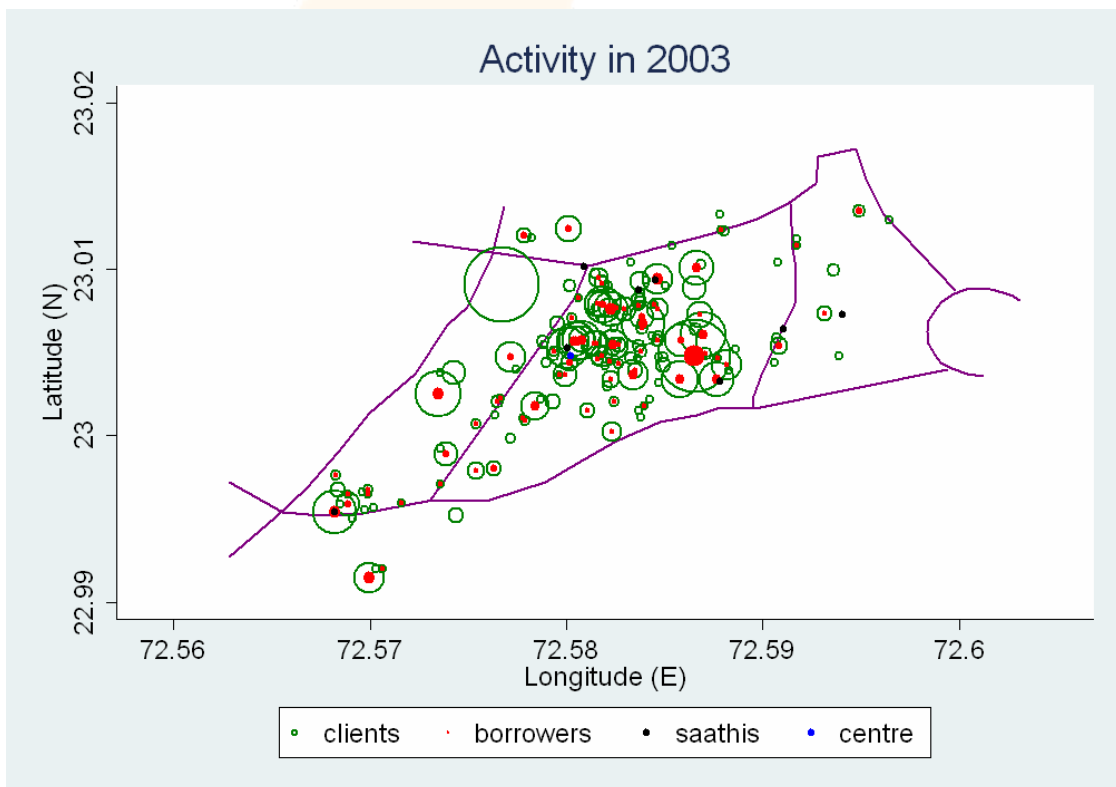


FIGURE 4



- Figures 2-4 provide some suggestive evidence on how saathis affect borrowing.
 - Example: Saathi 32, in southwestern corner
 - Began formally in 2002: visible increase in borrowing in both her own location and in nearby locations
 - Also a visible increase in the number of borrowers between this saathi and the centre in succeeding years
 - May be that she regularly visits clients on her way to the centre or on her way back from it, so clients in between her residence and the centre are also “closer” to a bank representative
 - Similar pattern in other locations – such as in the concentrated area near Behrampura centre
 - But overall, difficult to perceive from these figures whether the increase in borrowing is significantly related to geographic proximity to saathis
- Statistical analysis clarifies the patterns in Figures 2-4.
 - Results in Table 1 suggest small but significant impact of geographic proximity to saathi during expansion. In particular, being closer to saathis did improve clients’ access to financial services
 - In words: being an additional 100 meters closer to a saathi’s residence or likely path to the centre makes a client one percentage point more likely to take out a new unsecured loan in a given year
 - Overall probability in this period is 18 percent, so 1 percentage point is small, but large enough to be meaningful.
 - A greater increase in proximity is predicted to have substantial effects: for example, if saathi expansion makes a client 500 meters closer she is 5 percentage points more likely to take out a loan
 - Figure 5 expresses this another way: relative to the overall mean of 18 percent, it shows the increased probability from being 100, 200, or 500 meters closer to a saathi due to changes in saathi presence over this period. Again, it shows a meaningful increase in borrowing.

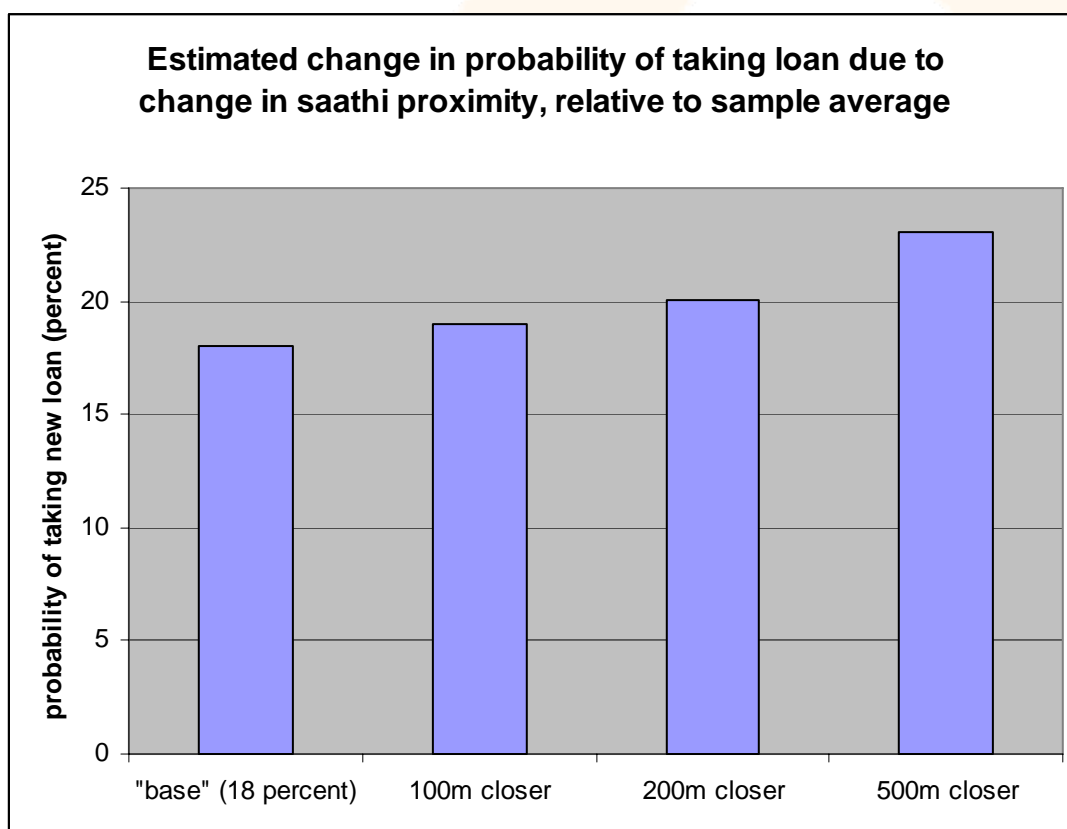
TABLE 1: REDUCTION IN ACCESS TO FINANCIAL SERVICES AS DISTANCE TO SAATHI INCREASES

Dependent variable: Whether client took out new unsecured loan that year (mean=0.18)

	(1) Saathi's home	(2) Saathi's path to Bank
Distance to saathi	-0.0101 (0.0047)	-0.0114 (0.0070)
N	7794	7794

Note: standard errors in parentheses. In both specifications, we control for characteristics of the chawl, distance to the closest SEWA Bank centre, year and client fixed effects, and saathi fixed effects.

FIGURE 5: INCREASE IN ACCESS TO FINANCIAL SERVICES AS DISTANCE TO SAATHI DECREASES



Next steps:

The mapping project shows that saathi expansion increased financial access. The question of clients' welfare remains: Does improved access to financial services affect a client's economic well-being and business outcomes?

Previous experience suggests the cost of a long survey for both the client and surveyor is high, and may not be satisfactory. We propose a report card approach, where we ask a 15-minute questionnaire to clients in these five study areas who joined between January 1998 and November 2000. We propose to use a short survey instrument (a "pilot" version is attached; some questions will be cut for the final version) asking about household assets and businesses, to generate measures of economic well-being, as well as some questions on a household's social connections.

The sample size for the survey will be 4000 clients. The address information of clients will be drawn from the SEWA transactions database. CMF Ahmedabad's surveyor team will track the address information and conduct the surveys. The survey is expected to be completed over a period of three months, ending by **early 2009**. All survey data will be double entered and kept secure at the CMF Ahmedabad office and at Harvard University. Analysis of the data will be done by mid-2009. We will present study results at SEWA Bank and submit them for publication in academic journals.

4. Periodic Reports from CMF to SEWA Bank

Based on feedback from SEWA Bank, we propose a schedule for more regular reports of our progress and output. Specifically, we propose to submit printed reports with interim results to SEWA Bank on a regular basis, such as once every two months. Ami Bhavsar - CMF's Research Associate in Ahmedabad who is conversant in Gujarati - will also be able to provide presentations in Gujarati. We hope these can also provide a forum for SEWA Bank to provide comments on our findings.

Principal Researchers:

Prof. Erica Field, Prof. Rohini Pande, and Daniel Fetter (Harvard)

CMF Research Associate (Ahmedabad):

Ami Bhavsar

CMF-Harvard Summer Intern 2008 (Ahmedabad):

Kenzo Asahi (Harvard)