IMPACT EVALUATION OF URBAN MICRO-CREDIT IN INDIA

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Is microfinance the silver bullet to poverty alleviation? Preliminary results from the first randomized control trial uncover both intuitive and surprising impacts.

Results from the Centre for Micro Finance's ground-breaking study have been written about in *The Economist, The Boston Globe, The Economic Times* and have been cited by the Center for Global Development and the Consultative Group for the Assistance of the Poor (CGAP), among many others.

Policy questions

In the last decade, microfinance has expanded rapidly to include at least one hundred and fifty million clients globally, with over sixty million in India alone. Yet, little is known about the impact of these interventions on poverty and household welfare. Anecdotal evidence abounds on the impact of these products and services, but there have been no rigorous assessments of the extent to which microfinance has improved the lives of beneficiaries. Many microfinance institutions conduct before and after evaluations, but such snapshots ignore external influences and self-selection biases that could distort the results. Given the scale of the microfinance sector, its ostensible commitment to poverty reduction, and the gargantuan flows of both social and commercial capital into MFIs, the importance of a rigorous impact evaluation cannot be overstated.

Background

The Centre for Micro Finance (CMF) in conjunction with Professors Esther Duflo and Abhijit Banerjee (MIT) and the Jameel Poverty Action Lab (J-PAL) conducted a randomized evaluation of the impact of Spandana's micro-credit program in Hyderabad, Andhra Pradesh. The evaluation aimed to tease out micro-credit's impact on income, consumption, financial services usage, asset ownership, business scale and profitability, and intra-household decision-making. Ms. Padmaja Reddy, Spandana's founder and executive director, was instrumental in the conceptualization of the study.

Spandana, which began as a non-governmental organization (NGO) and recently transformed into a Non Banking Finance Company (NBFC), utilizes the joint liability model for disbursing micro-credit and has operated out of Hyderabad since 2005. The expansion of Spandana into Hyderabad's slums was an unprecedented move, as few formal microfinance operations were at the time venturing into urban areas. The targeted slums contained households with an average of five members and monthly expenditures of Rs. 5000. Roughly one third of households owned businesses and despite the lack of formal credit available at the time, close to seventy percent of had outstanding credit, most from moneylenders or friends.

Spandana's standard micro-credit product was a Rs. 10,000 ($250) loan, administered through a joint liability group, with a tenure of approximately 50 weeks and an interest rate of 12% (non declining balance - equivalent to somewhere between 20-24% APR). Unlike many other microfinance institutions, Spandana does not mandate how their loans should be used and thus credit could be used for any purpose.

Intervention

The research team worked with Spandana's management to use their planned expansion into Hyderabad slums to create the comparisons necessary for the impact study, with some slums where they entered, and others they did not enter. Spandana chose one hundred and four slums in Hyderabad for the project and half of those were randomly selected for Spandana's expansion. By randomizing the selection, two groups of 52 slums were created which were virtually equivalent along all demographic, social and economic characteristics. Spandana then offered micro-credit into one group of 52 slums, called the "treatment group," and for the duration of the study refrained from introducing micro-credit into the other group of 52 slums, "the control group." The research team surveyed a sample of households in both control and treatment groups prior to Spandana's arrival in 2006, and conducted a second survey covering 6,850 households in 2007-2008.

By 2008, 19% of households in the slums where Spandana expanded were Spandana clients, and 27% were clients of either Spandana or another MFI. In the control slums where Spandana did not purposely expand, 5% of households were still Spandana clients, and 19% were clients of other microfinance institutions. The research team used these differences to study the marginal causal impact of Spandana's offer of micro-credit averaged across the slums where it expanded. The outcomes measured then, estimate the causal impacts of Spandana's offer of micro-credit in Hyderabad slums, averaged across both households that took up the offer and those who did not.

Findings [1]

Micro-credit take up rates lower than expected -

Both the research team and Spandana were surprised by the relatively low take up rates of micro-credit. Approximately 18.6% of households in treatment slums took up Spandana micro-credit, against much higher expectations of 70% or 80% take up. Possible interpretations of low take-up include an already vibrant informal credit market among the slums, as cited earlier, or a smaller demand for micro-credit than previously assumed.

Micro-credit creates businesses -

One of the developmental assumptions driving the microfinance movement is that microfinance creates and supports transformative small enterprises that can improve a household and community's well-being. As mentioned earlier, Spandana does not mandate how its loans are spent and thus clients are free to use credit for any purpose. Indeed, when surveyed, respondents cited a variety of loan usages including repaying old debt, starting or expanding a business, household consumption and ceremonies. Despite the diversity of loan uses, Spandana micro-credit resulted in the creation of 32% more businesses in the slums it entered than the slums it did not enter. And, businesses in the slums where Spandana expanded were more profitable than businesses in areas where it did not.

1. Results taken from "The Miracle of Microfinance? Evidence from a Randomized Evaluation," by Esther Duflo, Abhijit Banerjee et al which was published in May 2009. This paper is available at: **http://ifmr.ac.in/cmf/publications/wp/2009/31_Banerjee_Miracle_of_Microfinance.pdf**

Micro-credit changes how households spend money -

Results show that formal micro-credit shifts around the way poor households spend money, with a strong delineation in spending patterns between the entrepreneurial and non-entrepreneurial poor. These differences revolved around the expenditure patterns of households and decisions on the purchase of durable goods, non-durables, and "temptation goods," such as alcohol, tobacco, paan, and gambling.

Overall, households in slums where Spandana entered, the treatment slums, did not spent any more or less per month than their counterparts in control slums. However, the composition of their expenditures changed. Specifically, treatment households spent Rs. 22 more per capita per month on durable goods and Rs. 9 less per capita per month on temptation goods. Thus households in a slum where Spandana expanded appeared to shift the patterns of spending. Remember that these differences are averaged across all slum households surveyed, including those which did not take up Spandana credit.

Differences in expenditure patterns become even more pronounced when households in both treatment and control slums were categorized into three groups a) households which owned a business prior to Spandana's arrival b) households which did not own a business prior to Spandana's arrival but exhibited a strong propensity to start one and c) households which did not own a business prior to Spandana's arrival and exhibited a low propensity to start one. [2]

For example, treatment households which owned a business prior to Spandana's arrival spent Rs. 55 per capita per month more on durables after Spandana's entry than their business-owning counterparts in control slums; treatment households which did not own a business and displayed low propensity to start one did not increase spending on durables. Additionally, moving across the spectrum between treatment households with low propensity to start a business to high propensity represents an increase of Rs. 54.9 per capita per month on durables. Thus, it appears that Spandana micro-credit influenced experienced and likely entrepreneurs to discipline household expenditures.

This discipline manifests in non-durable spending as well. Treatment households with the highest propensity to start a business reduced non-durable spending by Rs. 46 per capita per month, while households with the lowest propensity actually increased non-durable spending by Rs. 212 per capita per month, all compared to their control-slum counterparts. Households in treatment slums with old businesses did not differ in non-durable spending. These results suggest that potential entrepreneurs "tighten their belts" in non-durables to finance a future business, while the non-entrepreneurial channel micro-credit into consumption.

No impact on health and education spending or outcomes -

Finally, households in treatment slums did not significantly increase spending on health or education, nor were there any significant differences in health or education outcomes, such as school enrollment. If any effect can be expected in these indicators as a result of micro-credit being made available, it was not detectable after fifteen to eighteen months.

Conclusion and future plans

While the early results of this study do not trumpet microfinance as a panacea for poverty, they add focus to the

2. Predictors to starting a business were calculated to include a) whether the spouse is literate b) number of prime age women in the household c) land ownership. The most statistically significant factor, not in size but in statistical merit, was whether a spouse worked for a wage, which had a negative relationship with starting a business. ,

often-blurry understanding of the mechanics of microfinance in the lives of the poor. They also show heterogeneity in impact depending on household characteristics, such as entrepreneurship.

After discussing the results of the study with Spandana, the research team and Spandana agreed to expand the impact evaluation across a longer time horizon. As mentioned earlier, the one hundred and four slums chosen for the original impact evaluation were re-visited less than two years after Spandana's expansion. Both the researchers and Spandana wondered whether many of the theorized impacts from access to micro-credit had not been captured during the initial study. The team plans to re-visit the same Hyderabad slums three to four years after Spandana's arrival. Work on *Spandana Part II* is currently at a conceptual stage though surveying is expected to begin in early 2010.

About the Centre for Micro Finance

The Centre for Micro Finance (CMF) was established in 2005 to help answer fill critical knowledge gaps in understanding how financial services and products such as credit, savings, insurance and pensions can be best used to fight poverty. Questions that remain unanswered include: Which financial products have the most impact on the lives of those who take them up? Does micro-health insurance mitigate the health shocks faced by poor households and enable income and consumption smoothing? Can the impact of microfinance be enhanced by adding non-financial programmes such as business training and health education? How can we ensure that the poorest are not left out?

By conducting cutting-edge research on the most pressing issues in microfinance, serving as a central repository for global microfinance research with a focus on India, and interacting with practitioners, NGOs, and policy makers, the Centre aims to catalyze the development of microfinance in India. Towards this goal, the Centre facilitates a process where research questions emerge from the local policy context and policy and programmatic decisions are guided by research outcomes.

Once knowledge gaps are identified, CMF collects necessary information through research. Depending on the types of information the research project seeks, CMF conducts experimental research involving large sample households, qualitative studies, case studies, and desk research and/or stakeholder interviews.

CMF undertakes qualitative and quantitative research in four broad areas:

- **Credit and savings:** Helping design and measure the impact of credit and savings products to better understand the component of these products that most benefit clients or MFIs.
- **Insurance and innovative financial products:** Experimenting with, and testing the impact of innovative variations of existing and new products, to improve the diversity and the quality of financial services for the poor, and to understand which product variations have the highest impact.
- **Microfinance "plus"**: Studies on the provision of non-financial services: Helping design and measure the impact of add-on non-financial interventions such as health education and business training, and understand to what extent they enhance the impact of microfinance.
- **Sector wide and policy issues:** Examining how state-level or sector wide decisions such as microfinance regulations or the creation of a credit bureau affect the sector, and also inform and facilitate these policy debates.