

Why RCTs failed to answer the biggest questions about microcredit impact*

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Abstract

If there was ever an economic debate that randomized controlled trials could help resolve, it seemed to be the debate over the average economic and social impact of microcredit. When the first RCTs were published in 2015, they undermined beliefs in the potential to reduce mass poverty through microcredit, cutting through years of methodological debate. In retrospect, however, the studies reveal challenges in drawing inferences across RCTs. By design, the studies focus on marginal customers and marginal locations. As a result, the RCTs are most interesting and informative on their own terms and in their own idiosyncratic contexts. While it is tempting to interpret the results broadly, the studies were never designed to measure the average impact of microcredit. Ultimately, the RCTs shifted views on the possibilities for expanding microcredit and generated valuable insights, but they also showed that a diversity of methods—from RCTs that explore other margins to ethnography and financial diaries—is required to assess the sector’s overall contributions.

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Why RCTs failed to answer the biggest questions about microcredit impact

Jonathan Morduch

If there was ever an economic debate that randomized controlled trials could help resolve, it seemed to be the debate over the impact of microcredit. Muhammad Yunus had sold the idea of microcredit with a salesman's flair. He depicted transformative impacts brought by Grameen Bank – of businesses that grew, of poverty escaped, and of power shifted to women. Yunus's claims were especially plausible in the 1980s and 1990s when economists' understandings of poverty leaned heavily on models of credit market failure.

In 2005 the United Nations held a Year of Microcredit, and in 2006 Yunus and Grameen Bank were awarded the Nobel Peace Prize. Yet scholars were far less certain. When assumptions were prodded, early empirical studies that had shown big impacts of microcredit on borrowers' consumption fell apart. Newer empirical studies showed limited impact of microcredit on poverty and average levels of household consumption (Armendáriz and Morduch 2010). Qualitative research by sociologists showed that gender dynamics within households were more complex than suggested by simple invocations of “female empowerment.” Meanwhile, economists at Ohio State led a vocal group of skeptics who questioned Yunus's claims while re-branding microcredit as “micro-debt” (Morduch 1999).

All of this created a fundamental puzzle: If microcredit was not clearly creating large, positive impacts, why were poor people continuing to borrow—especially when they were paying relatively high interest rates, year after year? Were Yunus's claims too bold, or were economists asking the wrong questions or looking in the wrong places?

The January 2015 special issue of *American Economic Journal: Applied Economics* was thus an important moment, both for RCTs and for microcredit. The issue collected six RCT-based studies of microcredit and a summary article. Together, they appeared to undermine claims about the potential to reduce poverty through microcredit, cutting through years of methodological debate. For RCTs, it was a triumphant demonstration that experimental evidence could disrupt popular beliefs. For microcredit, it was a blow. The studies reinforced doubts about Yunus's claims and other narratives that had driven public support.¹

Five years later, however, the challenges of using RCTs to assess microcredit impact are now more apparent.² Each of the six RCTs is interesting and informative on its own terms, but when taken together they can say less than was hoped about the biggest questions: On average, have Grameen Bank and others like it made an appreciable difference in the economic and social lives of customers? Have regional poverty rates fallen thanks to microcredit? Should banks like Grameen be started elsewhere?

The six studies appeared to answer these questions with a clear no, but those were not the questions asked by the six studies. Instead, by necessity the six studies measured a particular facet of impact—the impact on customers affected by microcredit expansions. The studies focused on “marginal” customers whose profiles, locations, and impacts could be very different

¹ The six studies are not the last word. A subsequent RCT evaluation of village credit programs in China finds strong positive impacts on household income (Cai et al 2019). Experimentation in the spirit of Field et al (2013) shows that redesigning microcredit can increase impacts on microenterprise profit. Bédécarrats et al (2020) provide a thorough critique of the six *AEJ* studies, pointing to issues involving low statistical power, inconsistencies with sampling, data collection problems, and questionable interpretation. Collins (2009) argue that, counter to Yunus, microfinance is valued by many customers as a general source of liquidity rather than as a source of business finance.

² Policy discussions of the studies skimmed over methodological equivocations and caveats, but Banerjee et al (2015b) surface many of the concerns described here.

from those of the long-term, “infra-marginal” customers who were the first to be targeted by lenders. As Banerjee et al (2015b, p. 3) write: “... these studies have nothing to say about impacts on *inframarginal* borrowers. It may well be the case that impacts are substantially different on the borrowers and/or communities already being served before the lenders in these studies began experimenting on the margin.” Wydick (2016) notes that “...in the case of microfinance, there is good reason to expect that potential outcomes of early adopters exceed those of the later marginal adopter. What this implies is that even as these recent studies may yield unbiased estimates of impacts on the external margin, collectively they are likely to understate the average impacts of microfinance more generally, although to what degree it is difficult to ascertain.”

Impacts on marginal borrowers are important when deciding whether to expand existing microcredit institutions to serve new borrowers. The fact that the RCTs found only weak evidence of impacts at various margins needs to be taken seriously by microcredit advocates. Still, it leaves the big question unanswered: How well has microcredit met its overall promise?

The studies illustrate a broad challenge for RCTs in development economics. Microcredit programs are generally well-suited for randomized evaluation: they tend to be narrow and self-contained, provide relatively simple private services, and usually operate as nonprofits or social businesses. All the same, the studies show that it takes work to find places and times in which experimentation is feasible and ethical—and where a partner is willing to follow experimental protocols. Researchers and their partners have been creative in spotting opportunities to randomize, though the process can push research toward the margins.

Of the six *AEJ* studies, four rely on randomization of the order in which microcredit lenders enter new locations. In Banerjee et al (2015a), for example, Spandana, a rural-based

lender, was entering the city of Hyderabad for the first time (alongside other microcredit lenders). Their entry created an opportunity to randomize, although not in Spandana's core rural geography. The researchers took advantage of randomly-created differential access to microcredit, recognizing that the control group had microcredit access too (mainly from other lenders): 12-18 months after the baseline survey, 18.3% of the control group had microcredit loans versus 26.7% of the treatment group. Two years later, both groups had similar access to microcredit (33.1% of each sample), though the treatment group borrowed more by volume (6344 rupees on average in the treatment group and 5544 in the control; Banerjee et al 2015a, Table 2). The study thus identifies the impact of bringing additional microcredit into parts of Hyderabad, noting that the "marginal clients may be different from the first clients to borrow in the area" (Banerjee et al 2015, p. 35). The study identifies interesting parameters, though not the average impact of microcredit in Hyderabad.

Other results are drawn from other margins. In Angelucci (2015), a lender was expanding in Sonora State in Mexico after a long period of conflict and violence, but the market was already fairly saturated with credit: at baseline 10% of the treatment group had microcredit and 29% had formal bank loans. In Bosnia-Herzegovina, saturation was a larger concern and over-indebtedness was a recognized problem: 41% of the treatment group had microcredit at baseline and 44% had a formal bank loan (Augsburg et al 2015). The empirical strategy involved sampling microcredit applicants who had been rejected by the lender EKI based on their low credit scores. The treatment group was formed by randomly selecting some to get access from EKI anyway. They are thus especially atypical borrowers. Putting possible ethical issues aside, it's useful to see how these borrowers fared, but it's unclear what their outcomes can say about more typical borrowers. In Morocco, in contrast, the lender was entering a new area where,

partly for cultural and religious reasons, take-up rates were ultimately below 20%, weakening statistical power and leading to different kinds of questions about how typical the borrowers were (Crépon et al 2015, see also the qualitative study by Morvant-Roux et al 2014).

In their variety and particularity, the microcredit studies are most valuable in isolation, where the precise nature of what is being estimated—the context, the RCT design, and the nature of the margin affected by the treatment—can be understood and weighed.³ Perhaps unintentionally, the RCTs demonstrate why a diversity of methods—from RCTs that explore other margins to financial diaries and ethnography that provide context—is required to understand the experience of microcredit. We’ve learned a lot through new RCT-based research (Ogden 2017), and the 2019 Nobel Prize in Economics is much-deserved—but we learn most from studies when we’re clear about what we see and cannot see.

³ Meager (2019) demonstrates the value of viewing the microcredit RCTs using Bayesian methods. Her study complements close analysis of the independent studies since the “average impact” she studies is necessarily the average across disparate margins.

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