Testing for Peer Screening and Enforcement in Microlending: Evidence from South Africa

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Sector(s): Finance

Fieldwork: Innovations for Poverty Action (IPA)

Location: Clairwood, Durban, Pietermaritzburg, Pinetown, and Richard's Bay, KwaZulu-Natal

Sample: 4408 borrowers

Target group: Urban population

Outcome of interest: Credit balance/repayment

Intervention type: Credit Monetary incentives

AEA RCT registration number: AEARCTR-0000327

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Partner organization(s): Gates Foundation

The microcredit model, in which individuals are liable to a group, has been tremendously successful in extending credit to people experiencing extreme poverty. Yet individuals may also be able to select creditworthy peers and hold them accountable to repay their loans. In South Africa, researchers evaluated whether people have enough information to identify reliable borrowers among their peers and if they can help enforce loan repayment. They found that when given incentives, peers were not effective at screening for creditworthiness, but they were effective at enforcing peer repayment and reducing default.

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Without collateral or credit history, it can be difficult for low-income individuals to gain access to credit through traditional channels, because lenders often impose restrictions on borrowing when they have limited information about a person's ability to repay a loan. One way that lenders try to reduce the risk of lending to low-income individuals is by using peer intermediation to help identify reliable borrowers and enforce loan repayment. Group lending, where the possibility of future loans for a group of borrowers is contingent on everyone in the group repaying, is one example of this. However, little is known about the channels by which peer networks influence repayment behavior. For example, in group lending models it is not always clear whether peers pressure other members into repaying, or whether they screen out unreliable individuals beforehand to ensure that potential group members are reliable. Peer intermediation may also be effective under individual liability programs, where banks hold individuals rather than groups accountable for repayment. More empirical research is needed to determine whether and how peer mechanisms can help lenders extend credit to the poor.

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Opportunity Finance South Africa, a for-profit micro-lending institution, is among the largest microfinance institutions operating in South Africa with over 3,000 active borrowers. They offer small, high-interest loans with a fixed monthly repayment amount to low-income borrowers in Kwazulu Natal province, where nearly 50 percent of people live in poverty and over 30 percent are unemployed. During the time of the study, average loan size was around US$400, and having a documented, steady job was a necessary condition for receiving a loan.



Surveyor talks to microcredit client in South Africa

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Researchers partnered with Opportunity Finance South Africa to test its Refer-A-Friend program, which offered existing clients the opportunity to receive a bonus for referring a friend who met particular criteria. In order to test whether people have information about the reliability of their peers and can enforce loan repayment, referrers were randomly divided into two groups, each of which received a different set of incentives.

1. *Screening Incentive Group*: Referrers in the first group received a bonus if the person they referred was approved for a loan. As a result, they had an incentive to screen for candidates who were likely to get approved for a loan based on observable characteristics.

2. *Screening and Enforcement Incentive Group*: Referrers in the second group received a bonus if the person they referred was approved and subsequently repaid the loan on time. They had an incentive to both screen for creditworthiness and encourage repayment.

The 4,408 existing clients who were given the opportunity to make a referral ended up referring a total of 430 people, of whom 245 were ultimately approved for a loan. Existing clients could earn US$12 for referring someone who was subsequently approved for a loan and/or repaid a loan, while those referred earned US$5 upon approval.

Group	**Before loan approval**	**After loan approval**
Group 1a	Screening incentive	No change
Group 1b	Screening incentive	Enforcement inventive added
Group 2a	Screening and enforcement incentive	Enforcement inventive removed
Group 2b	Screening and enforcement incentive	No change

Once the referrals were approved, researchers introduced a second stage of randomization, which changed the initial set of incentives that referrers faced. Half of the referrers in Group 1 were offered an additional bonus of US$12 if the person they referred repaid the loan, thus introducing an enforcement incentive with the potential to double their total bonus. Incentives remained unchanged for the other half of Group 1. Among referrers who were originally in Group 2, half received a bonus as soon as their referee's loan was approved, thus removing the original enforcement incentive. Incentives remained unchanged for the other half of people in Group 2.

Researchers measured screening and enforcement effects by comparing repayment performance and default rates of loans referred by people facing different incentive structures.

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Researchers found that referred clients were 32 percentage points more likely to be approved for a loan than drop-in clients, from a base of 23 percent. However, incentives for peer screening did not significantly improve repayment rates, suggesting that, relative to lenders, peers did not necessarily have better information about the creditworthiness of people in their network.

Incentives for peer enforcement, on the other hand, did have a significant impact on various measures of repayment performance. The enforcement effect, generated by the incentives that referrers faced after loan approval, significantly improved referees' loan performance by reducing late repayment, increasing the likelihood that the loan was repaid in full at maturity, lowering the proportion of the principal still owed at maturity, and reducing the number of loans that lenders deemed unrecoverable. On the whole, the enforcement effect reduced default rates by between 9 and 19 percentage points. This suggests that peers can be extremely effective in enforcing repayment, and even small incentives create social pressure that can lead to large reductions in default.

This study shows how referral programs offer one way of identifying and isolating the often unobservable effects of peer selection and peer enforcement. Results suggest that peer enforcement can have large effects on individuals' repayment behavior, while peer selection may only be partly effective at generating information that banks can use to make lending decisions. The research methods employed can serve as guidance for lenders, demonstrating how to build into operations low-cost testing to learn more about using peers to bring in new clients, and reduce risk.

Gharad Bryan, Dean Karlan, and Jonathan Zinman. 2014. ‰ÛÏReferrals: Peer Screening and Enforcement in a Consumer Credit Field Experiment.‰Û American Economic Journal: Microeconomics, Forthcoming.