Private Enterprise Development in Low-Income Countries

Optimizing Network Referrals to Identify and Recruit Creditworthy Entrepreneurs

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Microfinance lenders make limited credit offers because of operational challenges of extensive screening and selection process. We study if optimizing a referral protocol can be used to recruit good entrepreneurs and thus increase access to credit.

Background

The traditional microfinance model offering small loans to groups of borrowers with limited screening and no collateral because of joint liability has been extraordinarily successful at scaling and spreading around the globe. However, a wave of recent studies has shown that while microfinance does encourage business formation, any overall impacts on business profits are modest at best. Banerjee et al. (2015) suggest that the modest average effects mask predictable heterogeneity in the returns to microfinance and that improved screening may help direct credit towards more productive borrowers.

Microfinance institutions (MFIs) are offering credit to include larger, individual liability loans with more extensive screening. However, they face several difficulties. First, entrepreneurial ability is difficult to observe and measure, leading to relative conservatism in the assessment of potential applicants. Second, they do not receive nearly the volume of applicants they hope to. In part, this is because their sales representatives/loan officers face a tradeoff between on-the-ground in-depth background checks for any potential applicant and conducting widespread marketing for their product. We seek to address both of these concerns by optimizing a referral protocol to identify the good entrepreneurs.

Referrals protocol

This study was conducted in partnership with a MFI operating in India. The research design of this study included listing of 10 businesses randomly selected in a market and asking three other seeds[1] (people) in the market (2 random people and 1 central person[2] in market network) to refer businesses from the list for a MFI loan. The more central individuals are in a market results in both them being better connected and had more information about others' creditworthiness and entrepreneurial capacities compared to the random individuals.

The treatment was classified on the basis of referees' information sharing with the business unit referred. In half of the sampled villages, the seeds were informed that their referral will know about the referee when approached by the MFI.

Table1: Sample distribution

Treatment	Bonus[3]	No-Bonus	Total
Private[4]	2,280	2,250	4,530
Public[5]	2,190	2,280	4,470
Total	4,470	4,530	9,000

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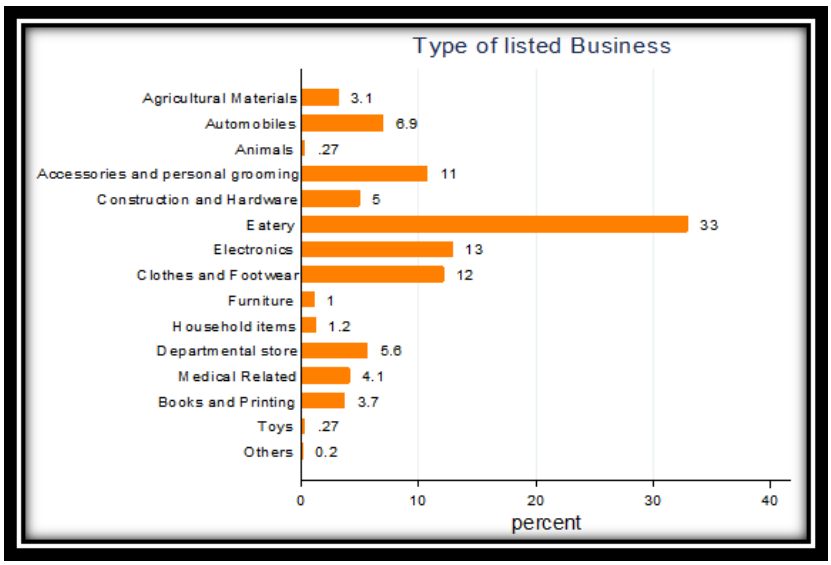
[1] The term SEED has been used because we used the same process to identify the central (gossip) and other random people in the market as in the referred paper.
[2] It uses the methodology as discussed in Chandrasekhar et al., 2016. Gossip: Identifying Central Individuals in a Social Network.
[3] In Bonus group: fixed amount is paid to the respondent for each person that they refer for a loan.
[4] Private: the respondents are informed that the information they provide will be kept private.
[5] Public: the respondents are informed that the MFI will publicly reveal their referrals.

Figure 1: Business distribution

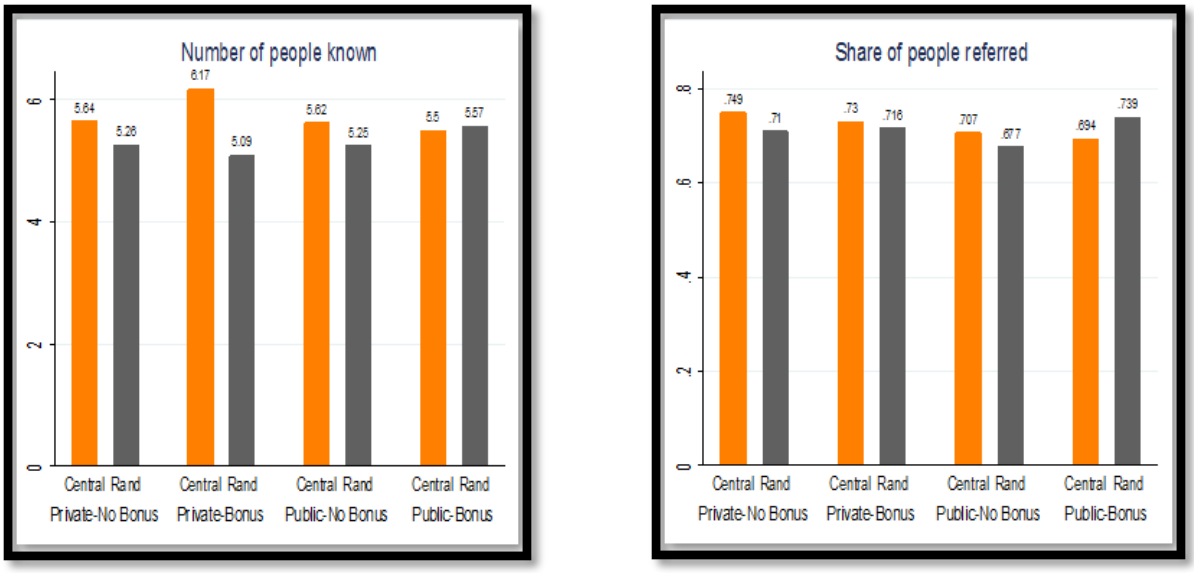


In the other half, the seeds were informed that the information they provide will be kept private. Additionally, in half of the villages, a fixed amount was paid to the seed for each person that they refer for a loan, while the other half did receive any incentive.

Patterns in the sample

The micro and small business ownership continues to be dominated by men with women owners consisting of only 3.07% of the respondents. 59.63% reported at least one instance of being unable to fulfil their basic consumption in the past 3 months. The business which was used for study includes typical small and micro entrepreneurs who could be the potential clients of Microfinance standard loans. The figure reflects the distribution across different businesses including trading and service. The highest percentage (33%) of sample is from small to medium restaurants and mobile tea stalls. The random individuals (present in the market networks), who were surveyed about the listed business, were also representative of the business in the sample village.

Figure 2: Number of people known and share of people referred



Central seeds know, on average, more individuals on the 'referral list' as compared to the random seeds (see Figure 2 above). While the central seed know on average 5.73 individuals from the list, the random seeds know on average 5.29 individuals[6]. From the people they know, the central seeds refer a slightly higher share (71.9%) as compared to the random seeds (71%). The highest share of people referred from the people known is in public-bonus (72.3%) while the lowest share of people referred is in public-no Bonus 68.6%.

[6] These averages are significantly different at 5% level after controlling for market size (i.e. number of shops in the market).

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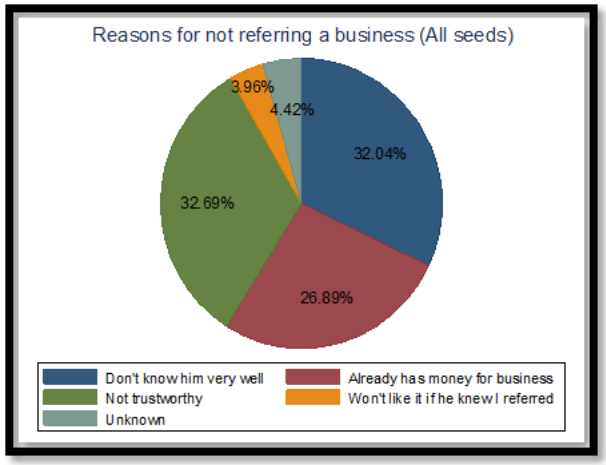
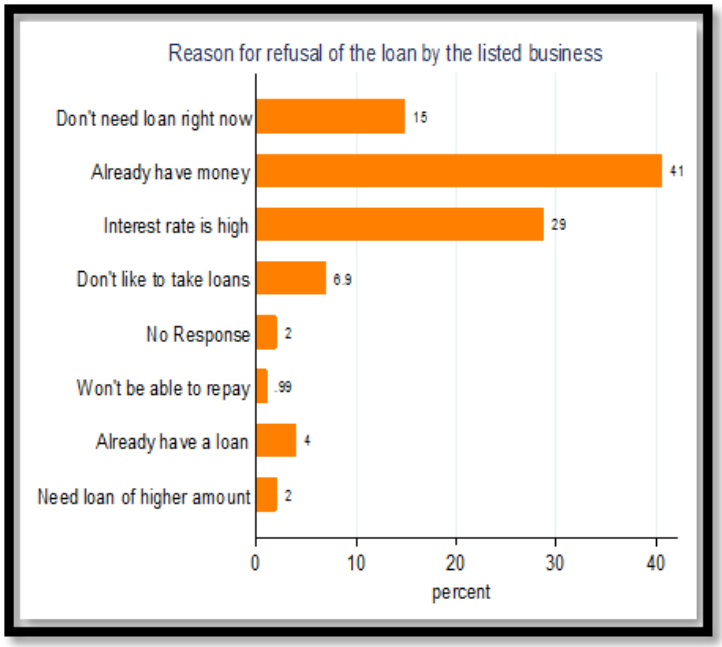
Figure 3: Reasons for not referring



The most common reasons sighted for not referring a listed business is either lack of information about that business's performance or contrarily lack of trust in the community (Figure 3). Access to such information is very useful for a loan officer (representing the lender) so that the quality of application can be judged on this. Also the number of people identified using this less time taking process can lead to higher number of applications than being found by the loan officer's limited effort because of time constraints.

In 21 markets, a follow-up was conducted with the listed businesses and the MFI loan was offered to those who were eligible and interested. Only 21% of those approached were interested in the loan in within the next 3 months. 19.5% were not eligible for the loan because either the owner of the business was not married (no female as co-borrower applicant), or they lived in a rented accommodation, or they sold meat/alcohol[7]. The remaining 59.5% of the listed businesses in these markets were not interested in the loan. The most common reasons were individuals already had the money they needed to run their business or they found the interest rate offered by the MFI to be too high (Figure 4 below).

Figure 4: Reason for refusal of the loan



Policy implications

Joint liability microfinance has been an encouraging tool for channelling credit to the smallest businesses without requiring much information. However, more innovation is needed in order to reach the large swath of firms too large for microfinance, but too small to receive sufficient financing from the traditional banking sector.

This study investigates ways in which financial institutions can use alternative sources of information generated from the social network and the supply chain to make screening and lending for small and medium enterprises (SMEs) more feasible and profitable.

There has been a growing interest in being able to better identify creditworthy individuals to receive SME loans. Without being able to do this, SME loans will be too conservative by design. At the same time, a broader discussion in development economics has considered community driven development: the idea that the community may contain more information than the practitioner, and this can be important in screening and targeting. The latter immediately falls into the domain of network economics: which members of a community have the best information and how can it be conveyed into for policy?

[7] All are eligibility criteria for granting loan to individual business.

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Moving Forward…

The effort of screening quality loan applications and identifying potential borrowers can be very tedious and time consuming. Our proposed low-cost referring mechanism is easily exportable and can be used by other financial institutions to refine the process of recruiting good entrepreneurs for loan.

The low-cost referring mechanism can also be complemented with people's perception of debt in neighbouring area and see if there are still areas with high potential entrepreneurs and credit need. There is still scope to scale this intervention and validate the quality of referral from the actual loan disbursal and follow up of repayment behaviour. The results of the findings are directly applicable to other contexts (e.g. the job market) and it can be easily scaled-up.