Graduating Microenterprises to SME-Level Credit in Egypt

Abstract

Evidence suggests that microloans often fail to improve outcomes for borrowers, but providing micro-enterprises with larger loans may be more effective in helping them grow, while increasing business opportunities for microfinance lenders and reducing poverty. Identifying the most promising businesses to provide with these loans, however, is a barrier for financial institutions. In Egypt, researchers worked with the Alexandria Business Association (ABA) to evaluate the impact of providing qualifying microfinance clients with larger-than-usual loans, and used machine learning methods to examine the loans' impacts on different groups of borrowers. The larger loans had small average impacts on business outcomes, but had large benefits for "top-performer" borrowers and left "poor-performer" borrowers worse off.

Policy Issue

Previous research in low- and middle-income countries (LMICs) has found that microcredit often fails to substantially improve borrowers' income or social well-being.[1] However, less evidence exists on the impact of larger loans. In theory, if the size of a microloan is too small to improve firm performance, then a larger loan could potentially help microenterprises and microfinance institutions grow. From the perspective of the borrower, lack of capital can impede investment, businesses growth and employment, so providing entrepreneurs with larger loans could support expansion of their business. Lenders, meanwhile, could increase their own profits by making larger loans, but have limited information about which enterprises are likely to benefit from such loans. This lack of information presents a risk for both lenders and borrowers: if lenders identify the wrong enterprises for large loans,

recipients will be more likely to default and generate less profit. However, little evidence exists about the quality of lenders' decision-making.

Context of the Evaluation

Micro, small, and medium enterprises (MSMEs) play an important role in the Egyptian economy, with around 3.6 million firms employing a large proportion of the country's workforce.[2] Like many LMICs, Egypt's credit market contained a "missing middle," wherein microfinance institutions typically offer maximum loan amounts of around EGP 5,000 (US$280), while banks' minimum loan sizes typically start around EGP 50,000 (US$2,800).

This study's participants were borrowers at an Egyptian microfinance institution, Alexandria Business Association (ABA). At the time of the study, ABA provided microloans of between EGP 1,500 (US$115) and EGP 100,000 (US$7,660) to microenterprises and small businesses with fewer than 15 employees. ABA had over 400,000 borrowers, fewer than 1 percent of whom had loans larger than US$1,000. Prior to the study, participants' businesses averaged about EGP 6,800 (US$525) per month, and their average loan size from ABA was EGP 7,540 (US$580).

Details of the Intervention

Researchers worked with ABA to conduct a randomized evaluation of providing qualifying microfinance clients with larger-than-usual loans on borrowers' business outcomes. Borrowers who applied for a larger loan were randomly assigned either to a group receiving four times the amount of their last loan, or two times their last loan. The two-times group served as the comparison group; under "business as usual," eligible borrowers would normally only receive a loan of 1.5 times their last loan.

The research team conducted an initial in-person survey upon borrowers' enrollment in the study and assignment into program and comparison groups. One part of the initial survey collected standard data on borrowers' characteristics and their businesses (profits, revenue, expenditures, the number of employees, and their wages). Researchers conducted two follow-up surveys on these outcomes with borrowers, 20 and 30 months after the initial loan disbursements, on average. The survey included psychometric questions meant to characterize borrower personality traits. The research team also collected administrative data on borrowers' financial behavior from ABA, and surveyed ABA loan officers about their expectations regarding borrowers' businesses and loan performances.

Using machine learning methods, the researchers grouped study participants into four quartiles to identify differences in average treatment effects between "top-performers" (business in the top quartile of profit gains) and "poor-performers" (the bottom quartile).

Results and Policy Lessons

Large loans did not increase profits among study participants, on average, but top-

performers' profits improved. Among the top quartile of performers, those who received large loans had profits 55 percent higher than those who received smaller loans, and also experienced higher wages, productivity, and household expenditures.

Loan officers perceived top-performers as risky borrowers, and they did not outperform poor performers when they received small loans rather than large ones. Loan officers believed that large loans would increase the chance of default more for top-performers than for poor-performers, on average. This result suggests that prior business performance may not be an effective predictor of potential with larger loans.

Poor-performers' profits suffered when they received large loans. These borrowers experienced a 52 percent decrease in profits, relative to their peers in the comparison group, even though they outperformed top-performers when they received the smaller loans. This result, in the context of participants' psychometric responses, suggests that entrepreneurs in this group may tend to have a "go-getter" attitude that allows them to grow their businesses quickly with low levels of credit, but that encourages excessive risk with larger amounts of credit.

Psychometric data may help firms decide where to distribute loans more effectively. Results suggest that personality characteristics of the entrepreneur may help lenders allocate loans more effectively than more commonly-used data focused on firm characteristics.

Sources

[1] Banerjee, A., D. Karlan, and J. Zinman (2015): "Six randomized evaluations of microcredit: Introduction and further steps," American Economic Journal: Applied Economics, 7, 1–21; Meager, R. (2019): "Understanding the average impact of microcredit expansions: A bayesian hierarchical analysis of seven randomized experiments," American Economic Journal: Applied Economics, 11, 57–91.

[2] Egypt Ministry of Planning and Economic Development, "Egypt's 2021 Voluntary National Review," United Nations Development Programme (2021), 46. https://sustainabledevelopment.un.org/content/documents/279512021_VNR_Report_Egypt.pdf.

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