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Discrimination and Access to Capital: Experimental Evidence from Ethiopia

This practitioner brief draws insights from the following research project supported by the Small and Growing Business (SGB) Evidence Fund. The SGB Evidence Fund, a partnership between the Aspen Network of Development Entrepreneurs and the International Growth Centre, supports collaborations between researchers and practitioners to understand the most effective ways to support SGBs and the economic and social impact of SGB growth.

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- Study Location: Ethiopia
- Link to Full Paper: The most recent version is accessible here.

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About the Issue

Access to capital is crucial for fostering entrepreneurship, fueling business growth, and enhancing productivity.[1] Unfortunately, female entrepreneurs in developing countries face significant challenges in securing formal financial support and make lower profits than male entrepreneurs.[2] In many cases, the disparity is only partially accounted for by the differences between male and female entrepreneurs.[3] If investors are biased against female-owned businesses and evaluate them poorly, hinder their access to capital, and consequently hamper their overall performance and success, investigating the presence of gender bias among loan officers and other funding providers becomes imperative.

While the evidence on the gendered investment gap is well documented, there are scant evidence-based studies investigating whether the disparity arises from investor bias or not. A lab-in-the-field experiment in Turkey fails to find evidence of gender discrimination in loan approvals,[4] though consumer credit decisions by loan officers in Chile were found to discriminate against women.[5] Authors Shibiru Ayalew, Shanthi Manian, and Ketki Sheth build on these studies by implementing a large-scale field experiment in a high-stakes natural context to identify whether loan officers exhibit discriminatory behavior in capital allocation decisions for businesses in Ethiopia, the key margin of interest for understanding discrimination in capital and the gender profit gap.

Ethiopia is a particularly relevant case as men are more likely to secure loans and obtain significantly larger loan amounts compared to women.[6] Due to the prevalent gender gap in financing, the case is expected to support the hypothesis and reveal investors' discriminatory behavior against women founders. As Ethiopia is the "most likely case" to support the hypothesis,[7] discriminatory behaviors

1 Blattman, C., et al. 2014. Generating skilled self-employment in developing countries: experimental evidence from Uganda. The Quarterly Journal of Economics, 129(2): 697–752.

2 Buehren, N., et al. 2019. Ethiopia gender diagnostic report: priorities for promoting equity (English). Washington, D.C.: World Bank Group; Hardy, M. & Kagy, G. 2020. It's getting crowded in here: experimental evidence of demand constraints in the gender profit gap. The Economic Journal, 130(631): 2272–2290.

3 Buvinic, M. 2018. The clock is ticking on financial inclusion and a focus on women can help. Center for Global Development.

4 Brock, M. J., & De Haas, R. 2019. Gender discrimination in small business lending: evidence from a lab-in-the-field experiment in Turkey. European Bank for Reconstruction and Development Working Paper 232.

5 Montoya, A. M., et al. 2020. Bad taste: gender discrimination in the consumer credit market. Inter-American Development Bank Working Paper.

6 Buehren, N., et al. 2019. Ethiopia gender diagnostic report: priorities for promoting equity (English). Washington, D.C.: World Bank Group

7 Sartori, Giovanni. 1991. "Comparing and miscomparing." Journal of Theoretical

are not likely to be observed in other cases that are less likely to support the hypothesis.

Study Design

To examine discriminatory behavior, the researchers partnered with the Entrepreneurship Development Institute (EDI), a primary agency in Ethiopia dedicated to fostering entrepreneurship and bolstering economic growth, with a specific focus on supporting women entrepreneurs. A core objective of the EDI is to enhance financial access for aspiring entrepreneurs. In conjunction with the EDI, the researchers implemented a large-scale field experiment in the context of a business plan competition hosted by EDI called EthioSpur, which aimed to provide capital and other awards to promising businesses. This collaborative effort served as a platform to investigate whether financial providers discriminated by gender when evaluating entrepreneurs for capital.

In order to ensure that the competition was widely accessible to the public, the competition was advertised at a national scale through social media, SMS messaging, and targeted outreach conducted by EDC staff. Furthermore, the application form was thoughtfully designed to be user-friendly and available in multiple languages. As a result, the program received a total of 910 applications used in the analysis of this study.

Financial providers from various lending institutions, such as banks and microfinance institutions, were recruited to assess competition participants' applications. It is important to note that these financiers regularly engage in making crucial decisions regarding capital allocation through loan processes within the financial industry. A total of 83 financial providers from 13 different financial institutions were enlisted as judges to evaluate the 910 actual businesses that had applied to participate in the business plan competition for this study.

Each of the 910 real business applications was evaluated multiple times by different judges. Each time the application was evaluated, the researchers randomly assigned the gender of the business owner listed on the application. Each applicant was evaluated at least once as each gender, for a total of 3,696 evaluations. The median number of applications a financial provider evaluated was 48, and the median number of times an application was reviewed was 4 times. Each application was randomly assigned to a financial provider for evaluation. Thus, each judge received application forms where the gender of the

Politics (3)3: 243–257.

applicant was randomly assigned, which coincided with the real gender in some copies but showed the opposite gender in other copies.

The financiers then proceeded to evaluate the applications using an assessment form divided into four sections.[8] Judges filled in their overall score for a business to determine the prize winners of the competition in the last section (section D). Additionally, financial providers were given the opportunity to request for applicants' information to be forwarded to their institution for potential loan consideration. If investors discriminate against women, the score is expected to be lower, and investors are less likely to forward the application to their institution when the business owner's gender is shown as being a woman rather than a man.

Results

The experimental study showed no evidence that financial providers discriminate against businesses owned by women, specifically:

- Financial providers were likely to evaluate businesses that were displayed to be owned by women just as highly as those businesses indicated to be owned by men for capital allocation.
- Loan officers were equally likely to recommend businesses when the owner was randomly portrayed as female as those that were randomly assigned as male.

The estimates also had very tight confidence intervals, meaning that most financiers exhibited a similar pattern and evaluated businesses described to be run by women applicants as highly as those of men.

- Financial providers predicted businesses shown to be owned by women to perform just as highly as businesses portrayed to be run by men in the future. The performance was measured as expectations about the business's survival, profitability, assets, and the number of employees in 18 months.[9]
- Financial providers were more likely to assign high scores and forward applications of businesses that they anticipated to perform well in the future.

In summary, the evidence does not support the existence of gender discrimination in loan officers' behaviors, which is consistent with

8 Judges were required to confirm the basic demographics of the applicant in Section A to provide a prediction of the business's future performance in Section B and to offer their beliefs regarding the business owner in Section C.

9 Businesses owned by women had lower profits, on average, than businesses owned by men, but these differences were not large enough to meaningfully affect capital allocation decisions.

financial providers' predictions on women vs. men-owned business performance and the business's actual performance. There was no meaningful trade-off between gender equity and allocating capital to the highest-performing businesses.

Implications

This research by Ayalew, Manian, and Sheth raised an important question for the growing body of gender studies and gender-lens programs: women-led businesses struggle more with access to finance than their counterpart male-led businesses, but is this attributable to investors' bias? According to the research featured in this brief, the answer is no, at least not during the application review process in Ethiopia. This is an important question to ask because the diagnosis of how to close the gendered financing gap depends on where the problem lies.

While this study does not reveal any gender discrimination in the application review process, another study funded by the SGB Evidence Fund initiative, conducted by Miller and Lall, sheds light on investors' preference for businesses presented by men, suggesting several possible interpretations.[10] Miller and Lall's cross-country study, which focuses on early-stage businesses, discovered that both men and women investors are more likely to initiate a due diligence process on a business presented by a male founder rather than a female founder.

One possible interpretation is that gender discrimination may be a significant concern in contexts where investors lack access to information necessary for evaluating the business, such as in new ventures. Ayalew, Manian, and Sheth' study focuses on existing businesses applying for capital to grow their business, whereas Miller and Lall focused on early-stage businesses that may not have detailed information about the business's past performance.

Another possibility is that stereotypes and biases may influence investment decisions during human interactions, as seen in Miller and Lall's study, rather than during the application review process examined in Ayalew, Manian, and Sheth ' study. In such cases, entrepreneur support organizations should focus on how to remove investors' bias during the pitch and presentations rather than helping women entrepreneurs submit better-prepared applications.

Summary authored by SangEun Kim, Research Manager at the Aspen Network of Development Entrepreneurs.

10 See the knowledge brief for practitioners of Miller and Lall's study here.