Does phone-based heuristic financial training alter entrepreneurial behavior?

Experimental evidence from Ethiopia

[Preliminary results]

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Self-employment is important for women, but constraints prevail

- More women are attracted to self-employment opportunities than men in Africa. Half of women in the non-agricultural labor force are engaged in self-employment (World Bank, 2019).

- Women-owned firms often operate in low-return sectors and report significantly lower business earnings (de Mel, McKenzie, and Woodruff 2008; Alibhai et al., 2017; Bernhardt et al., 2019).

- Women entrepreneurs face a multitude of social, economic and regulatory constraints.
Skills-based interventions abound

— Classroom-based business training programs have been popular interventions (e.g., McKenzie and Woodruff, 2014; Cole et al., 2011; Bruhn and Zia 2013; Abebe et al., 2018; McKenzie 2021).
  o Mixed evidence on effectiveness, the importance of context specificity, trainer quality of training programs
— Emerging evidence points towards the benefits of simplifying training contents
  o Heuristics-based training programs could be more effective than traditional training programs (Drexler et al. 2014; Arraiz et al. 2019).
— We test Heuristics-based financial lessons delivered through mobile phone-based Interactive Voice Response (IVR) ➔ Part of GIL’s Innovations in Financing Women Entrepreneurs project.
An impact evaluation study

**Focus on:**
- Take-up
  - Training engagement and the likelihood of phone pick up
  - Comparison with classroom-based training programs
- Outcomes
  - Changes in financial behavior: financial practices, inventory management, and credit management.
  - Downstream effects on firm performance
Sources of data, estimation method and background characteristics

Survey
— The sampling frame for the study is a registry of Women Entrepreneurship Development Project (WEDP).
— Baseline survey collected between February – April 2021 and Follow-up survey between June – August 2022.
— Detail call logs and admin data from the VIAMO platform.

Estimation methods
— Impact estimated using ANCOVA and machine learning to identify covariates.
— We also test heterogeneity of impact across subgroups.
Overall take-up is decent

- **Two-thirds** of the women have received training certificates – high compared to other business trainings in Ethiopia.
- The average lesson completion rate is nearly **70%** while 84% of women who pickup the call finish the lesson.
- **97%** of the women have completed at least one lesson.
- Education, literacy, access to loans and business size matter for take up.

![Training take up across studies chart](chart.png)
Impact on primary and secondary outcomes

Primary Outcomes
• Both IVR and IVR + SMS have an impact on the financial practice scores.
  o 24 % increase in financial practice scores in the IVR group.
  o 13 % rise in financial practice scores in IVR + SMS group.
• Improvement in inventory management due to IVR but no impact of IVR + SMS.
  o 13.4% increase in inventory management score in the IVR group.
• No change in business practice and credit management scores.

Secondary Outcomes
• Increase in the probability of saving.
• No impact on business performance outcomes such as profits, sales and business size in the full sample.

*We see subgroup effects* – impacts are concentrated among unmarried women, women with higher education and women who own smaller than median businesses.
Further work

- Examine impact on business survival
- Explore impact on intermediary variables such as investment and borrowing
- Understand mechanisms to impact
- Conduct multiple hypothesis tests (q-values)
- Cost-effectiveness and potential for scale-up
- Plan for long term follow up
Thank you!
Any questions?