



# FROM LEARNING TO EARNING

## AN IMPACT EVALUATION OF THE DIGITAL OPPORTUNITY TRUST (DOT) ENTREPRENEURSHIP TRAINING

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### KEY MESSAGES

- **Business training programs are a popular intervention to support female entrepreneurs in developing countries.** However, evidence on whether business training can successfully and consistently increase earnings of these entrepreneurs is limited.
- **We find that the entrepreneurship training offered by the Digital Opportunity Trust to women entrepreneurs in Ethiopia had a significant, positive impact on profits.** Approximately one year after the training the entrepreneurs who were offered the training recorded 30% higher profits than the control group.
- **The channels through which training impacts profits remains elusive.** Our data shows no conclusive evidence that the trained entrepreneurs have better business practices, such as improved book-keeping or marketing. However for these entrepreneurs we find a positive effect on proxies for confidence and motivation, which suggests a change in mindset amongst those who participate in the training.
- **Entrepreneurship training of this nature appears to be a promising pathway for women entrepreneurs in Ethiopia to increase their earnings.** Our follow-up research aims to further illuminate the ways in which training can cause profits to increase, to explore the role of mindset changes, as well as to examine the sustainability of the increase of profits beyond a one year horizon.

Business and entrepreneurship training programs have become popular interventions intended to boost the profits of small businesses around the world. Despite their popularity, rigorous evidence on the impact of entrepreneurship training programs is thin. Indeed, a recent systematic review of published literature on entrepreneurship training noted that although entrepreneurship training programs are widely distributed and attended by tens of thousands of entrepreneurs globally, the majority of these programs have not yet been evaluated and thus their effects have not been verified<sup>1</sup>.

<sup>1</sup> Frese and Glaub, 2012.

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### GENDER INNOVATION LAB

The Gender Innovation Lab (GIL) conducts impact evaluations of development interventions in Sub-Saharan Africa, seeking to generate evidence on how to close the gender gap in earnings, productivity, assets and agency. The GIL team is currently working on over 50 impact evaluations in 21 countries with the aim of building an evidence base with lessons for the region.

The impact objective of GIL is increasing take-up of effective policies by governments, development organizations and the private sector in order to address the underlying causes of gender inequality in Africa, particularly in terms of women's economic and social empowerment. The lab aims to do this by producing and delivering a new body of evidence and developing a compelling narrative, geared towards policymakers, on what works and what does not work in promoting gender equality.

## SO WHAT TO DO ABOUT IT?

To provide evidence on the impact of business training on women-owned firms, the World Bank's Africa Gender Innovation Lab conducted an experiment to identify the effect of an entrepreneurship training program being offered to 400 women entrepreneurs. The training was provided by the Digital Opportunity Trust (DOT), a social enterprise that provides entrepreneurship training to clients of the Women Entrepreneurship Development Project (WEDP)<sup>2</sup> in Mekelle, Ethiopia. The DOT ReachUp! training program takes an innovative approach to entrepreneurship development, through a 120-hour course that helps inexperienced entrepreneurs to learn basic technology and business skills, and to foster the self-esteem and entrepreneurial spirit needed to build sustainable livelihoods.

## HERE'S WHAT WE DID

In October-November 2014 we collected baseline data on 800 female entrepreneurs in Mekelle who had previously registered for the WEDP program. 400 of these female entrepreneurs were randomly assigned to the treatment group and offered to participate in the DOT training immediately and the other 400 entrepreneurs were assigned to the control group and had to wait a minimum of 12 months before being offered the training. The first round of training was offered to the treatment group from January 2015 in half-day sessions over a period of 15 to 20 days at no cost to the participants, so that entrepreneurs could complete the training while continuing to attend to their businesses on a daily basis.

From January to March 2016, approximately one year after the treatment group was offered the training, the research team followed-up with 729 female entrepreneurs of the original sample. The results in this policy note are intention-to-treat (ITT) impacts, i.e. the impact of being offered training, using the midline survey data.

## HERE'S WHAT WE FOUND

### PROFILE OF FEMALE ENTREPRENEURS

The entrepreneurs in the study are a relatively homogenous group of urban, growth-oriented women entrepreneurs. The average age of women business owners in our sample is 33 years with 60% married and 68% having completed secondary school or higher. The average age of the business is 6.13 years and 54% of the sample is engaged in retail, 20% in café and restaurants and 7% in beauty salons.

### TRAINING TAKE-UP

Initial interest in business training was high (93% said they were interested at baseline) but actual take-up of the training amongst those who were offered was 52%, which is a fairly typical take-up rate found for other entrepreneurship trainings in comparable contexts.<sup>3</sup> Standard business performance indicators reported by those entrepreneurs who chose to participate in the training were lower at baseline compared to those reported by entrepreneurs who did not take-up the training amongst the treatment group. We find significantly lower measures of profits, revenues and digit-span recall (a proxy for innate ability). This selection into the training may suggest that women entrepreneurs who choose to take-up business training are those who believe they need more help with their business operations. Alternatively, the opportunity cost of attending a training program could be lower for these women, since their businesses are smaller and less profitable.

### TRAINING IMPACT ON BUSINESS PERFORMANCE

We find that profits are 30% higher for the entrepreneurs who were offered the training, compared to the control group.<sup>4</sup> We find no significant differences on other business performance measures such as the number of workers employed in the business or survival rate of firms.

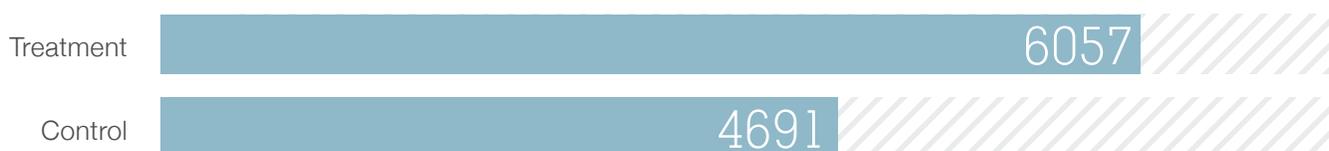
<sup>2</sup> The WEDP targets growth-oriented female entrepreneurs in Ethiopia and so our sample should not be deemed representative of all female Ethiopian entrepreneurs.

<sup>3</sup> McKenzie and Woodruff, 2012

<sup>4</sup> The difference in profits is significant at the 5% level using ANCOVA estimation with single baseline and follow-up survey.

## PROFITS OF FEMALE FIRMS AFTER THE TRAINING

### PROFITS PAST MONTH (ETHIOPIAN BIRR (ETB))



1 USD / 20 ETB

The data seems to suggest that the profit increase among the treatment group could be the result of increased sales and lower costs. However, individually the point estimates for sales and costs are not precisely estimated between the treatment and the control group and therefore we cannot prove this claim.

#### PATHWAY TO HIGHER PROFITS?

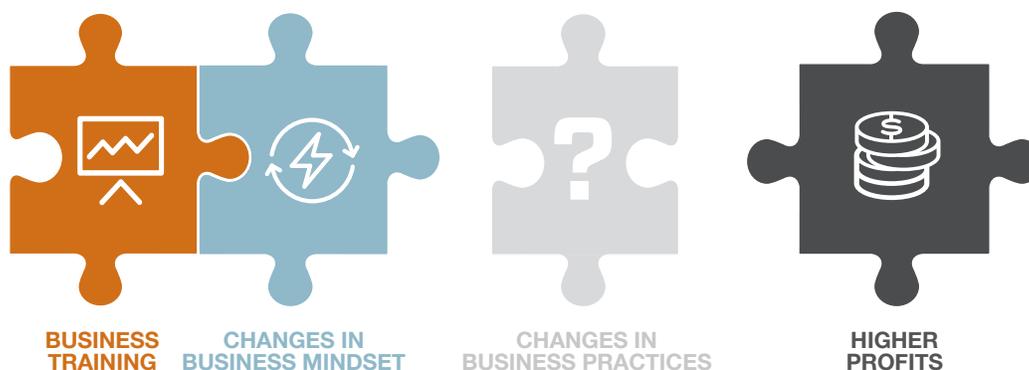
We explore a number of channels through which the DOT training could be working to improve profits. We find a change in some measures of attitude and mindset among the entrepreneurs but we do not observe changes to business practices or business knowledge. Therefore, it is difficult to precisely pin down how the changed business mindset is a pathway to higher profits.

More precisely, we find no statistically significant differences between treatment and control on these outcomes, for example, that the trained entrepreneurs keep better financial records, improve their marketing, or exhibit higher financial literacy. However, rather than impacting hard skills, the training seems to help entrepreneurs gain confidence and motivation, work harder, and take initiative to improve their business performance. Linking the missing piece of the puzzle of where the entrepreneur could be applying these skills in the business will be a focus of follow-up work.

#### MEASURING CHANGES IN BUSINESS MINDSET

We measure a change in business mindset by creating indices from a set of psychology statements to be used as a proxy for confidence and motivation. Although the magnitude of changes in the measures of non-cognitive skills are small, we find that entrepreneurs in the treatment group, relative to those in the control group, have higher index levels of self-efficacy, personal initiative and entrepreneurial locus of control.<sup>5</sup>

Entrepreneurs who are in the treatment group are more confident in their abilities. The trained entrepreneurs are more likely to report that they can overcome problems they encounter, and are more likely to feel that they are competent in managing their business well. In addition, the trained entrepreneurs appear to take more initiative, as a result of the training. They report that they do more than they are asked to, and that they are good at realizing ideas. Overall, the picture that emerges is that entrepreneurs who participate in the training benefit from an improved sense of confidence in their abilities, and are more motivated to improve their businesses.



<sup>5</sup> Self-efficacy index (Krauss (2003)); Personal Initiative index (Frese et al (1997)) and Entrepreneurial locus of control index (Levenson (1974))



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SELF-EFFICACY  
INDEX

- I perceive business opportunities well
- I negotiate with other entrepreneurs well
- I overcome problems when running a business
- I do the marketing of my business well
- I keep an overview of my financial affairs well
- I am competent to manage my business well
- I am competent to find financial capital for my business

ENTREPRENEURIAL  
LOCUS OF CONTROL  
INDEX

- I can pretty much determine the success of my business
- My example leads other to be better business people
- When others start their own businesses, it is because they take me as an example
- I can change the community around me with my business
- I can pretty much determine what happens in my environment
- I am sure that I can impact sales of my business
- I am certain that I can have a significant impact on society with my business

PERSONAL  
INITIATIVE INDEX

- Whenever there is a chance to get actively involved, I take it
- Usually I do more than I am asked to do
- I take initiative immediately even when others do not
- I actively attack problems
- I am particularly good at realizing ideas
- I use opportunities quickly in order to attain my goals
- Whenever something goes wrong, I search for a solution immediately

The treatment group reported higher levels for these three indices than the control group (Self-efficacy index and Personal Initiative index difference is statistically significant at the 5% level and Entrepreneurial Locus of Control is significant at the 10% level).

CONCLUSION

The preliminary results from this study confirm that a more innovative (non-cognitive skills based) type of business training can more effectively support women’s businesses. Additionally, participants of the DOT entrepreneurship training tend to be the lower performing businesses (measured by business profits), so reaching the higher performing businesses may require other training delivery mechanisms such as on-site consulting or coaching. This finding has particular relevance for those programs that are targeting specific types of entrepreneurs. Further research will rigorously examine the longer run impacts of the program and will attempt to uncover the missing piece of the puzzle of how entrepreneurs translate business training into business success.

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