

From own-account to employer: A randomized experiment to try and get microenterprises to hire workers in Sri Lanka



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Motivation

- Majority of self-employed work for their own account, with no paid employees.
 - Few microenterprises ever grow to the point of hiring employees.
 - BUT a sizeable share of larger firms began as own-account, and given the large number of microenterprises, this can be important source of job creation
- => We wish to investigate the role of policies to remove constraints to firms making this jump.



What determines firm size?

- Lucas (1978) model:

$$Y = \theta K^{(\alpha)} L^{(\beta - \alpha)}$$

Optimal levels of capital and labor depend on ability in the absence of constraints.

=> But of course we believe constraints exist.



The intervention:

- Cross-cutting intervention which randomly alters the constraints on acquisition of business skills, capital, and labor
 - Business training (ILO's Improve Your Business program) – to increase ability
 - Savings intervention (matching on savings in a bank account over a 36 week period) with goal of attaining \$150-200 – to increase capital
 - Wage subsidy – subsidize cost of hiring a worker over first 6 months – pay approximately 1/3 of cost – to increase labor.



Population

- Sample of 1535 Sri Lankan male business owners aged 20 to 45, with 2 or fewer employees
(identified through door-to-door screening exercise of households)
 - Of this sample 115 aged 20-24, another 245 aged 25-29.
- => Will be able to compare effects of active labor market programs on youth to non-youth business owners.



Impact Evaluation

- Randomized experiment with 6 treatment groups and one control group.
 - Training only
 - Savings only
 - Wage subsidy only
 - Wage subsidy + Training
 - Training + savings
 - Savings + wages
 - Control
- Expect take-up rates to vary by treatment, so have also varied the size of each group.



Randomization method

- Stratified on retail vs non-retail and 3 Provinces (Colombo area, Kandy area, Galle area).
- Expect effects to differ by retail vs non-retail, and training sessions etc. also to be implemented in geographic locations.
- Then since there are 7 groups of disparate sizes, can't stratify or match further. So have used re-randomization to achieve improvement over pure randomization on baseline balance on a number of other measures of interest.



Baseline Balance

	Training	Savings	Wage	W+S	T+S	T+W	CONTROL
<i>Stratified Variables</i>							
Retail	0.62	0.62	0.62	0.62	0.61	0.62	0.61
Colombo	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Galle	0.12	0.13	0.12	0.12	0.12	0.12	0.12
Kandy	0.48	0.47	0.48	0.48	0.48	0.48	0.48
<i>Re-randomized Variables</i>							
Booster Sample	0.54	0.46	0.53	0.54	0.54	0.56	0.52
Number of Paid Workers	0.11	0.08	0.07	0.07	0.03	0.08	0.06
Years of Education	10.40	10.32	10.12	10.15	10.27	10.36	10.31
Raven test score	3.35	3.29	3.38	3.30	3.31	3.12	3.30
Digitspan recall	6.27	6.21	6.36	6.35	6.41	6.39	6.39
Total assets (excluding l and b)	256965	213687	256333	261164	287857	243807	279270
Assets below 5th percentile	0.04	0.05	0.05	0.05	0.05	0.06	0.06
Assets above 95th percentile	0.04	0.04	0.05	0.06	0.03	0.04	0.07
Profits	14375	13549	15910	14685	14069	14770	15048
Missing Profits	0.02	0.02	0.02	0.03	0.03	0.03	0.03
Profits below 5th percentile	0.05	0.05	0.05	0.06	0.07	0.07	0.08
Profits above 95th percentile	0.07	0.06	0.08	0.09	0.10	0.08	0.08
Management Score	10.50	9.54	9.65	9.15	9.49	9.56	9.30
Number of Observations	141	112	250	297	150	298	287



Impacts of interest

- Three sets of impact of interest:
 - 1) Take-up (useful for seeing what constraints might be hampering firms)
e.g. impact on capital stock of savings treatment should be higher for credit-constrained firms.
Also interested in whether take-up of one intervention depends on complementary interventions being offered (is take-up of wage subsidies higher if you have business training)?



Impacts of Interest

2) Policy treatment effects: ITT and TOT

- allows us to answer questions like “what is the effect of business training”

Outcomes:

- Business profits and sales
- Capital stock
- Number of Employees
- Firm Survival
- Own labor hours
- Management ability



Impacts of interest

3) Recovering parameters of the production function:

- Use treatments to identify the return on capital, labor, and management ability.



Results

- Baseline survey asked some hypothetical questions which may give insight into take-up:
 - 52% of 20-24 year olds, 50% of 25-29 year olds, and 47% of 30-45 year olds would like to participate in business training at a subsidized price
- => Suggests quite high take-up for the business training



Results

- When asked if they would hire a new worker if someone paid the costs of registering the worker with the Govt. pension plan (we will also pay wage subsidy)
 - 10% of 20-24 year olds, 19% of 25-29 year olds, and 16% of 30-45 year olds say would hire a worker.
- => Take-up a concern for the wage subsidy treatment, product still needs further testing.



Timing going forward

- October 2008: Baseline(*)
- November 2008-June2009: savings treatment
- March 2009: Follow-up survey
- June/July: business training and wage subsidy program begin
- October 2009: Follow-up survey
- March 2010: Follow-up survey.