Enhancing Female Entrepreneurship through Cash Grants: Evidence from a Randomized Controlled Trial in Tunisia

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Abstract

We use a randomized controlled trial to study the effects of cash grants to vulnerable and poor women in rural Tunisia. The objective is to study whether cash grants can alleviate capital constraints and thereby favor both female entrepreneurship and female empowerment. Beneficiary women were offered an unconditional cash grant of USD 551 (in PPP terms) and a financial training. In addition, a subset of beneficiaries were randomized into a gender dialogue component whereby they could invite their male partner to the training. The objective is to study whether this component can mitigate any negative perceptions or resentments that male partners may have as a result of female economic independence through the grant.

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1 Context

In the aftermath of the Jasmine revolution, and as part of an emergency plan designed to recover from the economic and social crisis, Tunisia has benefited from many international initiatives from friendly and neighboring countries. It is in this context that a pilot project of Community Works and Local Participation (CWLP) was initiated. This project was implemented by the Ministry of Vocational Training and Employment (MFPE) funded by Japan Social Development Fund with the technical support of the World Bank from 2012-2016. A rigorous randomized control trial was embedded in the project roll-out in order to capture the effects of the cash for work activities. The results of this study suggest that in general, the CWLP has had positive impacts on the economic well-being of beneficiaries and to some extent on social and psychological well-being. However, there are concerns that these positive effects may not last long, particularly for women. The reason for this could be because such interventions do not have the effect of relaxing physical and/or human capital constraints, particularly if female beneficiaries are expected to commit income to household consumption needs. It is against this backdrop that the MFPE partnered with Tunisia's Center of Arab Women for Training and Research (CAWTAR) to pilot the distribution of a cash grant of TND 634 (USD 551 in PPP terms, USD 227 in nominal terms) to a random sub-group of women who participated in CWLP evaluation. Female participants in CWLP were typically poor workers, self-employed in low returns activities, or unemployed.

2 Interventions and experimental design

The program offered a random sub-sample of women who previously participated in the CWLP an unconditional cash grant to assess whether the grant improves their employability in the long run. More specifically, women from both the treatment and control groups of the initial CWLP program were offered an unconditional cash grant of TND 634 (USD 551 in PPP terms, USD 227 in nominal terms) and a financial training. In addition, a subset of cash grant recipients were randomized into a gender dialogue treatment whereby they could invite their male partner (i.e. their spouse or a sibling) to the training. To summarize, the intervention is designed as an individual randomized controlled trial with three experimental groups and the following sample sizes:

- Control: 1000 women are offered neither the cash grant nor the gender dialogue treatment.

- Cash only: 500 women are offered the cash grant but not the gender dialogue treatment.

- Cash & Gender Dialogue: 500 women are offered both the cash grant and the gender dialogue treatment.

The interventions have been implemented between July and December 2018. One caveat we note is that the gender dialogue program was a relatively mild intervention which lasted for three days only. We do not expect large effects for this intervention, especially since the end-line survey will take place more than two years after the treatment.

3 Data collection

The main sources of data for this study are:

- A baseline survey, conducted from April 2016 to January 2017.

- A follow-up survey, conducted from December 2020 to February 2021 (expected).

- A qualitative survey, conducted from February 2021 to March 2021 (expected).

This pre-analysis plan is finalized while the follow-up survey is taking place.

4 Outcome variables

4.1 Primary outcomes

We hypothesize that the two interventions will have the following effects:

- H1.1 The unconditional cash grant program is expected to have a positive effect on female businesses and income generating activities.

- H1.2 The unconditional cash grant program has a positive impact on female empowerment.

- H1.3 The gender dialogue program positively affects female empowerment.

- H1.4 If the hypothesis H1.3 is verified, the gender dialogue program has a positive impact on female businesses and income generating activities.

In line with these hypotheses, our main analysis will focus on two categories of outcomes:

1. Female businesses and income generating activities

   - Runs a business
   - Business profit
   - Number of employees
   - Financial access
   - Total employment
   - Total income from employment

2. Female empowerment

   - Women's agency (index constructed using woman role in the decision-making of 16 activities)
   - Perspectives on gender role (index constructed using views on 28 statements)
   - Perspectives on women abilities for economic activities (index constructed using views on 10 activities)
   - Perception of gender-based violence (index constructed using views on 11 statements)
   - Perspectives on reproductive health (index constructed using views on 9 statements)
   - Quality of communication between spouses (index constructed using questions on the frequency of communication in 9 areas)

4.2 Secondary outcomes

A series of recent experimental papers study the effects of business training (McKenzie and Woodruff, 2014), grants to business owners (De Mel et al., 2008; Fafchamps et al., 2014; McKenzie, 2017; Bernhardt et al., 2019), or a combination of the two (Blattman et al., 2014; Berge et al., 2015). While the effect of training programs alone on profits and sales tend to be small and insignificant (McKenzie and Woodruff, 2014; Fafchamps and Woodruff, 2017), de Mel et al. (2014) and Berge et al. (2015) offer some evidence that training might increase profits and sales in the short run when combined with business grants. Business grants appear to have large effects on male-led enterprises, but little effects on female-led enterprises. Bernhardt et al. (2019) show that the observed gender gap in the effects of business grants reflects the fact that women's capital is typically invested into their husband's enterprise.

Given the findings of Bernhardt et al. (2019), we hypothesize that the cash grant program may benefit the household as a whole (or the business of the husband) instead of the business of female entrepreneurs.

If the interventions have a positive effect on household income, they should also lead to higher living standards and higher psychological well-being.

Jendouba, the governorate where this experiment is taking place, is one of the most under-served governorate in Tunisia. It is also one of the primary migrant-sending regions in Tunisia, with an out-migration rate of 13.2% in 2014 (Zuccotti et al., 2018). It is therefore possible that the programs will impact migration outcomes of beneficiaries, in line with Gazeaud et al. (2021).

We add the following hypotheses:

- H2.1 The unconditional cash grant program has a positive impact on household income generating activities, household material well-being, and psychological well-being.

- H2.2 If the hypothesis H1.3 is verified, the effect of the cash grant program on the income generating activities of other household members is higher in households that did not benefit from the gender dialogue program.

- H2.3 The cash grant program positively affects migration.

In line with these hypotheses, we add the following secondary outcomes:

1. Household income generating activities

    - Household head has an income generating activity
    - Income of household head (last 30 days)
    - Other household members have an income generating activity
    - Income of other household members (last 30 days)

2. Household material well-being

    - Food expenditures
    - Non-food expenditures
    - Economic difficulties and coping mechanisms
    - Assets

3. Migration

4. Non-material well-being

    - Cantrill's lader
    - Psychological well-being

4.3 Tertiary outcomes

We are also interested in estimating effects on the following outcomes:

1. Wage employment

2. Job search

3. Socio-political outcomes

   - Social life and collective action

   - Community and civic engagement

   - Tax contribution

4. Antisocial behavior, victimization and disputes

   - Anti-social and pro-social behaviors

   - Victimization

   - Conflicts and disputes in the community

For these outcomes, the direction of impacts and the theory of change are less clear. For example, the direction of the effect of the cash grant on wage employment is unknown because there are two mechanisms that go in opposite directions. On the one hand, the increase in self-employment will mechanically reduce wage employment. On the other hand, participants could use the cash grant to finance training costs or job search which could increase wage employment. We therefore flag the analysis of these outcomes as exploratory and will not apply the corrections for multiple hypothesis testing described below.

5 Analysis

Effects of the cash grants   We will estimate ITT effects of the cash grants using a regression of the following form:

$$y_i = \beta_0 + \beta_1 T_i + \varepsilon_i \tag{1}$$

where y_i is the outcome of interest for unit i (where i is an individual or a household depending on the outcome); T_i is a dummy indicating whether the unit i was randomly offered a cash grant; and ε_i is the disturbance term for the regression. ITT effects of the cash grants will be given by the coefficient β_1.

   We will estimate all regressions withouth control variables, with a long list of baseline demographic and socio-economic variables, and with a reduced list

of control variables selected using the double machine learning method of Chernozhukov et al. (2017), using the Stata command pdslasso.

When possible, we will also control for the baseline levels of outcome variables.

Effects of the gender component dialogue   To test whether the cash grant is more effective with the gender dialogue component, we will estimate the following ITT specification:

$$y_i = \beta_0 + \beta_1 T_{i1} + \beta_2 T_{i2} + \varepsilon_i \tag{2}$$

where y_i is the outcome of interest for unit i; T_{i1} is a dummy indicating whether the unit i was randomly offered a cash grant but not the gender dialogue component; T_{i2} is a dummy indicating whether the unit i was randomly offered a cash grant and the gender dialogue component; and ε_i is the disturbance term for the regression. ITT effects of the cash grants with and without the gender dialogue component will be given by the coefficients β_1 and β_2 respectively. We will then test H_0: $\beta_1 = \beta_2$

Conditional effects   Finally, we will look at heterogeneity of treatment effects estimating a regression of the following form:

$$y_i = \beta_0 + \beta_1 T_i + \beta_2 \text{Moderator}_i + \beta_3 T_i \times \text{Moderator}_i + \varepsilon_i \tag{3}$$

We will use the following set of moderators:

1. Female was randomly selected to participate in the CWLP

2. Marital status of the woman at baseline

3. Baseline socio-economic status

4. Female runs a business at baseline

5. Female empowerment at baseline

6. Predicted outcome using the repeat split-sample (RSS) endogenous stratification procedure of Abadie et al. (2018)

Balancing checks   We have two orthogonal treatment variables. For each treatment variable, we will report an omnibus F-test of joint orthogonality following an OLS regression of the treatment indicator on the full list of control variables.

For each treatment variable, we also analyze the size of the normalized differences between the treatment and control group, assuming that differences of 0.25 or less indicate good balance (Imbens and Rubin, 2015).

Attrition For each treatment, we will test for differential attrition. If a problem of differential attrition is identified, we will estimate Lee bounds to assess whether results could be driven by selection bias (Lee, 2009).

Multiple hypothesis testing For each hypothesis, we will estimate sharpened q-values that control the false discovery rate (FDR) following the two-step procedure described by Anderson (2008) (but not across hypotheses, see. e.g. Lakens 2016; Samii 2017).

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