Repaying Loans with Mobile Money: Impacts on Female Microfinance Clients in Tanzania Long-run Follow-up Pre-analysis Plan*

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1   Introduction

This pre-analysis plan relates to an additional round of data collection that took place in June and July 2025. It is a supplement to a prior pre-analysis plan lodged in February 2023. All analyses and outcomes outlined in the prior pre-analysis plan will also apply for this additional round of data collection unless specified otherwise.

2   Data

This pre-analysis plan relates to an additional round of data collected in June and July 2025, the "long-run" follow-up survey, approximately 3 years after the baseline survey took place. All other sources of data are discussed in the prior pre-analysis plan of February 24 2023.

The long-run follow-up survey took place with the same sample of 750 women who originally took part in the RCT. The survey asked questions similar to those of the prior endline and baseline surveys.

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*This PAP was lodged before long-run data collection was complete and any analysis carried out.

3 Outcomes

As well as the outcomes specified in the prior PAP lodged Feb 24 2023,[1] we will examine effects on the following additional secondary outcomes:

1. Saving autonomy

   (a) Has savings doesn't discuss with spouse

   (b) Saves money not accessible by spouse

2. Spousal sharing expectations

   (a) Spouse asks for money for personal and business expenses

   (b) Turn to own cash for spouse's business expenses

   (c) When has money saved as cash and asked for money by spouse, expected to share it

3. Mobile money privacy

   (a) Does anyone else have access to mobile money account (r)

   (b) Does anyone else know mobile money PIN (r)

   (c) Does anyone else show mobile money balance (r)

   (d) Agrees mobile money private place save

   (e) Agrees mobile money private and known only to me

4. Mobile money earmarking

   (a) Spouse asks for money from the woman's mobile money account (r)

   (b) Family asks for money from the woman's mobile money account (r)

   (c) Easier to save in mobile money account

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[1]We do not change or consider additional primary outcomes.

(d) Easier to say no requests for money from spouse in mobile money

(e) Easier to say no requests for money from family in mobile money

(f) When have money saved as mobile money and asked spouse expected to share (r)

5. Norms index (respondent beliefs and beliefs about community)

   (a) The important decisions in the family should be made only by the men of the family

   (b) A woman should not have her own income-generating activity.

   (c) If a woman earns more money than her husband it is almost certain to cause problems

6. Mobile money for loan repayment index

   (a) Ever made a mobile money loan repayment (self-reported)

   (b) Confidence in making loan repayments with mobile money

   (c) Made most recent installment with mobile money (current clients only)

7. Saving deposits and withdrawals by account type

8. Whether is paid interest on savings

9. Current BRAC client

10. Still operating a business

11. Had to take action due to a negative shock

12. All children in school

13. Total Expenditure (all scaled to 30 days)

    (a) Food expenditure at home and outside the home in the last 7 days

(b) Non-durable 30-day consumption on rent, utilities, travel and personal items

(c) Clothing expenditure by men, women, male children and female children

(d) Medical expenditure

(e) Household and durable expenditure

(f) Gift and remittances

(g) Recreation

(h) Schooling fees and supplies by girls and boys

The following were not captured in the long-run endline:

1. Time use

2. Problems with mobile money agents and transactions

3. Correct response to change question

4. Correct response to highest price per item question

The following will be examined only for the sample of women who are still microfinance clients with BRAC:

1. Social cohesion index

2. BRAC sentiment and repayment index

4   Analysis

To assess the impact of the interventions, we will estimate:

$$
\begin{aligned}
Y_{ig} &= \beta_0 + \beta_1 \text{MM}_g + \\
&\quad Y_{0ig} + X_{0ig} + \alpha_s + \epsilon_{ig}
\end{aligned}
\tag{1}
$$

Where Y_{ig} is an outcome of interest for a woman i in group g in the long-run followup survey, Y_{0ig} is the equivalent measure, or a close proxy, if available in the baseline survey, MM is an indicator for the woman's group being randomly assigned to mobile money repayment, X_{0ig} is a vector of covariates measured at baseline, α_s are stratification fixed effects and ϵ_{ig} is a random error term clustered at the microfinance group level.

The hypothesis test of interest is $\beta_{MM} = 0$, i.e. the impact of mobile money loan repayment keeping group meetings weekly.

The vector of controls X_{0ig} will be selected using LASSO from the variables included in the baseline survey for each of the summary outcomes.

4.1   Heterogeneity

We will consider heterogeneous effects along the following dimensions:

1. Experienced a shock

2. Has the same mobile money provider as spouse

3. Spouse has mobile money

Since they are measured in a follow-up round, we will first check whether there are any differences by treatment status.