Mobile Money adoption: The role of information and social networks

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BACKGROUND

Mobile financial services are a novel platform that are useful for broadening financial inclusion, they have the flexibility to reach vulnerable groups that, traditionally, face a high cost of using formal financial services.

One of the multiple products that can be offered is Mobile Money (MM), a service that allows users to make (i) deposit and withdraws, (ii) payments, (iii) and P2P transfers using the network of their cellphone provider. Evidence on the impacts of MM shows that it can help to reduce poverty by allowing households to access a wider risk sharing network in times of need (Jack and Suri 2017).

However, awareness of the existence of MM is not enough to guarantee adoption. Experience in several countries around the world shows that accurate knowledge about the products, together with a dense network of MM agents are key factors for a rapid adoption with sustained levels of usage.

OBJECTIVE

We want to identify if information is a barrier for MM adoption. For this, we design four information videos that explain how to subscribe to the MM platform, and how to use the different products that it offers.

We want to learn if providing information on the product:
1. Increasing the enrollment on the MM platform
2. Increasing the type of services used by current registered users
3. Increasing the volume and size of the transactions performed by current registered users
4. Identifying heterogeneous returns depending on the previous level of knowledge about the product
5. The role of usage of the MM product in the social network on adoption after receiving the information.

CONTRIBUTION

We contribute to the literature in several ways:
1. We create the first survey of MM users in a country of the Caribbean, identifying its characteristics and information gaps.
2. We provide evidence that information gaps are driving low levels of adoption, and that videos are more useful that traditional written format pamphlets, or mouth to mouth, in providing information to a population that has literacy problems.
3. We show that the flag product that drives adoption decisions is the possibility to transfer funds, and, that having people close in the network that already use the product further incentives adoption.

PRODUCT KNOWLEDGE IS HIGH, BUT THIS DOES NOT MEAN HIGH LEVELS OF TAKE UP

General Results

Most people recognize the MM brand and where to find agents. However, the perception is that the product can be difficult to use; this leads to people (52%) asking third people to do transactions for them when they need to use the product.

As expected, MM users then to be:
✓ Younger
✓ Tech savvy
✓ Employed
✓ Well-established lines

EXPERIMENTAL DESIGN

A person is randomized to:
70% chance of being in the treatment group
30% chance of being in the control group

First, we show how to subscribe to the MM platform.

Step 1

How to register (0.617)
• Treatment group sees the videos (1,777) / 1,745 (Digital)
• Control group sees the video (1.775)

IMPACTS ON NEW USERS

1. Seeing the video:
   i. Increases the probability of joining MonCash in 3.5%
   ii. Accounting for lack of interest on the videos, the impact increases to 4.9%
   iii. Impact is higher for those customers that use Whatsapp
   1. They have the video on their phones?
   2. They are more sophisticated customers?

IMPACTS ON CURRENT USERS

Two outcome variables:
1. Number of transactions after treatment: No increase in the number of transactions
2. Using new MonCash functionalities: We do not see that people start using new products
3. However, low statistical power due to :
   1. High percentage of inactive users
   2. Limited scope of the logs difficult interpreting finding
   3. Small sample

REACTION TO VIDEOS

IMPACTS ON NEW USERS

IMPACTS ON CURRENT USERS

CONCLUSIONS AND NEXT STEPS

People report knowing MM users. We will leverage the mobile network ties to assess differential impacts depending on having close network ties.

IMPROVEMENTS TO CURRENT WORK

- Increasing the sample to consider the differences in the impacts of the treatments
- Collect additional outcome variables
- Include new functionalities to MM

METHODOLOGY

Our identification strategy relies in two pillars:
1. An RCT that provides access to the information videos to a subsample of all survey participants.
2. After the experiment, we combine the RCT information with Cellphone Detail Records. This allows us to observe in real time:
   1. Who current and new customers are
   2. How product usage: transactions and amounts (intensive margin), as well as new products (extensive margin) is affected by the information videos
   3. How having close ties with current users affects product take up

FINAL SAMPLE

Sample:
• 1,997 numbers
• MM transactions matched 630 numbers

We consider a new customer to be:
• 2.5 weeks before the intervention for the first day of data collection
• Probability of being a current customer does not increase with intervention date

Actual MM records reveal that self-declared usage is imperfect: 60% of customers report to be a MC user, but only 32% appear in the register

We combine an RCT with real time cellphone data to assess the impact of an informational campaign on MM adoption. This approach solves for self-reported data problems. We provide novel evidence on how the potential of financial inclusion that MM poses is not reaching its full potential due to informational gaps.

In the next steps, we will leverage the network structure to...