"Few other global trends have outpaced the rate at which people living in poverty are acquiring mobile phones and using them to improve their economic welfare." To estimate the effects of mobile phones on the welfare of low-income women, the authors undertook a RCT (n= 1,348) in Tanzania in 2016–17 in which basic handsets, smartphones, and a cash placebo were randomly assigned to participants. To the knowledge of the authors, "this is the first pure RCT testing the effectiveness of mobile phones on poverty reduction." (Roessler et al., 2018).

To recruit participants, the team partnered with BRAC, and the Tanzanian government's anti-poverty Social Action Fund, TASAF. The team worked in 11 districts in five different regions of the country—"Arusha, Mwanza, Iringa, Tanga, and Ruvuma—that provided both broad geographic diversity and a balanced mix of rural, peri-urban and urban residents." At the time of study, the research team "focused on women because in Tanzania, like in many other developing countries, mobile phone ownership for women is significantly lower than among men" (Roessler et al., 2018).

Quick facts

Barriers addressed



Prerequisites
Phone/SIM Ownership >



Cost

Perceived and/or lack of money > Cost of mobile/internet >



Information Availability & Capability

Digital literacy >

Unclear or difficult process to open an account >

Segment focus

2



4

$\sim\sim$

Geography

Tanzania >

Sources

Roessler et al., 2018.

Customer Journey Relevance

Key stakeholders involved

1,352 Tanzanian women

Social Action Fund (TASAF) Tanzanian MNOs

Key activities

After identifying participants through a brief, inconspicuous survey that screened for phone ownership with the help of BRAC and TASAF, participants were assigned to one of several groups. In the control group, women were placed on a waitlist to receive a phone in year two of the program. In the treatment group, participants were assigned a combination of "basic handsets, smartphones, cash (40,000 Tanzanian Shillings, or US \$18, the equivalent value of a basic phone), group or individual mobile phone training, mobile credit vouchers, and solar chargers."

After assigning participants to groups, participants were invited to a distribution meeting where they were walked through "how to install a SIM card, charge the phone, turn on the phone, use the radio and flashlight, make a phone call, send SMS, use mobile money, and, for smartphone recipients, how to access the internet and download an app. Some received this training individually, some as a group and others received no training at all," to assess the outcome of the program, female enumerators conducted baseline, midline, and endline surveys in Swahili.

Outcomes/results

- "At endline one year after distribution of the phones, women assigned to the basic and smartphone conditions were significantly more likely to own phones, use mobile money, use phones for income-generating activities, and score higher on an index of financial inclusion."
- "In the cash group in which women were given money equivalent to the cost of a basic phone, 55% possessed phones at endline, indicating that many used their cash gift to buy a phone. Given the many other pressing needs on which subjects in the study may have spent the cash, this high rate of phone purchasing in the cash group suggests the premium that poor women place on phone ownership."

Key enabling environment factors for the intervention

- The research team partnered with organizations that have a national presence in Tanzania for participant recruitment. These organizations also work mainly with women from low-income households. Taken together, these organizations helped to build trust with the participants in the program.
- Mobile infrastructure and connectivity was strong. Participants were given SIM cards from mobile network operators with strong coverage in their particular area.

Key design elements and principles that led to successful outcomes

 Participants were given SIM cards from mobile network operators with strong coverage in their particular area, rather than given SIM cards from the same MNO. This could have helped prevent challenges related to insufficient connectivity.

- Trainings were customized for basic phone owners versus smartphone owners.
- Trainings and surveys were conducted by female enumerators in Swahili.
- The program was affordable. Women did not have to pay for their phones or SIM cards, reducing cost barriers to program participation and enabling a diversity of participants.

Potential for scale/replicability

The success of this program was enhanced by partnering with firms with a national presence in Tanzania, and several major mobile network operators. Organizations seeking to replicate this program should keep this in mind, as finding multiple partners may be challenging or time consuming. The type of phones offered in different markets should also be considered, as some markets may be less familiar with smartphones. Trainings should be customized to reflect the skills and literacy levels of the participants in replicated programs.

Challenges encountered during the program

This program encountered significant noncompliance with the study's experimental conditions. For example, some women sold their smartphones for more basic phones, and not all of the women in the treatment group retained their phones at endline. Additionally, "31% of women in the basic phone group, and 26% in the smartphone condition did not own any phone at endline, reporting their project phone either lost, broken, stolen, or sold."

Recommendations from the research

Due to the significant numbers of participants who did not own any phone at endline due to their phone being lost, broken, stolen, or sold, future programming should give consideration to the challenges faced by low-income mobile phone users when they face the loss of valued assets.



At endline one year after distribution of the phones, women assigned to the basic and smartphone conditions were significantly more likely to own phones, use mobile money, use phones for income-generating activities, and score higher on an index of financial inclusion.

