Prerequisites

Phone / SIM ownership

This barrier refers to the percentage of women who own a mobile phone and/or sim card.

Why is this barrier important?
Evidence states that phone ownership is an important precursor to adoption and usage of DFS, yet a significant gender gap in phone ownership exists globally and across individual markets.

Connected Barriers

Prerequisites
Digital / Foundational ID
Internet/mobile connectivity

Product & Service Quality
Navigability of the user interface of the digital product

Consumer Protection
Online/phone/social media harassment

Cost
Cost of mobile/internet
Cost of using DFS (incl transaction cost)

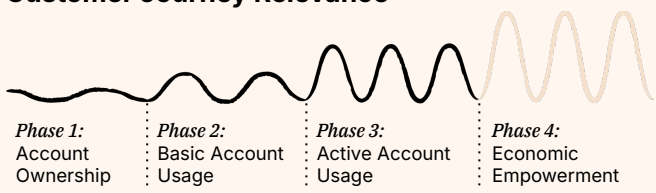
Social norms
All barriers in this category

Information Availability & Capability
Digital literacy
Basic literacy and numeracy

Most Relevant Segments

1	2	3	4
Excluded, marginalized	Excluded, high potential	Included, underserved	Included, Not underserved

Customer Journey Relevance



Key evidence relevant to this barrier

- Data from the GSMA's *Mobile Gender Gap Report* (2021) reveals that "women's mobile phone ownership remains largely unchanged from 2017. " **Women who have low incomes, low basic/digital literacy levels, and that live in rural areas are even less likely to own a mobile phone.** According to GSMA, "building mobile-related digital skills is critical to reaping the full benefits of mobile and mobile internet."

- According to GSMA's *Mobile Gender Gap Report* (2021), there is a 7% gender gap in mobile phone ownership in LMICs, leaving **374 million** women unconnected. The gender gap is highest in **South Asia** (19%) and **Sub-Saharan Africa** (13%). This gender gap is also evident across IFS focus countries: Bangladesh (20%), Kenya (6%), Nigeria (3%), India (12%), and Pakistan (26%).

- Although the gender gap in smartphone ownership has dropped since 2017, "**women are now 15% less likely than men to own a smartphone", which is wider than the gender gap for basic phone ownership.** Additionally, this drop in the gender gap "has largely been driven by South Asia, especially growth in smartphone ownership among women in India." (GSMA, 2021)

- **"There has been relatively little progress in reducing the smartphone gender gap in regions outside South Asia."** The gender gap in smartphone ownership is noticeable across several IFS focus countries: Kenya (15%), Nigeria (14%), Bangladesh (18%), India (16%), and Pakistan (15%) (GSMA, 2021).

- In 2018, the gender gap in mobile phone ownership was 11% in Tanzania (GSMA, 2019). In 2019, the gender gap was 10% in Indonesia and 17% in Uganda (GSMA, 2020). In 2020, the gender gap in mobile phone ownership was 26% in Ethiopia (LeFevre et al., 2020).

- Addressing the gender gap in phone ownership—particularly smartphone ownership—is crucial in enabling women to—use their phones/internet to meet their needs. **According to GSMA, "when women own a smartphone, their adoption of mobile internet and the range of mobile services they use is almost on par with male smartphone owners."** (2021).

- Research from MicroSave Consulting and Women's World Banking has indicated that mobile phone ownership is a critical precursor to expanding access to financial services to unbanked and underserved women, as independent ownership would enable them to send money, get paid, receive remittances, and more (MicroSave Consulting, 2017; Women's World Banking, 2021). **However, according to the World Bank's *2021 Findex*, in Sub-Saharan Africa, lack of phone ownership is the second most cited reason for not owning a mobile money account. Unbanked women in particular are seven percent more likely than unbanked men to cite lack of phone as a barrier.**

- In the *Lessons on Enhancing Women's Financial Inclusion Report* (2020), AFI has also echoed the previous point stating that access and use of mobile phones are an important precursor for women to adopt DFS beyond the conventional savings or bank account – especially for more informational services such as transaction notification, and visibility of account balances in real time.

- **"Access to mobile phones positively impacts the likelihood of DFS use, as most DFS platforms either use a mobile interface or use mobiles for real time transaction information."** (AFI, 2020)

- In the *Lessons on Enhancing Women's Financial Inclusion Report* (2020), AFI states:

"Bangladesh has seen a tremendous growth in mobile financial services in recent years. However, the gender gap in MFS use has also increased drastically and is currently one of the highest in the world. **A possible reason for the disparity between men**—

—**and women could be attributed to the access to mobile phones.** In Bangladesh, women are much less likely to own a phone than men: 48% women ownership versus 76% men ownership... Consequently, husbands and other relatives are essentially the gateway for most women's phone ownership, and because access to mobile money is dependent on phone ownership, family relations and support from male family members becomes a critical anchor to women's participation in DFS."

- **Female farmers are particularly affected by this barrier due to their lower levels of mobile phone ownership.** According to CGAP, women in rural and agricultural livelihoods have lower access to digital technologies, like mobile phones, that could enable adoption and use of digitally enabled marketplaces and other platform services (e.g., access to information, inputs, financial services), and increase income-generating opportunities (2021). Additional research by CGAP in Nigeria also revealed that there is a 13% gender gap in mobile phone ownership for smallholder farmers, and women farmers are less likely than male farmers to have used their phone for agricultural activities (2017). **This evidence suggests that female farmers could benefit from improved access to phones to boost financial inclusion and economic empowerment.**

- An RCT in Sri Lanka with 1,908 participants sought to study the link between mobile-linked bank accounts and savings. Those who participated were provided assistance opening a bank account, **as well as given a mobile phone, SIM card**, and demonstration of the service. The intervention led to a 44% increase in the amount of total savings deposited to the partner bank. Women were more likely to use the savings service than men (De Mel et al., 2018).

- An empirical study examining the effects of the growth of mobile phone adoption and internet use on financial inclusion in the South Asian Association for Regional Cooperation (SAARC) countries from 2004 to 2014 found that the "**growth of mobile and Internet use was positively associated with financial inclusion" and extended financial access in the SAARC countries.** Financial inclusion was measured by creating an index using different types of financial proximity variables (loans, deposits, bank branches per 1000 km^2, ATMs per 1000 km^2) (Lenka et al., 2018).

The following Exemplar represents one evidence-based interventions that has shown success in addressing this particular barrier. There may be other Exemplars for this barrier in the larger Barriers & Exemplars Analysis compendium deck.

Exemplar

Mobile Phone and Livelihoods of Women Project

"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).

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 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.

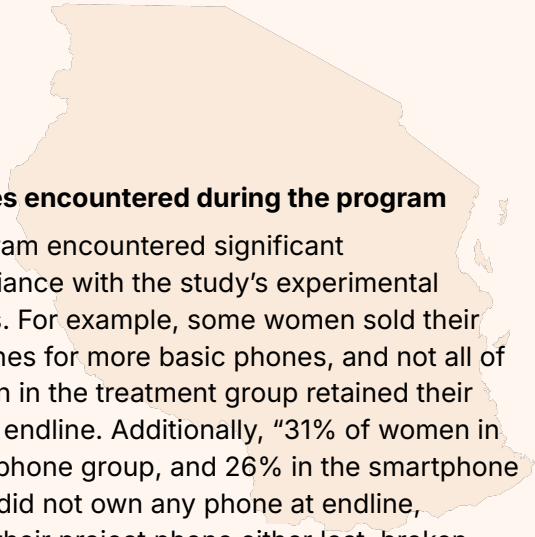
- Mobile infrastructure and connectivity was strong. Participants were given SIM cards from mobile network operators with strong coverage in their particular area.

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.

Additional Exemplars

Mobile Money Cash Transfer Experiment in Niger

Benazir Income Support Programme

Reducing Tax Costs on Connectivity

Mobile-Linked Bank Accounts