

September 2024

# Barriers, Opportunities, and Exemplars

*Women's Economic Empowerment  
and Financial Inclusion*



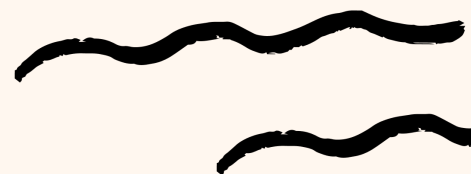
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# Acknowledgements

The authors would like to express their gratitude to:

The many financial inclusion experts who influenced and informed this work with their lived and learned experiences;

Our colleagues at Mathematica—particularly Dr. Jane Foster and Dr. Abbie Turiansky—for their research and leadership regarding the segmentation framework employed in this research effort;

Jamie Zimmerman, Victoria Griffith, Lilian Tan, Amy Yeung, and the IFS Team for their collaboration, guidance, and expertise.

This project is a collaboration between GRID Impact and Strategic Impact Advisors, and was generously funded by the Bill & Melinda Gates Foundation.



GRID Impact is a woman-owned, global consulting firm that uses participatory research and design approaches to co-create equitable, inclusive, and impactful approaches to economic, health, and social challenges.



SIA is a woman-owned, global consulting firm that supports the creation and expanded use of financial services and digital solutions.



We are grateful to the Bill & Melinda Gates Foundation for funding this research.

*For more details on our methods or anything related to this project, please email Alexandra Fiorillo, Project Lead, at [alex@gridimpact.org](mailto:alex@gridimpact.org).*

# Glossary

**AML/CFT:** anti-money laundering (AML) / countering financing of terrorism (CFT)

**CICO:** cash-in cash-out

**DFS:** digital financial services

**FSP:** financial service provider

**ICT:** information and communications technology

**IFS Team:** Inclusive Financial Systems Team

**KYC:** know your customer

**LMIC:** low and low middle income countries

**MFS:** mobile financial services

**MFI:** microfinance institution

**MSE / MSME:** micro and small enterprise / micro, small and medium enterprise

**NBFI:** non bank financial institution

**RCT:** randomized controlled trial

**SME:** small and medium-sized enterprises



# How to use these resources

The resources created during this Barriers and Opportunities Analysis project are intended for two audiences: members of the IFS Team at the Bill & Melinda Gates Foundation, and Implementation Partners of the IFS Team who work on women's economic empowerment.

**For members of the IFS Team**, we envision these resources providing complementary information to the robust data and research the team has compiled over the years on women's access to and usage of financial services. Our hope is that the compilation of data related to a variety of barriers women experience will support evidence-based investment-making. Additionally, we hope the country-specific information describing relevant barriers in connection to population segments will help Program Officers (POs) steer resources to the most needed opportunities. Finally, our intention is that the collection of exemplars will serve as meaningful inspiration as Program Officers explore new investment opportunities with Implementation Partners to help establish clear pathways to interventions that have successfully helped to overcome specific barriers.

**For Implementation Partners**, we hope the resources produced will provide helpful evidence to inform and support program design decisions. If, as an industry, we can align on relevant and important barriers to women's economic empowerment in specific markets for specific profiles of customers, we may be more successful in coordinating interventions and making significant change. The exemplars highlight the incredible work of so many Implementation Partners to date, and can also serve as a meaningful steer for the types of interventions our industry might want to consider prioritizing for women going forward.

# This document is interactive

This document is clickable to make navigation easier. The table of contents is linked to allow direct navigation to specific sections in this document. Additionally, anywhere you see underlined text, there is an opportunity to navigate directly to the cited slide, exemplar, barrier or source document.

Barriers, Opportunities, and Exemplars




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IMPACT IMPACT

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### Barriers addressed

-  *Prerequisites*  
[Digital/Foundational ID >](#)  
[KYC requirements >](#)
-  *Accessibility*  
[Distance from bank/FSP/CICO agent >](#)
-  *Information Availability & Capability*  
[Financial literacy >](#)

*Section 01*

# Project Overview & Key Learnings

# Executive Summary

The goal of this work has been to examine a set of barriers inhibiting women's access and usage of financial services, determine which barriers are most resonant to different segments of women in different markets, and make recommendations about the kinds of interventions and programs that might help remove, mitigate, or address these barriers so women can have access to and use a range of financial services that will fit their needs. Ultimately, our goal is to remove barriers to women's economic empowerment in the financial inclusion arena.

A part of our work has been to help ensure the Inclusive Financial Systems (IFS) Team at the Bill & Melinda Gates Foundation (BMGF) is focusing on and addressing the *right* barriers to achieve their WEE-FI 2030 vision and strategic goals, and to understand the opportunities, challenges, available tools, and trade-offs as they set priorities and make new investment, collaboration, and advocacy decisions across the whole team.

IFS' WEE-FI Vision Statement

**By 2030, women will have near ubiquitous (80% adults worldwide, 60% of those who earn <\$2 a day), equal access to DFS, and can easily, safely, and confidently use them to manage their complex daily lives and aid in their aspirations, over which they have agency and control.**

# Executive Summary

This report presents several pieces of information related to our work. We hope these reference materials will support your work in deepening and accelerating gains for women in financial inclusion.

## *The Barriers & Opportunities Analysis*

An evidence review of 36 barriers, resulting from a process of mapping barriers to customer segments in IFS' nine focus countries, and a presentation of the most relevant barriers for each market. This contextualized representation will allow for a more targeted approach when we consider what opportunities might most accelerate progress to achieving the 2030 WEE-FI vision statement.

## *The Enablers & Exemplars Reference Guide*

A series of evidence-based interventions and programs that have shown success in addressing a range of barriers women face in accessing and using financial services. These exemplar interventions are tagged to the 36 barriers, as well as the IFS focus countries, customer segments, and customer journey phases.

## *The Diagnostic Tool*

An introduction to a Diagnostic Tool that can guide IFS Team members and Implementation Partners to determine important barriers to WEE-FI in a specific market.

# Project Objectives

The Barriers & Opportunities Analysis, and Recommendations Project is an initiative of the Bill & Melinda Gates Foundation's Inclusive Financial Systems (IFS) program. Its core objectives are listed to the right.

01

**Identify and prioritize**—based on the existing facts and evidence, clear criteria and an analytical process—**the most critical and strategic barriers to tackle in order to advance the WEE-FI vision statement:** by 2030, women will have near ubiquitous **(80% adults worldwide, 60% of those who earn <\$2 a day), equal access to DFS,** and can **easily, safely, and confidently use them** to manage their complex daily lives and aid in their aspirations over which they have **agency and control.**

02

**Establish a collaborative process and strategy that centers gender, and relevant prioritized barriers throughout IFS' work and empowers both the IFS Team** (Program Officers, Deputy Directors, and Program Coordinators) and their **implementation partners with the tools, information, and support they need to own their role in accelerating achievement of these outcomes** – including optimizing the collaboration and expertise of team members according to the gender barriers and WEE-FI themes that touch their bodies of work.

03

**Determine IFS' role and priorities** to create, curate, or convene assets, conversations, and partnerships internally and externally to accelerate this work including determining specific support required by the team and their partners to execute their plans.

04

**Identify and/or refine priority collaboration opportunities across IFS, other PSTs (internal) and with existing strategic partners (external)** wherever possible to address critical barriers and advance strategic learning agendas.



## Originally, we aimed to “*prioritize*” the barriers to women’s economic empowerment through financial inclusion.

This became a challenge from the beginning of the project for several reasons:

- Lack of standardized, comparable data to measure and determine the “impact” of singular barriers on WEE outcomes.
- The highly contextual nature of women’s experiences with financial services and, thus, the barriers to accessing and using those services.
- The diversity of ecosystems, enabling environments, providers, and systems in markets around the world. A “priority” barrier in one country may have already been solved in another market.

As a result, financial inclusion implementation partners hesitated to provide feedback and input to a prioritization process.





The general sentiment is that *all barriers contribute to an inequitable financial system* that makes it difficult for women to access and use services and products in ways that will allow them to *achieve economic empowerment*.

All barriers are *important* and play a role in a woman's lack of ability and access to choose and use a financial product or service.



For this reason, we ***shifted our approach*** to focus more on building the evidence base for all 36 barriers, and ***then identified which barriers might be most relevant*** for specific segments, specific phases of the customer journey, and specific markets.

We found some barriers to be relevant to certain segments, customer journey phases, and country-specific contexts than others. It's possible that this might make these barriers more relevant to solve given they are pervasive for more women across IFS' focus countries.

We present these barriers [here](#).

While we determined that prioritizing barriers at a global level was ***not possible***, we did find it possible to identify barriers that are ***more relevant in country-specific contexts*** through the following process:

1. Mapped the barriers that are most relevant for women in each segment based on available evidence
2. Identified which segment in each market had the largest population of women
3. Analyzed country-specific data that helped identify specific barriers that are more relevant to the market context, and barriers that are less relevant to the market context

For example, in Bangladesh, Segment 2 has the most women by population. Using Findex data on barriers to account ownership for women in Segment 2, we see that only 12.1% of women in Segment 2 stated religious regions as a barrier account ownership, which means this particular social norm could be potentially less of a barrier in Bangladesh. Using the same country-specific data, we also see that 77.6% of women in Segment 2 stated they do not have enough money to open an account, making the barrier of *Perceived and/or lack of money* very relevant for women in Segment 2 in Bangladesh.

## During the 2020–2021 IFS WEE-FI Strategy Refresh process, *a set of key barriers were identified* as contributing to the gender gap in financial inclusion and slowing progress to ubiquitous access and usage.

Forty barriers, grouped into 8 categories, were chosen by the IFS Gender Team based on a broad review of the existing evidence base and consultations with the IFS Team.

**The barriers included in this research are framed from the perspective of female customers.** These barriers are the barriers the IFS Gender Team felt to be *most proximate* to a woman's experience accessing and using financial services.

As a research team, we **did not consider other barriers**—such as supply-side challenges—that likely have huge influence on the experience and journey of female customers.

While the barrier analysis portion of our work did not include a heavy focus on the supply side challenges for WEE-FI, the collection of exemplars we developed typically involved both supply- and demand-side interventions.

For example:

- 1) Government decisions on taxation of digital transactions
- 2) Lack of investment/fundraising opportunities for fintechs seeking to serve poorer communities

## The need to *contextualize the barriers* became apparent very quickly in our process.

At the onset of this research project, we anticipated developing a methodology that would allow our team to prioritize the most critical barriers preventing or impeding women's economic empowerment. However, through consultative engagements with leading financial inclusion experts and IFS Team members, our approach shifted considerably.

Prioritization necessitates making qualified trade-off decisions: X barrier is more important to resolve than Y barrier. In order to make those assertions, we would have needed sufficient data on each individual barrier to be able to compare its effect on similar populations or markets. Because of the nature of research and data in our industry, that was not possible.

Similarly, we were not able to sufficiently compare the impact of a specific barrier in different markets due to (a) a lack of available data, and (b) the uniqueness of each IFS focus country's market conditions. For example, if one market has great mobile coverage and another has very poor mobile coverage, does that mean that *Internet/Mobile connectivity* is more or less of a priority barrier? The need to contextualize the barriers became apparent very quickly in our process. As such, we have developed a Diagnostic Tool to help Program Officers and Implementation Partners determine which barriers might necessitate priority attention.

[Click here](#) to learn more about the Diagnostic Tool.



As such, we moved away from global prioritization towards a *more contextualized, market-specific approach* to our analysis using the following process:

- 01 Identified the barriers that, based on available data, appear to be most relevant for each segment.
- 02 Determined which segment was largest in each of IFS' focus countries. That allowed us to compile a list of the most relevant barriers for each country by largest segment.
- 03 We could then look at the specific market conditions and determine if any of those barriers had already been sufficiently addressed or resolved through existing interventions or efforts. This step allowed our team to “de-prioritize” specific barriers that seem to have already been addressed in some material way, leaving us with a list of barriers that are both relevant to the largest customer segment in that market and unresolved or unaddressed by existing efforts.





Ultimately, our intention was to try to help focus efforts in each market as we asked the following question:

**Can we identify barriers that are relevant and not yet resolved so partners can *center their programs and interventions on critical issues facing women?***



## We feel confident that we can make suggestions about *which barriers to focus on resolving in specific markets.*

While we did not feel it was appropriate to generate a list of “global priority barriers to women’s economic empowerment” due to the highly contextual nature of women’s experiences with financial services and systems, we do feel we can make suggestions about which barriers to focus on resolving in specific markets.

Using the data we have about which segments are largest in each focus country, and the degree in which barriers have already been resolved in that country, we can then identify barriers that have yet to be addressed. As such, for each of IFS’ nine focus countries, we have suggested a subset of barriers that might warrant “in-country prioritization”. Again, these barriers are not *more* important than other barriers women face in a particular market, but

there are some barriers that emerge earlier in their customer journey experiences. This sequencing of barriers may help address some of the upstream challenges associated with account ownership (e.g., barriers in the Prerequisite category) before moving on to more downstream challenges experienced during the basic and advanced usage customer journey phases.

To help determine this “sequencing” of barriers in a given market, we have developed a Diagnostic Tool. This reference tool is meant to help Program Officers and Implementation Partners focus efforts on unresolved barriers in a specific market.

[Click here](#) to learn more about the Diagnostic Tool.

# We identified eight barriers as relevant for *all four segments.*

Our team found evidence that indicates eight specific barriers are relevant across all four segments. Barriers rooted in social norms and legal constraints, that we found to be highly related through our analysis, showed up as relevant across all segments. Costs associated with the use of DFS (e.g. fees) and the cost of mobile and/or internet connectivity were also present across segments.

<i>Prerequisites</i>	Broader legal constraints (e.g. male signature)
<i>Cost</i>	Cost of using DFS (incl. transaction cost)
	Cost of mobile/internet
<i>Social Norms</i>	Biases that center men as financial customers
	Expectation that men control household (HH) finances
	Ambivalence or antagonism towards women's financial independence
	Women's disproportionate time burden
<i>Human Resources</i>	Lack of female agents

## There is a *dearth of evidence directly linking six of the barriers to negative impacts* on uptake and usage of financial services and women's economic empowerment.

We searched for evidence that specifically illustrated how a particular barrier might hinder or negatively influence uptake and usage of financial services. While the barriers listed to the right create friction and pain in the user experience of a product or service, we could not identify explicit evidence that indicated these barriers prevented women from achieving economic empowerment. In other words, **these six barriers have not been proven to directly impact the uptake and usage of financial services among customers, and in particular, female customers.**

For example, while we were able to identify evidence that had studied how customers had encountered the barrier of *Difficulty resolving complaints*, the evidence did not point directly to it impacting uptake or usage negatively. The same is true for the other barriers in the Consumer Protection category.

We recommend more research be conducted on these barriers to understand their impact on uptake and usage of financial services. This is especially important considering these barriers are likely very pertinent to customers in Segment 3, which represents the vast majority of female customers in 7 of the 9 IFS focus countries.

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### *Consumer Protection*

Fraud and scams

Fear of making mistakes

Online/Phone/Social media harassment

Difficulty resolving complaints

Potential (or actual) privacy violations

Predatory lending

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### *Human Resources*

Lack of women in leadership at DFS providers and policy-makers

## Key barriers for Segments 1 and 2 are many, with a focus on Prerequisites, Cost, Accessibility, and Information.

Segments 1 and 2 are at the beginning of the customer journey, and lack prerequisites such as owning a mobile phone/sim and access to an ID. These customers also struggle with Cost, and Accessibility as primary barrier categories, including costs that result from long travel times to financial service access points. Basic numeracy and literacy skills, as well as digital literacy, are a challenge for these segments, and many lack peers or family that use digital financial services. To the right are barriers that specifically map to Segments 1 and 2.

<i>Prerequisites</i>	<p>Phone/SIM ownership</p> <p>Digital/Foundational ID</p> <p>Broader legal constraints (e.g. male signature)</p>
<i>Cost</i>	<p>Cost of using DFS (incl. transaction cost)</p> <p>Perceived and/or lack of money</p> <p>Cost of mobile/internet</p>
<i>Information Availability &amp; Capability</i>	<p>Basic literacy and numeracy</p> <p>Digital literacy</p> <p>Unclear or unavailable info about products/uses</p> <p>Lack of peers/family/network who use DFS</p>
<i>Accessibility</i>	<p>Distance from bank/FSP/CICO agent</p>
<i>Social Norms</i>	<p>Biases that center men as financial customers</p> <p>Expectation that men control household (HH) finances</p> <p>Ambivalence or antagonism towards women's financial independence</p> <p>Women's disproportionate time burden</p>
<i>Human resources</i>	<p>Lack of female agents</p>

## While **Segment 3** faces many of the same barriers as Segments 1 and 2, key differences lie in **Product & Service Quality**, and **Consumer Protection**.

Evidence shows that Segment 3 faces many of the same challenges of Segments 1 and 2, including cost and access to information. The key differences in relevant barriers for Segment 3 lies within Product & Service Quality and consumer protection. Barriers such as *Lack of services that meet women's needs*, and *Reliability and quality of in-person services* create additional barriers for women in Segment 3. These barriers prevent movement from basic to active usage in their journey. While accessibility poses less of an issue for Segment 3, distance from agents can still presents issues. To the right are barriers relevant for Segment 3, with differences from Segments 1 and 2 highlighted.

### *Prerequisites*

Digital/Foundational ID

Broader legal constraints (e.g. male signature)

**Lack of credit history (for credit products only)**

### *Cost*

Cost of using DFS (incl. transaction cost)

Cost of mobile/internet

### *Information Availability & Capability*

Basic literacy and numeracy

Digital literacy

Unclear or unavailable info about products/uses

Lack of peers/family/network who use DFS

### *Social Norms*

Biases that center men as financial customers

Expectation that men control household (HH) finances

Ambivalence or antagonism towards women's financial independence

Women's disproportionate time burden

### *Human resources*

Lack of female agents

### *Accessibility*

Distance from bank/FSP/CICO agent

### *Product & Service Quality*

Lack of products that meet women's needs

**Reliability of payments system and network**

**Lack of products and services that create value**

**Reliability and quality of in-person services**


### *Consumer Protection*

**Over-charging**

Based on *Findex data* and analysis of other sources, some barriers typical for the largest represented segments in each market may be *more or less relevant based on local context*. This doesn't mean other barriers should be ignored or deprioritized. Rather, in all markets, one should take a contextualized approach to determine which barriers need to be addressed more urgently than others based on what has already been resolved and attempted in the market.

# Barriers that are more relevant by country

## Ethiopia



Basic literacy and numeracy

Digital literacy

Unclear or unavailable info about products/uses

## Kenya



Lack of products that meet women's needs

Unclear or unavailable info about products/uses

## Tanzania



Lack of products that meet women's needs

Unclear or unavailable info about products/uses

## Uganda



Unclear or unavailable info about products/uses

Lack of products that meet women's needs

## Nigeria



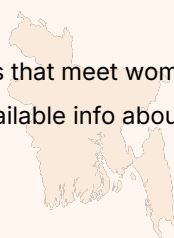
Cost of using DFS (incl. transaction cost)

Perceived and/or lack of money

Distance from bank/FSP/CICO agent

Phone/SIM ownership

## Bangladesh



Lack of products that meet women's needs

Unclear or unavailable info about products/uses

## India




Lack of female agents

Lack of products that meet women's needs

Unclear or unavailable info about products/uses

Distance from bank/FSP/CICO agent

## Indonesia



Digital literacy

Unclear or unavailable info about products/uses

## Pakistan



Cost of using DFS (incl. transaction cost)

Perceived and/or lack of money

Phone/SIM ownership

# Barriers that are less relevant by country

## Ethiopia

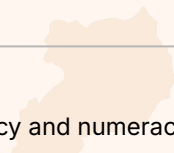
Cost of mobile/internet



## Uganda

Basic literacy and numeracy

Lack of peers/family/network who use DFS



## India

Digital/Foundational ID



## Kenya

Digital/Foundational ID

Basic literacy and numeracy

Lack of peers/family/network who use DFS



## Nigeria

N/A



## Indonesia

Digital/Foundational ID

Cost of mobile/internet

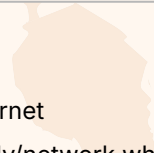
Basic literacy and numeracy



## Tanzania

Cost of mobile/internet

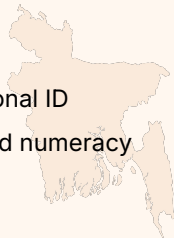
Lack of peers/family/network who use DFS



## Bangladesh

Digital/Foundational ID

Basic literacy and numeracy



## Pakistan

N/A





By tagging barriers to one another, we can understand the *nature of interactions* between barriers and then sequence an approach to resolving them.

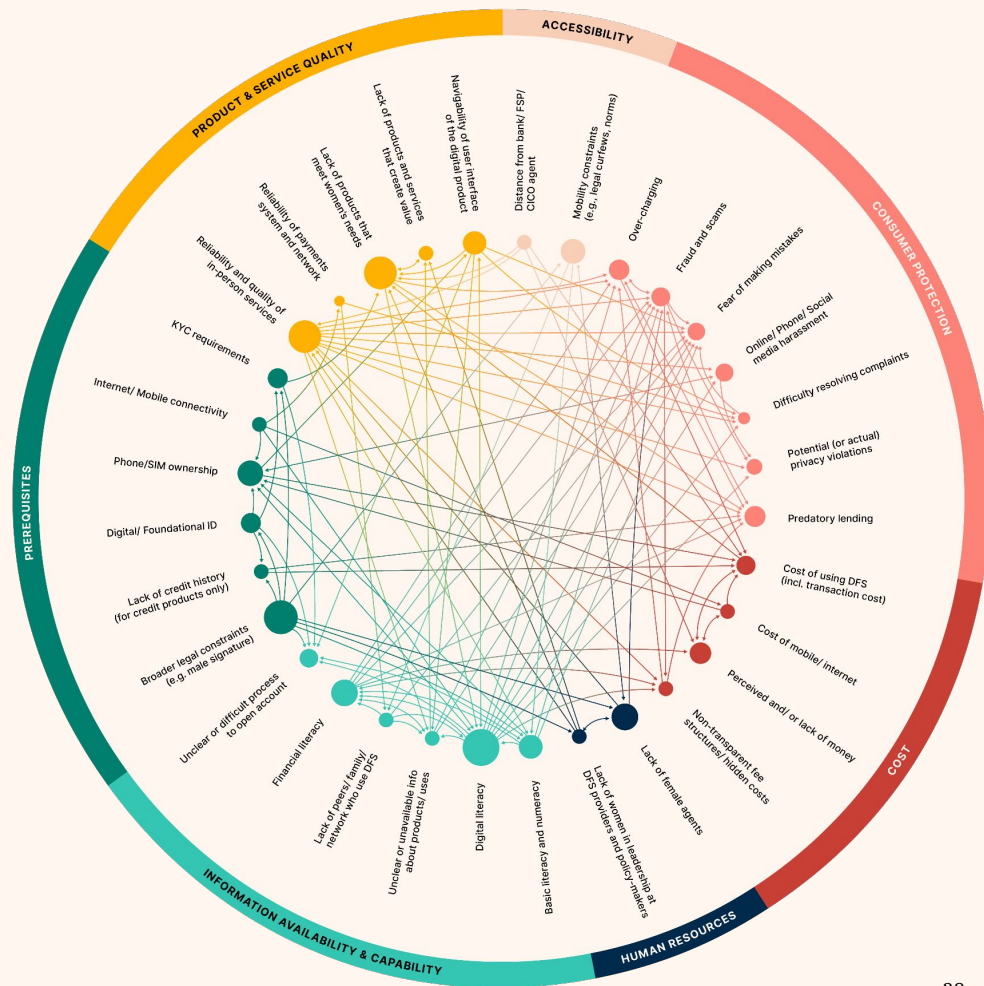
At the beginning of this project, the IFS Gender Team provided us with 40 barriers grouped into eight barrier categories. Through our research process, we have refined the barriers list by both integrating/combining several related barriers, and redefining several other barriers to include distinct aspects and elements that might inhibit women's economic empowerment through financial inclusion. We currently refer to a total of 36 barriers grouped into eight barrier categories.

As we began the process of identifying the evidence of how each barrier might impact the uptake and usage of financial services among women, one insight became clear and important: **no barrier operates independent of other barriers**. In fact, the barriers are incredibly interconnected. **One barrier may be a root cause of another barrier** (e.g. *Broader legal constraints* may be the reason it is difficult for women to obtain a *Digital/ Foundational ID*) **or one barrier may exacerbate another barrier** (e.g. challenges with *Digital literacy* may make *Navigability of user interface of the digital product* more difficult).

**By tagging barriers to one another, we were able to build a map of barrier connections in order to understand the nature of interactions between barriers. This Connected Barriers Map has helped us determine which barriers hold influence over other barriers.** The dots adjacent to each barrier title—which we refer to as “clusters”, “nodes” or “nodal barriers”—represent the volume of connections each barrier holds. The more connections a nodal barrier holds, the larger the dot. These nodal barriers represent opportunities for our industry: if we can address the barriers at the center of the cluster, we can likely influence connected barriers through both direct and indirect means.

Now, the nodal barriers are not necessarily relevant for all segments. We will need to consider the influence of a node in concert with the most relevant barriers for each segment in order to tailor an approach to promoting uptake or usage of financial services among women. Taking into consideration the barriers for a particular segment *and* the barriers at the center of connected clusters can help refine the focus and approach.

# Connected Barriers Map



The Connected Barriers mapping process enabled us to identify a number of exemplars that describe various approaches to solving barriers and challenges associated with promoting women's economic empowerment through financial inclusion.

By connecting the Exemplars to the barriers the programs addressed, we begin to see the *constellation of additional barriers* that might be positively impacted by an Exemplar intervention.

For example, *Digital literacy* is a nodal barrier connected to 12 other barriers. If we can identify opportunities and solutions to improve women's digital literacy that *also* takes into account connected barriers such as *Basic literacy and numeracy*, *Navigability of user interface of the digital product*, and *Non-transparent fee structure / hidden costs*, we might be able to reduce the impact of multiple barriers through one powerful intervention or solution. By using the Connected Barriers Map to inform opportunity identification and intervention design, our solutions can help address more challenges in the ecosystem.

#### **Exemplar Spotlight: Digital Wallet Adoption for the Oral Segment in India**

MicroSave and My Oral Village worked in India to design a mobile wallet, and increase the digital skills of users with low literacy and numeracy levels. The research team assessed the participants' signing, reading, and numeracy skills, designed the mobile wallet based off of the findings, and iterated the mobile wallet's interface as needed. These activities addressed the *Digital literacy* barrier, as well as two connected barriers – *Basic literacy and numeracy*, and *Navigability of user interface of the digital product*. As a result of this intervention, users with low literacy and numeracy levels were able to test and use the mobile wallet product, and the research team developed a framework for providers looking to create products for this user segment.

**During our interviews with Program Officers, and IFS grantees and partners, participants widely agreed that *Social Norms barriers should be seen as cross-cutting themes* rather than a specific set of barriers to women’s economic empowerment.**

The Social Norms category included in this research influence and reinforce many of the other barriers and are considered to be foundational or pervasive across markets, segments, and customer journey phases.

Because of the nature of social norms, some experts believe that well-designed and implemented financial services interventions can shift and address them. By offering access and driving usage among women, you are able to shift social norms over time. Other experts felt that certain social norms necessitate “direct intervention” before financial services can be successful in a particular context. Our conversations with industry leaders and IFS Team members clarified that there is no one particular approach to addressing social norms that proves better than another. However, our conversations uncovered a consensus that social norms are ubiquitous and must be considered regardless of context, intervention, or segment.

This led us to ask: what kinds of partnerships could the IFS Team engage in that might lead to progress in shifting the social norms impacting women’s access and usage of financial services? Our explorations consistently led us to partnerships with interdisciplinary teams and organizations that look at systems and non-financial services solutions – for example, the Gender Equality Team at the Bill & Melinda Gates Foundation or Women Deliver.

# Diagnostic Tool



The *Barrier Diagnostic Tool* is meant to provide a checklist of questions and sources that both Program Officers and Implementation Partners can use to, within a country context, determine the *sequence in which they should approach barriers to WEE-FI*.

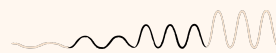
The Diagnostic Tool is a *simple checklist* that provides a standardized way to establish which barriers are most likely impacting specific parts of a target population's customer journey.



**Section 1:** Prerequisite barriers (Account Ownership)



**Section 2:** Cost, and Accessibility barriers (Account Ownership / Basic Usage)



**Section 3:** Information Availability & Capability, and Product & Service Quality barriers (Basic Usage and Active Usage)



**Section 4:** Consumer Protection, and Human Resources barriers (Active Usage/WEE-FI)

The Diagnostic Tool is divided into four sections, each associated to the different stages of the customer journey. Each section has a set of questions that will help identify barriers along the customer journey that may be more relevant for a specific market context.

*How to use this tool*

# For each question you can...

- 01.** Reference the benchmark considerations provided. These benchmarks are meant to give you an idea of where other markets are in relation to the country context you are assessing. Use these to help establish your own thoughts on whether your market context is doing well or not regarding a specific question. The benchmarks are all based on data sources provided with the tool
- 02.** Use the data sources provided for each question to help determine where your market context sits in relation to others in the region or globally.
- 03.** Based on this data you can decide whether the specific barrier related to the question and customer journey stage is something that data suggests should be elevated as a key barrier to target for interventions.
- 04.** If specific barriers and customer journey phases are identified through the previous steps, you can reference the exemplars related to each question to identify how previous interventions have gone about overcoming those barriers.



# Exemplars & Opportunities Analysis

**Our team conducted a desk review, and mapped programs, interventions and solutions linking them to the 35 WEE-FI barriers to provide the IFS Team and industry actors with a *go-to reference of interventions* that could be used as inspiration for the design or modification of WEE-FI programming.**

We successfully mapped a total of 45 interventions addressing nearly the entire list of barriers.\*

*\* We were unable to source exemplars with rigorous impact measurement methods for the following barriers: Online/Phone/Social media harassment, Reliability of payments system and network, and Predatory lending. This does not necessarily mean that interventions addressing these barriers do not exist, but rather that measuring the direct impact of these interventions is quite difficult.*

The interventions included in our list of exemplary interventions or “exemplars” meet the following criteria:

- Have some rigorous measurement of impact (set either in a randomized controlled trial or project with rigorous monitoring and evaluation)
- Achieved positive outcomes directly addressing the WEE-FI barriers
- Achieved significant positive outcomes for women

In our analysis of these exemplars, we considered a variety of standard factors including:

1. Context and reasoning for interventions
2. Key stakeholders involved
3. Key activities
4. Outcomes and results
5. Key enabling environment factors
6. Key design elements that led to successful outcomes

We also found that the majority of interventions within the exemplars focused on government policy or regulation, product rollout, capacity-building, and financial assistance.

# General Findings from Exemplars

## Capacity-Building

A majority of the exemplars included some sort of capacity-building element most often through the form of digital and financial literacy training. Other types of interventions were most often bundled with capacity-building activities. Bundling different types of interventions, such as product rollout and capacity-building, were an important key design element throughout interventions that led to successful outcomes (described in the following slides).

## Savings Products

A large number of interventions focused on savings products, as opposed to payments, credit, insurance, etc. This is largely due to clearer and more measurable impact that savings product interventions allow.

## Demand-Side Interventions

A majority of the exemplars were demand-side interventions meaning activities were targeted at demand side actors – though a large number of interventions did engage and target both supply- and demand-side actors.

## Positive Outcomes

Positive outcomes of varying interventions included increases in account opening and usage, increased savings, improved financial literacy, improved trust in technology, and increased access to credit among many others. Greater detail on outcomes per intervention can be found in the [detailed exemplars slides](#).

A key part of our exemplar analysis was identifying the design principles that were inherent in each activity, program, and intervention.

*Design principles* are a set of *guiding rules and elements to be considered during program conception and design*. These principles will help create intentional, effective, and valuable interventions and activities that work for women.

## Five design principles emerged as the most common principles throughout our exemplar research.

Interventions that adopted one or more of these principles were also found to be successful in addressing barriers to WEE-FI and meeting their intended objectives.

These five design principles should be considered when designing programs and activities specifically for women given their popularity in existing programming and impacts on improving access and usage of financial services.

The five key design principles we identified are:

- 01 Bundling a product/service rollout with capacity-building training
- 02 Targeting both supply- and demand-side actors under one program
- 03 Leveraging multiple communication channels for recruitment, and trusted community members for program implementation
- 04 Using women-centered design models
- 05 Making interventions affordable

# Bundling a product/ service rollout with capacity-building training

Our exemplar research found that most programs do not aim to address just one barrier to WEE-FI, but rather multiple issues simultaneously. As such, exemplars that bundled various activities together under a single program were found to be effective in achieving multiple desired outcomes and addressing numerous barriers. These bundled activities often consisted of:

1. A rollout of a new product or service
2. A training program, such as financial or digital literacy training, to build the capacity of customers to adopt and use the product/service.

Commonly cited outcomes in exemplars that bundled different activities together were increased financial and digital financial literacy, increased adoption and usage of the product or service, increased digital tool usage (phone, internet, etc.), and improved decision-making abilities and confidence for women.

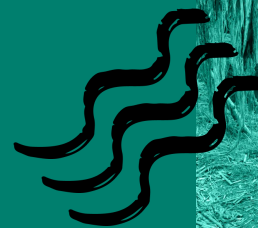


# Bundling a product/ service rollout with capacity-building training

## *Why this barrier matters for women*

This design principle can potentially address the following barriers:

- Basic literacy and numeracy
- Financial literacy
- Digital literacy
- Unclear or unavailable info about products/uses
- Unclear or difficult process to open account



### **Key evidence related to this barrier:**

According to the United Nations, despite progress in educational access, an estimated 781 million people aged 15 and over remain illiterate. Nearly 2/3 of them are women – a proportion that has remained unchanged for two decades ([2015](#)).

According to the Global System for Mobile Communications Association's ([GSMA](#)) [Mobile Gender Gap Report \(2022\)](#), literacy and digital skills are a top barrier to women's mobile phone and mobile internet use. There is also a persistent gender gap in the range of activities that men and women use their phones for.

### **Example 1**

## Strengthening Women's Financial Control in India

**Context:** Researchers sought to test the impact of providing bank accounts to women in local government units on severe gender inequities and high poverty rates on female labor force participation.

**Bundled activities:** Women were placed in one of four groups that offered different bundled services: 1) assistance to open an account, 2) assistance to open an account and linking the account to receive wages, 3) assistance to open an account and financial literacy training, and 4) assistance to open an account and linking the account to receive wages and financial literacy training.

**Outcomes:** Receiving a bank account without supplementary information had no effect on employment or earnings. However, women who received additional financial literacy training and linked their account to receive wages experienced increased wages and increased private sector employment. Women who received bundled trainings were also more likely to make transactions outside the household and reported higher levels of mobility.

*View the exemplar [here >](#)*

### **Example 2**

## Business Women Connect Program

**Context:** TechnoServe designed the Business Women Connect (BWC) program to improve the business performance of women microentrepreneurs in Tanzania by providing them with improved access to savings through mobile money and business training.

**Bundled activities:** Microentrepreneurs were assigned to one of two interventions: 1) training session on the M-Pawa mobile finance product, or 2) a training session on the M-Pawa mobile finance product accompanied with an intensive business skills training.

**Outcomes:** Women assigned to the M-Pawa intervention increased the number of deposits and withdrawals made by 5.3%, and 3.7% respectively. However, these effects are 28% and 42% higher among women who were also assigned to the business training intervention. Women also reported increases in their say over how to spend money earned from their businesses, and on major household and children expenditures.

*View the exemplar [here >](#)*



### **Example 3**

## Comunidades Conectadas y Hogares Conectados

**Context:** After Costa Rica’s Constitutional Court positioned internet access as a human right, the government launched a national plan—CR Digital—that sought to connect the country to the internet and close the digital divide.

**Bundled activities:** Activities included 1) building physical infrastructure, 2) subsidizing the cost of internet connections and devices to eligible households, and 3) building awareness of the benefits of internet access through activities and digital literacy trainings.

**Outcomes:** As of November 2021, nearly 179,000 vulnerable families throughout the country have a computer and an Internet.

*View the exemplar [here](#) >*

## Targeting both supply- and demand-side actors under one program

Interventions, programs, and activities that targeted both the supply-side (financial service providers) and demand-side (customers) reduced barriers to WEE-FI. These activities often focused on both actors:

1. Building capacity of FSPs to better serve women customers by learning how to market products specifically for women and how to address personal gender biases.
2. Introducing a program, intervention, or training that aimed to build the financial capabilities of women customers.

Common outcomes across interventions that targeted both supply- and demand-sides were increased trust in financial service providers, increased use of the product or service, increased savings, and improved access to credit.



# Targeting both supply- and demand-side actors under one program

## *Why this barrier matters for women*

This design principle can potentially address the following barriers:

- Ambivalence or antagonism towards women's financial independence
- Biases that center men as financial customers
- Potential (or actual) privacy violations
- Fraud and scams
- Fear of making mistakes
- Reliability and quality of in-person services



### **Key evidence related to this barrier:**

Research from [Caribou](#) found that women were more likely than men to voice concerns over network issues and were worried that transactions were not being completed contributing to their lower levels of trust in digital finance overall.

According to the [Financial Alliance for Women](#), 67% of women in major economies reported feeling their financial advisors did not understand them or were not interested in serving them. Around the world, women reported that banks not taking them seriously as one of their biggest obstacles to accessing financial services – both at a cultural and institutional level.

### **Example 1**

## TARA Program

**Context:** Beginning in 2016, BRAC Bank in Bangladesh sought to build both internal and external capacity to become the country's leading bank for women customers.

**Supply side intervention:** BRAC took steps to foster a more inclusive workplace including holding a feedback forum for women employees, implementing training on diversity and gender, providing dropoff and pickup services for women traveling to and from work, renovating a daycare center, offering flexible work schedules, actively recruiting more women, and providing mentorship training to women employees.

**Demand side intervention:** BRAC conducted interviews with women customers to assess their needs, created products and services that reflected those needs, and advertised all products and services designed for women on a special website.

**Outcomes:** BRAC employed and currently employs more women than any other institution in the Bangladeshi financial services industry. The percentage of female customers also grew by 8% each year from 2016 to 2019, and the % of women accessing loans has increased at an annual rate of 16%.

View the exemplar [here >](#)

### **Example 2**

## Mobile Financial Services for Female Entrepreneurs (MFS) Program

**Context:** In response to the Government of Indonesia passing a law to support the development of branchless banking services for the large unbanked rural population, the MFS intervention was launched to increase savings and usage of other financial services by women business owners in the country.

**Supply side intervention:** First, branchless banking agents were recruited and trained on how to market the products to the unbanked, and how to use branchless banking online software and features of branchless banking products/services.

**Demand side intervention:** Four business owners in each treatment village were trained and mentored by on financial and digital literacy, as well as given descriptions of branchless banking products and services.

**Outcomes:** There was a significant positive effect on women business owners' knowledge of mobile money and mobile savings products, on amounts saved, on the ability to be the sole decision-maker in the business, and on self-confidence. The number of women opening and saving in branchless banking accounts was also found to be positively and significantly related to the number of female agents.

View the exemplar [here >](#)

### **Example 3**

## Empowering MSMEs in Kenya

**Context:** Women’s World Banking (WWB) and Kenya Commercial Bank (KCB) developed a multi-pronged solution to address business challenges and customer needs focusing on accessing credit and finance.

**Supply side intervention:** KCB developed a “strategic gender focus” that included gender sensitization training, why to focus on women customers, and how to spot potential gender biases. KCB also adopted a cash flow-based credit assessment methodology to increase the number of women-owned businesses that can access credit.

**Demand side intervention:** KCB expanded the business support provided to MSMEs beyond just their products and services to cover taxations, regulations, and personal finances.

**Outcomes:** In branches where these new propositions were rolled out, lending to women-led businesses grew to over 50% of the MSME loan portfolio.

View the exemplar [here >](#)

## Leveraging multiple communication channels for recruitment, and trusted community members for program implementation

Our exemplar review found that programs that tapped into various communication channels for raising awareness of the intervention, paired with leveraging trusted community members to deliver the intervention, were successful in getting women to adopt and use a product or service. When raising awareness of the intervention or program during recruitment, some common channels leveraged were radio broadcasts, door-to-door campaigns, passing out fliers in places frequently visited by women, and having respected community members recruit women. Using a mix of channels for recruitment was then followed by incorporating respected community leaders into program implementation, such as by delivering a training or demonstration on how to use the product or service, to get participants to follow through with the activities. Common outcomes associated with this design element were an increased adoption and usage of a financial product, improved trust in financial products and institutions, increased incomes, and improved decision-making abilities.





# Leveraging multiple communication channels for recruitment, and trusted community members for program implementation

## *Why this barrier matters for women*

This design principle can potentially address the following barriers:

- Lack of peers/family/network who use DFS
- Lack of products that meet women's needs
- Lack of products and services that create value



### **Key evidence related to this barrier:**

Caribou in Kenya and Côte d'Ivoire revealed that DFS education impacts women in distinct ways from men. DFS experts and women DFS users both strongly stated that women in lower-income areas trust their peers the most when deciding which products to adopt, as opposed to relying on communications from DFS providers.

The FinAccess Survey (2021) in Kenya found that 50% of women rely on friends and family for financial advice, compared to 39% of men.

### **Example 1**

## Farm to Market Alliance (FtMA)

**Context:** FtMA is a public-private consortium of organizations seeking to transform food value chains in emerging markets by building long-term linkages between suppliers (farmers), buyers and other key market players. FtMA offers a range of services including capacity-building and training, access to affordable finance, and access to markets.

**Channels leveraged:** FtMA engages local entrepreneurs as leads to recruit women farmers to use the services helping to generate trust and buy-in. The leads visit places frequently attended by women farmers, such as farmers groups and cooperatives, during recruitment. Additionally, the leads are also available to assist during the registration process and deliver the trainings to women farmers on FtMA's products and services.

**Outcomes:** Women farmers have seen improvements in crop yields and productivity, increased incomes, and an enhancement of their business skills.

View the exemplar [here >](#)

### **Example 2**

## Interest Rate Sensitivity Among Village Banking Clients in Mexico

**Context:** Compartamos Banco, the largest MFI in Mexico, tested the impact of lowering interest rates on a group liability loan product for women.

**Channels leveraged:** Loan officers promoted the product through various channels used by women – such as the radio, and campaigning in public places frequented by women. As loan officers gained new clients, the women themselves became responsible for recruiting other women, screening their eligibility, and overseeing loan repayments giving them the flexibility to adapt the training and operations as needed.

**Outcomes:** By the third year, areas that offered lower interest rates on the loans were bringing in significantly more first-time women borrowers and more women borrowers with both high and low education.

View the exemplar [here >](#)



### **Example 3**

## **BETA Savings Account in Nigeria**

**Context:** Diamond Bank in Nigeria (now called Access Bank) introduced a financial product designed for women, the BETA savings account. The project rolled out “BETA Friends”, banking agents that directly visited customers’ businesses with a focus on women owned-businesses.

**Bundled activities:** BETA Agents or BETA Friends were generally respected community members who were recruited by Diamond Bank to provide formal financial tools to low-income Nigerian women. These agents visited the women-owned businesses directly, thereby bringing the bank directly to the customer. The BETA product also incorporated an online, real-time mobile system, which provided free text message alerts to customers at account opening and to confirm each transaction.

**Outcomes:** On average, active BETA customers were found to conduct five transactions a month and the gender gap in number of monthly transactions disappeared with account maturity. The number of female customers also increased, as well as the number of women who were saving.

*View the exemplar [here](#) >*

# Using women-centered design models

Programs that used women-centered design models to frame their planning and activities were successful in improving access to and usage of financial services for women customers. These women-centered design models incorporated a gender lens into their programming to tailor the intervention or activity for women. Key features or activities associated with a women-centered design model included: surveying and interviewing women customers to understand their needs, tailoring products and services to meet those needs, using women to market the products designed for them, and iterating the products and services based on feedback collected from women customers. Common outcomes associated with this design element included an increased number of women borrowers, increased usage of the product or service, higher levels of digital financial literacy, and improved empowerment.



# Using women-centered design models

## *Why this barrier matters for women*

This design principle can potentially address the following barriers:

- Lack of products that meet women's needs
- Lack of products and services that create value
- Reliability and quality of in-person services
- Biases that center men as financial customers
- Lack of female agents
- Lack of credit history



### Key evidence related to this barrier:

According to the [World Bank](#), women use informal financial services more than men due to their ability to be flexible and serve multiple purposes. This preference suggests that informal services continue to provide value unavailable from other channels, and providers should consider replicating or adapting some features of the informal services to attract women.

According to [RFE](#), bank branches have limited opening hours that are not conducive to women's schedules, and customer outreach does not account for women's needs.

### **Example 1**

## **Self-Help Group Members as Banking Agents for Deepening Financial Inclusion in India**

**Context:** To improve financial inclusion for rural women in India, the Government of India launched a gender-focused business correspondent (BC) model called “Bank Sakhis” (meaning female banker friend).

**Women-centered design features:** This model was designed to address the social and cultural barriers to account opening for rural women, such as discomfort interacting with male staff, as well as distance barriers to banks. Therefore, this agency banking model was designed to be gender-intentional; women are recruited to serve as agents that deliver capacity-building training and basic banking services to financially excluded women. The model is also conducive to women’s schedules: transactions can be conducted when banks are closed but Bank Sakhis are available during instances such as on holidays, festival days and emergencies.

**Outcomes:** This program has helped the women agents become more respected members of their families and the community at large. Bank Sakhis are also more inclusive in their business approach and encourage a higher number of female customers to conduct transactions in addition to supporting low-value transactions.

*View the exemplar [here](#) >*

### **Example 2**

## **Mobile Money Cash Transfer Experiment in Niger**

**Context:** After a drought and food crisis in Niger, researchers tested the impact of giving households an unconditional cash transfer delivered through traditional and digital channels.

**Women-centered design features:** The mobile phone, cash transfer, and custom digital literacy trainings were all focused on the woman of the household. Recognizing that women prefer real-time notifications when using DFS, the program incorporated a “beep” feature that notified women that the transfer had arrived.

**Outcomes:** Program participants who received the cash transfer via a mobile phone increased their uses of the transfer and consumption levels. Mobile phone usage increased, and the majority of women reported that they were responsible for spending part of the transfer.

*View the exemplar [here](#) >*

### **Example 3**

## **Digital Sub-Wallets for Increased Financial Empowerment of Women**

**Context:** CARE worked with PostBank Uganda to design digital sub-wallets to help women achieve their set savings goals – particularly for school fees, medical emergencies, and longer-term purchases such as land.

**Women-centered design features:** The project design was based on a theory of change that recognized women's power over their own money. The wallets were designed specifically for women to achieve their stated savings goals and to reflect the way that women use money. The research team also created indicators to measure the impact of the intervention on women's empowerment as defined by the women specifically by using psychometric scales.

**Outcomes:** The number of unbanked women decreased. Women also reported that their financial needs are more respected by their husbands, and 61% reported that they now share household financial decision-making responsibilities with their spouse.

*View the exemplar [here](#) >*

# Making interventions affordable

Programs, interventions, and activities that introduced a monetary incentive or an affordability measure—to get women to enroll in the activity or adopt a service—were successful in recruiting women participants especially those with low or limited incomes. These affordability measures took the following forms:

- A free mobile device and SIM card
- Free enrollment into the program or platform
- Free training modules or educational courses
- Partially subsidized technology such as a phone, computer, or internet connection
- Vouchers and cash assistance

Common outcomes associated with interventions that introduced affordability measures were increased phone usage, improved access to digital tools and technology (phones, computers, internet, digital ID, etc.), increased adoption and usage of a product or service, and higher incomes.





# Making interventions affordable

## *Why this barrier matters for women*

This design principle can potentially address the following barriers:

- Cost of using DFS
- Cost of mobile/internet
- Perceived and/or lack of money
- Non-transparent fee structures / hidden costs
- Over-charging
- Phone/SIM ownership
- Internet/Mobile connectivity



### **Key evidence related to this barrier:**

According to the latest [GSMA Mobile Gender Gap Report \(2022\)](#), affordability is a top barrier to women's mobile phone and mobile internet use.

[Research](#) in Kenya and Côte d'Ivoire found that women mobile money users were more sensitive to fees than men and were less likely to find workarounds to them.

### **Example 1**

## Mobile Phone and Livelihoods of Women Project

**Context:** An RCT was conducted in Tanzania to estimate the causal effects of mobile phones on the welfare of women from low-income households.

**Affordability measures:** Participants were assigned a combination of the following: basic handsets, smartphones, cash (40,000 Tanzanian Shillings, or US \$18 – the equivalent value of a basic phone), free group versus individual mobile phone training, mobile credit vouchers, and free solar chargers.

**Outcomes:** Women who were given free phones were, at endline, significantly more likely to own phones, use mobile money, use phones for income-generating activities, and score higher on an index of financial inclusion.

*View the exemplar [here](#) >*

### **Example 2**

## Benazir Income Support Programme (BISP)

**Context:** Launched in 2008, the BISP is the Government of Pakistan's flagship social safety net program.

**Affordability measures:** At its core, the BISP is an Unconditional Cash Transfer (UCT) providing cash payments directly to female beneficiaries within households deemed eligible through the BISP poverty scorecard which specifically focuses on households for the program.

**Outcomes:** The BISP continues to have a strong impact on women's empowerment in a wide range of dimensions including greater mobility, increased autonomy in decision-making, increased personal savings, increased political participation, and a reduction in some forms of gender-based violence. One of the most frequently cited impacts of BISP has been a marked increase in rural women's access to computerized national identity cards (CNICs) – a prerequisite for obtaining the program. CNICs can be seen as the first step to citizenship and rights claims in Pakistan. The enrollment of women for the national identity cards has doubled since the start of the program.

*View the exemplar [here](#) >*



### **Example 3**

## Rwanda's Land Tenure Regularization Program

**Context:** In 2010 the Government of Rwanda launched a nationwide land tenure regularization (LTR) program to improve women's access to land and land rights.

**Affordability measures:** The land registration process was designed to be low cost, at US \$5 per parcel, to enable low-income women to be included in land regularization efforts.

**Outcomes:** There was a large improvement in the perceived rights for women to be registered as a claimant (alone or jointly) on parcels owned by married couples from only 33% in the baseline to about 94% after the implementation of LTR. Women's rights to mortgage or lease out land also increased substantially (between 9–13% for the former, and between 8–10% for the latter).

*View the exemplar [here](#) >*

*Section 02*

# Barriers & Opportunities Analysis



# Executive Summary

The Barriers Analysis evidence review and mapping process has revealed interesting sets of relevant barriers for different segments in different markets. Through this process, our team mapped barriers by segment, which allows us also to prioritize barriers by country, focusing on the largest segments in each country and their corresponding barriers. This contextualized representation will allow for a more targeted approach when we consider what opportunities might most accelerate progress to achieving the 2030 WEE-FI vision statement.

As with many things, country context is critical. The differences in segmentation distribution by market is strong. The only markets that have even remotely similar segmentation distribution are Uganda and Tanzania. Attempting to create a list of “universal barriers” across all segments in all markets would be limiting when transitioning to thinking about opportunities and solutions.

That being said, there are eight barriers that are relevant across all four segments (see figure 01 on the following slide).

Segments nearly and precisely correlate to the customer journey phases, with Segments 1 and 2 centered around Account Ownership, and Basic Usage, while Segment 3 relates more to Basic Usage, and Active Usage, and Segment 4 relating to Active Usage, and WEE.

Finally, a note on the Social Norms barriers category. Social norms are relevant barriers across all segments and are highly connected to other barriers (either as root causes or exacerbating elements). By addressing Social Norms barriers, we would likely have an outsized *positive* impact on other barriers. However, the Social Norms barriers are likely some of the most difficult barriers to resolve and change given how highly contextualized and ingrained they likely are.

# Figure 01: Barriers Relevant Across All Four Segments

<i>Prerequisites</i>	Broader legal constraints (e.g. male signature)
<i>Cost</i>	Cost of using DFS (incl. transaction cost)
	Cost of mobile/internet
<i>Social Norms</i>	Biases that center men as financial customers
	Expectation that men control HH finances
	Ambivalence or antagonism towards women's financial independence
	Women's disproportionate time burden
<i>Human Resources</i>	Lack of female agents

# Definitions

# Financial Inclusion Segments

01

Excluded, marginalized

02

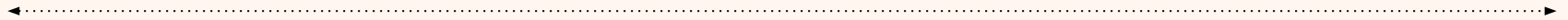
Excluded, high potential

03

Included, underserved

04

Included, not underserved



*Lower potential for inclusion*

*Greater potential for inclusion*

# Financial Inclusion Segments

*This represents the segmentation approach as defined by Mathematica.*

## 01. Excluded, marginalized

Does **not own** a financial account  
*and*

**Has not** conducted **certain transactions** in the past 12 months  
*and either*

Does **not have** an **income source**  
(neither in the workforce nor have received a G2P payment)  
*or*

**Cannot access financial services**  
(does not have a mobile phone, and financial institutions are too far away)

## 02. Excluded, high potential

Does **not own** a financial account  
*and either*

**Has** conducted **certain transactions** in the past 12 months  
*or*

**Has** an **income source** (from being in the workforce or receiving a G2P payment)  
*and*

**Can access financial services**  
(does have a mobile phone and financial institutions are not too far away)

## 03. Included, underserved

**Owns** a financial account  
*and*

**Has not** conducted more than one type of **advanced transaction** in the past 12 months

## 04. Included, not underserved

**Owns** a financial account  
*and*

**Has** conducted more than one type of **advanced transaction** in the past 12 months

*Lower potential for inclusion*

*Greater potential for inclusion*

# Defining the Segments (1 of 2)

## 01. Excluded, marginalized

---

Segment 1, the excluded, marginalized segment of the population, comprises women who do not have a financial account, have not conducted certain transactions\* in the past year, and either do not have an income source (they are not in the workforce and do not receive a G2P payment) or do not have access to financial services (they are too far from financial institutions and do not own a mobile phone). This means women in Segment 1 could either:

1. Have an income source but do not have an account, have not conducted transactions, and do not have access to financial services (they do not have a mobile phone and are too far away from financial institutions)
2. Have access to financial services but do not have an account, have not conducted transactions, and do not have an income source (they are neither in the workforce nor have they received a G2P payment)

## 02. Excluded, high potential

---

Segment 2, the excluded and high potential segment of the population, comprises women who do not have a financial account, but they have either conducted certain transactions\* in the past year or they have both a source of income (either by being in the workforce or receiving a G2P payment) and access to financial services (either because they are not too far away from financial institutions or they own a mobile phone). This means that women in Segment 2 could either:

1. Have conducted transactions without an account
2. Have no account, have not conducted transactions, but had both an income source (through being in the workforce or receiving a G2P payment) and access to financial services (through a mobile phone or because they are not too far away from financial institutions)

← .....  
*Lower potential for inclusion*



## Defining the Segments (2 of 2)

### 03. Included, underserved

---

Segment 3, the included, underserved segment of the population, comprises women who do have a financial account, but did not conduct more than one type of advanced transaction in the past year.\*\*

### 04. Included, not underserved

---

Segment 4, the included, not underserved segment of the population, comprises women who do have a financial account, and have conducted more the one type of advanced transaction in the past year.\*\*

.....>  
*Greater potential for inclusion*

*\*\*Certain transaction(s) include saving through a formal financial institution, borrowing through a formal financial institution, paying utility bills through a formal financial institution or mobile phone, receiving wages through a formal financial institution or mobile phone, receiving agricultural payments through a formal financial institution or mobile phone, receiving government payments through a formal financial institution or mobile phone, receiving business payments through a formal financial institution or mobile phone, paying bills online, and/or buying something online.*

*\*\*Advanced transactions include saving through a formal financial institution, borrowing through a formal financial institution, paying utility bills through a formal financial institution or mobile phone, and/or receiving wages through a formal financial institution or mobile phone.*



## Building a Demographic Profile of Women in Each Segment

Based on the segmentation definitions highlighted previously, the Global Findex database allowed us to identify the following demographic characteristics of each segment. These details provide the potential to conduct more nuanced analysis regarding the priority barriers in each country:

- 1) Employment sectors for each segment (e.g., agriculture, self-employment, public employment, private employment, not in workforce, etc.)
- 2) Education levels for each segment (e.g., primary or less, secondary, tertiary or more, etc.)
- 3) Age ranges for each segment (e.g., 15-24, 25-34, 35-44, etc.)
- 4) Income quintile for each segment (e.g., bottom 20%, fourth 20%, middle 20%, etc.)
- 5) Mobile phone ownership rates for each segment.

# Customer Journey



## *Phase 1*

### **Account Ownership**

---

Customer enrolls and opens a DFS account. It's important to consider pre-account ownership where the customer is unaware of the account, or aware, but not interested enough to sign up.

## *Phase 2*

### **Basic Account Usage**

---

Customer has an account, but they are using it for basic transactions such as P2P.

## *Phase 3*

### **Active Account Usage**

---

Customer begins to explore different use cases around the service and considers different ways to use the account.

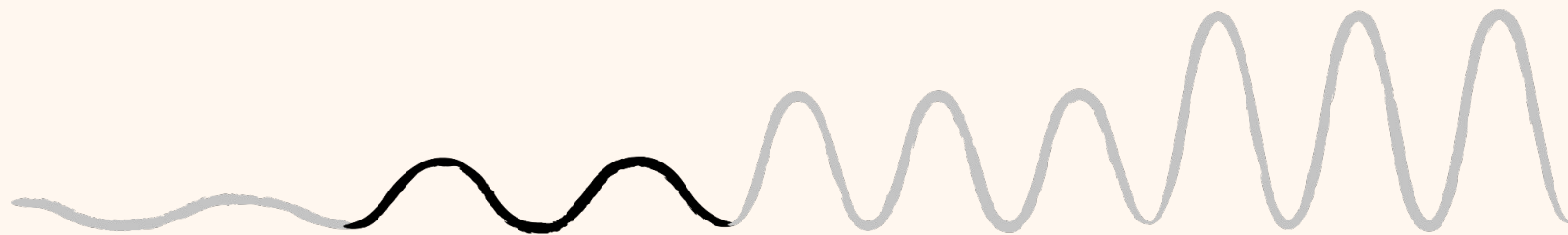
## *Phase 4*

### **Economic Empowerment**

---

Customer begins using DFS services that meet a full breadth of her needs, and she is confidently and safely able to choose the services that are best for her.

# Customer Journey



*Phase 1*

## Account Ownership

---

Customer enrolls and opens a DFS account. It's important to consider pre-account ownership where the customer is unaware of the account, or aware, but not interested enough to sign up.

*Phase 2*

## Basic Account Usage

---

Customer has an account, but they are using it for basic transactions such as P2P.

*Phase 3*

## Active Account Usage

---

Customer begins to explore different use cases around the service and considers different ways to use the account.

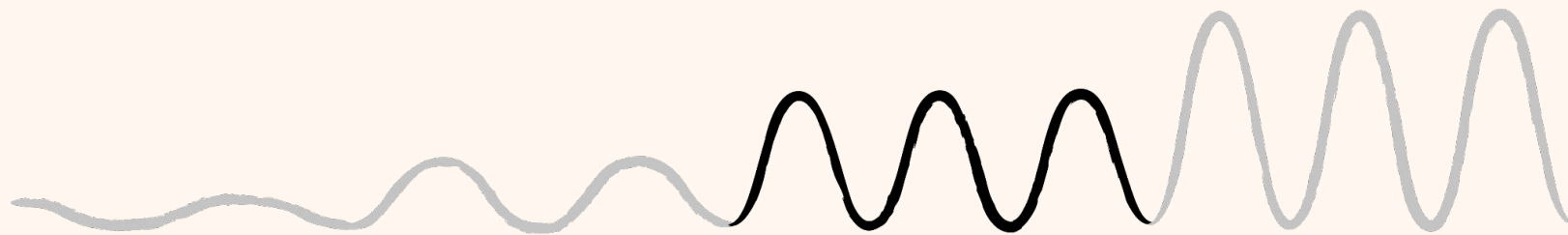
*Phase 4*

## Economic Empowerment

---

Customer begins using DFS services that meet a full breadth of her needs, and she is confidently and safely able to choose the services that are best for her.

# Customer Journey



## *Phase 1*

### **Account Ownership**

---

Customer enrolls and opens a DFS account. It's important to consider pre-account ownership where the customer is unaware of the account, or aware, but not interested enough to sign up.

## *Phase 2*

### **Basic Account Usage**

---

Customer has an account, but they are using it for basic transactions such as P2P.

## *Phase 3*

### **Active Account Usage**

---

Customer begins to explore different use cases around the service and considers different ways to use the account.

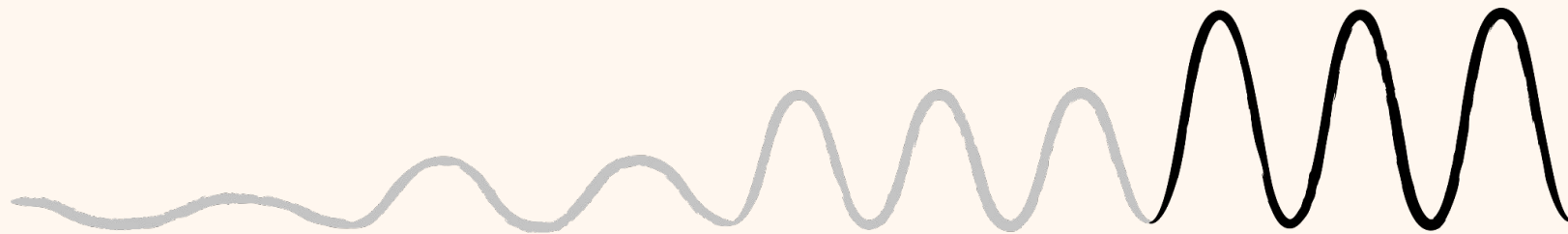
## *Phase 4*

### **Economic Empowerment**

---

Customer begins using DFS services that meet a full breadth of her needs, and she is confidently and safely able to choose the services that are best for her.

# Customer Journey



## *Phase 1*

### **Account Ownership**

---

Customer enrolls and opens a DFS account. It's important to consider pre-account ownership where the customer is unaware of the account, or aware, but not interested enough to sign up.

## *Phase 2*

### **Basic Account Usage**

---

Customer has an account, but they are using it for basic transactions such as P2P.

## *Phase 3*

### **Active Account Usage**

---

Customer begins to explore different use cases around the service and considers different ways to use the account.

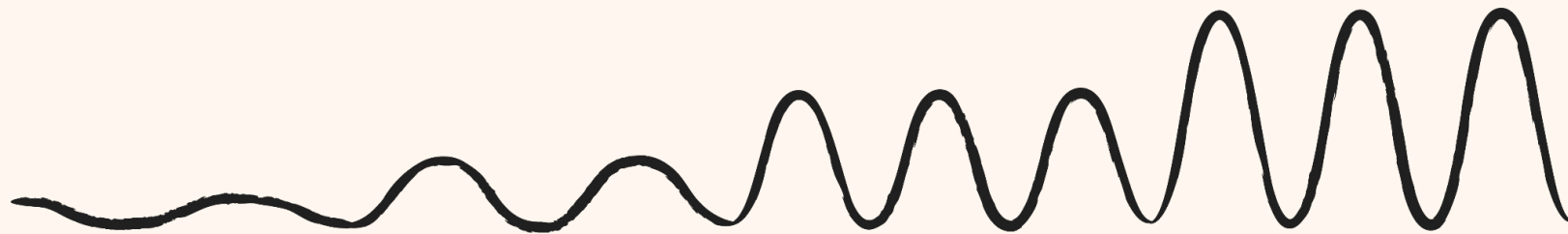
## *Phase 4*

### **Economic Empowerment**

---

Customer begins using DFS services that meet a full breadth of her needs, and she is confidently and safely able to choose the services that are best for her.

# Customer Journey



## *Phase 1*

### **Account Ownership**

---

Customer enrolls and opens a DFS account. It's important to consider pre-account ownership where the customer is unaware of the account, or aware, but not interested enough to sign up.

## *Phase 2*

### **Basic Account Usage**

---

Customer has an account, but they are using it for basic transactions such as P2P.

## *Phase 3*

### **Active Account Usage**

---

Customer begins to explore different use cases around the service and considers different ways to use the account.

## *Phase 4*

### **Economic Empowerment**

---

Customer begins using DFS services that meet a full breadth of her needs, and she is confidently and safely able to choose the services that are best for her.

# Methodology and Understanding the Data





## Origin of the Barriers

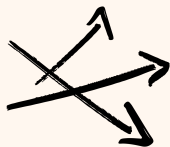
During the 2020–2021 IFS WEE-FI Strategy Refresh process, a set of key barriers were identified as contributing to the gender gap in financial inclusion and slowing progress to ubiquitous access and usage. Forty barriers, grouped into eight categories, were chosen by the IFS Gender Team based on a broad review of the existing evidence base and consultations with the IFS Team.

# Barrier Categories

*These categories were defined by the IFS Gender Team in 2021.*



**Prerequisites**



**Accessibility**



**Cost**



**Social Norms**



**Information Availability  
& Capability**



**Product &  
Service Quality**



**Human  
Resources**



**Consumer  
Protection**

# Our Research Methodology



*Step 1*

## Research

At the time of sharing this deliverable, our team had referenced 297 sources – including peer-reviewed papers, industry reports, expert articles, organizational and programmatic resources, and other leading materials. The purpose of this evidence review was to better understand how specific barriers might negatively impact women’s uptake and usage of digital financial services.

We compiled all relevant data points and evidence for each barrier. The culmination of this research is shared in the Annex of this document.



*Step 2*

## Iterate

From our research, we made decisions to iterate certain barriers to be more inclusive of the range of elements it might encompass, and we also combined and reframed some of the Social Norm barriers in a way that better represents the existing evidence base.



*Step 3*

## Tag

We reviewed all available evidence we could find about how a specific barrier might influence financial service access and usage among women. In our Barrier Evidence Database, we tagged each barrier against:

- The segmentation model (developed by Mathematica and the IFS Gender Team)
- Customer journey phase (as identified by the IFS Gender Team)
- Other specific barriers that are connected in some way

# Our Research Methodology



*Step 4*

## Analyze relationships

The previous step allowed us to conduct analysis on relationships between barrier categories, segments, and the customer journey phases. We could also analyze which barriers were connected to one another through the evidence.



*Step 5*

## Focus

Then, using the Findex database and analysis completed by Mathematica, we looked at the largest segments in each of the nine focus countries for the IFS Team. We created lists of priority barriers for each country depending on which segments are largest.



*Step 6*

## Map

Finally, we created a Connected Barriers Map to illustrate the interconnectedness of the barriers. The artefact played a larger role in the following phase of the project when we identified exemplars and opportunities for the IFS Team and the financial inclusion industry.

## Evolving Barriers List

*As our team researched the 40 original barriers, we identified opportunities to simplify and streamline the barriers.*

The most significant changes were made to the **Social Norms** category of barriers. Initially, Social Norms were represented by **eight** barriers ([see all barriers here](#)), but after preliminary and expanded desk research, our team refined the barriers to better reflect the existing evidence base and redundancies across other barrier categories. The changes we made to the Social Norms barriers included:

- Removing the **Expectation that women use money for communal or family benefit** barrier because there was no mention and/or evidence of this barrier contributing to a lack of uptake or usage of financial services for women in the preliminary and expanded desk research.
- Removing the **Legal inequalities that prevent women from work, owning bank account, etc.**, and **Discomfort interacting with male agents** barriers because both were already represented in other barriers; the former is addressed under **Broader legal constraints** in the Prerequisites category and the latter under **Lack of female agents** in the Human Resource category.
- Integrated **Expectation that financial accounts are shared** into the **Ambivalence or antagonism towards women's financial independence** because the two barriers focus on the idea of privacy and women's agency over their finances.
- Simplification of **Expectation that men control HH finances and/or can appropriate money from women** by removing the phrase "can appropriate money from women" as this was not supported in the evidence.

## Evolving Barriers List (cont.)

*As our team researched the 40 original barriers, we identified opportunities to simplify and streamline the barriers.*

As a result, we ended up with **four** barriers in the Social Norms category:

1. Biases that center men as financial customers
2. Expectation that men control HH finances
3. Ambivalence or antagonism towards women's financial independence
4. Women's disproportionate time burden

We also added "and quality of" to the barrier **Reliability of in-person services**. Originally, we perceived *Reliability of in-person services* to focus on whether or not a customer could complete a transaction in person (e.g., if the agent had sufficient float, if a branch was open when the customer needed to transact, or if the network was on and functional), but we felt the barrier was missing an important element – the quality of in-person services. We changed the barrier to **Reliability and quality of in-person services** to encompass the customer experience during an in-person transaction. Customer service and agent-customer interactions can often play a large role in whether or not a customer returns to transact, is able to transact independently, or explores additional services of the FSP.

# Evolving Barriers List: Social Norms

<i>Original list of barriers</i>	<i>Status and justification</i>	<i>New list of barriers</i>
Biases that center men as financial customers	Unchanged	1. Biases that center men as financial customers
Expectation that financial accounts are shared	Folded into <i>Ambivalence or antagonism towards women's financial independence</i> barrier	2. Expectation that men control HH finances
Expectation that men control HH finances	Removed the last element ("can appropriate money from women")	3. Ambivalence or antagonism towards women's financial independence
Expectation that women use \$ for communal or family benefit	Removed completely because there was no mention of this barrier in the preliminary and expanded desk research	4. Ambivalence or antagonism towards women's financial independence
Ambivalence or antagonism towards women's financial independence	Unchanged	
Women's disproportionate time burden	Unchanged	

## Evolving Barriers List: Social Norms (cont.)

<i>Original list of barriers</i>	<i>Status and justification</i>	<i>New list of barriers</i>
Legal inequalities that prevent women from work, owning bank account etc	Removed from Social Norms because this concept is discussed under <i>Broader legal constraints</i> in the Prerequisites category	1. Biases that center men as financial customers
Discomfort interacting with male agent	Removed from Social Norms because this concept is discussed under <i>Lack of female agents</i> barrier in the Human Resources category	2. Expectation that men control HH finances
		3. Ambivalence or antagonism towards women's financial independence
		4. Ambivalence or antagonism towards women's financial independence



# Full List of Barriers (1 of 2)



## Prerequisites >

---

Broader legal constraints  
(e.g. male signature) >

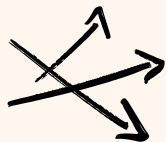
Internet/Mobile connectivity >

KYC requirements >

Lack of credit history  
(for credit products only) >

Digital/Foundational ID >

Phone/SIM ownership >



## Accessibility >

---

Mobility constraints (e.g.  
legal curfews, norms) >

Distance from bank/  
FSP/CICO agent >



## Cost >

---

Cost of mobile/internet >

Cost of using DFS  
(incl. transaction cost) >

Perceived and/or  
lack of money >

Non-transparent fee  
structures / hidden costs >



## Information Availability & Capability >

---

Lack of peers/family/  
network who use DFS >

Basic literacy and numeracy >

Digital literacy >

Financial literacy >

Unclear or unavailable  
info about products/uses >

Unclear or difficult  
process to open account >

## Full List of Barriers (2 of 2)



### *Product & Service Quality >*

---

Reliability of payments system and network >

Reliability and quality of in-person services >

Lack of products that meet women's needs >

Lack of products and services that create value >

Navigability of user interface of the digital product >



### *Consumer Protection >*

---

Potential (or actual) privacy violations >

Predatory lending >

Over-charging >

Fraud and scams >

Fear of making mistakes >

Online/Phone/Social media harassment >

Difficulty resolving complaints >



### *Human Resources >*

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Lack of women in leadership at DFS providers and policy-makers >

Lack of female agents >



### *Social Norms >*

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Ambivalence or antagonism towards women's financial independence >

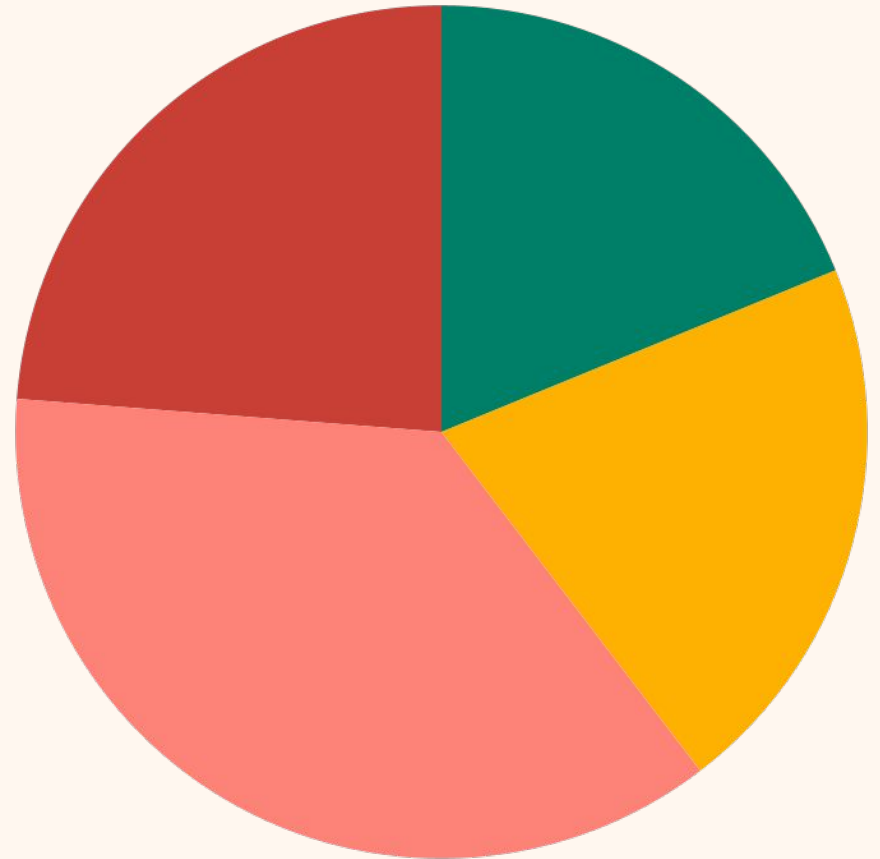
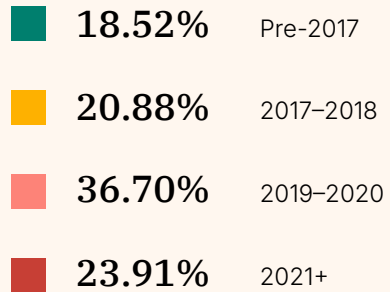
Expectation that men control HH finances >

Women's disproportionate performance of unpaid care work >

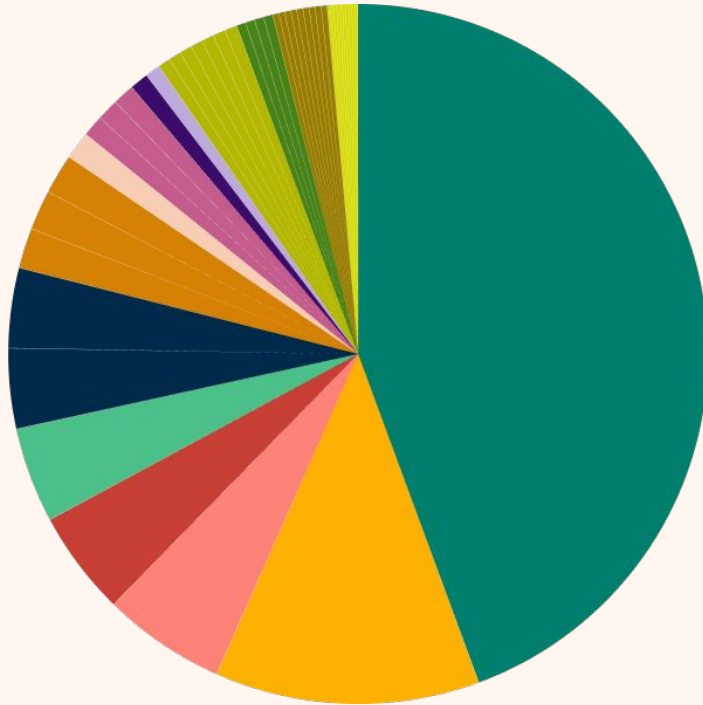
Biases that center men as financial customers >

## Source Years

The sources range from 1985–2022 (37 years). However, there is a single source from 1985. The second earliest source was published in 2006.



# Source Countries



44.38%	Multiple
12.23%	Kenya
5.69%	Uganda
4.84%	Bangladesh
4.41%	India
3.7%	Côte d'Ivoire, Nigeria
1.85%	Democratic Republic of the Congo, Pakistan, Tanzania
1.28%	Philippines
1%	Indonesia, Malawi, Zambia
.85%	Sri Lanka
.71%	Turkey
.57%	Cambodia, Mexico, Niger, Papua New Guinea, Rwanda, Solomon Islands, Vietnam
.43%	Ghana, Madagascar, Peru, USA
.28%	Afghanistan, Chile, China, Ethiopia, Laos, Liberia, Mozambique, Senegal, South Africa
.14%	Albania, Australia, Brazil, Burkina Faso, Chad, Colombia, Malaysia, Russia, Sierra Leone, United Kingdom

## Takeaways: Data Challenges

# 01

Many of the sources were at the *global* or *regional* level, however, we feel this may **mask** specific *contextual differences*.

These global and regional reports may inadvertently *overweigh* the reality of a few countries discussed in more depth. For example, the Council on Foreign Affairs created an index for 190 economies to understand how legal constraints fair in those markets. Still, it focuses discussion of the actual legal barriers and how they play out in countries such as India, Nigeria and Pakistan.

While our evidence base is now more balanced compared to Deliverable 2, much of the financial inclusion *quantitative* data continues to skew to select markets where research is more regularly and commonly conducted: Bangladesh, India, Kenya, and Uganda. Sources from those countries are richer in data.



## Takeaways: Data Challenges

# 02

Much of our financial inclusion industry's reports and papers rely on *anecdotal evidence* that does not regularly reference rigorous, *quantitative research* methods.

While anecdotal data can be important, we caution our readers and the industry not to overweigh anecdotal evidence, and to review the source dataset and research methodologies of cited papers. The financial inclusion industry relies on rigorous evidence-based (quantitative and qualitative) studies as well as technical or topical reports authored by leading institutions working in the financial inclusion space. When reviewing and tagging resources, our team preferred the evidence that came from more rigorous evidence-based reporting over anecdotal evidence when identifying the relevance of a barrier. With this warning aside, we did feel it was important to include some of the less rigorous research due to the dearth of rigorous data supporting the specific areas of interest for this project.



## Takeaways: Data Challenges

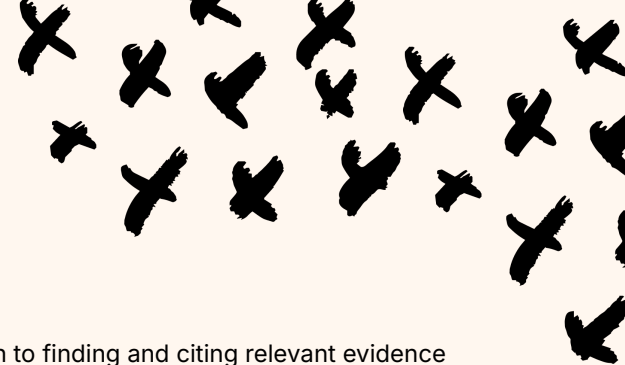
# 03

Building the evidence base for specific barriers requires a **“patchwork” approach** across many reports and sources.

This patchwork approach to finding and citing relevant evidence might make it more difficult to build a global evidence base especially considering the diversity of research methods and the wide range of populations and interventions studied.

**Evidence is typically context-specific according to local geographies.** Similarly, most industry research focuses on specific country contexts. The ability to then compare similar data across markets can be challenging due to the highly contextualized nature of enabling environments, customers' lives, experiences and needs, and other market conditions.

**Evidence is typically sector or user group specific.** Much of the evidence included in this review focus on specific groups of people in a specific country context like factory workers or microentrepreneurs. This also complicates the ability to compare experiences and outcomes across markets. It is rare that cross-market studies use the same *definitions* or profiles of customer segments – so a nuanced, subjective analysis approach is required.



## Takeaways: Data Challenges

# 03

Building the evidence base for specific barriers requires a **“patchwork” approach** across many reports and sources.

**Evidence is not consistently framed by a specific barrier.** Much of the evidence in our industry is written to measure, evaluate, or explain a specific intervention or program that often attempts to solve challenges related to uptake and usage but not necessarily specific barriers in the way we hope to delineate evidence. This required us to link evidence to barriers based on their established definitions and to evidence that was not written with our list of barriers in mind.

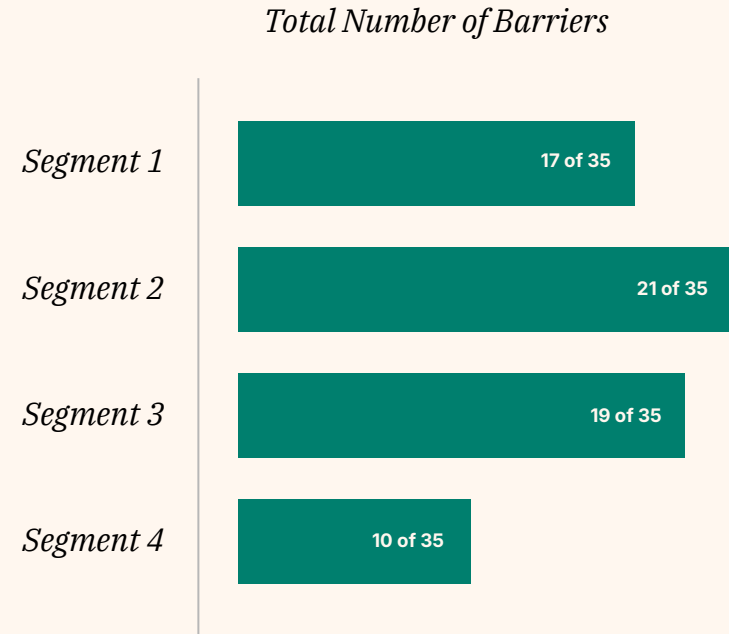
**Evidence is not gathered according to the four segments we are working with.** The segmentation model provided by Mathematica is a new framework that has not yet been widely adopted in the industry. This means that although evidence is often sector or user group specific, it is not always aligned cleanly to the four segments we are attempting to understand. In many cases, our team had to use deductive reasoning to determine which segments evidence referred to. Perhaps, in the future, industry research could leverage the segmentation framework to allow easier cross-sector, cross-country comparisons.





# Mapping Relevant Barriers to Segments and Customer Journey Phases

# Mapping Barriers to *Customer Segments*



Relevant barriers by  
segment: 17 of 35

## Segment

# 01

---

Distance from bank/FSP/CICO agent  
Mobility constraints (e.g., legal curfews, norms)  
Difficulty resolving complaints  
Fraud and scams  
Fear of making mistakes  
Online/Phone/Social media harassment  
Over-charging  
Potential (or actual) privacy violations  
Predatory lending  
Cost of mobile/internet  
Cost of using DFS (incl. transaction cost)  
Non-transparent fee structures / hidden costs  
Perceived and/or lack of money  
Lack of female agents  
Lack of women in leadership at DFS providers and policy-makers  
Basic literacy and numeracy  
Digital literacy  
Financial literacy  
Lack of peers/family/network who use DFS

Unclear or difficult process to open account  
Unclear or unavailable info about products/uses  
Broader legal constraints (e.g. male signature)  
Digital/Foundational ID  
Internet/Mobile connectivity  
KYC requirements  
Lack of credit history (for credit products only)  
Phone/SIM ownership  
Lack of products and services that create value  
Lack of products that meet women's needs  
Navigability of user interface of the digital product  
Reliability and quality of in-person services  
Reliability of payments system and network  
Ambivalence or antagonism towards women's financial independence  
Biases that center men as financial customers  
Expectation that men control HH finances  
Women's disproportionate time burden

Relevant barriers by  
segment: 21 of 35

# Segment 02

---

- Distance from bank/FSP/CICO agent
- Mobility constraints (e.g., legal curfews, norms)
- Difficulty resolving complaints
- Fraud and scams
- Fear of making mistakes
- Online/Phone/Social media harassment
- Over-charging
- Potential (or actual) privacy violations
- Predatory lending
- Cost of mobile/internet
- Cost of using DFS (incl. transaction cost)
- Non-transparent fee structures / hidden costs
- Perceived and/or lack of money
- Lack of female agents
- Lack of women in leadership at DFS providers and policy-makers
- Basic literacy and numeracy
- Digital literacy
- Financial literacy
- Lack of peers/family/network who use DFS
- Unclear or difficult process to open account
- Unclear or unavailable info about products/uses
- Broader legal constraints (e.g. male signature)
- Digital/Foundational ID
- Internet/Mobile connectivity
- KYC requirements
- Lack of credit history (for credit products only)
- Phone/SIM ownership
- Lack of products and services that create value
- Lack of products that meet women's needs
- Navigability of user interface of the digital product
- Reliability and quality of in-person services
- Reliability of payments system and network
- Ambivalence or antagonism towards women's financial independence
- Biases that center men as financial customers
- Expectation that men control HH finances
- Women's disproportionate time burden

Relevant barriers by  
segment: 20 of 35

# Segment 03

---

Distance from bank/FSP/CICO agent

Mobility constraints (e.g., legal curfews, norms)

Difficulty resolving complaints

Fraud and scams

Fear of making mistakes

Online/Phone/Social media harassment

Over-charging

Potential (or actual) privacy violations

Predatory lending

Cost of mobile/internet

Cost of using DFS (incl. transaction cost)

Non-transparent fee structures / hidden costs

Perceived and/or lack of money

Lack of female agents

Lack of women in leadership at DFS providers  
and policy-makers

Basic literacy and numeracy

Digital literacy

Financial literacy

Lack of peers/family/network who use DFS

Unclear or difficult process to open account

Unclear or unavailable info about products/uses

Broader legal constraints (e.g. male signature)

Digital/Foundational ID

Internet/Mobile connectivity

KYC requirements

Lack of credit history (for credit products only)

Phone/SIM ownership

Lack of products and services that create value

Lack of products that meet women's needs

Navigability of user interface of the digital  
product

Reliability and quality of in-person services

Reliability of payments system and network

Ambivalence or antagonism towards women's  
financial independence

Biases that center men as financial customers

Expectation that men control HH finances

Women's disproportionate time burden

Relevant barriers by  
segment: 10 of 35

## Segment

# 04

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Distance from bank/FSP/CICO agent

Mobility constraints (e.g., legal curfews, norms)

Difficulty resolving complaints

Fraud and scams

Fear of making mistakes

Online/Phone/Social media harassment

**Over-charging**

Potential (or actual) privacy violations

Predatory lending

Cost of mobile/internet

Cost of using DFS (incl. transaction cost)

Non-transparent fee structures / hidden costs

Perceived and/or lack of money

**Lack of female agents**

Lack of women in leadership at DFS providers  
and policy-makers

Basic literacy and numeracy

Digital literacy

Financial literacy

Lack of peers/family/network who use DFS

Unclear or difficult process to open account

Unclear or unavailable info about products/uses

**Broader legal constraints (e.g. male signature)**

Digital/Foundational ID

Internet/Mobile connectivity

KYC requirements

Lack of credit history (for credit products only)

Phone/SIM ownership

Lack of products and services that create value

Lack of products that meet women's needs

Navigability of user interface of the digital  
product

**Reliability and quality of in-person services**

Reliability of payments system and network

Ambivalence or antagonism towards women's  
financial independence

Biases that center men as financial customers

Expectation that men control HH finances

**Women's disproportionate time burden**

## Eight barriers were identified as relevant for *all* **four segments.**

Our team found evidence that indicates eight specific barriers are relevant across all four segments. Barriers rooted in social norms and legal constraints—which were found to be highly related through our analysis—showed up as relevant across all segments. Costs associated with the use of DFS (e.g. fees), and the cost of mobile and/or internet connectivity were also present across segments.

<i>Prerequisites</i>	Broader legal constraints (e.g. male signature)
<i>Cost</i>	Cost of using DFS (incl. transaction cost)
	Cost of mobile/internet
<i>Social Norms</i>	Biases that center men as financial customers
	Expectation that men control HH finances
	Ambivalence or antagonism towards women's financial independence
	Women's disproportionate time burden
<i>Human Resources</i>	Lack of female agents

## Key barriers for Segments 1 and 2 are many with a focus on Prerequisites, Cost, Accessibility, and Information.

Women in Segments 1 and 2 are at the beginning of their customer journey, and lack prerequisites such as owning a mobile phone/sim and having access to an ID. These customers also struggle with Cost, and Accessibility as primary barrier categories including costs that result from long travel times to financial service access points. *Basic numeracy and literacy*, as well as *Digital literacy*, are a challenge for women in these segments, and many lack peers or family that use digital financial services. To the right are barriers that are specifically mapped to Segments 1 and 2.

<i>Prerequisites</i>	<p>Phone/SIM ownership</p> <p>Digital/Foundational ID</p> <p>Broader legal constraints (e.g., male signature)</p>
<i>Cost</i>	<p>Cost of using DFS (incl. transaction cost)</p> <p>Perceived and/or lack of money</p>
<i>Information Availability &amp; Capability</i>	<p>Cost of mobile/internet</p> <p>Basic literacy and numeracy</p> <p>Digital literacy</p> <p>Unclear or unavailable info about products/uses</p> <p>Lack of peers/family/network who use DFS</p>
<i>Accessibility</i>	<p>Distance from bank/FSP/CICO agent</p>
<i>Social Norms</i>	<p>Biases that center men as financial customers</p> <p>Expectation that men control HH finances</p> <p>Ambivalence or antagonism towards women's financial independence</p> <p>Women's disproportionate time burden</p>
<i>Human resources</i>	<p>Lack of female agents</p>



## Segment 3 faces many of the same barriers as Segments 1 and 2, but with key differences in *Product & Service Quality*, and *Consumer Protection*.

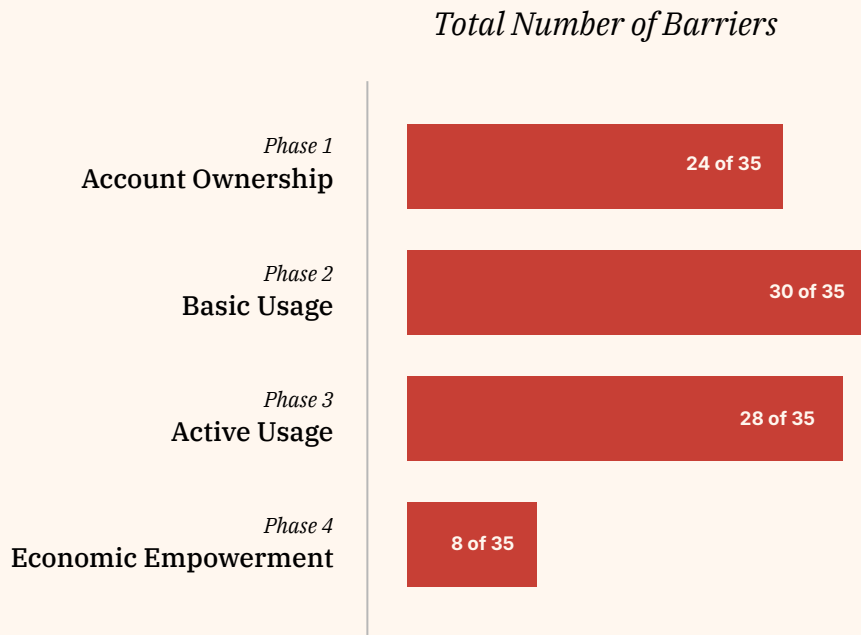
Evidence shows that women in Segment 3 face many of the same barrier categories of those in Segments 1 and 2 including Cost, and Information Availability. The key differences for women in Segment 3 lie within Product & Service Quality, and Consumer Protection barrier categories. Barriers such as *Lack of products that meet women's needs*, and *Reliability and quality of in-person services* create additional barriers for women in Segment 3 to go from basic usage to active usage in their customer journey. Accessibility barriers is less of an issue for Segment 3, but distance from agents can still present issues. To the right are barriers relevant for Segment 3 with differing barriers from 1 and 2 highlighted.

<i>Prerequisites</i>	Digital/Foundational ID Broader legal constraints (e.g., male signature) <b>Lack of credit history (for credit products only)</b>
<i>Cost</i>	Cost of using DFS (incl. transaction cost) Cost of mobile/internet
<i>Information Availability &amp; Capability</i>	Basic literacy and numeracy Digital literacy Unclear or unavailable info about products/uses Lack of peers/family/network who use DFS
<i>Social Norms</i>	Biases that center men as financial customers Expectation that men control HH finances Ambivalence or antagonism towards women's financial independence Women's disproportionate time burden
<i>Human resources</i>	Lack of female agents
<i>Accessibility</i>	Distance from bank/FSP/CICO agent
<i>Product &amp; Service Quality</i>	Lack of products that meet women's needs <b>Reliability of payments system and network</b> <b>Lack of products and services that create value</b> <b>Reliability and quality of in-person services</b>
<i>Consumer Protection</i>	<b>Over-charging</b>

## Mapping Barriers to the Customer Journey

Based on our analysis and evidence mapping, we found that Phase 2, basic usage, was the portion of the customer journey that had the most barriers associated to it. This tracks well with the *State of the Industry Report (2022)* from GSMA that states over 60% of all registered accounts were inactive in 2021.\*

While getting women onboarded and registered onto accounts presents its own challenges, moving through the basic and active parts of the customer journey demonstrates the most barriers.



\* [https://www.gsma.com/sotir/wp-content/uploads/2022/03/GSMA\\_State\\_of\\_the\\_Industry\\_2022\\_English.pdf](https://www.gsma.com/sotir/wp-content/uploads/2022/03/GSMA_State_of_the_Industry_2022_English.pdf)

*Relevant barriers by  
journey phase: 25 of 35*

# Phase 1: Account Ownership



- Distance from bank/FSP/CICO agent
- Mobility constraints (e.g., legal curfews, norms)
- Difficulty resolving complaints
- Fraud and scams
- Fear of making mistakes
- Online/Phone/Social media harassment
- Over-charging
- Potential (or actual) privacy violations
- Predatory lending
- Cost of mobile/internet
- Cost of using DFS (incl. transaction cost)
- Non-transparent fee structures / hidden costs
- Perceived and/or lack of money
- Lack of female agents
- Lack of women in leadership at DFS providers and policy-makers
- Basic literacy and numeracy
- Digital literacy
- Financial literacy
- Lack of peers/family/network who use DFS
- Unclear or difficult process to open account
- Unclear or unavailable info about products/uses
- Broader legal constraints (e.g., male signature)
- Digital/Foundational ID
- Internet/Mobile connectivity
- KYC requirements
- Lack of credit history (for credit products only)
- Phone/SIM ownership
- Lack of products and services that create value
- Lack of products that meet women's needs
- Navigability of user interface of the digital product
- Reliability and quality of in-person services
- Reliability of payments system and network
- Ambivalence or antagonism towards women's financial independence
- Biases that center men as financial customers
- Expectation that men control HH finances
- Women's disproportionate time burden

*Relevant barriers by  
journey phase: 30 of 35*

## Phase 2: Basic Account Usage



Distance from bank/FSP/CICO agent

Mobility constraints (e.g., legal curfews, norms)

Difficulty resolving complaints

Fraud and scams

Fear of making mistakes

Online/Phone/Social media harassment

Over-charging

Potential (or actual) privacy violations

Predatory lending

Cost of mobile/internet

Cost of using DFS (incl. transaction cost)

Non-transparent fee structures / hidden costs

Perceived and/or lack of money

Lack of female agents

Lack of women in leadership at DFS providers  
and policy-makers

Basic literacy and numeracy

Digital literacy

Financial literacy

Lack of peers/family/network who use DFS

Unclear or difficult process to open account

Unclear or unavailable info about products/uses

Broader legal constraints (e.g., male signature)

Digital/Foundational ID

Internet/Mobile connectivity

KYC requirements

Lack of credit history (for credit products only)

Phone/SIM ownership

Lack of products and services that create value

Lack of products that meet women's needs

Navigability of user interface of the digital  
product

Reliability and quality of in-person services

Reliability of payments system and network

Ambivalence or antagonism towards women's  
financial independence

Biases that center men as financial customers

Expectation that men control HH finances

Women's disproportionate time burden

*Relevant barriers by  
journey phase: 28 of 35*

## Phase 3: Active Account Usage



Distance from bank/FSP/CICO agent

Mobility constraints (e.g., legal curfews, norms)

Difficulty resolving complaints

Fraud and scams

Fear of making mistakes

Online/Phone/Social media harassment

Over-charging

Potential (or actual) privacy violations

Predatory lending

Cost of mobile/internet

Cost of using DFS (incl. transaction cost)

Non-transparent fee structures / hidden costs

Perceived and/or lack of money

Lack of female agents

Lack of women in leadership at DFS providers  
and policy-makers

Basic literacy and numeracy

Digital literacy

Financial literacy

Lack of peers/family/network who use DFS

Unclear or difficult process to open account

Unclear or unavailable info about products/uses

Broader legal constraints (e.g., male signature)

Digital/Foundational ID

Internet/Mobile connectivity

KYC requirements

Lack of credit history (for credit products only)

Phone/SIM ownership

Lack of products and services that create value

Lack of products that meet women's needs

Navigability of user interface of the digital  
product

Reliability and quality of in-person services

Reliability of payments system and network

Ambivalence or antagonism towards women's  
financial independence

Biases that center men as financial customers

Expectation that men control HH finances

Women's disproportionate time burden

*Relevant barriers by  
journey phase: 8 of 35*

## Phase 4: Economic Empowerment



- Distance from bank/FSP/CICO agent
- Mobility constraints (e.g., legal curfews, norms)
- Difficulty resolving complaints
- Fraud and scams
- Fear of making mistakes
- Online/Phone/Social media harassment**
- Over-charging
- Potential (or actual) privacy violations**
- Predatory lending
- Cost of mobile/internet
- Cost of using DFS (incl. transaction cost)
- Non-transparent fee structures / hidden costs
- Perceived and/or lack of money
- Lack of female agents
- Lack of women in leadership at DFS providers and policy-makers**
- Basic literacy and numeracy
- Digital literacy
- Financial literacy
- Lack of peers/family/network who use DFS
- Unclear or difficult process to open account
- Unclear or unavailable info about products/uses
- Broader legal constraints (e.g., male signature)**
- Digital/Foundational ID
- Internet/Mobile connectivity
- KYC requirements
- Lack of credit history (for credit products only)
- Phone/SIM ownership
- Lack of products and services that create value
- Lack of products that meet women's needs
- Navigability of user interface of the digital product
- Reliability and quality of in-person services**
- Reliability of payments system and network
- Ambivalence or antagonism towards women's financial independence
- Biases that center men as financial customers**
- Expectation that men control HH finances**
- Women's disproportionate time burden**

# Barriers across *segments* and *customer journey phases* are closely aligned.

Our analysis of the evidence and barrier mapping found the four segments, and the four phases of the customer journey to be highly correlated (e.g. Segments 1 and 2 have very similar and relevant barriers to Phase 1, Account Ownership).

# Analysis





The subsequent slides present an *in-depth analysis* of the evidence mapping including observations about specific barriers.

*Barriers Requiring More Research*

Our analysis revealed that **12** of the 36 barriers require further examination and exploration.

As we narrow our collective focus on the *most important* factors preventing women's economic empowerment through financial inclusion, we see that these 12 barriers—if resolved—will **not** independently accelerate progress to our vision of WEE-FI by 2030. However, in order to keep a wider view of the financial inclusion ecosystem, these 12 barriers are still important to consider as they affect the customer experience of both men and women.

<i>Consumer Protection</i>	<p>Fraud and scams</p> <p>Fear of making mistakes</p> <p>Online/ phone/ social media harassment</p> <p>Difficulty resolving complaints</p> <p>Potential (or actual) privacy violations</p> <p>Predatory lending</p>
<i>Cost</i>	<p>Non-transparent fee structures/ hidden costs</p>
<i>Human Resources</i>	<p>Lack of women in leadership at DFS providers and policy-makers</p>
<i>Information Availability and/or Capability</i>	<p>Financial literacy</p> <p>Unclear or difficult process to open account</p>
<i>Prerequisites</i>	<p>Internet/ Mobile connectivity</p> <p>KYC requirements</p>
<i>Product &amp; Service Quality</i>	<p>Navigability of user interface of the digital product</p>

## *Barriers Requiring More Research*

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Even though a portion of these 12 barriers may cause negative experiences with financial services or may cause friction in a financial system, **there is not sufficient evidence that they directly impact the uptake and usage of financial services among customers, and, in particular, female customers.** For example, while we had identified evidence that studied how customers encountered the barrier of *Difficulty resolving complaints*, the evidence did not point directly to it impacting uptake or usage negatively for any customers. The same is true for the other barriers in the Consumer Protection category.

In some instances, we determined that **by addressing other, more connected and relevant barriers, several second order barriers will likely be mitigated.** For example, if we collectively address the *Digital literacy* barrier, we hypothesize that the *Navigability of user interface of the digital product* barrier will be partially resolved. Similarly, by addressing elements of *Broader legal constraints*, we hypothesize that there will be a positive cascade effect on *Digital/Foundational ID*. And, finally, by addressing the Social Norms barrier category, many of the other barriers will be positively influenced as well. While this approach may not remove a specific barrier entirely, we believe that, due to the interconnectedness of the barriers, there will be positive externalities by resolving or addressing some of the most connected barriers first.

There are a few barriers that our team feels **have been addressed enough to justify recommending them to not be prioritized by the IFS Gender Team or the broader community.** One example is the *KYC requirements* barrier in which requirements were considerably relaxed around the world in 2020-21 during the emergence of COVID-19. According to global databases from GSMA, and the Alliance for Financial Inclusion (AFI), many countries had already adopted tiered KYC measures in that timeframe as well. This evidence, coupled with the understanding that access to foundational or digital ID is a crucial prerequisite for KYC, led our team to de-prioritize the *KYC requirements* barrier.



A lack of explicit evidence does not make a barrier *irrelevant*, but may point to a need for more research, or an intentional sequencing of strategies to mitigate barriers.

*Barriers Requiring More Research*

There is a ***dearth of evidence directly linking six of the barriers to negative impacts*** on uptake and usage of financial services and women's economic empowerment.

We searched for evidence that specifically illustrated how a particular barrier might hinder or negatively influence uptake and usage of financial services. While the barriers listed to the right create friction and pain in the user experience of a product or service, we could not identify explicit evidence that indicated these barriers prevented women from achieving economic empowerment. In other words, **these six barriers have not been proven to directly impact the uptake and usage of financial services among customers, and in particular, female customers.**

For example, while we were able to identify evidence that had studied how customers had encountered the barrier of *Difficulty resolving complaints*, the evidence did not point directly to it impacting uptake or usage negatively. The same is true for the other barriers in the Consumer Protection category.

We recommend more research be conducted on these barriers to understand their impact on uptake and usage of financial services.

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*Consumer Protection*

Fraud and scams

Fear of making mistakes

Online/Phone/Social media harassment

Difficulty resolving complaints

Potential (or actual) privacy violations

Predatory lending

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*Human Resources*

Lack of women in leadership at DFS providers and policy-makers

*Barriers that might be mitigated  
by resolving other barriers*

**Four** of the barriers  
might be mitigated  
when addressing  
and **resolving other**  
**barriers.**

<i>Cost</i>	Non-transparent fee structures / hidden costs
<i>Information Availability &amp; Capability</i>	Financial literacy Unclear or difficult process to open account
<i>Product &amp; Service Quality</i>	Navigability of user interface of the digital product

*Barriers that might be mitigated  
by resolving other barriers*

We did not find explicit evidence indicating that the four barriers above prevented the uptake and usage of financial services among women. However, we know from experience in the financial inclusion space that these four barriers are, in fact, important factors in the customer experience.

We believe that this set of barriers may be mitigated by **addressing other relevant barriers**. For example, if we collectively address the *Digital literacy* barrier, we hypothesize that the *Non-transparent fee structures / hidden costs*, and *Navigability of user interface of the digital product* barriers could, at least, partially resolve. Similarly, by addressing barriers in the Social Norms category, and/or *Lack of peers using DFS*, *Digital literacy*, and/or *Basic literacy and numeracy*, we expect some mitigation to the *Financial literacy* barrier.

Additionally, since many of the barriers are interconnected, we suspect that addressing elements of one may have a positive ripple effect on others. Addressing the *Digital literacy* and *Financial literacy* barriers will likely positively impact the *Unclear or difficult process to open account* barrier. And finally, by addressing the Social Norms barrier category, many of the other barriers will be positively influenced as well.

While this approach may not entirely remove a specific barrier, we believe that due to the interconnectedness of the barriers, there will be positive externalities by resolving or addressing some of the more relevant barriers first.

*Barriers that may be less urgent to address due to existing initiatives and efforts to mitigate them*

Our research indicates that **two** of the barriers may already be **sufficiently addressed** through various initiatives.

There are two barriers that our team believes **have been addressed enough to justify recommending them not be prioritized by the IFS Gender Team or the broader community**. One example is the *KYC requirements* barrier in which requirements were considerably relaxed in countries around the world during the COVID-19 pandemic. According to global databases from GSMA, and AFI, many countries had already adopted tiered KYC measures as well. While this is not true for every country, the data seems to suggest that there have been many efforts to address this barrier in the last two years. As is the case with any of the specific barriers on this list, particular countries should assess their own markets and requirements to ensure KYC requirements are not preventing people from accessing and using financial services.

Similarly, evidence shows that much of the world has been connected to mobile and internet. We believe having access to mobile or internet is less of a barrier than the cost of using the services, or connecting and using the connection through mobile broadband devices.

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*Prerequisites*

**KYC requirements**

**Internet/Mobile connectivity**

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23 relevant barriers (1 of 2)

What remains are **23** barriers. These barriers are well-represented in the evidence base, and allow us to **derive lessons about how to mitigate them** through our subsequent exemplars research.

<i>Accessibility</i>	Distance from bank/FSP/CICO agent Mobility constraints (e.g., legal curfews, norms)
<i>Consumer Protection</i>	Over-charging
<i>Cost</i>	Cost of mobile/internet Cost of using DFS (incl. transaction cost) Perceived and/or lack of money
<i>Human Resources</i>	Lack of female agents
<i>Information Availability &amp; Capability</i>	Basic literacy and numeracy Digital literacy Lack of peers/family/network who use DFS Unclear or unavailable info about products/uses

23 relevant barriers (2 of 2)

What remains are **23** barriers. These barriers are well-represented in the evidence base, and allow us to **derive lessons about how to mitigate them** through our subsequent exemplars research.

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*Prerequisites*

Broader legal constraints (e.g., male signature)

Digital/Foundational ID

Lack of credit history (for credit products only)

Phone/SIM ownership

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*Product & Service Quality*

Lack of products and services that create value

Lack of products that meet women's needs

Reliability of payments system and network

Reliability and quality of in-person services

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*Social Norms*

Ambivalence or antagonism towards women's financial independence

Biases that center men as financial customers

Expectation that men control HH finances

Women's disproportionate time burden

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# Summary

## *Relevant barriers*

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Distance from bank/FSP/CICO agent	Digital/Foundational ID
Mobility constraints (e.g., legal curfews, norms)	Phone/SIM ownership
Over-charging	Reliability (and quality) of in-person services
Cost of using DFS (incl. transaction cost)	Reliability of payments system and network
Cost of mobile/internet	Lack of products that meet women's needs
Perceived and/or lack of money	Lack of products and services that create value
Lack of female agents	Biases that center men as financial customers
Basic literacy and numeracy	Expectation that men control HH finances
Digital literacy	Ambivalence or antagonism towards women's financial independence
Unclear or unavailable info about products/uses	Women's disproportionate time burden
Lack of peers/family/network who use DFS	
Broader legal constraints (e.g., male signature)	
Lack of credit history (for credit products only)	

## *Barriers requiring more research*

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Fraud and scams
Fear of making mistakes
Online/Phone/Social media harassment
Difficulty resolving complaints
Potential (or actual) privacy violations
Predatory lending
Non-transparent fee structures / hidden costs
Lack of women in leadership at DFS providers and policy-makers
Financial literacy
Unclear or difficult process to open account
Internet/Mobile connectivity
KYC requirements
Navigability of user interface of the digital product

## *Barriers that might be mitigated by addressing other barriers*

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Non-transparent fee structures / hidden costs
Financial literacy
Unclear or difficult process to open account
Navigability of user interface of the digital product

## *Barriers that may be less urgent to address due to existing initiatives and efforts to mitigate them*

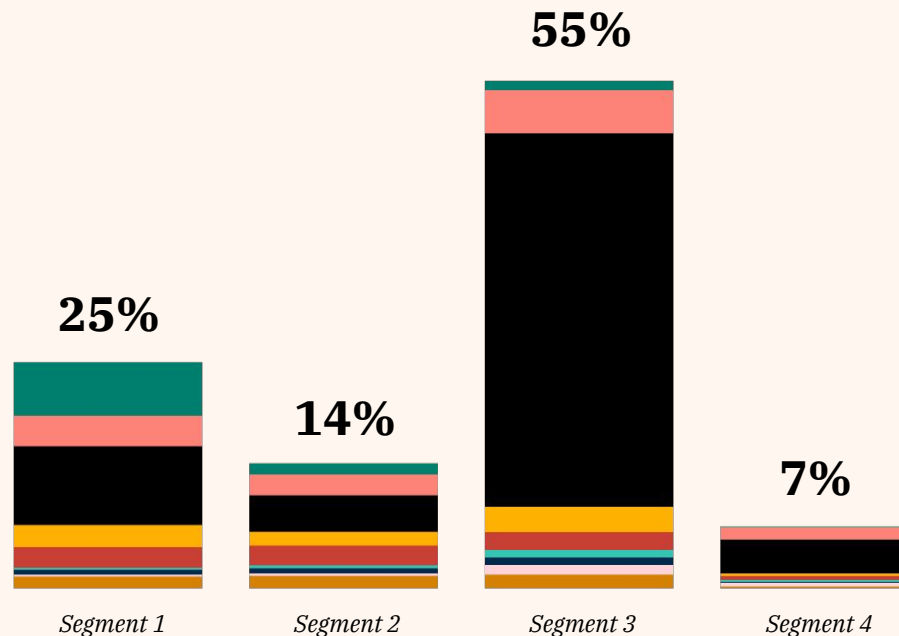
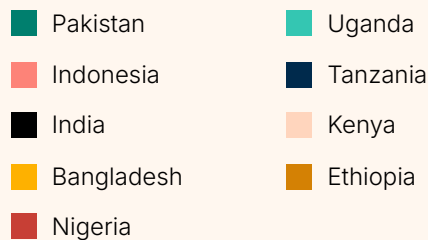
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KYC requirements
Internet/Mobile connectivity

# IFS Focus Country Analysis

# IFS Focus Countries: Segmentation Sizing *with* India

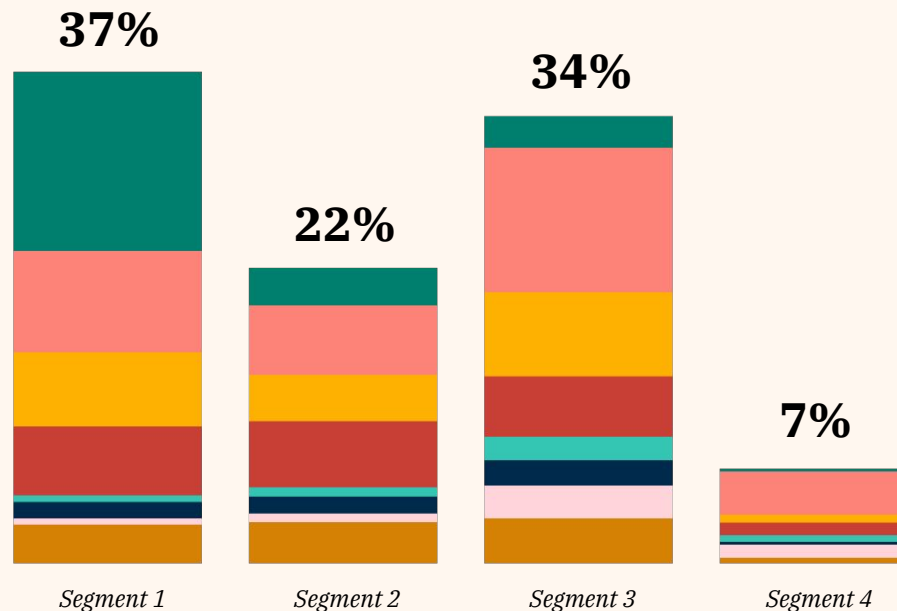
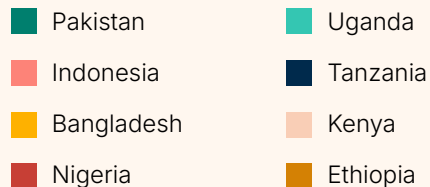
When including data on India, Segment 3 incorporates about 71% of women in India. With the country's female population equal to 57% of all women across the nine countries, India heavily represents Segment 3 in global segmentation sizing.



Sources: Mathematica analysis of 2021 Global Findex database data.

# IFS Focus Countries: Segmentation Sizing *without* India

When temporarily excluding Indian market data, Segment 1 becomes the largest segment, followed closely by Segment 3. A major contributor to this is the Pakistani market that holds the third largest population of women across the nine countries – 71% of whom fall into Segment 1.

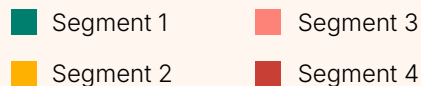


Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

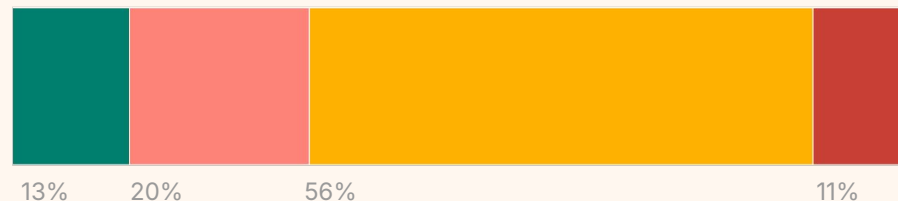
# Gender gap *with* India

When including data on India, Segment 3 is the largest of the four segments across men and women gender categories due to the automatic onboarding of bank accounts that accompanied Aadhar IDs.

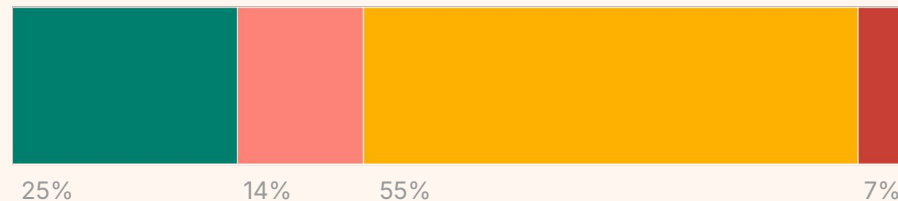
There are almost twice the amount of women comprising Segment 1, people excluded and marginalized, than men. Additionally, there is a 6% gap between men and women in Segment 2, people excluded and have high potential.



*Men*



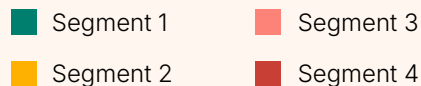
*Women*



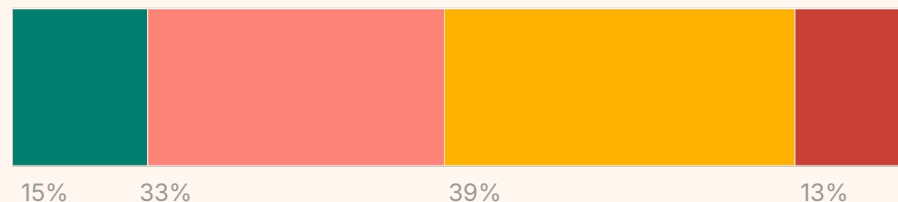
Sources: Mathematica 2021 Findex analysis.

## Gender gap *without* India

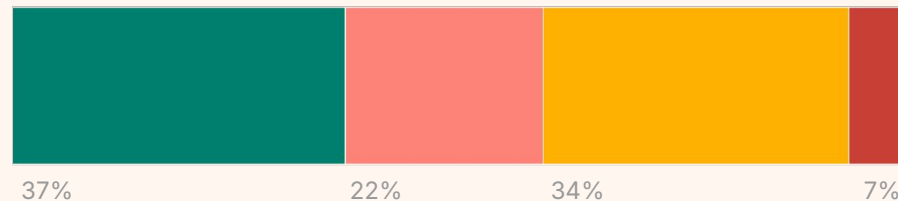
When temporarily excluding Indian market data, the amount of women and men in Segment 3 shrinks significantly, while the gaps between men and women in Segments 1 and 2 increase. The total percentage of women in Segment 1 jumps by 12% when removing Indian data, while the percentage of men in Segment 1 only increases 2%. The gap between women and men in Segment 2 increases from 6% to 11%, with more men comprising Segment 2 than women.



*Men*



*Women*



Sources: Mathematica 2021 Findex analysis.

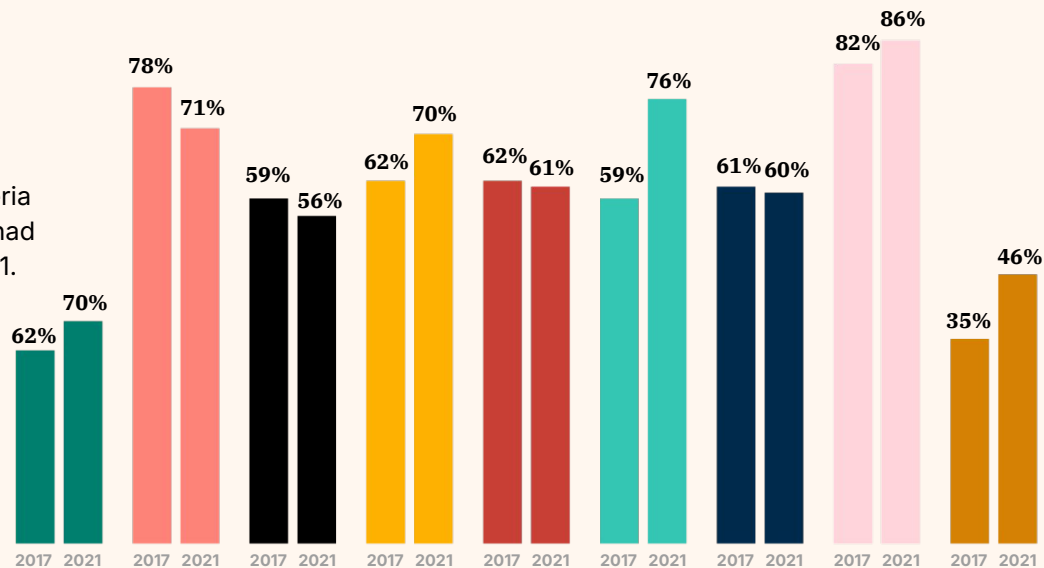
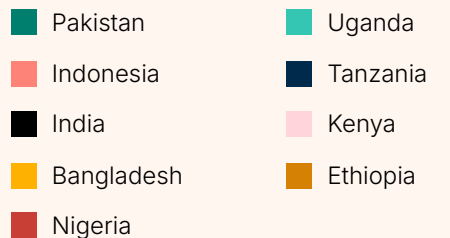


# Women's Mobile Phone Ownership

*2017 vs 2021*

Women's phone ownership increased in five markets from 2017 to 2021 (Bangladesh, Ethiopia, Kenya, Pakistan, and Uganda). Uganda saw the largest improvement, with a 17% increase from 2017 to 2021.

Women's phone ownership decreased in four markets from 2017 to 2021 (India, Indonesia, Nigeria, and Tanzania). Nigeria and Tanzania had a small decrease of 1% each. Indonesia had the largest decrease, with a 7% decrease from 2017 to 2021.



Sources: Mathematica analysis of 2021 Global Findex database data.

## The following slides take an in-depth look at specific segments for all nine of the IFS Team's focus countries.

Each market has six slides intended to provide POs and Implementation Partners with insights the segmentation model can provide for each focus country. All analysis for these focus country slides uses 2021 Findex data.

For each market the following slides are available:

**Slide 1** The first slide provides a breakdown of women in each country **by segment**.

**Slide 2** The second slide provides insights into each segment's **demographic breakdown**, including employment status, education level, and age.

**Slide 3** The third slide provides a breakdown of **mobile phone ownership** by segment.

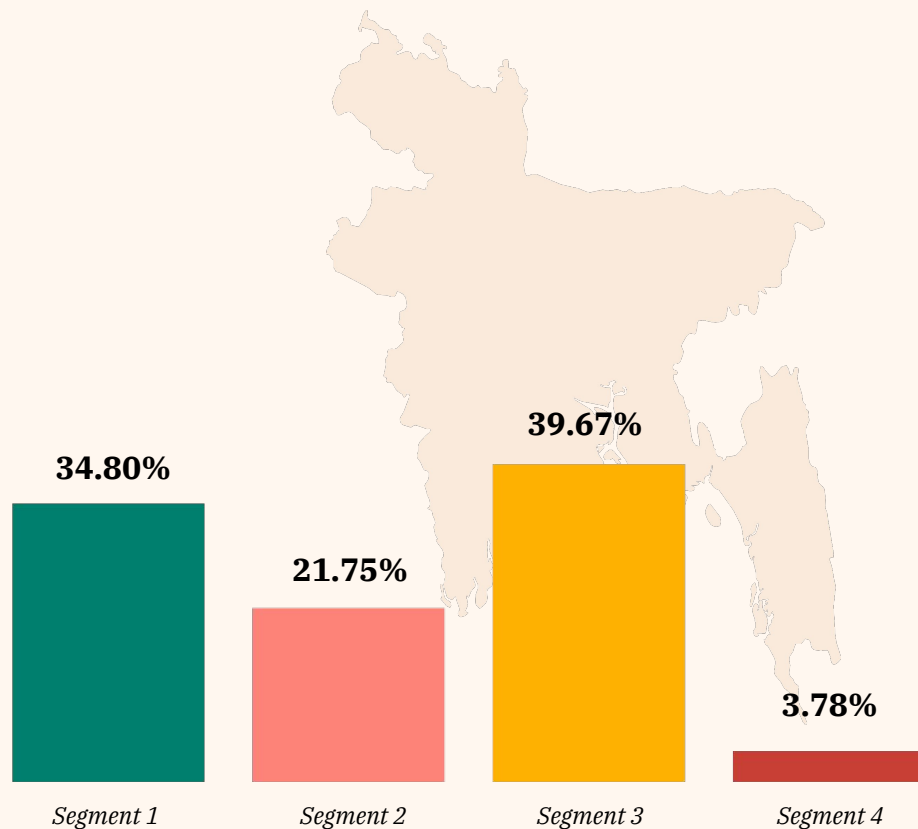
**Slide 4** The fourth slide provides insights into the **gender gap in mobile phone ownership** for each segment.

**Slide 5** The fifth slide provides an **overview of barriers that have been identified as relevant for the segment** that has the greatest number of women in each country (e.g., in Ethiopia, Segment 2 has the most women).

**Slide 6** The sixth slide provides analysis of **specific barriers that may be more or less relevant for the largest segment in each market**. This analysis is done using 2021 Findex data on barriers to accessing an account in countries where Segments 1 or 2 are the largest. *Questions regarding barriers to account ownership were only asked of respondents who do not have access to an account, which means women in Segment 3 were not asked these questions.* For markets where Segment 3 is the largest, available Findex data (e.g. education levels) and additional sources (e.g., Women's World Banking, Microsave) were used to identify barriers that might be more or less relevant in that country context.

## Women in Bangladesh: Segmentation Breakdown

The largest segment represented in Bangladesh is Segment 3, followed by Segment 1, Segment 2, and Segment 4 being the smallest.



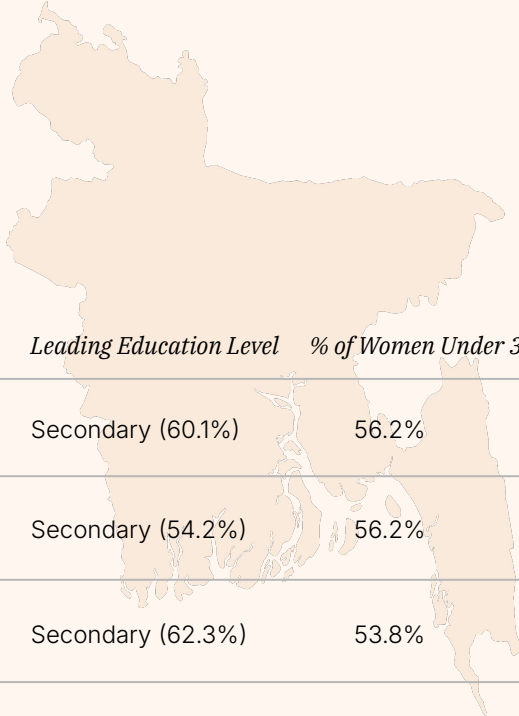
Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Bangladesh: Demographic Breakdown

The majority of women in Segment 1 (92.3%) and Segment 3 (68.8%) are not in the workforce. Though 43.3% of women in Segment 2 are in the workforce, the sector is unknown.

Segments 1 and 2 are the youngest segments of women in Bangladesh with 56.2% being under the age of 35.

Education levels of women in Segments 1 and 3 are fairly high with around 60% of women having a secondary education.



<i>Segment</i>	<i>Primary Employment Sectors</i>	<i>Leading Education Level</i>	<i>% of Women Under 35</i>
<b>01</b>	Not in workforce (92.3%)	Secondary (60.1%)	56.2%
<b>02</b>	Working, sector unknown (43.3%)	Secondary (54.2%)	56.2%
<b>03</b>	Not in workforce (68.8%)	Secondary (62.3%)	53.8%
<b>04</b>	Not in workforce (34.6%)	Secondary (48.6%)	51.0%

Sources: Mathematica analysis of 2021 Global Findex database data.

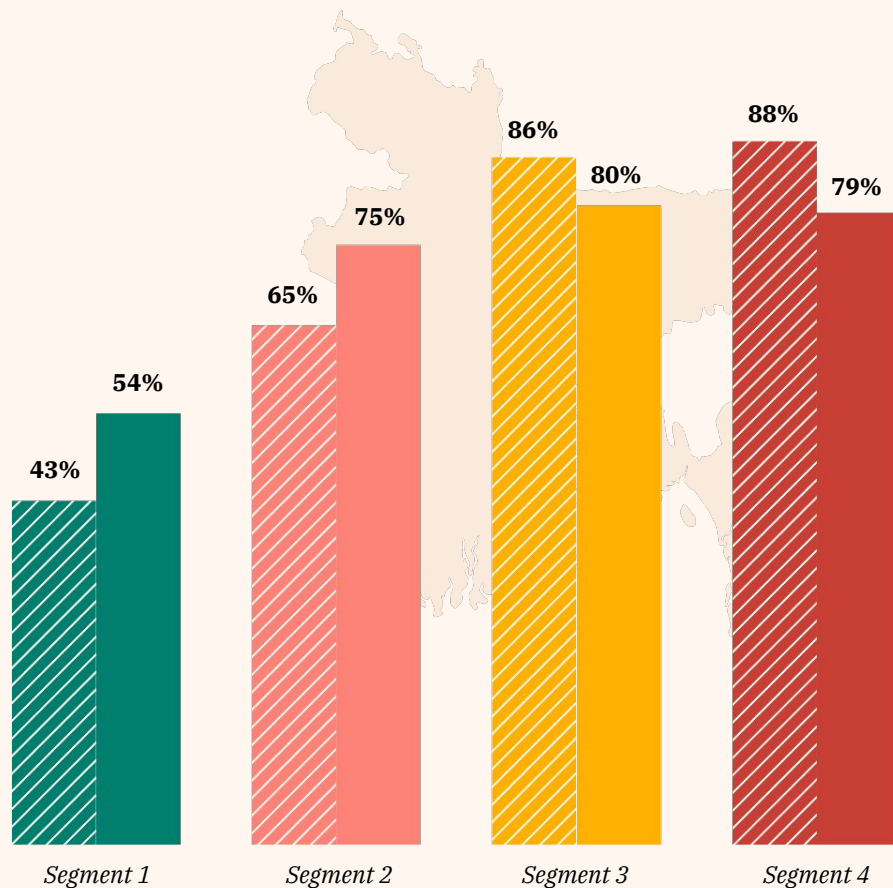
## Women in Bangladesh: Mobile Phone Ownership

2017 & 2021

Women's mobile phone ownership increased from 2017 to 2021 for Segments 1 and 2, and decreased for Segments 3 and 4. Segment 1 had the largest increase of 11%, whereas Segment 4 had the largest decrease of 9%.

▨ 2017

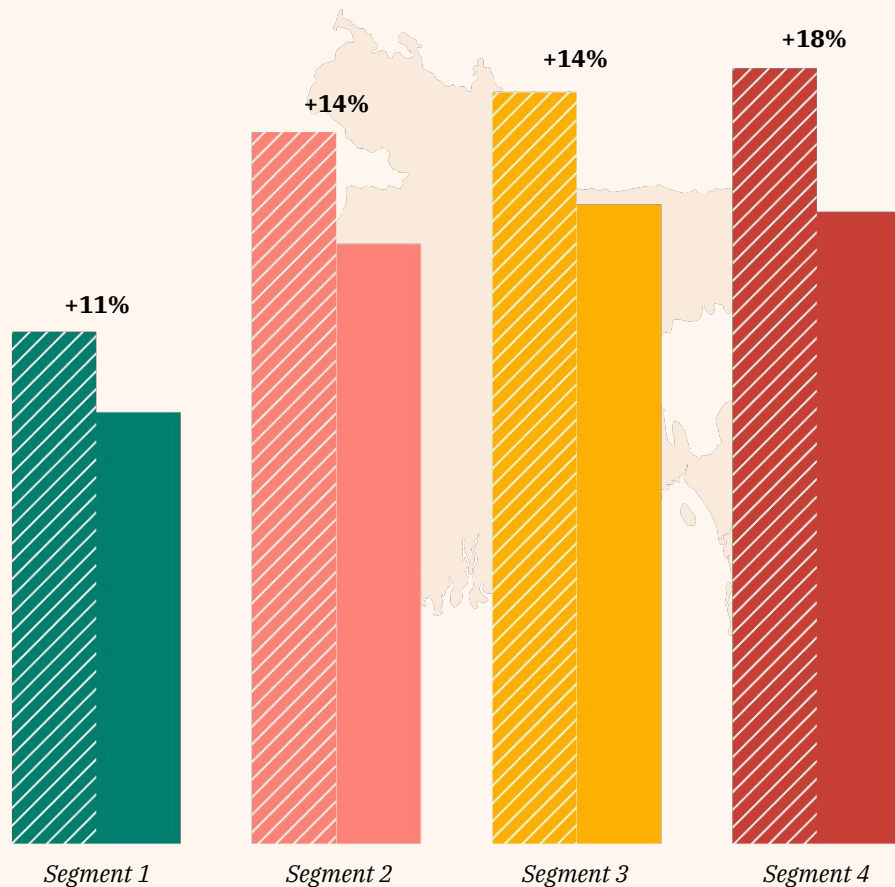
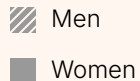
■ 2021



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Bangladesh: Gender Gap in Mobile Phone Ownership

All segments in Bangladesh have a gender gap of over 10%. Segment 4 has the largest gap of 18%, Segments 2 and 3 both have a gap of 14%, and Segment 1 has the smallest gap of 11%.



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Bangladesh: Barrier Prioritization for Segment 3

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### *Prerequisites*

Digital/Foundational ID

Broader legal constraints (e.g., male signature)

Lack of credit history (for credit products only)

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### *Cost*

Cost of using DFS (incl. transaction cost)

Cost of mobile/internet

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### *Information availability and/or capacity*

Basic literacy and numeracy

Digital literacy

Unclear or unavailable info about products/uses

Lack of peers/family/network who use DFS

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### *Consumer Protection*

Over-charging

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### *Human Resources*

Lack of female agents

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### *Social Norms*

Biases that center men as financial customers

Expectation that men control HH finances

Ambivalence or antagonism towards women's financial independence

Women's disproportionate time burden

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### *Product & Service Quality*

Lack of products that meet women's needs

Reliability of payments system and network

Lack of products and services that create value

Reliability and quality of in-person services



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Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Bangladesh:

# Barrier Prioritization for Segment 3

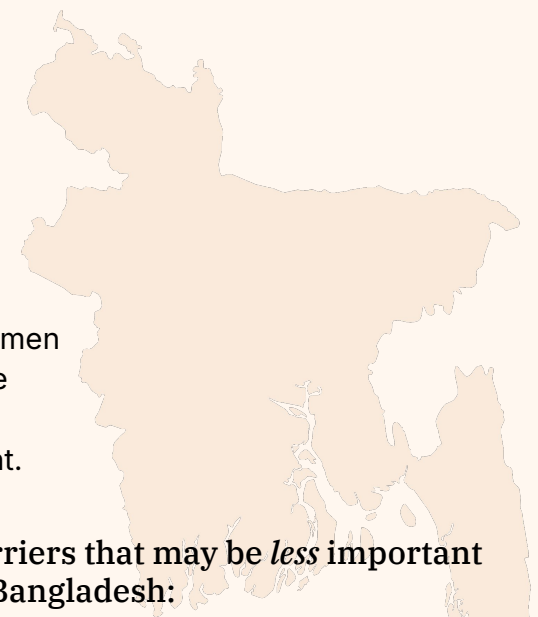
Based on Findex and other data sources, some barriers that are typical for women in Segment 3 globally may not be as significant for women in Segment 3 in the context of Bangladesh. Inversely, other barriers in the global context may disproportionately impact women in Bangladesh from economic empowerment.

### Barriers that may be *more* important in Bangladesh:

- 1) **Lack of products that meet women's needs, and Unclear or unavailable info about products/uses:** In Bangladesh, a relatively large share of women in Segment 3 paid utility bills through a formal financial institution (21.8%). However, only 2.8% of women in Segment 3 receive wage payments through a mobile phone, and less than 1% receive wage payments into a formal financial account. Additionally, only 4% made a purchase online using a mobile phone or the internet. This could indicate that there is unclear information about the different use cases of financial accounts (traditional and digital), and that products need to better meet women's needs as they explore more sophisticated use cases.

### Barriers that may be *less* important in Bangladesh:

- 1) **Digital/Foundational ID:** 86.9% of women above the age of 15 own an ID ([World Bank, 2021](#)).
- 2) **Basic literacy and numeracy:** Women in Segment 3 are fairly well educated with 62.3% having a secondary education. This indicates that *Basic literacy and numeracy* may be less relevant in this context.

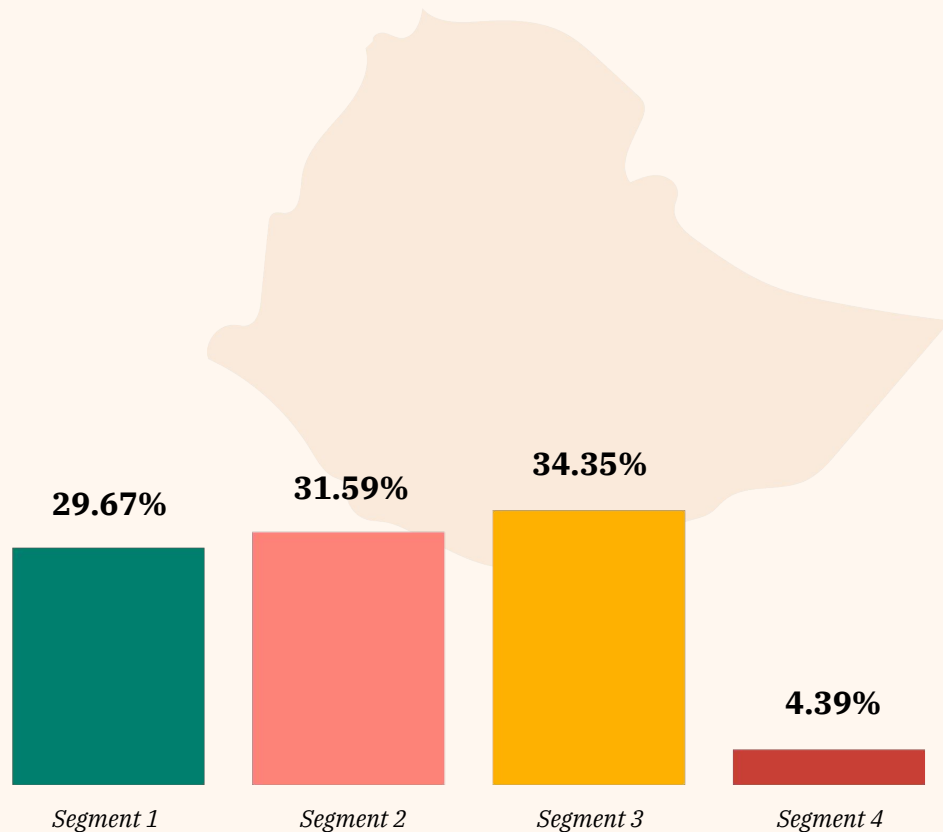


Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.



## Women in Ethiopia: Segmentation Breakdown

The largest segment represented in Ethiopia is Segment 3, with Segments 1 and 2 being nearly equal in distribution, and Segment 4 representing the smallest segment.



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Ethiopia: Demographic Breakdown

Working in an unknown sector is the primary means of employment for Segments 2 and 3. The majority of women in Segment 1 are not in the workforce.

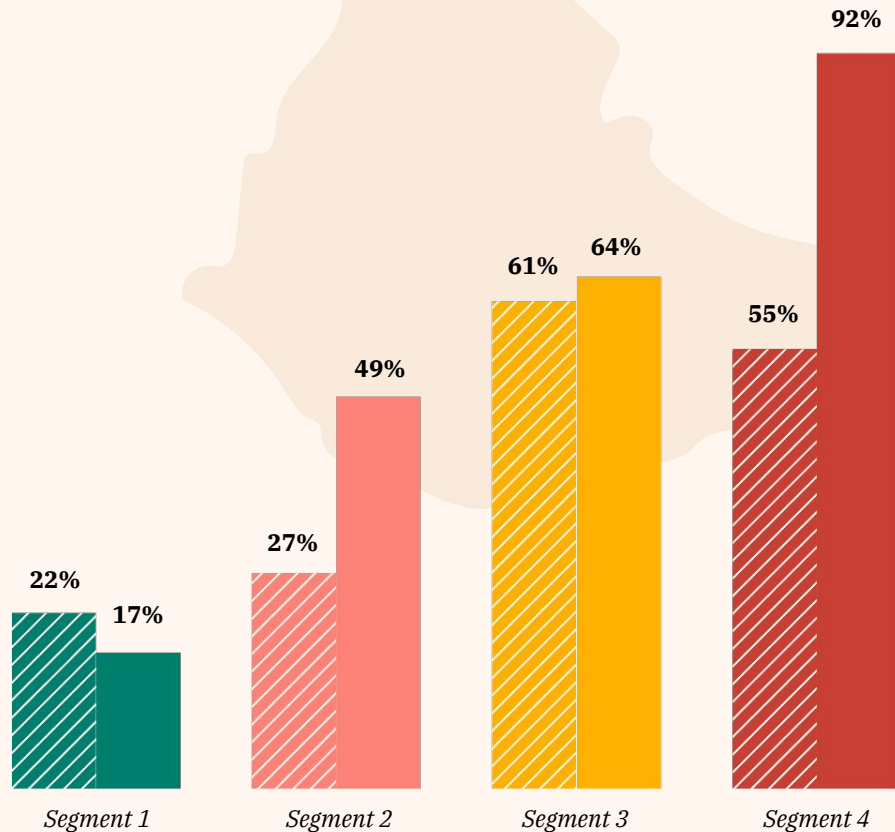
Over 50% of women in each segment in Ethiopia are under the age of 35, and the vast majority of women in Segments 1, 2 and 3 (average of 86.8%) have primary levels of education or less.

<i>Segment</i>	<i>Primary Employment Sectors</i>	<i>Leading Education Level</i>	<i>% of Women Under 35</i>
<b>01</b>	Not in workforce (52.5%)	Primary or less (93.3%)	61.5%
<b>02</b>	Working, sector unknown (57.0%)	Primary or less (93.0%)	56.7%
<b>03</b>	Working, sector unknown (35.0%)	Primary or less (74.0%)	65.0%
<b>04</b>	Private employment (34.4%)	Primary or less (54.3%)	62.2%

Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Ethiopia: Mobile Phone Ownership *2017 & 2021*

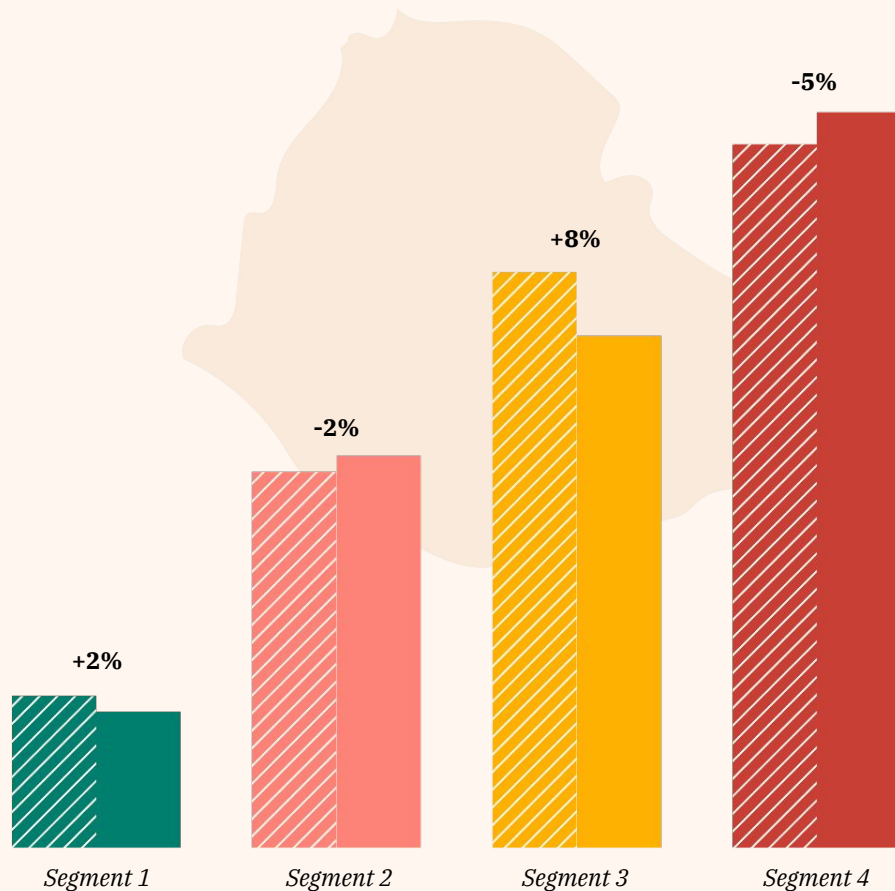
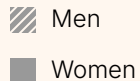
Women's mobile phone ownership increased from 2017 to 2021 for Segments 2, 3, and 4, with Segment 4 having the largest increase of 37% and Segment 3 having the smallest increase of 3%.



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Ethiopia: Gender Gap in Mobile Phone Ownership

Segment 3 has the largest gender gap in mobile phone ownership (8%). Women in Segments 2 and 4 have higher levels of phone ownership than men.



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Ethiopia:

# Barrier Prioritization for Segment 3

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### *Prerequisites*

Digital/Foundational ID

Broader legal constraints (e.g., male signature)

Lack of credit history (for credit products only)

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### *Information availability and/or capacity*

Basic literacy and numeracy

Digital literacy

Unclear or unavailable info about products/uses

Lack of peers/family/network who use DFS

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### *Social Norms*

Biases that center men as financial customers

Expectation that men control HH finances

Ambivalence or antagonism towards women's financial independence

Women's disproportionate time burden

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### *Cost*

Cost of using DFS (incl. transaction cost)

Cost of mobile/internet

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### *Consumer Protection*

Over-charging

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### *Human Resources*

Lack of female agents

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### *Product & Service Quality*

Lack of products that meet women's needs

Reliability of payments system and network

Lack of products and services that create value

Reliability and quality of in-person services

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Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Ethiopia:

# Barrier Prioritization for Segment 3

Based on Findex and other data sources, some barriers that are typical for women in Segment 3 globally may not be as significant for women in Segment 3 in the context of Ethiopia. Inversely, other barriers in the global context may disproportionately impact women in Ethiopia from economic empowerment.

### Barriers that may be *more* important in Ethiopia:

- 1) **Basic literacy and numeracy:** 74% of women in Segment 3 have primary levels of education or less meaning *Basic literacy and numeracy* is a relevant barrier.
- 2) **Digital literacy:** Among women in Segment 3, only 2.2% saved using a mobile money account, 6.9% sent money using a mobile phone or the internet, and 1.3% paid bills using a mobile phone. The low share of women performing basic transactions suggests that digital literacy may be an important barrier.
- 3) **Unclear or unavailable info about products/uses:** Ethiopia's mobile money market is nascent yet expanding, with Safaricom receiving a mobile money license in May 2023 to launch M-Pesa. With two mobile money products in the market (Telebirr launched in 2021), emphasis will need to be placed on communicating clear information about products and uses to facilitate usage.

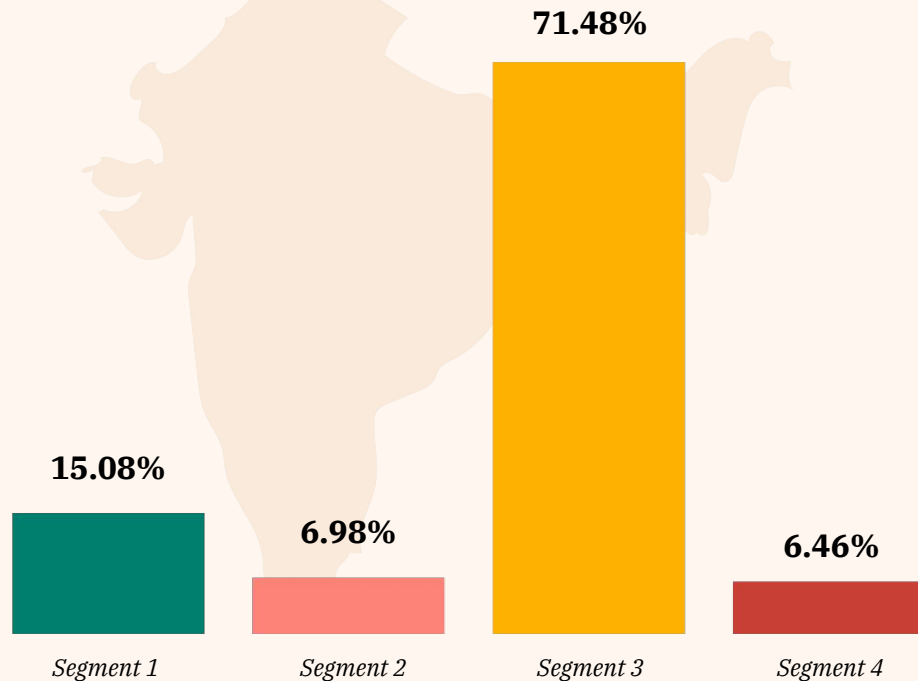
### Barriers that may be *less* important in Ethiopia:

- 1) **Cost of mobile/internet:** The cost of mobile data is relatively low in Ethiopia; they have a world mobile data ranking of 70 out of 233 according to Cable.co.uk (with a rank of 1 being the most affordable) ([Cable.co.uk](https://www.cable.co.uk), 2022).

Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in India: Segmentation Breakdown

The largest segment represented in India is Segment 3 (71.48%), followed by Segment 1 (15.08%), and by Segment 2 (6.98%) and Segment 4 (6.46%) which are both roughly equal in distribution below 7%.



Sources: Mathematica analysis of 2021 Global Findex database data.

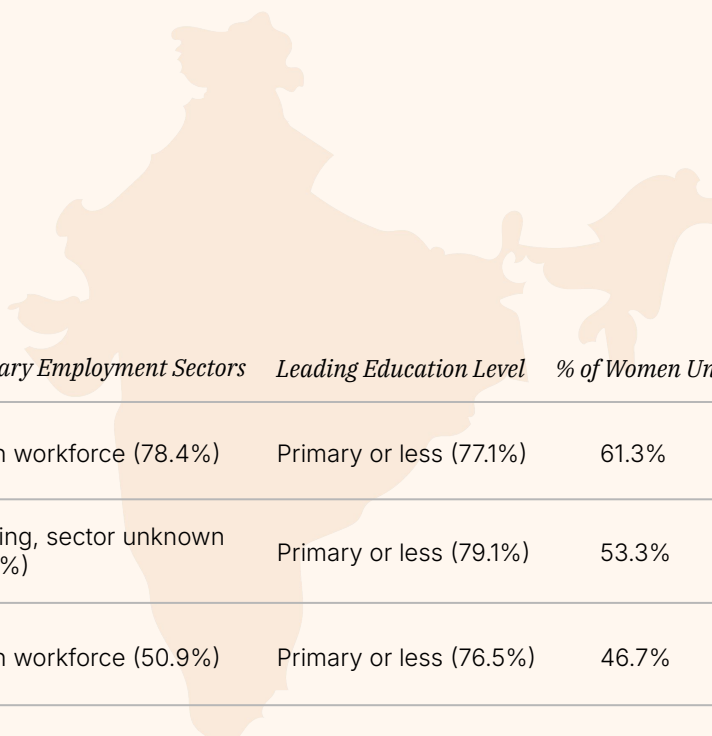
## Women in India: Demographic Breakdown

50.9% of women in Segment 3 and 78.4% of women in Segment 1 are not in the workforce. The primary employment sector for Segment 2 is unknown, whereas Segment 4's primary employment sector is private employment.

Segment 1 has the largest percentage of women under 35 (61.3%) and Segments 2 and 4 follow close behind at over 50% each.

Segment 3 has the smallest percentage of women under 35 at 46.7%.

The majority of women in all segments have a primary level of education or less.



<i>Segment</i>	<i>Primary Employment Sectors</i>	<i>Leading Education Level</i>	<i>% of Women Under 35</i>
<b>01</b>	Not in workforce (78.4%)	Primary or less (77.1%)	61.3%
<b>02</b>	Working, sector unknown (63.9%)	Primary or less (79.1%)	53.3%
<b>03</b>	Not in workforce (50.9%)	Primary or less (76.5%)	46.7%
<b>04</b>	Private Employment (33.4%)	Primary or less (54.5%)	53.2%

Sources: Mathematica analysis of 2021 Global Findex database data.



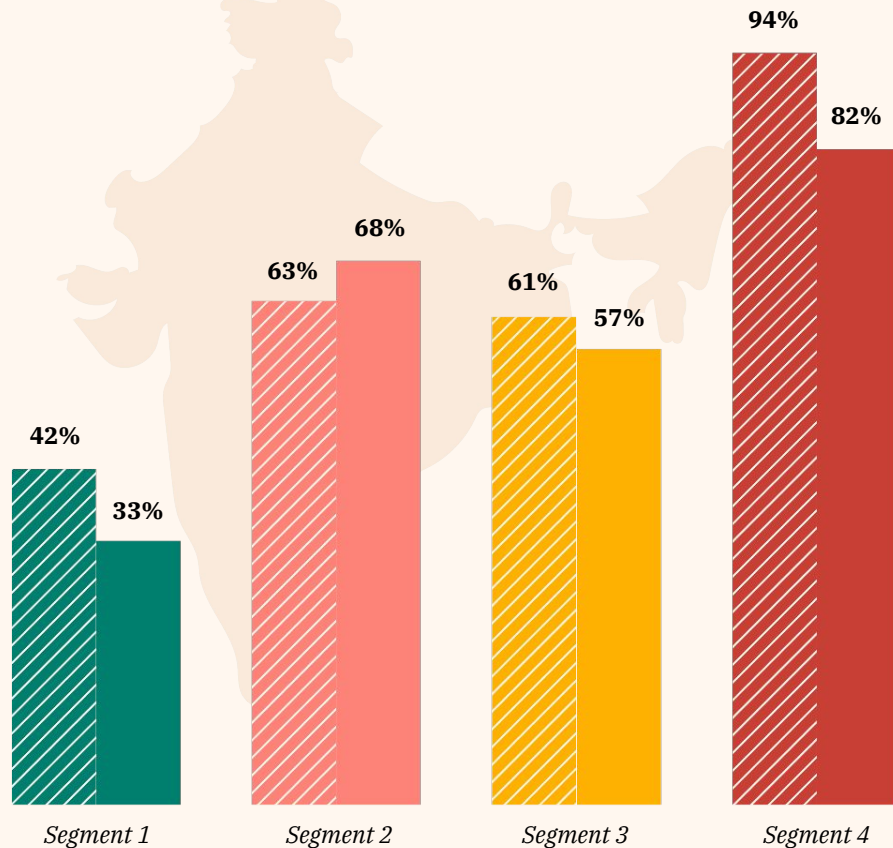
## Women in India: Mobile Phone Ownership

2017 & 2021

Women's mobile phone ownership decreased from 2017 to 2021 for all segments except Segment 2, which increased by 5%. Segment 3 decreased by 4%, the smallest decrease, whereas Segment 4 decreased by 12%, the largest decrease.

▨ 2017

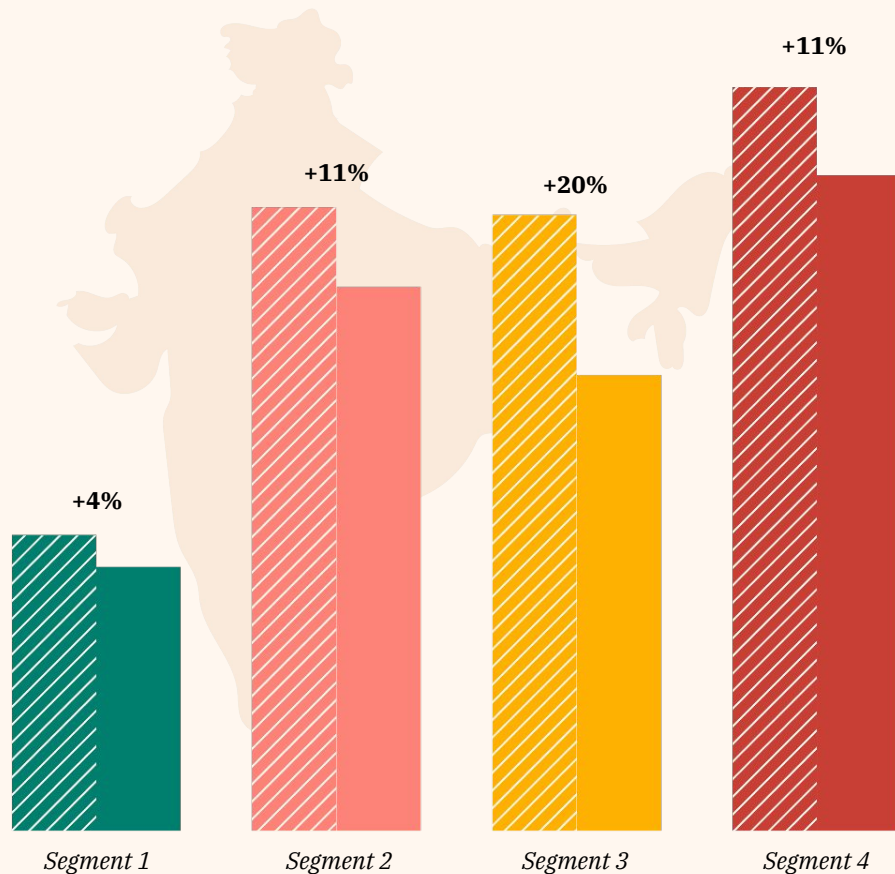
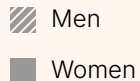
■ 2021



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in India: Gender Gap in Mobile Phone Ownership

Segment 3 has the largest gender gap (20%), whereas Segment 1 has the smallest gender gap (4%). Segments 2 and 4 both have a gap of 11%.



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in India:

# Barrier Prioritization for Segment 3

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### *Prerequisites*

Digital/Foundational ID

Broader legal constraints (e.g., male signature)

Lack of credit history (for credit products only)

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### *Information availability and/or capacity*

Basic literacy and numeracy

Digital literacy

Unclear or unavailable info about products/uses

Lack of peers/family/network who use DFS

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### *Social Norms*

Biases that center men as financial customers

Expectation that men control HH finances

Ambivalence or antagonism towards women's financial independence

Women's disproportionate time burden

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### *Cost*

Cost of using DFS (incl. transaction cost)

Cost of mobile/internet

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### *Consumer Protection*

Over-charging

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### *Human Resources*

Lack of female agents

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### *Product & Service Quality*

Lack of products that meet women's needs

Reliability of payments system and network

Lack of products and services that create value

Reliability and quality of in-person services

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Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in India:

# Barrier Prioritization for Segment 3

Based on Findex and other data sources some barriers typical for women in Segment 3 globally may not be as large an issue for women in Segment 3 in India while others may have a disproportionately large role in holding women back from economic empowerment.

### Barriers that may be *more* important in India:

- 1) **Lack of female agents:** Data suggests a massive gap in female agents, less than 10% of all agents are women, making a lack of female agents more relevant ([MicroSave Consulting, 2022](#)).
- 2) **Unclear or unavailable info about products/uses, and Lack of products that meet women's needs:** Among women who have an inactive formal financial account in India, 46% cited “no need for an account” and 47% cited “do not trust banks or financial institutions” as reasons for having an inactive account. This could indicate that more emphasis needs to be placed on communicating information on the uses of financial products and creating products that meet women's needs.
- 3) **Distance from bank/FSP/CICO agent:** Among women who have an inactive formal financial account in India, 49% cited “bank or financial institution is too far away” as a reason for having an inactive account.

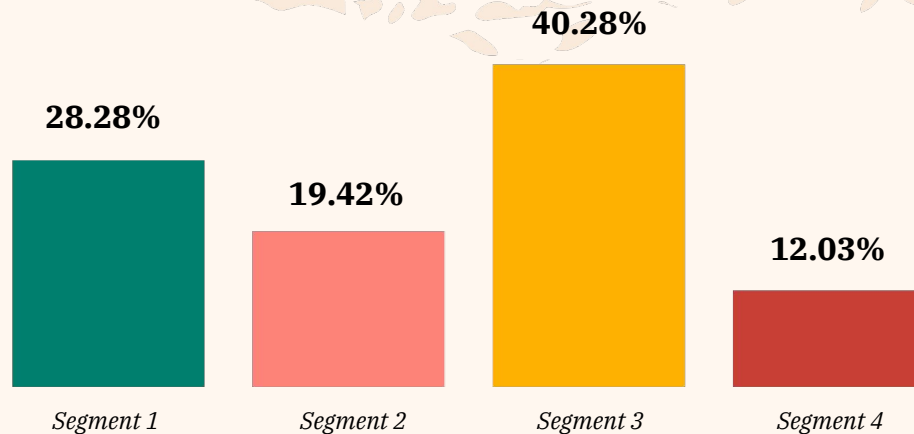
### Barriers that may be *less* important in India:

- 1) **Digital/Foundational ID:** Digital ID is not an issue in India as they have implemented the Adhaar program.

Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Indonesia: Segmentation Breakdown

The largest segment represented in Indonesia is Segment 3 (40.28%), followed by Segment 1, Segment 2, and Segment 4.



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Indonesia:

# Demographic Breakdown

34.8% of women in Segment 3, and 80% of women of Segment 1 are not in the workforce. Women in segments 2 and 4 are in the workforce, but in different sectors. In Segment 2, 34.4% of women are in the workforce however the sector is unknown, while 43.5% of women in Segment 4 are in private employment.

61.2% of women in Segments 1 and 2 (when averaged) have a primary level of education or less, whereas nearly 50% of women in both Segments 3 and 4 have a secondary education.

Over 60% of women in Segment 4 are under 35 years of age, and nearly 40% of women in both Segments 1 and 2 (when averaged) are under 35.



<i>Segment</i>	<i>Primary Employment Sectors</i>	<i>Leading Education Level</i>	<i>% of Women Under 35</i>
<b>01</b>	Not in workforce (80%)	Primary or less (63.3%)	37.8%
<b>02</b>	Working, sector unknown (34.4%)	Primary or less (59.1%)	34.4%
<b>03</b>	Not in workforce (34.8%)	Secondary (49.9%)	45.1%
<b>04</b>	Private employment (43.5%)	Secondary (51.7%)	62.4%

Sources: Mathematica analysis of 2021 Global Findex database data.

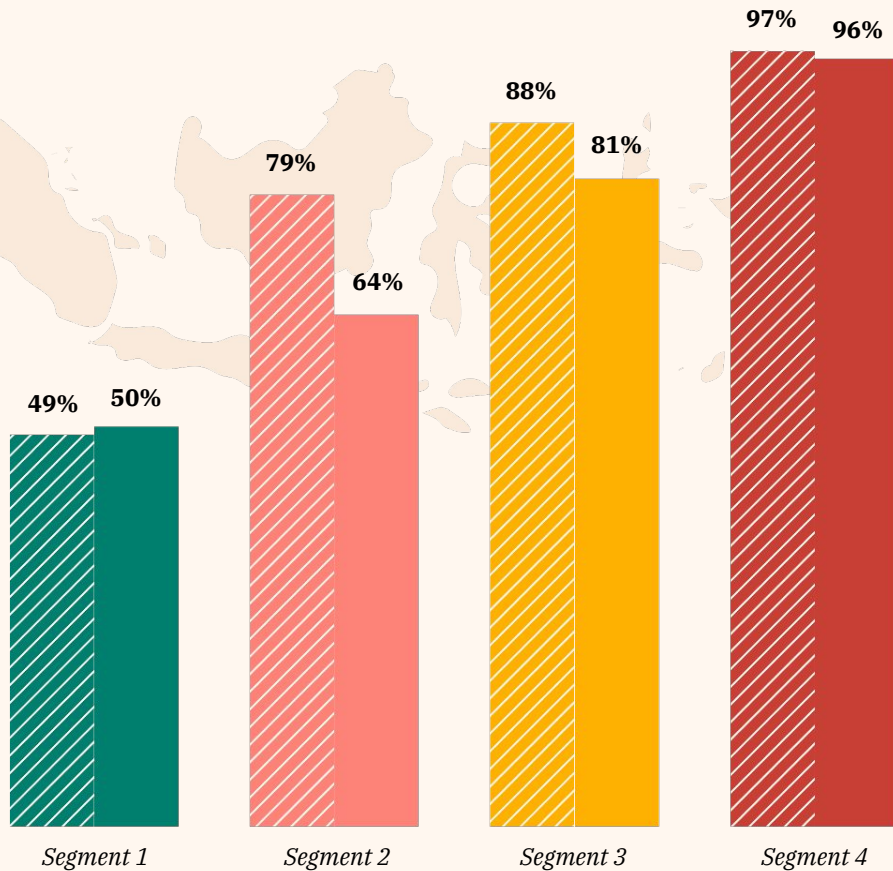
## Women in Indonesia: Mobile Phone Ownership

2017 & 2021

Women's mobile phone ownership decreased from 2017 to 2021 for Segments 2, 3, and 4. Segment 2 had the largest decrease (15%), whereas Segment 4 had the smallest decrease (1%).

▨ 2017



■ 2021

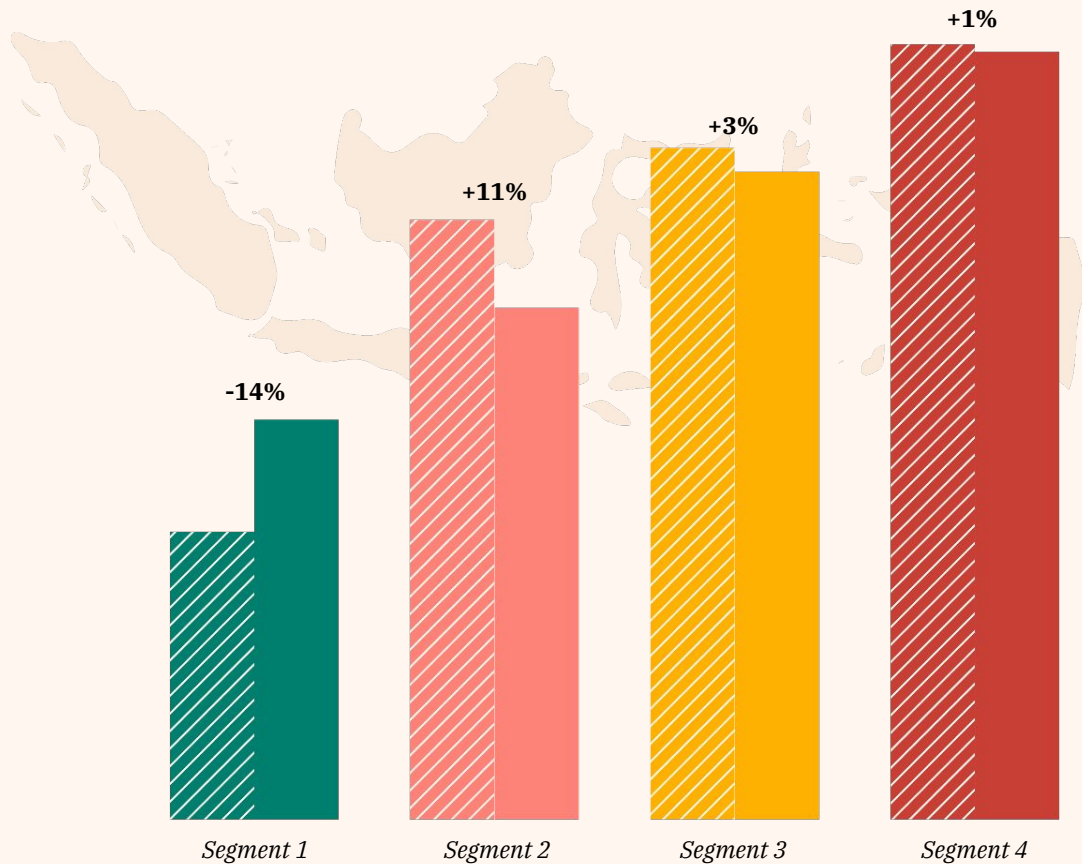


Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Indonesia: Gender Gap in Mobile Phone Ownership

There is a -14% gap between men and women in Segment 1, with women having a higher level of phone ownership than men. Segment 2 has a gap of 11%, Segment 3 has a gap of 3%, and Segment 4 has the smallest gap of 1%.

 Men  
 Women



Sources: Mathematica analysis of 2021 Global Findex database data.



## Women in Indonesia: Barrier Prioritization for Segment 3

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### *Prerequisites*

Digital/Foundational ID

Broader legal constraints (e.g., male signature)

Lack of credit history (for credit products only)

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### *Information availability and/or capacity*

Basic literacy and numeracy

Digital literacy

Unclear or unavailable info about products/uses

Lack of peers/family/network who use DFS

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### *Social Norms*

Biases that center men as financial customers

Expectation that men control HH finances

Ambivalence or antagonism towards women's financial independence

Women's disproportionate time burden

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### *Cost*

Cost of using DFS (incl. transaction cost)

Cost of mobile/internet

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### *Consumer Protection*

Over-charging

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### *Human Resources*

Lack of female agents

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### *Product & Service Quality*

Lack of products that meet women's needs

Reliability of payments system and network

Lack of products and services that create value

Reliability and quality of in-person services

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Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Indonesia:

# Barrier Prioritization for Segment 3

Based on Findex and other data sources some barriers typical for women in Segment 3 globally may not be as large an issue for women in Segment 3 in Indonesia while others may have a disproportionately large role in holding women back from economic empowerment.

### Barriers that may be *more* important in Indonesia:

- 1) **Digital literacy:** Among women in Segment 3, 3.6% saved using a mobile money account, 6.4% sent money using a phone or the internet, and 3.6% paid bills using a phone. The low share of women performing basic transactions suggests that digital literacy may be an important barrier.
- 2) **Unclear or unavailable info about products/uses:** Among women in Segment 3, less than 1% received wages into a phone and 4.3% received wages into a formal financial account, which means there may still be unclear or unavailable info about products/uses.

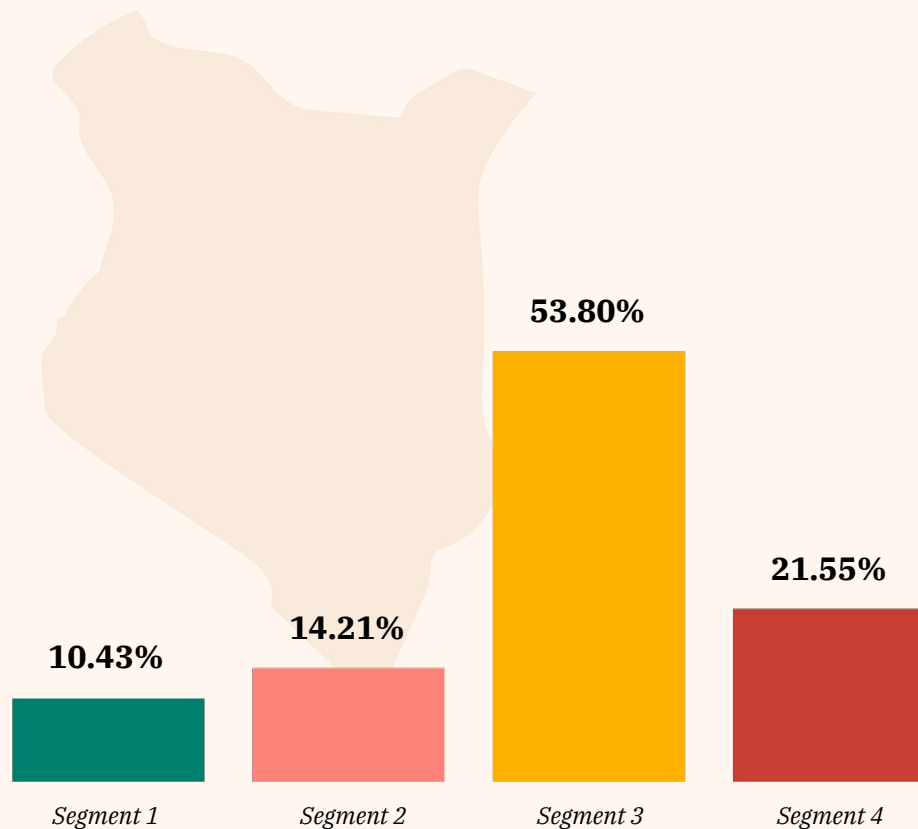
### Barriers that may be *less* important in Indonesia:

- 1) **Basic literacy and numeracy:** Women in Segment 3 are fairly well educated with roughly 50% having a secondary education.
- 2) **Digital/Foundational ID:** ID is not a major issue in Indonesia, as only 2.3% of the female population above the age of 15 is unregistered according to World Bank's ID4D data ([World Bank ID4D, 2021](#)).
- 3) **Cost of mobile/internet:** The cost of mobile internet is relatively low in Indonesia; they have a world mobile data ranking of 28/233 according to Cable.co.uk (with a rank of 1 being the most affordable) ([Cable.co.uk, 2022](#)).

Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Kenya: Segmentation Breakdown

The largest segment represented in Kenya is Segment 3, followed by Segment 4, and Segment 2. Segment 1 is the smallest segment represented in Kenya.




Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Kenya: Demographic Breakdown

While the sector of work is unknown for a large part Segment 3's workforce, agriculture (22.3%) and private employment (16.8%) are also well represented.

A large majority of women (64.3% on average) in Segments 1, 3 and 4 are under the age of 35, while 43.8% of women in Segment 4 are under 35.

The majority of Segments 3 and 4 have secondary education meaning there can be less focus on basic numeracy and literacy skills as barriers when working with women in these two segments.



<i>Segment</i>	<i>Primary Employment Sectors</i>	<i>Leading Education Level</i>	<i>% of Women Under 35</i>
<b>01</b>	Not in workforce (78.4%)	Primary or less (69.9%)	68%
<b>02</b>	Working, sector unknown (61.5%)	Primary or less (67.4%)	43.8%
<b>03</b>	Working, sector unknown (42.8%)	Secondary (65.3%)	59.8%
<b>04</b>	Private Employment (45.3%)	Secondary (73.7%)	65.1%

Sources: Mathematica analysis of 2021 Global Findex database data.

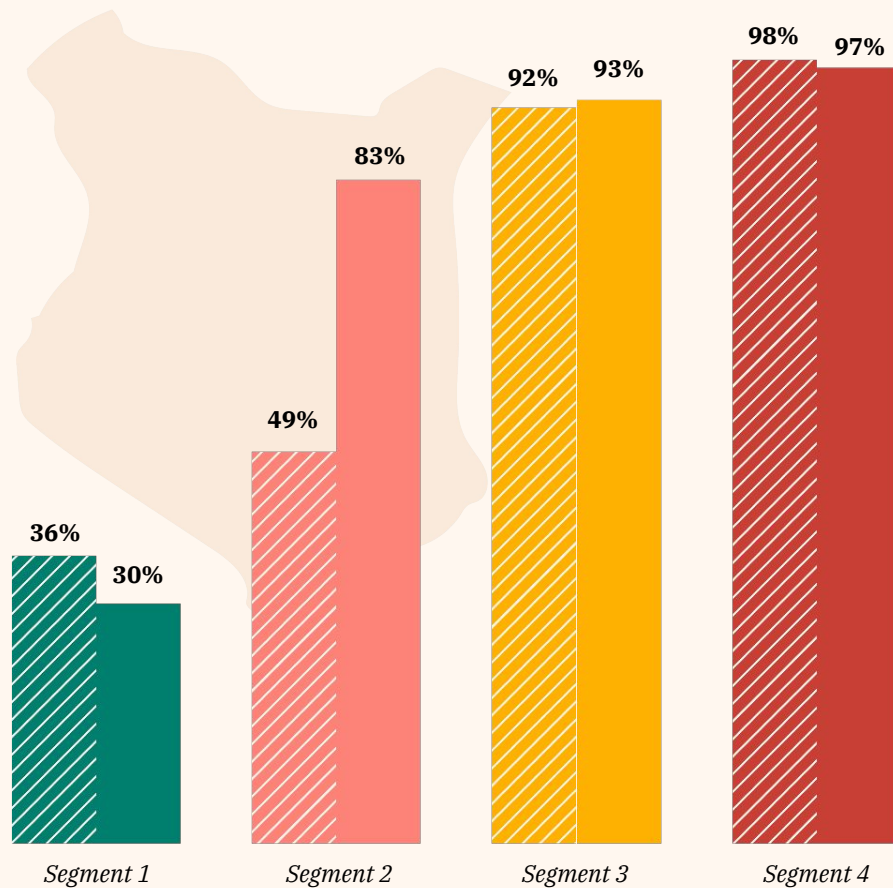
## Women in Kenya: Mobile Phone Ownership

2017 & 2021

Women's mobile phone ownership in Kenya stayed roughly the same between 2017 and 2021 for Segments 3 and 4. Ownership in Segment 1 decreased by 6%, and increased for Segment 2 by 34%.

▨ 2017



■ 2021

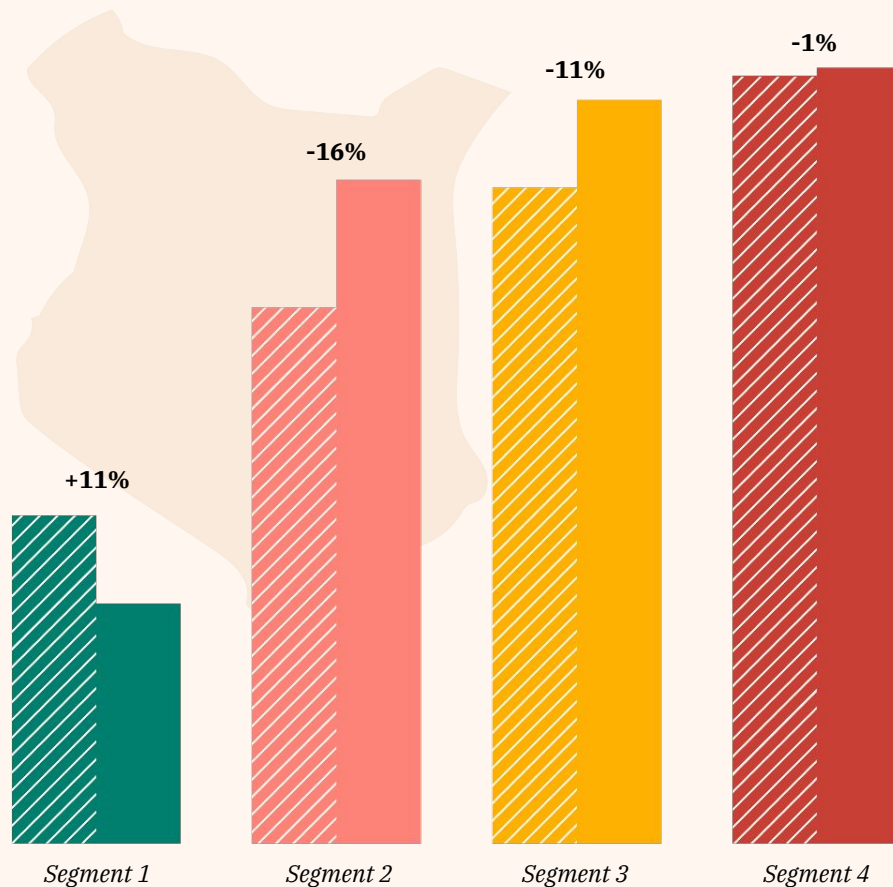


Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Kenya: Gender Gap in Mobile Phone Ownership

Women in Segments 2, 3, and 4 have higher levels of mobile phone ownership than men, with Segment 2 having the largest gap of -16%. There is an 11% gap between men and women in Segment 1.

 Men  
 Women



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Kenya:

# Barrier Prioritization for Segment 3

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### *Prerequisites*

Digital/Foundational ID  
Broader legal constraints (e.g., male signature)  
Lack of credit history (for credit products only)

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### *Information availability and/or capacity*

Basic literacy and numeracy  
Digital literacy  
Unclear or unavailable info about products/uses  
Lack of peers/family/network who use DFS

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### *Social Norms*

Biases that center men as financial customers  
Expectation that men control HH finances  
Ambivalence or antagonism towards women's financial independence  
Women's disproportionate time burden

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### *Cost*

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

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### *Consumer Protection*

Over-charging

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### *Product & Service Quality*

Lack of products that meet women's needs  
Reliability of payments system and network  
Lack of products and services that create value  
Reliability and quality of in-person services

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### *Human Resources*

Lack of female agents

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### *Accessibility*

Distance from bank/FSP/CICO agent

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Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Kenya:

# Barrier Prioritization for Segment 3

Based on Findex and other data sources, some barriers that are typical for women in Segment 3 globally may not be as significant for women in Segment 3 in the context of Kenya. Inversely, other barriers in the global context may disproportionately impact women in Kenya from economic empowerment.

### Barriers that may be *more* important in Kenya:

- 1) **Lack of products that meet women's needs, and Unclear or unavailable info about products/uses:** In Kenya, a relatively large share of women in Segment 3 saved money using a mobile money account (39.5%), sent money using a mobile phone or the internet (75.4%), and paid utility bills using a mobile phone (15.1%). However, only 9.7% of women in Segment 3 made a purchase online using a mobile phone or the internet, 4.1% received wage payments into an account at a financial institution, and 9.7% received wage payments through a mobile phone. This could indicate that there is unclear information about the different use cases of accounts (traditional and digital), and that products need to better meet women's needs as they explore more sophisticated use cases.

### Barriers that may be *less* important in Kenya:

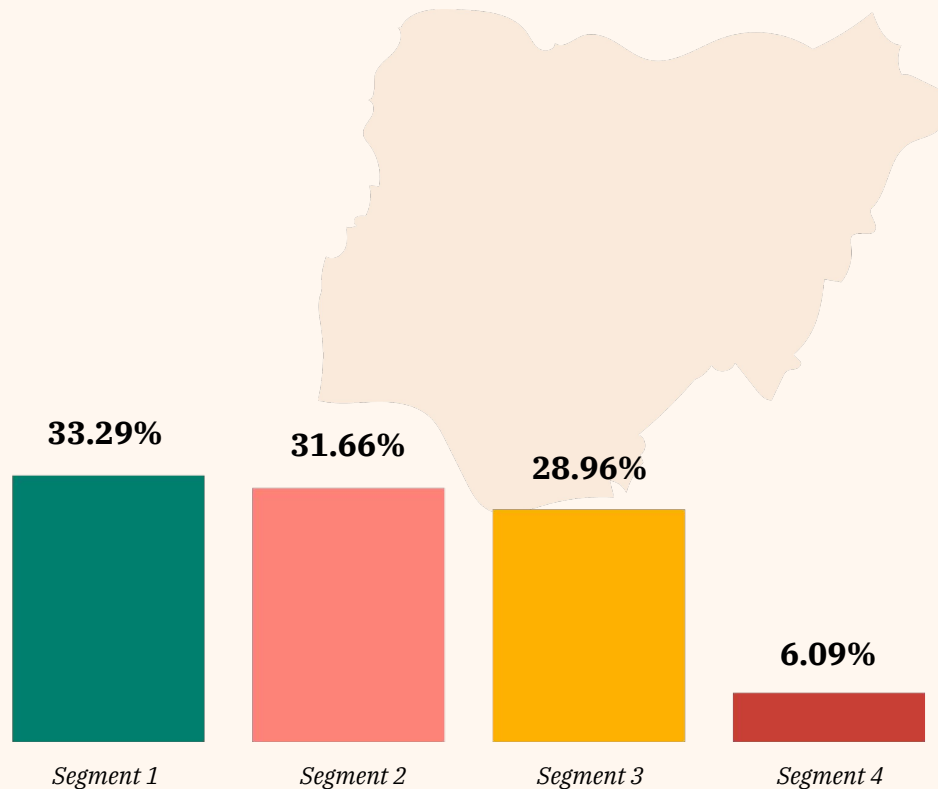
- 1) **Digital/Foundational ID:** 89% of women in Kenya have an ID according to the World Bank ID4D dataset ([World Bank ID4D, 2021](#)), meaning access to ID is likely not a barrier for Segment 3.
- 2) **Basic numeracy and literacy:** Numeracy and literacy is less likely to be a barrier for women in Segment 3 as 65.3% have a secondary education.
- 3) **Lack of peers/family/network who use DFS:** With over 67 million mobile money accounts open in Kenya, the *Lack of peers/family/network who use DFS* is less of a barrier ([Statista, 2022](#)).

Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.



## Women in Nigeria: Segmentation Breakdown

The largest segment represented in Nigeria is Segment 1, followed by Segment 2 and Segment 3 comprising the majority of the distribution, and Segment 4 being the smallest.



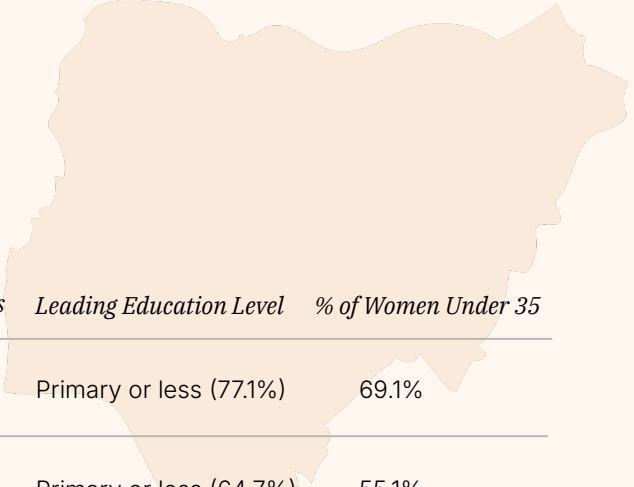
Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Nigeria: Demographic Breakdown

The majority of women in Segment 1 are not in the workforce while, Segment 4 has a majority of women gaining income in the private employment.

Segments 1 and 4 are typically younger than Segments 2 and 3, however, a vast majority of women in all segments are under the age of 35.

77.1% of women in Segment 1 have primary levels of education or less, while over 70% of women in Segments 3 and 4 have secondary education.



<i>Segment</i>	<i>Primary Employment Sectors</i>	<i>Leading Education Level</i>	<i>% of Women Under 35</i>
<b>01</b>	Not in workforce (56.1%)	Primary or less (77.1%)	69.1%
<b>02</b>	Working, sector unknown (64.1%)	Primary or less (64.7%)	55.1%
<b>03</b>	Working, sector unknown (46.6%)	Secondary (72.9%)	57.7%
<b>04</b>	Private employment (46.9%)	Secondary (75.6%)	71.8%

Sources: Mathematica analysis of 2021 Global Findex database data.

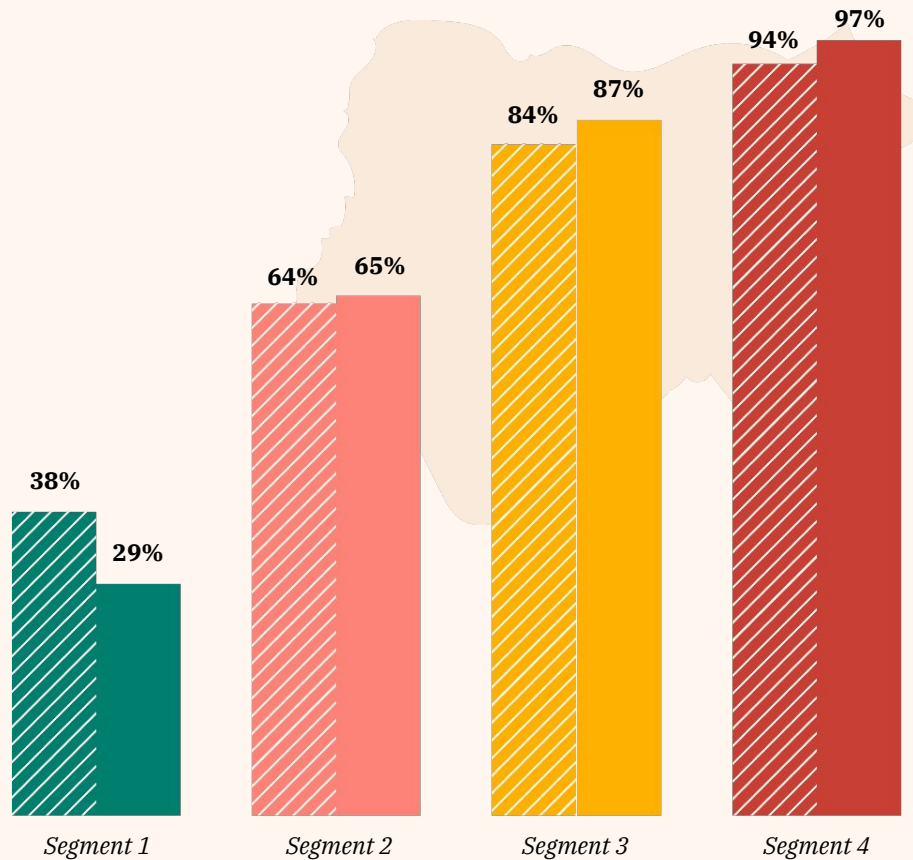
## Women in Nigeria: Mobile Phone Ownership

2017 & 2021

Women's mobile phone ownership increased slightly for Segments 2 (1%), 3 (3%), and 4 (3%). However, ownership decreased among women in Segment 1 by 9%.

▨ 2017



■ 2021

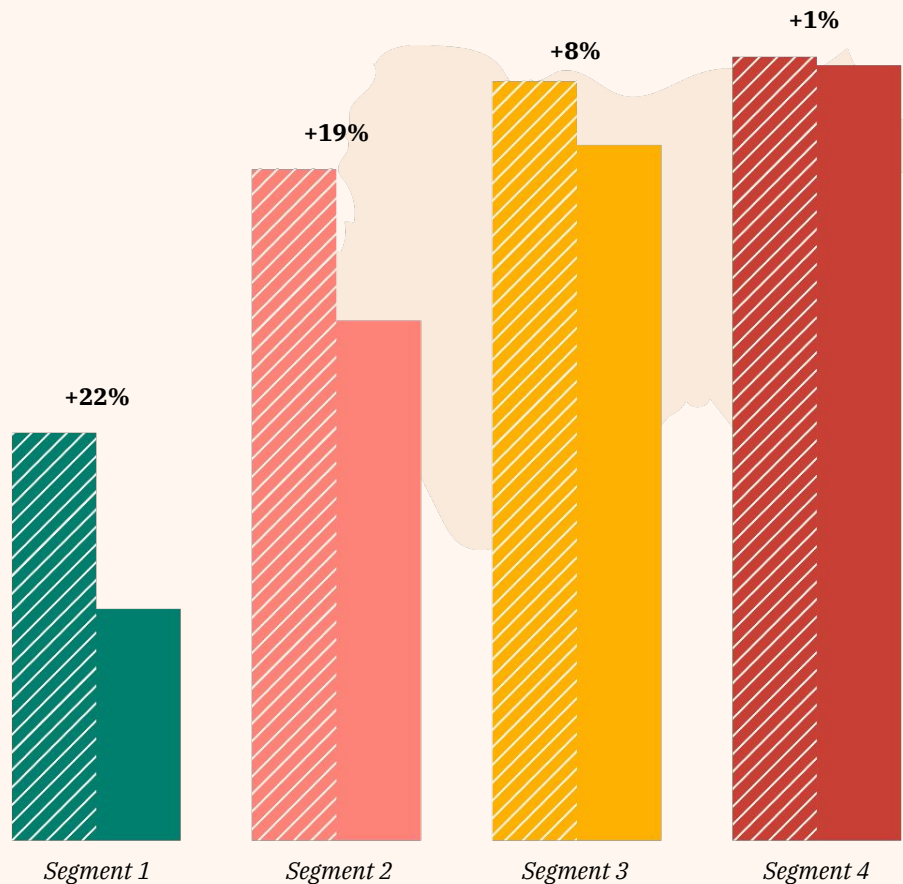


Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Nigeria: Gender Gap in Mobile Phone Ownership

The gender gap in mobile phone ownership decreases in order of the segments. Segment 1 has the largest gap of 22%, followed by a gap of 19% in Segment 2, 8% in Segment 3, and 1% in Segment 4.

 Men  
 Women



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Nigeria:

# Barrier Prioritization for Segment 1



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### *Prerequisites*

Phone/SIM ownership

Digital/Foundational ID

Broader legal constraints (e.g., male signature)

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### *Information availability and/or capacity*

Basic literacy and numeracy

Digital literacy

Unclear or unavailable info about products/uses

Lack of peers/family/network who use DFS

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### *Social Norms*

Biases that center men as financial customers

Expectation that men control HH finances

Ambivalence or antagonism towards women's financial independence

Women's disproportionate time burden

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### *Cost*

Cost of using DFS (incl. transaction cost)

Perceived and/or lack of money

Cost of mobile/internet

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### *Accessibility*

Distance from bank/FSP/CICO agent

Mobility constraints (e.g., legal curfews, norms)

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### *Human Resources*

Lack of female agents

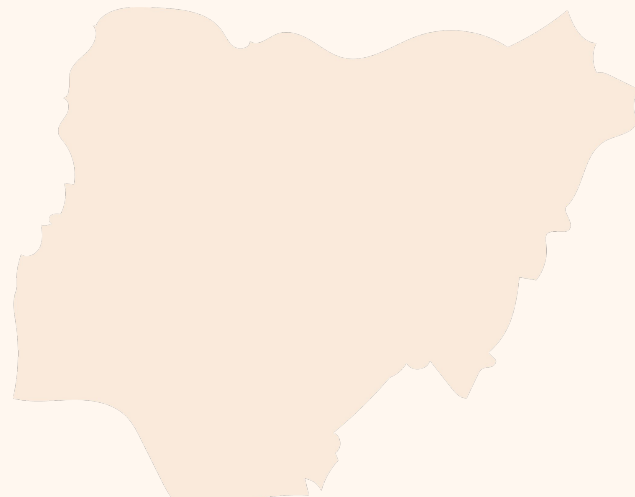
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Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Nigeria:

# Barrier Prioritization for Segment 1

Based on Findex and other data sources, some barriers that are typical for women in Segment 1 globally may not be as significant for women in Segment 1 in the context of Nigeria. Inversely, other barriers in the global context may disproportionately impact women in Nigeria from economic empowerment.



### Barriers that may be *more* important in Nigeria:

- 1) **Perceived and/or lack of money:** 68.2% of women in Segment 1 stated they do not have enough money to use financial services.
- 2) **Distance from bank/FSP/CICO agent:** 44% of women in Segment 1 stated there was no institution nearby.
- 3) **Cost of using DFS (incl. transaction cost):** 41.4% of Segment 1 stated that financial services were too expensive.
- 4) **Phone/SIM ownership:** 71.3% of women in Segment 1 do not own a mobile phone.

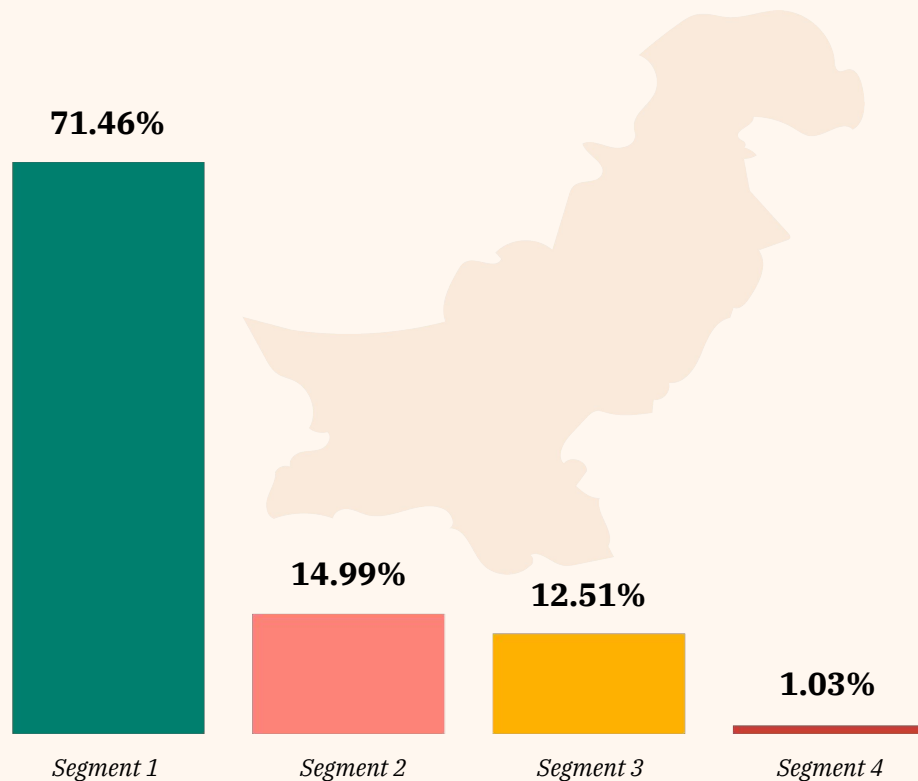
### Barriers that may be *less* important in Nigeria:

- 1) There were no barriers that could be deemed less important for women in Segment 1 of Nigeria.

Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Pakistan: Segmentation Breakdown

The largest segment represented in Pakistan is Segment 1, followed by Segments 2 and 3 with close distributions, and Segment 4 with minimal representation.



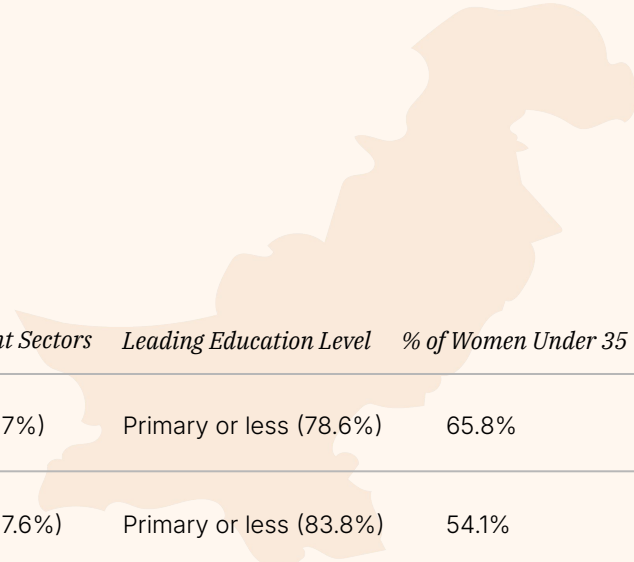
Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Pakistan: Demographic Breakdown

For Segments 1, 2 and 3, most women are not in the workforce with Segment 1 being the highest at 87%. For Segment 4, private employment is the primary employment sector at 45.4%.

The majority of women in all segments have a primary level of education or less.

Over 60% of women in Segments 1 and 4 are under the age of 35.



<i>Segment</i>	<i>Primary Employment Sectors</i>	<i>Leading Education Level</i>	<i>% of Women Under 35</i>
<b>01</b>	Not in workforce (87%)	Primary or less (78.6%)	65.8%
<b>02</b>	Not in workforce (37.6%)	Primary or less (83.8%)	54.1%
<b>03</b>	Not in workforce (72.1%)	Primary or less (71.1%)	55.4%
<b>04</b>	Private employment (45.4%)	Primary or less (59.6%)	65.4%

Sources: Mathematica analysis of 2021 Global Findex database data.



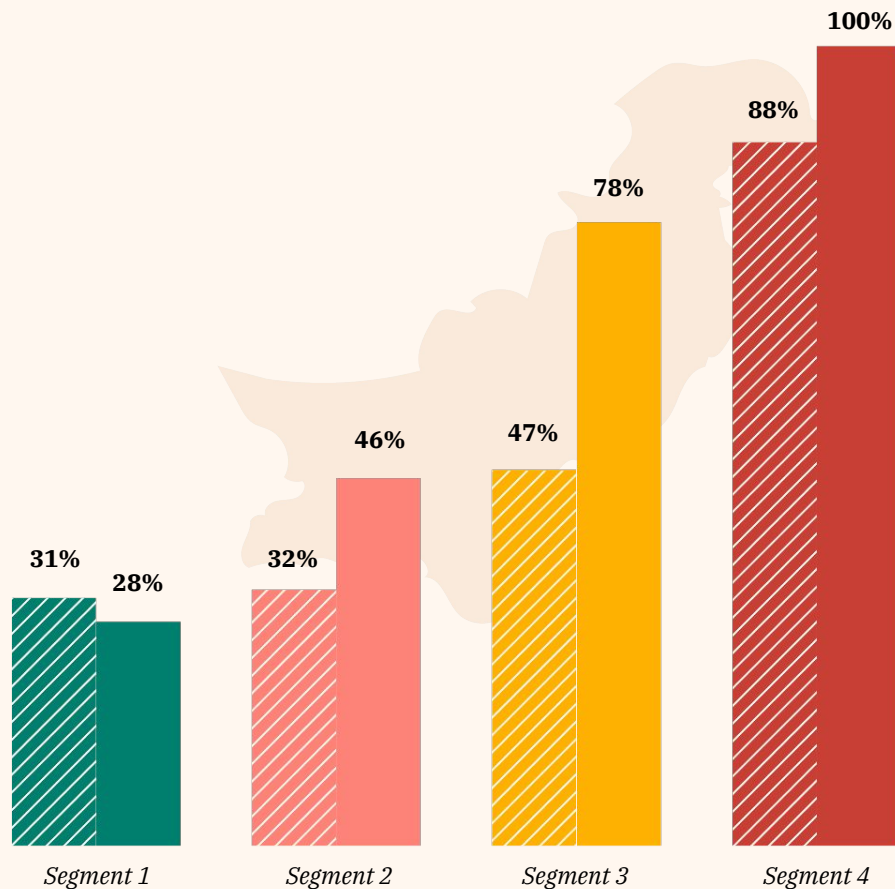
## Women in Pakistan: Mobile Phone Ownership

2017 & 2021

Women's mobile phone ownership increased for Segments 2, 3, and 4 from 2017 to 2021, with Segment 3 increasing the most (31%). Segment 1 decreased slightly, from 31% in 2017 to 28% in 2021.

▨ 2017

■ 2021

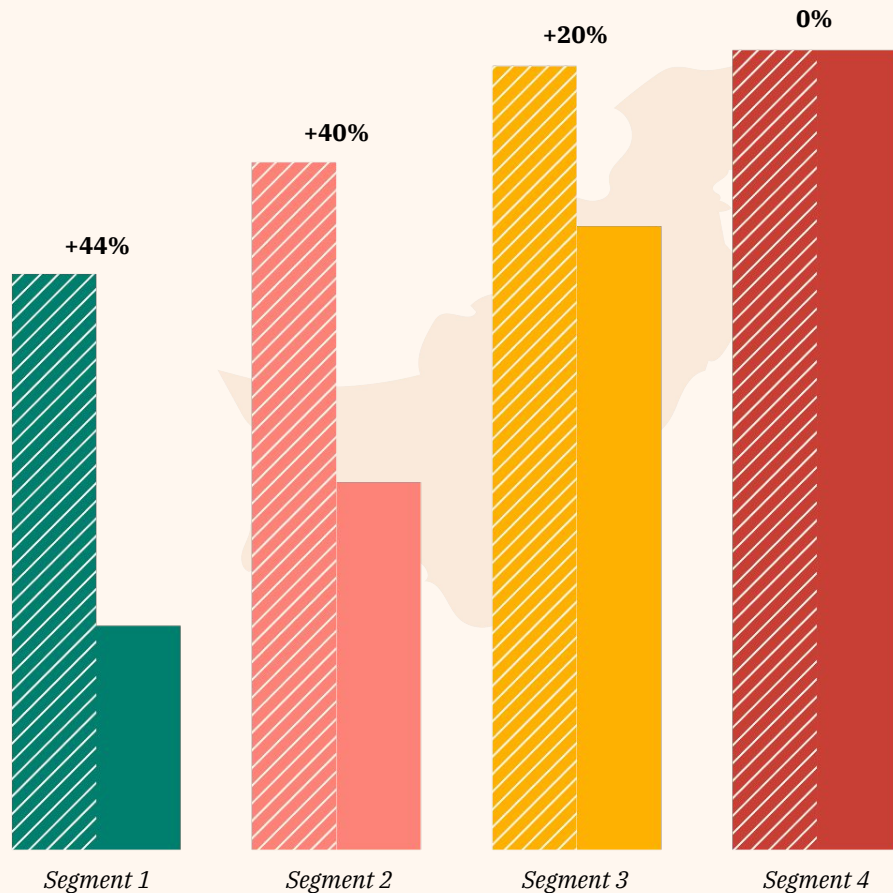


Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Pakistan: Gender Gap in Mobile Phone Ownership

Segments 1, 2 and 3 have large gender gaps, sitting at 44%, 40%, and 20%, respectively. Segment 4 has reached gender parity, with a 0% gap between men and women's phone ownership.

▨ Men  
■ Women



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Pakistan:

# Barrier Prioritization for Segment 1

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### *Prerequisites*

Phone/SIM ownership  
Digital/Foundational ID  
Broader legal constraints (e.g., male signature)

---

### *Information availability and/or capacity*

Basic literacy and numeracy  
Digital literacy  
Unclear or unavailable info about products/uses  
Lack of peers/family/network who use DFS

---

### *Social Norms*

Biases that center men as financial customers  
Expectation that men control HH finances  
Ambivalence or antagonism towards women's financial independence  
Women's disproportionate time burden

---

### *Cost*

Cost of using DFS (incl. transaction cost)  
Perceived and/or lack of money  
Cost of mobile/internet

---

### *Accessibility*

Distance from bank/FSP/CICO agent  
Mobility constraints (e.g., legal curfews, norms)

---

### *Human Resources*

Lack of female agents

---

Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Pakistan:

# Barrier Prioritization for Segment 1

Based on Findex and other data sources, some barriers that are typical for women in Segment 1 globally may not be as significant for women in Segment 1 in the context of Pakistan. Inversely, other barriers in the global context may disproportionately impact women in Pakistan from economic empowerment.

### Barriers that may be *more* important in Pakistan:

- 1) **Perceived and/or lack of money:** 51.8% of women in Segment 1 stated they do not have enough money to use financial institutions.
- 2) **Cost of using DFS (incl. transaction cost):** 30.4% of women in Segment 1 cited that financial services were too expensive.
- 3) **Phone/SIM ownership:** 72% of women in Segment 1 do not own a mobile phone.

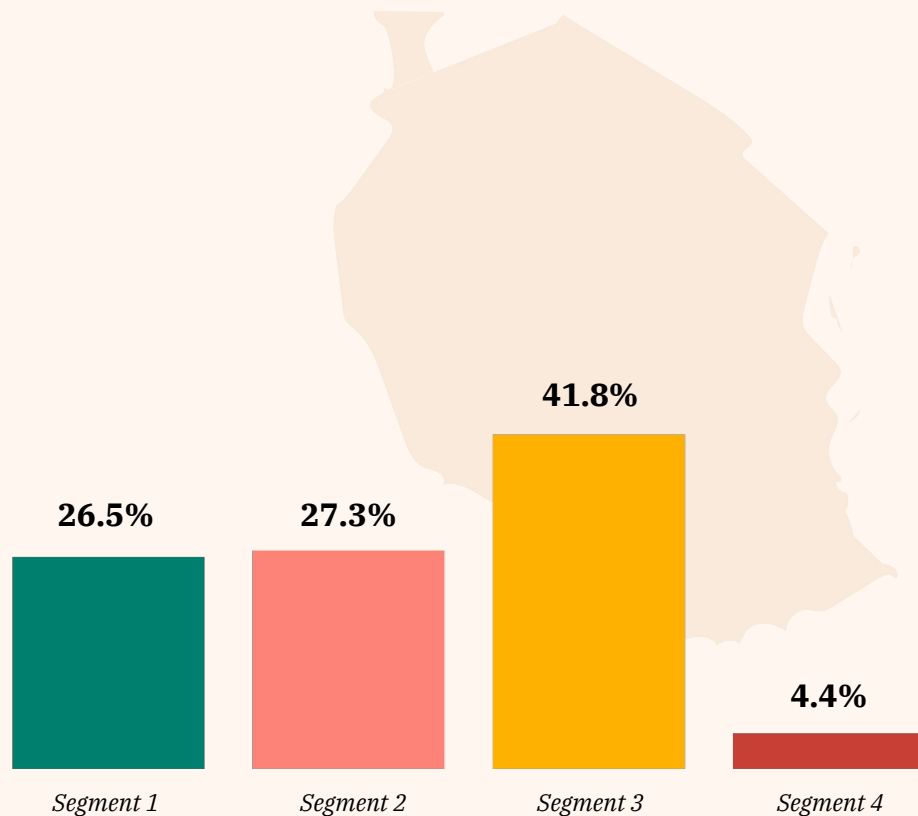
### Barriers that may be *less* important in Pakistan:

- 1) There were no barriers that could be deemed less important for women in Segment 1 of Pakistan.

Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Tanzania: Segmentation Breakdown

The largest segment represented in Tanzania is Segment 3, followed by Segment 2 and Segment 1 being nearly equally distributed, and Segment 4 being the smallest.



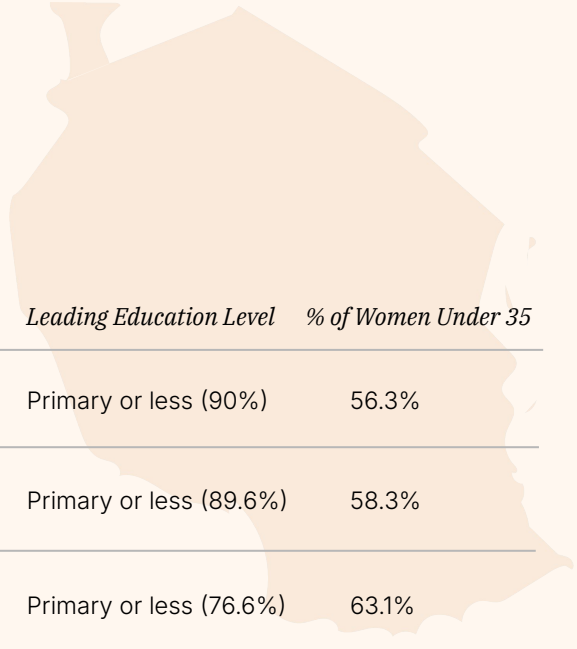
Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Tanzania: Demographic Breakdown

The majority of women in Segment 1 are not in the workforce, while women in Segments 2, 3, and 4 are working but the sector of employment for a large percentage is unknown.

Women in Segment 4 in Tanzania are typically younger than women in other segments.

The majority of women in Segments 1, 2 and 3 have primary levels of education or less, while the majority women in Segment 3 have a secondary education level or higher (57%).



<i>Segment</i>	<i>Primary Employment Sectors</i>	<i>Leading Education Level</i>	<i>% of Women Under 35</i>
<b>01</b>	Not in workforce (58.7%)	Primary or less (90%)	56.3%
<b>02</b>	Working, sector unknown (69.2%)	Primary or less (89.6%)	58.3%
<b>03</b>	Working, sector unknown (43.2%)	Primary or less (76.6%)	63.1%
<b>04</b>	Working, sector unknown (42.8%)	Secondary (49.2%)	67.9%

Sources: Mathematica analysis of 2021 Global Findex database data.

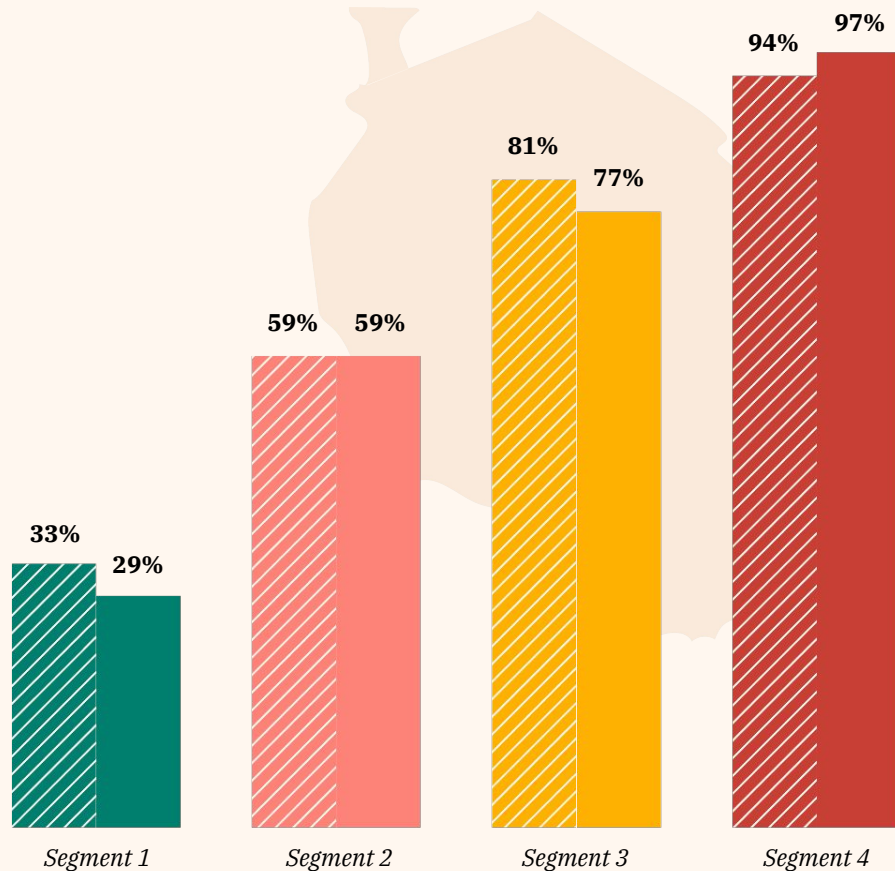
## Women in Tanzania: Mobile Phone Ownership

2017 & 2021

Women's mobile phone ownership decreased from 2017 to 2021 for Segments 1 and 3, remained unchanged for Segment 2, and increased slightly for Segment 4.

▨ 2017



■ 2021

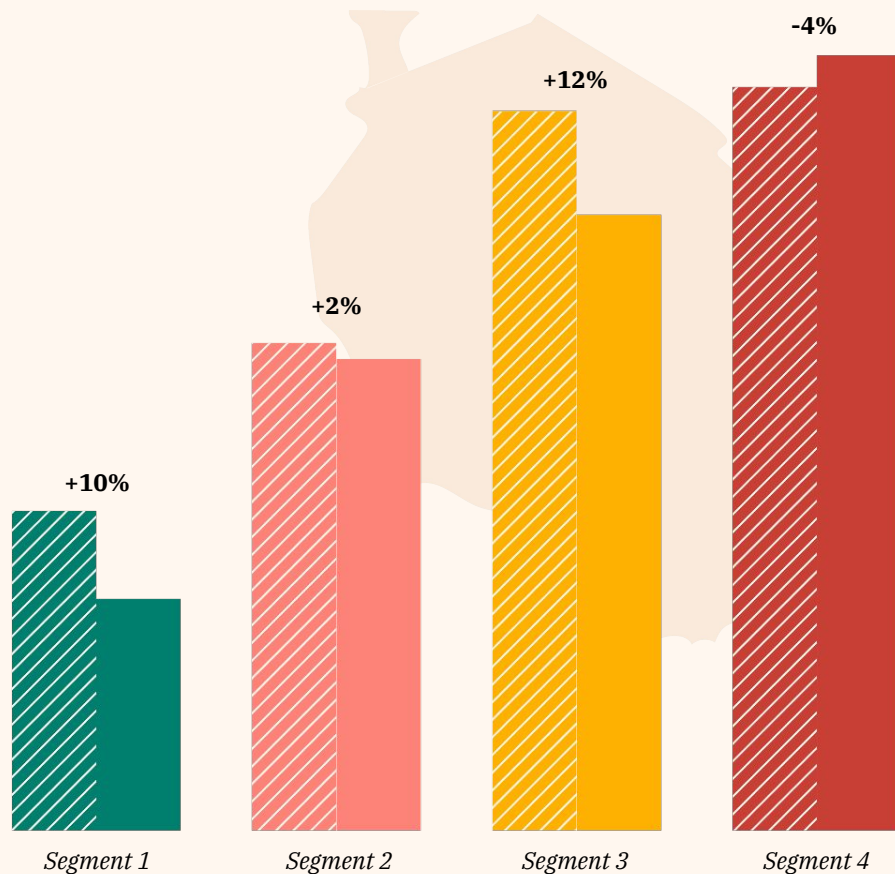


Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Tanzania: Gender Gap in Mobile Phone Ownership

Segment 3 has the largest gender gap of 12%, followed by Segment 1 with a gap of 10%. Women in Segment 4 have higher levels of phone ownership than men, with a gap of -4%.

 Men  
 Women



Sources: Mathematica analysis of 2021 Global Findex database data.



## Women in Tanzania:

# Barrier Prioritization for Segment 3

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### *Prerequisites*

Digital/Foundational ID  
Broader legal constraints (e.g., male signature)  
Lack of credit history (for credit products only)

---

### *Cost*

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

---

### *Human Resources*

Lack of female agents

---

### *Information availability and/or capacity*

Basic literacy and numeracy  
Digital literacy  
Unclear or unavailable info about products/uses  
Lack of peers/family/network who use DFS

---

### *Consumer Protection*

Over-charging

---

### *Accessibility*

Distance from bank/FSP/CICO agent

---

### *Social Norms*

Biases that center men as financial customers  
Expectation that men control HH finances  
Ambivalence or antagonism towards women's financial independence  
Women's disproportionate time burden

---

### *Product & Service Quality*

Lack of products that meet women's needs  
Reliability of payments system and network  
Lack of products and services that create value  
Reliability and quality of in-person services

---

Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Tanzania:

# Barrier Prioritization for Segment 3

Based on Findex and other data sources, some barriers that are typical for women in Segment 3 globally may not be as significant for women in Segment 3 in the context of Tanzania. Inversely, other barriers in the global context may disproportionately impact women in Tanzania from economic empowerment.

### Barriers that may be *more* important in Tanzania:

- 1) **Lack of products that meet women's needs, and Unclear or unavailable info about products/uses:** In Tanzania, a relatively large share of women in Segment 3 saved money using a mobile money account (20.6%), sent money using a mobile phone or the internet (45.4%), and paid utility bills using a mobile phone (23%). However, only 6.9% of women in Segment 3 made a purchase online using a mobile phone or the internet, 1.2% received wage payments into an account at a financial institution, and 3.2% received wage payments through a mobile phone. This could indicate that there is unclear information about the different use cases of accounts (traditional and digital), and that products need to better meet women's needs as they explore more sophisticated use cases.

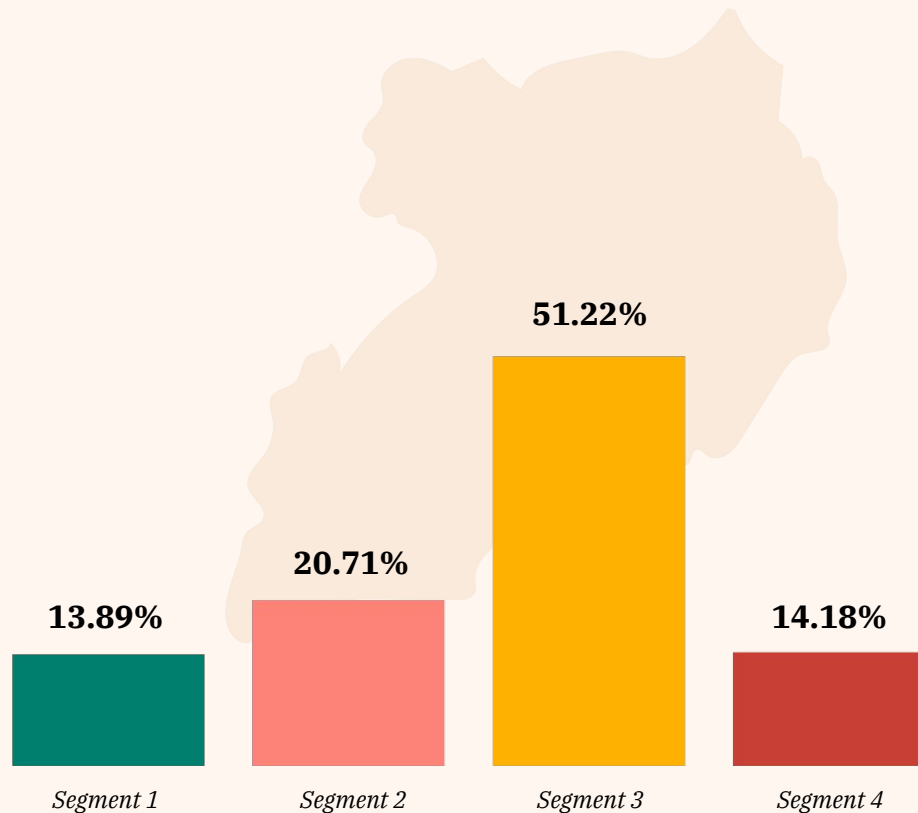
### Barriers that may be *less* important in Tanzania:

- 1) **Cost of mobile/internet:** The cost of mobile data is relatively low in Tanzania; they have a world mobile data ranking of 50 out of 233 according to Cable.co.uk (with a rank of 1 being the most affordable) ([Cable.co.uk](https://www.cable.co.uk/), 2022).
- 2) **Lack of peers/family/network who use DFS:** With over 40 million mobile money accounts open in Tanzania, the Lack of peers/family/network who use DFS is less of a barrier ([TCRA](https://www.tcra.co.tz/), 2023).

Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Uganda: Segmentation Breakdown

The largest segment represented in Uganda is Segment 3, followed Segment 2, Segment 4, then Segment 1 being the smallest.



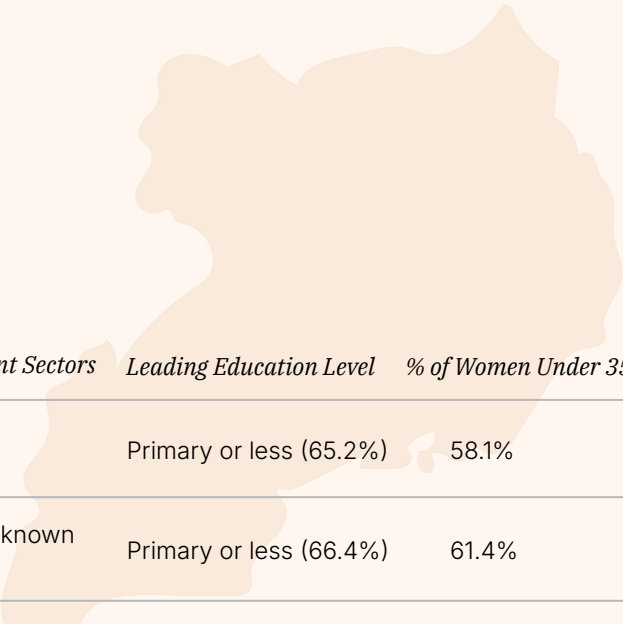
Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Uganda: Demographic Breakdown

While the majority of Segment 1 are not in the workforce (58.8%) the majority of women in Segments 2, 3, and 4 work either in an unknown sector, in private employment, agriculture or public employment.

Women in Segments 3 and 4 are typically younger, with women in Segment 1 being the oldest. This indicates that younger populations in this country-specific context may be more open to digital financial services.

We observe that education levels are higher for the majority of women in Segments 3 and 4 than those in Segments 1 and 2.



<i>Segment</i>	<i>Primary Employment Sectors</i>	<i>Leading Education Level</i>	<i>% of Women Under 35</i>
<b>01</b>	Not in workforce (58.8%)	Primary or less (65.2%)	58.1%
<b>02</b>	Working, sector unknown (52.5%)	Primary or less (66.4%)	61.4%
<b>03</b>	Working, sector unknown (34.7%)	Secondary (56%)	68.3%
<b>04</b>	Private Employment (40.3%)	Secondary (74.4%)	76.3%

Sources: Mathematica analysis of 2021 Global Findex database data.

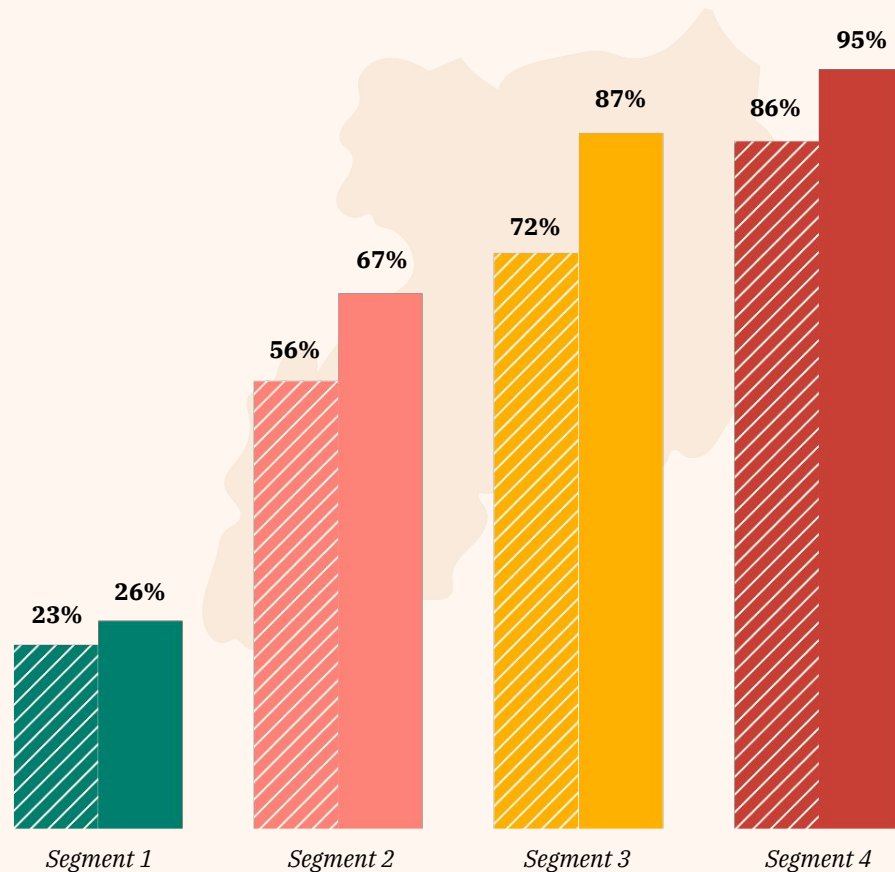
## Women in Uganda: Mobile Phone Ownership

2017 & 2021

Women's mobile phone ownership increased for all segments from 2017 to 2021. Segment 3 had the largest increase of 15%, whereas Segment 1 had the smallest increase of 3%.

▨ 2017

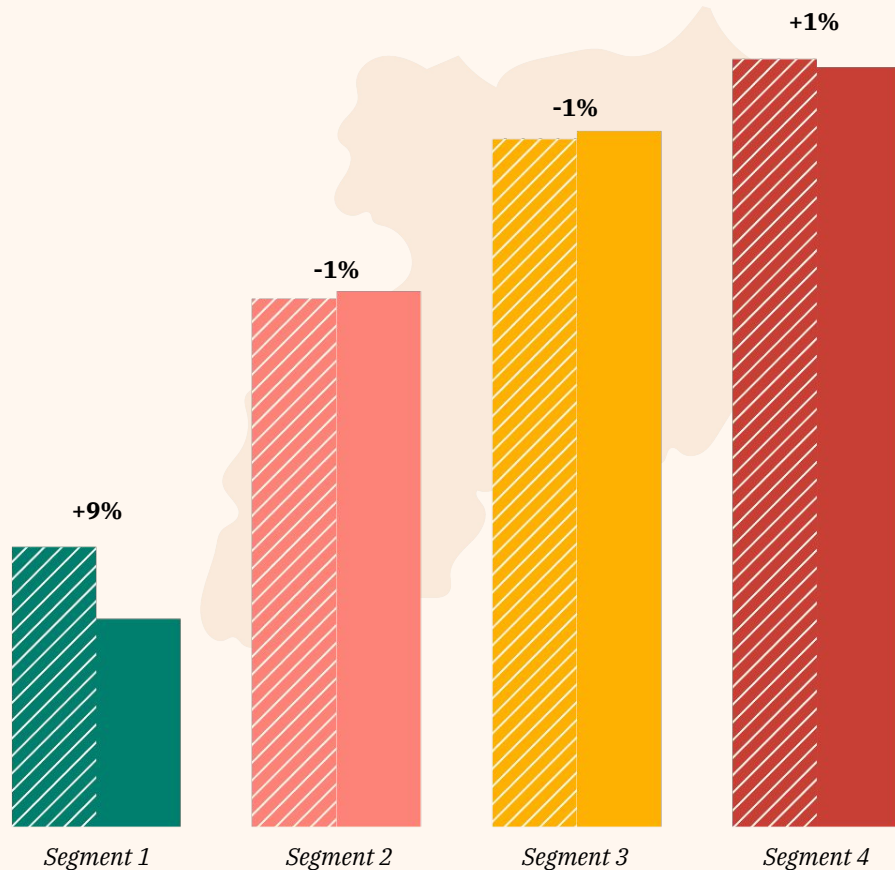
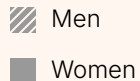
■ 2021



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Uganda: Gender Gap in Mobile Phone Ownership

Women and men in Segments 2, 3, and 4 have similar levels of mobile phone ownership (a +/- 1 difference). Segment 1 has the largest gap of 9%.



Sources: Mathematica analysis of 2021 Global Findex database data.

## Women in Uganda:

# Barrier Prioritization for Segment 3

---

### *Prerequisites*

Digital/Foundational ID  
Broader legal constraints (e.g., male signature)  
Lack of credit history (for credit products only)

---

### *Cost*

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

---

### *Information availability and/or capacity*

Basic literacy and numeracy  
Digital literacy  
Unclear or unavailable info about products/uses  
Lack of peers/family/network who use DFS

---

### *Consumer Protection*

Over-charging

---

### *Human Resources*

Lack of female agents

---

### *Social Norms*

Biases that center men as financial customers  
Expectation that men control HH finances  
Ambivalence or antagonism towards women's financial independence  
Women's disproportionate time burden

---

### *Product & Service Quality*

Lack of products that meet women's needs  
Reliability of payments system and network  
Lack of products and services that create value  
Reliability and quality of in-person services

---

Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.

## Women in Uganda:

# Barrier Prioritization for Segment 3

Based on Findex and other data sources, some barriers that are typical for women in Segment 3 globally may not be as significant for women in Segment 3 in the context of Uganda. Inversely, other barriers in the global context may disproportionately impact women in Uganda from economic empowerment.

### Barriers that may be *more* important in Uganda:

- 1) **Lack of products that meet women's needs, and Unclear or unavailable info about products/uses:** In Uganda, a relatively large share of women in Segment 3 saved money using a mobile money account (36.5%), sent money using a mobile phone or the internet (61.4%), and paid utility bills using a mobile phone (19.3%). However, only 6% of women in Segment 3 made a purchase online using a mobile phone or the internet, 1.1% received wage payments into an account at a financial institution, and 4% received wage payments through a mobile phone. This could indicate that there is unclear information about the different use cases of accounts (traditional and digital), and that products need to better meet women's needs as they explore more sophisticated use cases.

### Barriers that may be *less* important in Uganda:

- 1) **Basic numeracy and literacy:** Numeracy and literacy are less likely of a barrier for women in Segment 3 as they have higher levels of education (56% having a secondary education).
- 2) **Lack of peers/family/network who use DFS:** With over 30 million mobile money accounts open in Uganda, the *Lack of peers/family/network who use DFS* is less of a barrier ([Statista, 2022](#)).

Sources: Mathematica analysis of 2021 Global Findex database data and GRID Impact and SIA analysis.



# Barriers that are more relevant by country

## Ethiopia

Basic literacy and numeracy

Digital literacy

Unclear or unavailable info about products/uses



## Kenya

Lack of products that meet women's needs

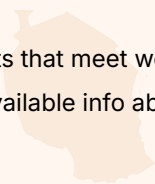
Unclear or unavailable info about products/uses



## Tanzania

Lack of products that meet women's needs

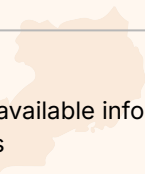
Unclear or unavailable info about products/uses



## Uganda

Unclear or unavailable info about products/uses

Lack of products that meet women's needs



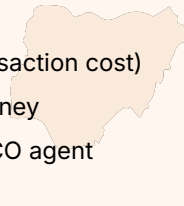
## Nigeria

Cost of using DFS (incl. transaction cost)

Perceived and/or lack of money

Distance from bank/FSP/CICO agent

Phone/SIM ownership



## Bangladesh

Lack of products that meet women's needs

Unclear or unavailable info about products/uses



## India

Lack of female agents

Lack of products that meet women's needs

Unclear or unavailable info about products/uses

Distance from bank/FSP/CICO agent



## Indonesia

Digital literacy

Unclear or unavailable info about products/uses

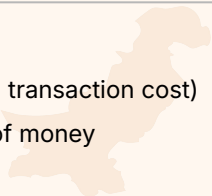


## Pakistan

Cost of using DFS (incl. transaction cost)

Perceived and/or lack of money

Phone/SIM ownership



# Barriers that are less relevant by country

## Ethiopia

Cost of mobile/internet



## Kenya

Digital/Foundational ID

Basic literacy and numeracy

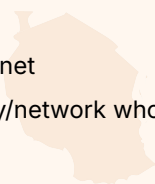
Lack of peers/family/network who use DFS



## Tanzania

Cost of mobile/internet

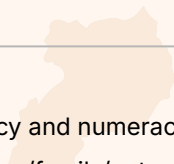
Lack of peers/family/network who use DFS



## Uganda

Basic literacy and numeracy

Lack of peers/family/network who use DFS



## Nigeria

N/A



## Bangladesh

Digital/Foundational ID

Basic literacy and numeracy



## India

Digital/Foundational ID



## Indonesia

Digital/Foundational ID

Cost of mobile/internet

Basic literacy and numeracy



## Pakistan

N/A



# Connected Barriers

*The importance of understanding connected barriers:*

By tagging barriers to one another, we can understand the **nature of interactions** between barriers.

As we began the process of identifying the evidence of how each barrier might impact the uptake and usage of financial services among women, one insight became clear: **no barrier operates independent of other barriers**. In fact, the barriers are incredibly interconnected. **One barrier may be a root cause of another barrier** (e.g. *Broader legal constraints* may be the reason it is difficult for women to obtain a *Digital/ foundational ID*) **or one barrier may exacerbate another barrier** (e.g. challenges with *Digital literacy* may make *Navigability of user interface of the digital product* more difficult).

**By tagging barriers to one another, we were able to build a map of barrier connections in order to understand the nature of interactions between barriers. This Connected Barriers Map has helped us to determine which barriers hold influence over other barriers.**

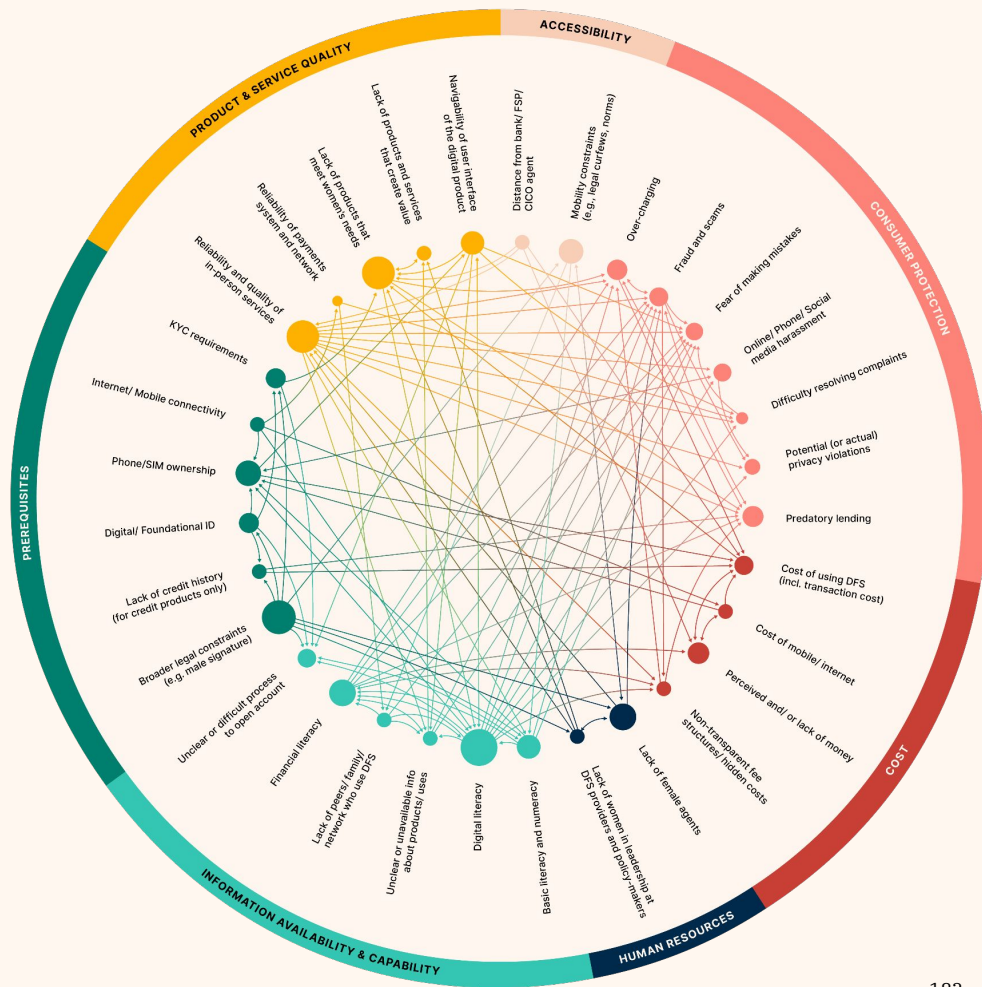
The dots adjacent to each barrier title— which we refer to as “clusters”, “nodes” or “nodal barriers” — represent the volume of connections each barrier holds. The more connections a nodal barrier holds, the larger the dot. These nodal barriers represent

opportunities for our industry: if we can address the barriers at the center of a cluster, we can likely influence connected barriers through both direct and indirect means.

Now, the nodal barriers are not necessarily relevant for all segments in all markets. We will need to consider the influence of a node in concert with the prioritized barriers for each segment in order to tailor an approach to promoting uptake or usage of financial services among women. Taking into consideration the relevant barriers for a particular segment *plus* the barriers at the center of connected clusters can help refine the focus and approach.

We recommend using the [Diagnostic Tool](#) to assess your particular market *first*. Then, with the information gained from the Diagnostic Tool, you can zoom in on the most relevant barriers using the Connected Barriers Map to see which other barriers might be important to examine. Neither the Diagnostic tool nor the Connected Barriers map are going to give you 100% certainty for which barriers to address first in your market but we hope these tools provide some directional guidance.

# Connected Barriers Map



*How we plan on using connected barrier nodes*

## The nodes derived from the Connected Barriers Map will also serve as a ***guide to identify opportunities*** that could create outsized impact on our goals of achieving the 2030 WEE-FI vision statement.

As we described earlier, we are relying on the **country segmentation data to inform the prioritization** of barriers in a contextualized manner. Leveraging Mathematica's work on the segmentation model and analysis, we applied a more **nuanced analysis** regarding the barriers in each country using data about specific sectors, education levels, age ranges, and income quintiles. The result is that we can highlight specific barriers that might warrant more urgent attention in each market.

Furthermore, the Connected Barriers Map process provided us with support in a different area. As we began to identify particular exemplars, interventions, and programs that demonstrated evidence of addressing/mitigating specific barriers, the nodes derived from the Connected Barriers Map served as a guide to identify opportunities that could create outsized impact on our goals of achieving the 2030 WEE-FI vision statement.

More specifically, if we can pinpoint particularly influential barriers—represented in the largest nodes—then we may be able to **instigate ripple effects** that affect myriad other barriers. In a sense, the largest nodes serve as **opportunity guides**.

For example, we know that *Digital literacy* is a high-volume nodal barrier connected to 12 other barriers. If we can identify opportunities and solutions that have improved women's digital literacy that **also** take into account connected barriers such as *Basic literacy and numeracy*, *Navigability of user interface of the digital product*, and *Non-transparent fee structure/hidden costs*, we might be able to reduce the impact of multiple barriers through one powerful intervention or solution. Using the connected barriers to inform opportunity identification and intervention design could help address more challenges in the ecosystem in a more efficient manner.

# A proposed approach

*Step 1*

## Diagnostic Tool

First, we recommend using the Diagnostic Tool to assess which barriers are most relevant to phases of the customer journey in a specific country market.

- Which barriers have yet to be adequately addressed?
- Which barriers continue to persist and hinder women's access or usage of financial services?

*Then, find those barriers on the Connected Barriers Map.*

*Step 2*

## Connected Barriers

Locating the most relevant barriers for a particular country on the Connected Barriers Map will invite you to see which other barriers are most connected.

If the barriers connected to your most relevant barriers are *not yet* resolved in your country, this may be an indication that you have more work to do.

*Step 3*

## Exemplars

The final step is to find Exemplars that have addressed the barriers you identified in steps 1 and 2.

Ideally, you are able to identify an exemplar that has successfully addressed both the largest nodal barrier as well as some of the connected barriers.

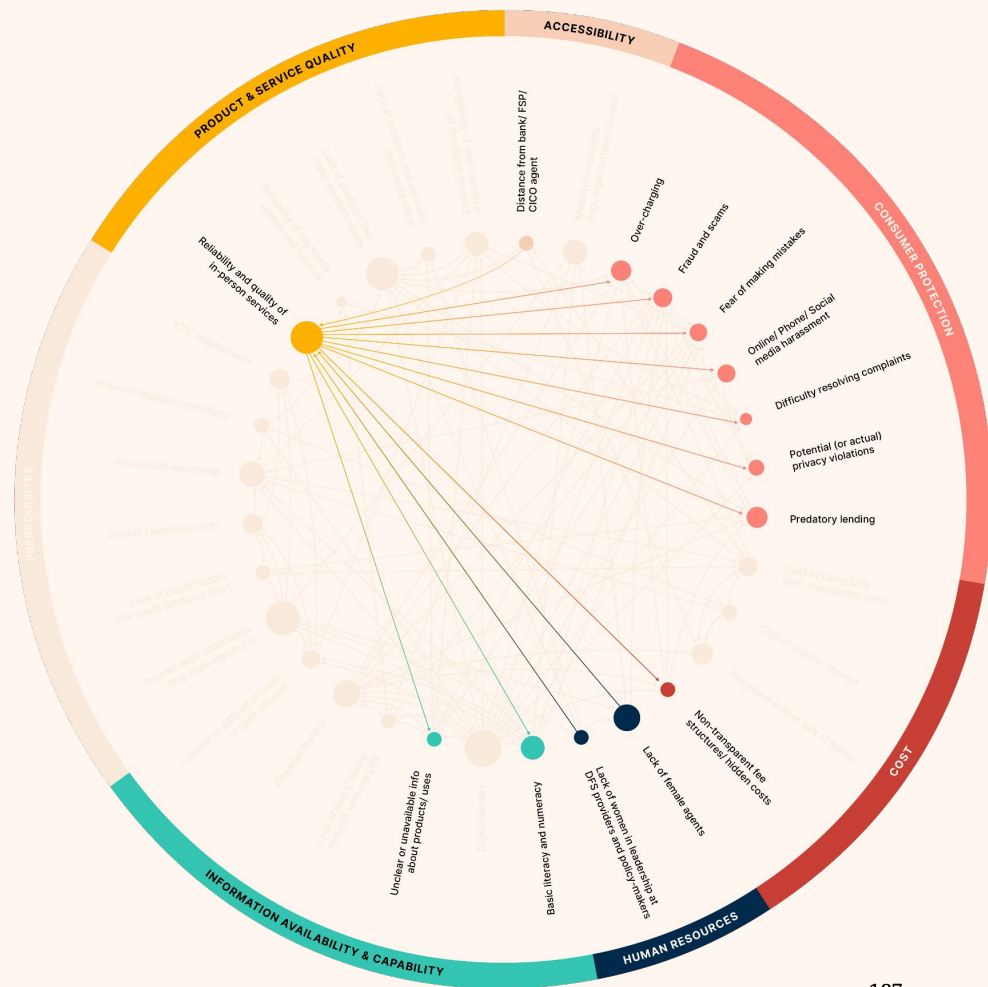
- Can we mitigate or resolve multiple barriers through one intervention?
- If we focus on addressing a larger nodal barrier, can we successfully resolve other barriers at the same time?





## Reliability and quality of in-person services (1 of 2)

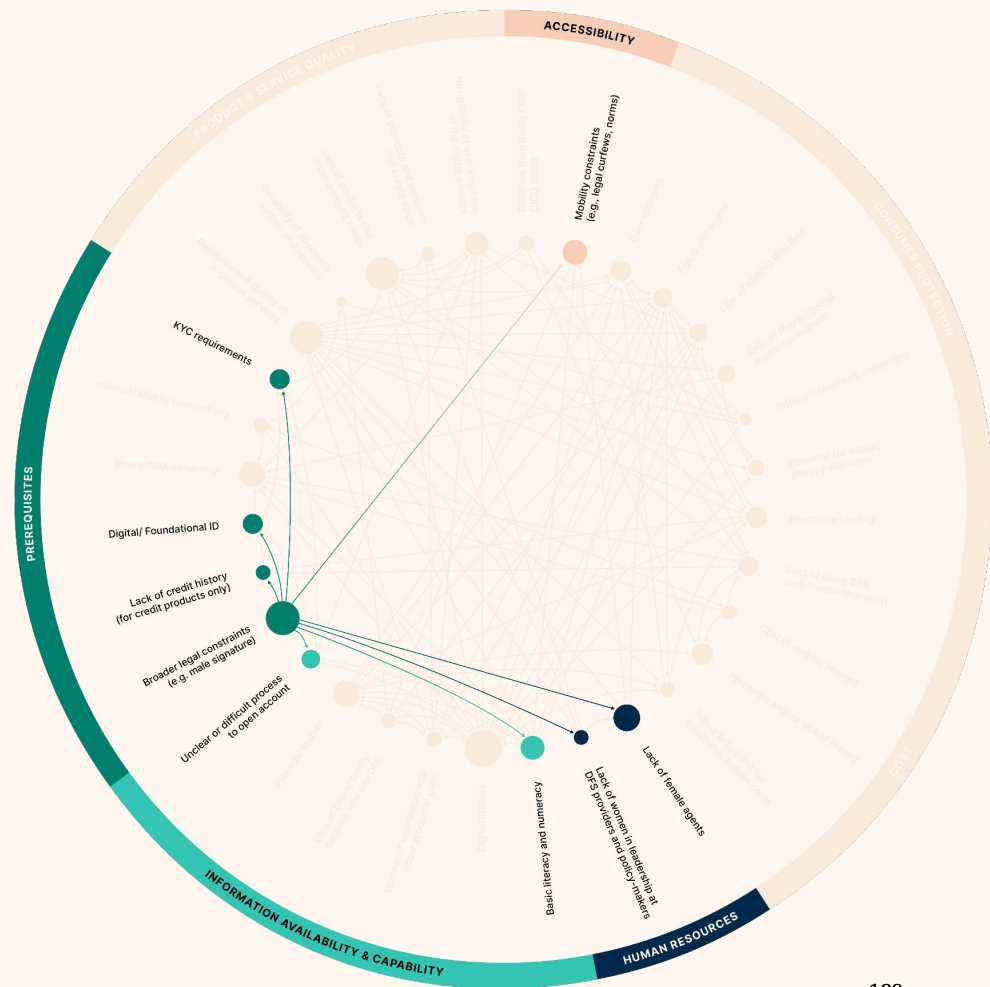
This barrier is connected to 16 other barriers including all of the barriers in the Consumer Protection category. Women’s trust and desire to use DFS is negatively affected when they encounter unreliable and unsatisfactory in-person services. Notably, for women who already own an account with an FSP and wish to deepen their use of DFS beyond basic usage—for example to take out a loan—they might be hindered in doing so due to poor treatment from bank agents, and the lack of trust in how agents may use their information. In order to mitigate this barrier, and increase uptake and usage of DFS among women, some actions may prove significant: addressing the in-person experiences of new customers, improving the in-person experiences of basic usage customers by hiring more women into DFS positions, simplifying the information about products and services, or making it safer and easier for female customers to conduct transactions without fear of scams or harassment or





## Broader legal constraints

Research showed that removing discriminatory laws and policies can lead to higher levels of women's employment and better access to finance resulting in improved economic outcomes for women. This barrier is connected to 11 other barriers, some within the Prerequisites barrier category and a variety of other barriers, including the most tagged barrier, *Ambivalence or antagonism towards women's financial independence*. Given the broad connections this barrier has to other barriers important for Segments 1, 2, and 3, we believe that resolving this barrier could have an outsized impact on WEE-FI by causing a positive ripple effect impacting other barriers – especially barriers under Social Norms, Prerequisites, and Accessibility. For example, removing legal curfews would help resolve the *Mobility constraints* barrier.



# Final Thoughts

# Industry Research Needs

There are a number of barriers that had less robust or convincing evidence associated with them. The dearth of evidence does not necessarily mean the barrier is not important or influential in the uptake and usage of financial services among women. As such, we believe more industry research is warranted on two specific barriers to understand how they impact WEE-FI.

## Lack of women in leadership at DFS providers and policy-makers

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Broadly, there is a desire to [#breakthebias](#) and elevate more women in positions of leadership within the financial services industry. That progress alone would be a step in the right direction for equity and equality. However, little is known about the direct relationship between women in positions of leadership within FSPs or policy-making institutions, and how actively women use financial services. This seems like an area ripe for more research.

## Five of the six Consumer Protection barriers

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Even though some of these barriers may cause negative experiences with financial services or may cause friction in a financial system, they have not been proven to directly impact the uptake and usage of financial services among customers, and in particular, female customers. For example, while we were able to identify evidence that had studied how customers had encountered the barrier of *Difficulty resolving complaints*, the evidence did not point directly to it impacting uptake or usage negatively. The same is true for the other barriers in the Consumer Protection category. This also seems like an area ripe for more research.

# Industry Research Needs

**There are a number of barriers that are more difficult to isolate and measure, which certainly impacts how they are represented in rigorous evidence.**

For instance, the *Perceived and/or lack of money* and four Social Norms barriers might be difficult to measure but this certainly doesn't minimize their relative importance and impact on women's use of financial products and services. Related, some of the barriers are so interconnected (e.g., *Ambivalence or antagonism towards women's financial independence*, and *Biases that center men as financial customers* are deeply connected) that isolating them is challenging. In these cases, much of the evidence addressed Social Norms more broadly, rather than specific norms that might impact users in different ways.

Given that Segment 3 represents the largest groups of women in 7 of the 9 focus countries, it's important to deeply understand and analyze *why* women have accounts but are not using them. The Findex survey tells us a bit about usage of accounts but is constrained in what it can tell us about **why women are not using their accounts**. We may need to refer to more local, market-specific surveys and qualitative research to provide a holistic view of women's usage barriers.

Finally, a majority of the evidence we reviewed was written from a perspective of either (a) an evaluation of an intervention or program, and what impact it had on a specific group of financial customers, or (b) more broadly looking at uptake and usage issues and not drilling down to the specific barriers. **It might be an interesting exercise for researchers to more precisely articulate which barriers to WEE-FI their work addresses; this might allow more standardization and scalability across the sector.**

# Industry Research Needs: *Global Standardization*

One of the more challenging elements of this project has been determining how to compare customers across **different markets and global contexts** – even across different sectors within the same market! As we all acknowledge, not all women have the same experiences and access to the same services. **Capturing the nuance of different women in different markets is important** in order to understand and prioritize which supply- and demand-side barriers most hinder their respective journeys to economic empowerment through financial inclusion.

At the same time, we want to find ways to **standardize data and compare experiences across diverse markets**. This comparison would permit us to **prioritize barriers** at a more **global level** to enable us to identify potentially **scalable and replicable solutions and approaches** to resolving key barriers.

In considering the two primary datasets available to the broader financial inclusion industry, we found benefits and constraints with each.

*Section 03*

# Enablers & Exemplars





Our team conducted a desk review, and mapped programs, interventions and solutions linking them to the 35 WEE-FI barriers to provide the IFS Team and industry actors with a *go-to reference of interventions* that could be used as inspiration for the design or modification of WEE-FI programming.

We successfully mapped out a total of 45 interventions addressing nearly the entire list of barriers.\*

*\* We were unable to source exemplars with rigorous impact measurement methods for the following barriers: Online/Phone/Social media harassment, Reliability of payments system and network, and Predatory lending. This does not necessarily mean that interventions addressing these barriers do not exist, but rather that measuring the direct impact of these interventions is quite difficult.*

The interventions included in our list of exemplary interventions or “exemplars” meet the following criteria:

- Have some rigorous measurement of impact (set either in a randomized controlled trial or project with rigorous M&E)
- Achieved positive outcomes directly addressing the WEE-FI barriers
- Achieved significant positive outcomes for women

In our analysis of these exemplars, we considered a variety of standard factors including:

1. Context and reasoning for interventions
2. Key stakeholders involved
3. Key activities
4. Outcomes and results
5. Key enabling environment factors
6. Key design elements that led to successful outcomes.

We also found that the majority of interventions within the exemplars focused on government policy or regulation, product rollout, capacity-building, and financial assistance.

## General findings from Exemplars

### *Capacity-Building*

A majority of the exemplars included some sort of capacity-building element most often through the form of digital and financial literacy training. Other types of interventions were most often bundled with capacity-building activities. Bundling different types of interventions, such as product rollout and capacity-building, were an important key design element throughout interventions that led to successful outcomes (described in the following slides).

### *Savings Products*

A large number of interventions focused on savings products, as opposed to payments, credit, insurance, etc. This is largely due to clearer and more measurable impact that savings product interventions allow.

### *Demand-Side Interventions*

A majority of the exemplars were demand-side interventions meaning activities were targeted at demand side actors – though, a large number of interventions did engage and target both supply- and demand-side actors.

### *Positive Outcomes*

Positive outcomes of varying interventions included increases in account opening and usage, increased savings, improved financial literacy, improved trust in technology, and increased access to credit, among many others. Greater detail on outcomes per intervention can be found in the [detailed exemplars slides](#).

A key part of our exemplar analysis was identifying the design principles that were inherent in each activity, program, and intervention.

*Design principles* are a set of *guiding rules and elements to be considered during program conception and design.* These principles will help create intentional, effective, and valuable interventions and activities that work for women.

## Five design principles emerged as the most common principles throughout our exemplar research.

Interventions that adopted one or more of these principles were also found to be successful in addressing barriers to WEE-FI and meeting their intended objectives.

These five principles should be considered when designing programs and activities specifically for women, given their popularity in existing programming and impacts on improving access and usage of financial services.

The five key design principles we identified are:

- 01 Bundling a product/service rollout with capacity-building training
- 02 Targeting both supply- and demand-side actors under one program
- 03 Leveraging multiple communication channels for recruitment, and trusted community members for program implementation
- 04 Using women-centered design models
- 05 Making interventions affordable

*Annex*

# Barriers

# Full List of Barriers (1 of 2)



## *Prerequisites >*

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Broader legal constraints  
(e.g. male signature) >

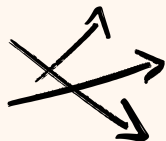
Internet/Mobile connectivity >

KYC requirements >

Lack of credit history  
(for credit products only) >

Digital/Foundational ID >

Phone/SIM ownership >



## *Accessibility >*

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Mobility constraints (e.g.  
legal curfews, norms) >

Distance from bank/  
FSP/CICO agent >



## *Cost >*

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Cost of mobile/internet >

Cost of using DFS  
(incl. transaction cost) >

Perceived and/or  
lack of money >

Non-transparent fee  
structures / hidden costs >



## *Information Availability & Capability >*

---

Lack of peers/family/  
network who use DFS >

Basic literacy and numeracy >

Digital literacy >

Financial literacy >

Unclear or unavailable  
info about products/uses >

Unclear or difficult  
process to open account >

## Full List of Barriers (2 of 2)



### *Product & Service Quality* >

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Reliability of payments system and network >

Reliability and quality of in-person services >

Lack of products that meet women's needs >

Lack of products and services that create value >

Navigability of user interface of the digital product >



### *Consumer Protection* >

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Potential (or actual) privacy violations >

Predatory lending >

Over-charging >

Fraud and scams >

Fear of making mistakes >

Online/Phone/Social media harassment >

Difficulty resolving complaints >



### *Human Resources* >

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Lack of women in leadership at DFS providers and policy-makers >

Lack of female agents >



### *Social Norms* >

---

Ambivalence or antagonism towards women's financial independence >

Expectation that men control HH finances >

Women's disproportionate performance of unpaid care work >

Biases that center men as financial customers >

# Prerequisites

The Prerequisites barrier category encompasses the challenges and obstacles to obtaining the technology and documentation needed to access, adopt, and use DFS. Research found that overcoming these barriers is crucial to ensure that women are able to initially enter the DFS space as well as progress to more advanced uses along the customer journey.

**Four out of six barriers are relevant across multiple segments and various geographies, and have influence on barriers both within this category and across other categories.** The evidence found that addressing Prerequisite barriers could simultaneously address barriers in other categories, such as removing legal constraints that prohibit women from using and accessing DFS. Every specific barrier in this category has identified at least one other Prerequisites barrier as a *connected barrier* indicating that the barriers in this category are closely linked.



*The barriers in this category are:*

- Broader legal constraints (e.g. male signature) >
- Internet/Mobile connectivity >
- KYC requirements >
- Lack of credit history (for credit products only) >
- Digital/Foundational ID >
- Phone/SIM ownership >



# Broader legal constraints

This barrier refers to specific requirements, policies, or regulations that users have to comply with in order to access or use financial services. Legal constraints often manifest in the form of property/land ownership rights, signature requirements for accessing accounts or credit, general rights and freedoms that allow for full participation in the paid economy, and a lack of social safety nets concerning child care or health.

## Why is this barrier important?

Research shows that removing discriminatory laws and policies can lead to higher levels of women's employment and better access to finance resulting in improved economic outcomes for women. Resolving this barrier might have an outsized impact on WEE-FI because it might cause a ripple effect of positively impacting other related barriers, especially barriers under the Social Norms, Prerequisites, and Accessibility categories. For example, removing legal curfews would help resolve the *mobility constraints* barrier.

## Connected Barriers



### *Prerequisites*

[Lack of credit history \(for credit products only\) >](#)

[Digital/Foundational ID >](#)

[KYC requirements >](#)



### *Accessibility*

[Mobility constraints \(e.g., legal curfews, norms\) >](#)



### *Social norms*

All barriers in this category



### *Information Availability & Capability*

[Unclear or difficult process to open an account >](#)

[Basic literacy and numeracy >](#)



### *Human Resources*

[Lack of female agents >](#)

[Lack of women in leadership at DFS providers and policymakers >](#)

## Relevant Exemplars

[National Policies for Women Empowerment: Saudi Arabia >](#)

[The Hindu Succession Act >](#)

[Women's Business Ownership Act >](#)

[The impact of financial incentives on female land ownership in Tanzania >](#)

[Paving the Way for Women from the Inside Out \(TARA Program\) >](#)

[Rwanda's Land Tenure Regularization Program >](#)

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



### Key evidence relevant to this barrier

- Legal constraints are correlated with financial inclusion. **A 10-point increase** in the Women's Workplace Equality Score (from the *Women, Business, and the Law Report, 2020*) is correlated with **a 1 point decrease** in the gender gap in account ownership in developing economies after controlling for GDP per capita. **This means that in developing economies where women face legal discrimination at work**—in their ability to choose where to live, in how marital properties are administered, or in inheriting property—**women are less likely than men to own an account.**
- According to the World Bank's *Women, Business, and the Law Report (2022)*, billions of women still do not have the same legal rights as men. The global average *Women, Business and the Law Index* score is 76.5 out of 100, indicating that **a typical woman holds three-quarters of the rights of men in the areas measured.** Nearly 2.4 billion women of working age worldwide still are not afforded equal economic opportunities. Only 12 economies (out of 190) score 100 "indicating that women are on equal legal standing with men across all areas."
- The parenthood indicator in *Women, Business, and the Law Report (2022)* demonstrates significant room to improve. About **half of the economies** measured by the index do not practice to the standards identified by this indicator. For example, 118 economies guarantee paid maternity leave of 14 weeks or more. However, in **more than 50%** of economies that provide paid maternity leave, the burden falls on the employer making the hiring of women more costly than hiring men. Only **50 economies** worldwide have paid parental leave (available for either parent), but none are in South Asia or Sub-Saharan Africa.
- **"In some economies, women are unable to open a bank account in the same way as men.** Women are sometimes required to provide permission or documentation that is not required of men. Some laws specify that women can open accounts separate from their husbands only if they meet certain conditions, such as being independently employed." (GPFI, 2020).

### Key evidence relevant to this barrier

- The mobility indicator in *Women, Business, and the Law Report (2022)* found that “in **56 economies**, the law treats men and women differently when it comes to freedom of movement. For example, in eight economies, the index states women cannot travel outside the country in the same way as a man, and in 14 economies, a woman cannot leave her home at will. In 34 economies, women cannot choose where to live in the same way as a man.”
- The pay indicator in *Women, Business, and the Law Report (2022)* demonstrates room for improvement. “Laws in **123 economies** could be improved to reduce the gender pay gap...**86 economies** impose at least one legal restriction on women’s employment.” Women cannot work the same night hours as men in 21 economies (including in India, Egypt, Sudan, Tunisia, Montenegro, Sri Lanka, and Azerbaijan). Women “cannot work in industrial jobs compared to men in 69 economies or in jobs deemed “dangerous” in 53 economies.” Also stated by this indicator are workplace protections that can facilitate a woman’s ability to secure and sustain employment. Only **50%** of all economies mandate equal remuneration for men and women who perform work of equal value.
- The entrepreneurship indicator in *Women, Business, and the Law Report (2022)* documents few reforms since the previous report in 2021. **104 economies** still “lack a legal provision that expressly prohibits gender-based discrimination in access to credit” and financial services.
- In 31 of 189 countries, husbands are considered to be the legal head of households. This reduces women’s legal rights to sign documents, get a job, or open a bank account without the permission of their husband or male head of household (World Bank, 2018).
- *Women and the Law (2018)*, a report from the Council on Foreign Relations, highlights that **424 million** working-age women live in countries with no legal protections against workplace sexual harassment.
- A summary brief published by the World Bank (ID4D, 2019) states:  
  
“In many countries, gender-based differences in laws and regulations make it more burdensome for a woman than a man to obtain an ID or the foundational documents needed to get one... Gender-based legal differences in nationality laws—

## Key evidence relevant to this barrier

—also limit women’s ability to obtain ID for their children and their spouses. Several countries prohibit women from conferring nationality on their children or non-citizen spouses – a right that is almost universal for men. This can perpetuate a cycle of statelessness which has profound consequences, including the lack of civil, political, economic, social and cultural rights.”

- Data from the Organization for Economic Co-operation and Development’s (OECD) *Gender, Institutions and Development Database* (2019), and its *Social Institutions and Gender Index* (2019) show that attitudes towards women—quantified in measures such as incidence of discrimination in the family, restricted physical access to productive and financial resources, and restricted civil liberties—are **correlated with the gender gap in account ownership** in developing economies overall (Clapper et al., 2019).
- The *Women, Business, and the Law Report* (2022) found that **40% of economies** (76 of 190) limit women’s property rights. **57 economies** do not provide for the valuation of “non-monetary contributions to the household such as unpaid care for children which is performed disproportionately by women.” According to *Women and the Law* (2018)—

—a report from the Council on Foreign Relations, “a woman’s income can increase up to **380%** when she has a right to own and inherit property. In Rwanda, women who own land are 12% more likely to take out loans to build businesses. In India, secure land rights yield an 11% increase in women moving from subsistence farming to selling crops from their land.”

- In a *World Bank Survey* (2015), 100 out of 173 countries surveyed restrict women from pursuing the same economic activities as men or directly prohibit women from holding particular jobs.
- Women who have more control over their land tend to have greater self-esteem, respect from other family members, economic opportunities, mobility outside of the home and decision-making power (Bhatla et al., 2006; Rodgers and Menon, 2012).
- “In 31 economies, a married woman cannot obtain a passport in the same way as a married man.” (World Bank, 2022).

# Internet/Mobile Connectivity

This barrier refers to the market coverage of mobile network and/or mobile broadband network that enables the user to transact digitally.

## Why is this barrier important?

The overwhelming majority of the world is covered by a mobile broadband network/mobile network, and coverage continues to increase in areas with coverage gaps. Additionally, research shows that having mobile broadband connectivity does not necessarily translate to using services the internet can offer, such as mobile money, online banking, and other digital financial services.

## Connected Barriers



### *Prerequisites*

[Phone/SIM Ownership >](#)



### *Cost*

[Cost of mobile/internet >](#)



### *Information Availability & Capability*

[Digital literacy >](#)



### *Product & Service Quality*

[Reliability of payments system and network >](#)

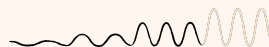
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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance



## Relevant Exemplars

[Comunidades Conectadas y Hogares Conectados >](#)

[Internet Para Todos >](#)

[Aligning Libraries And USAFs For Rural Public Access >](#)

[Reducing Tax Costs on Connectivity >](#)

### Key evidence relevant to this barrier

- According to GSMA's *The State of Mobile Internet Connectivity (2021)*, internet coverage is increasing, and **94%** of the world's population lives in an area with mobile broadband coverage. Although Sub-Saharan Africa has the biggest gap in mobile internet coverage, "the biggest increases in coverage have occurred in Sub-Saharan Africa and the Pacific Islands."
- Having access to mobile internet doesn't necessarily mean people will adopt it; "**3.4 billion people are not using mobile internet, despite living in areas with mobile broadband coverage**" (*GSMA, 2021*). The usage gap—those living in areas with a mobile broadband network, but not using mobile internet—is **seven times larger** than the coverage gap. The usage gap **represents 43% of the world's population**.
- The mobile internet coverage gap per region is as follows: North America (4 million people), LAC (30 million people), MENA (40 million people), Europe & Central Asia (20 million people), East Asia & Pacific (50 million people), SSA (210 million people), and South Asia (100 million people) (*GSMA, 2021*).
- Women and girls having access to information and communication technologies is crucial for empowerment. "With access to the internet and skills to use digital technologies, they gain opportunities to start new businesses, sell products in new markets, find better-paid jobs, pursue education, obtain health and financial services, exchange information, and participate more fully in public life." (*ITU, 2022*).
- The **mobile internet usage gap** per region is the following: North America (80 million people), LAC (260 million people), MENA (300 million people), Europe & Central Asia (220 million people), East Asia & Pacific (820 million people), SSA (570 million people), and South Asia (1.31 billion people) (*GSMA, 2021*).
- GSMA's *The State of Mobile Internet Connectivity (2021)* states:

"In many countries, increases in mobile internet adoption lag behind mobile internet coverage. For example, it took six years (2014–2020) to double the volume of the connected population (the amount of people who use mobile internet) in Sub-Saharan Africa and South Asia while, over the same period, **coverage (areas within the footprint of a mobile broadband network) expanded at a much faster pace**; in Sub-Saharan Africa, the—

## Key evidence relevant to this barrier

—coverage gap reduced from 51% to 19%, while in South Asia it fell from 44% to 5%. “

**Key barriers to mobile internet adoption, even among users who are aware of mobile internet, are literacy, digital skills, and affordability.**

- **The majority of each region is covered by a mobile (cellular) network as of 2021:** Africa (89.6%), the Americas (95.95%), Arab States (97%), Asia and Pacific (98.5%), Europe (99.8%), CIS (98.6%) ([ITU via Statista, 2021](#)).
- As of 2021, **97% of the global population is covered by a mobile (cellular) network.** In urban areas, this figure rises to 100%, and in rural areas worldwide, coverage sits at 93% ([Statista, 2021](#)).
- “In Sub-Saharan Africa, operators in several countries extended their 3G and 4G network coverage, increasing from 76% to 81% and from 41% to 51%, respectively, between 2019 and 2020... Across all LMICs, 4G coverage stood at 84% at the end of 2020 – only eight percentage points less than 3G; this represents a huge leap since 2015, when 4G coverage was 31% behind 3G.” ([GSMA, 2021](#)).

# KYC Requirements

This barrier refers to the legal requirements for accessing a financial service, such as a basic mobile money account. Typically this barrier exists in markets where the government has not installed relaxed or tiered KYC requirements around basic accounts.

## Why is this barrier important?

KYC requirements often depend on foundational infrastructure, such as identity, to be in place before it becomes a barrier by itself. There was less evidence that pointed directly to complex KYC requirements as a barrier to account ownership as opposed to the lack of foundational ID. Tiered KYC is also gaining popularity among countries around the world, and the adoption of relaxed/tiered KYC requirements has heightened during COVID-19.

## Connected Barriers



### *Prerequisites*

[Broader legal constraints >](#)

[Digital/Foundational ID >](#)



### *Social norms*

All barriers in this category



### *Product & Service Quality*

[Lack of products that meet women's need >](#)



### *Information Availability & Capability*

[Unclear or difficult process to open an account >](#)

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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance



## Relevant Exemplars

[Estonia's E-identity program >](#)

[Benazir Income Support Programme >](#)

[Aadhaar Project >](#)

[Mexico's Tiered KYC >](#)

[Women Citizenship Initiative >](#)



### Key evidence relevant to this barrier

- According to AFI, “the accurate verification of identity is integral to the KYC processes necessary for compliance with AML/CFT regulation.” Without verifiable identities, institutions cannot adhere to KYC requirements as stipulated in AML/CFT regulation which points to how KYC is dependent on first having ID documents ([2019](#)).
- 42 of 62 countries in the [AFI Data Portal \(accessed 2022\)](#) on Proportionate AML/CFT Frameworks have simplified risk-based customer due diligence in relation to specific low-risk products and services. This includes IFS target markets of India, Indonesia, Kenya, Nigeria, and Pakistan.
- According to GSMA, simplified KYC/innovations in KYC is already gaining traction around the world:
  - In [Overcoming the Know Your Customer Hurdle \(2019\)](#), GSMA found that “a growing number of countries have enacted simplified due diligence (SDD) reforms in recent years, with at least 60 countries around the world (out of a survey of 120 countries) allowing exemptions or simplifications to SDD for certain types of customers or products.” Only 16 of the countries with SDD were high-income countries.
  - According to GSMA's [State of the Industry Report on Mobile Money \(2021\)](#), “in 2020, the number of registered accounts grew by 12.7% globally to 1.21 billion accounts – double the forecasted growth rate. Apart from changes in consumer behaviour, this impressive uptake was due to regulators implementing more flexible KYC processes and relaxing onboarding requirements to make it easier to open an account.”
  - Another report, [Digital Identity \(2021\)](#), by [GSMA](#) found that the COVID-19 pandemic saw the rapid relaxation of KYC and related policies. Relaxed KYC led to an increased uptake of mobile money that boosted financial inclusion.
- According to AFI, KYC requirements could potentially be a barrier for low-income consumers looking to progress to higher transactional tiers (such as customers in Segments 3 and 4) without requiring additional documentation, such as proof of address ([2019](#)).

# Lack of credit history (for credit products only)

This barrier describes the lack of payment history, collateral, or alternative datasets (e.g., mobile money savings, social media interactions) that would provide lenders the ability to conduct underwriting and assess credit worthiness.

## Why is this barrier important?

Although access to credit is a major driver of demand for financial services, women are more likely than men to lack a credit history, which prevents them from accessing loans and financial products. This is also a pertinent barrier for women-owned MSMEs who are seeking to obtain credit from formal sources to grow their enterprise.

## Connected Barriers



### *Prerequisites*

[Broader legal constraints >](#)

[Digital/Foundational ID >](#)



### *Social norms*

All barriers in this category



### *Cost*

[Cost of using DFS \(incl. transaction cost\) >](#)



### *Consumer Protection*

[Predatory lending >](#)

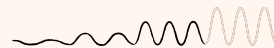
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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance



## Relevant Exemplars

[The Hindu Succession Act >](#)

[Women's Business Ownership Act >](#)

[Savings for Change Program >](#)

[The impact of financial incentives on female land ownership in Tanzania >](#)

[Interest Rate Sensitivity Among Village Banking Clients in Mexico >](#)

[Paving the Way for Women from the Inside Out \(TARA Program\) >](#)

[DigiFarm >](#)

[Farm to Market Alliance \(FtMA\) >](#)

[Business Women Connect Program >](#)

[Rwanda's Land Tenure Regularization Program >](#)

[Empowering MSMEs: Creating a Better Banking Experience for Women-Led Micro, Small, and Medium Enterprises in Kenya >](#)

## Key evidence relevant to this barrier

- In a brief published by CSIS, the authors state ([Runde et al., 2021](#)):

“Female business owners in Africa face gender-based discrimination and obstacles that affect their profits, community engagement, and ability to successfully maintain businesses. These include legal discrimination, social norms, risk of gender-based violence, education and skills gaps, confidence and risk preferences, access to networks and information, household allocation of productive resources, and time constraints and care. **Because of these obstacles, women-owned businesses in Africa on average earn 34% less per month than those owned by men. A mere 10% of women-owned SMEs have access to the financing they need. With less access to land for collateral and a lack of credit histories, women are perceived as even more risky by private lenders.**”
- Collecting information on women’s credit history can help women without property build their reputation collateral to get loans. However, 132 countries do not require retailers—and 129 countries do not require utility companies—to provide information to private credit bureaus or public credit registries ([CFR, 2022](#)).
- “A lack of access to finance is one of the major barriers facing women entrepreneurs in marginalized communities across the world. 80% of women-owned businesses with credit needs are either unserved or underserved... This is equivalent to a massive \$1.7 trillion financing gap.” ([World Economic Forum, 2019](#)).
- “A study among AFI’s members showed that two thirds of respondents (**66%**) considered collateral requirements as a barrier for women’s financial inclusion.” It aligns with the reality that “women have lower capital and assets and in some countries still face limitations to owning certain types of assets.” Additionally, at a global level, men handle **80%** of loan volumes ([G20 Insights, 2018](#)).
- **104 economies** “still lack a legal provision that expressly prohibits gender-based discrimination in access to credit” ([World Bank, 2022](#)).
- Most women-owned SMEs in India struggle with obtaining credit from formal sources due to credit market discrimination, and higher interest rates which in turn significantly constrain the growth of the enterprise ([Chaudhuri et al., 2018](#)).

### Key evidence relevant to this barrier

- Women entrepreneurs in Vietnam, Pakistan, and Peru report experiencing limited access to loans of the right size and terms which leads to lower ownership of productive assets by women. **Barriers to credit include male guarantor requirements for collateral, physical asset requirements for collateral, access to formal credit history, and systemic gender bias.** 15% of women-owned micro and small businesses in Pakistan have access to credit (66% in Vietnam and 39% in Peru) ([CARE, 2021](#)).
- Interviews with more than 600 entrepreneurs in Indonesia found that women lose out on financing from formal banking channels because banks continue to rely on traditional means of credit assessment, including ownership of land and buildings. Indonesian women typically don't have those assets in their names, so banks are reluctant to lend to them ([IFC, 2016](#)).
- Collateral requirements exclude women who often lack land or property rights. For example, in Kenya, women make up around 40% of smallholder farm managers, but have less than 1% of available agricultural credit. In Bangladesh, women receive 1.8% of the available credit but make 27% of deposits with banks ([DFID, 2013](#)).
- According to the World Bank and AFI, MSMEs are perceived as low-return/high-risk enterprises, which affects their ability to receive loans ([World Bank, 2012](#); [AFI, 2017](#)).
- High collateral requirements limit access to financial services for MSMEs. Additionally, "since most MSMEs are informal, the entrepreneur's profile and business transactions are likely underrepresented in the formal financial ecosystem. This leaves the financial institution with limited digital transactional trails to build a credit score and provide customized financial solutions." ([MSC, 2021](#)).
- "The financial needs of farmers extend beyond accessing and using bank accounts. Customised, adjacent financial services—such as savings, credit and insurance—are vital for them to invest in their farms and build more secure livelihoods. However, smallholders in LMICs lack the collateral and financial history they need to access formal financial services like agricultural loans." ([GSMA, 2021](#)).
- "SMEs have traditionally been poorly served by the banking industry in Sub-Saharan Africa. Fewer than one-in-three medium-sized firms in the region have a bank loan or a line of credit according to World Bank data. For small firms it is fewer than one-in-five." ([World Bank, 2018](#)).

# Digital / Foundational ID

This barrier points to issues with access to a foundational ID that can be used to meet basic KYC requirements. Not having access to a foundational ID that is linked to a national registry makes opening an account difficult.

## Why is this barrier important?

Providing proof of identification is essential to participate in daily life (e.g., enrolling in formal payment schemes, obtaining a SIM card, getting a job in the formal sector, etc.). The lack of ID consistently emerges as a top barrier to formal account ownership around the world.

### Connected Barriers



#### *Prerequisites*

[Broader legal constraints >](#)

[KYC requirements >](#)

[Phone/SIM ownership >](#)

[Lack of credit history \(for credit products only\) >](#)



#### *Information Availability & Capability*

[Unclear or difficult process to open an account >](#)



#### *Social norms*

All barriers in this category

### Most Relevant for Segments

1 2 3 4

### Customer Journey Relevance



### Relevant Exemplars

[Estonia's E-identity program >](#)

[National Policies for Women Empowerment: Saudi Arabia >](#)

[Benazir Income Support Programme >](#)

[Aadhaar Project >](#)

[Mexico's Tiered KYC >](#)

[Women Citizenship Initiative >](#)

[Self-Help Group Members as Banking Agents for Deepening Financial Inclusion in India >](#)

### Key evidence relevant to this barrier

- According to the [Findex \(2021\)](#), **thirty percent of unbanked adults in the Sub-Saharan region cited lack of documentation as a barriers for not having a mobile money account.** The percentage of financially excluded adults due to lack of ID is also significant across IFS focus countries, including Tanzania (40%).
- The number of people worldwide without identification is high; according to the World Bank's [ID4D Global Dataset \(2021\)](#), 850 million people lack ID. Further analysis by the World Bank revealed the following ([2021](#)):
  - More than 50% (470 million) of people without ID live in Sub-Saharan Africa and over 200 million live in South Asia.
  - Over 90% live in lower-middle income and low-income economies.
  - Some 35% of women in low-income countries lack ID compared to 27% of men.
- ID documents are a crucial prerequisite for DFS adoption and financial inclusion:
  - “Women need official ID to obtain a job in the formal sector, open a bank account or borrow from a financial institution, and to obtain a SIM card for the mobile phone to access DFS.” ([GPII, 2020](#)).
  - “According to [Global Findex-ID4D data \(2018\)](#), the most common use of ID in Sub-Saharan Africa is to obtain a SIM card or mobile phone service – essential for accessing DFS.” ([WWB, 2021](#)).
  - According to data by the World Bank, 90% of commercial banks require a government-issued ID to open a deposit account ([CSIS, 2021](#)).

### Key evidence relevant to this barrier

- A brief published by the World Bank ([ID4D, 2019](#)) states:
  - “Access to all forms of identification is an important stepping stone to women’s agency and freedom of movement. The countries with the greatest gender gaps in foundational ID coverage tend to be those with legal barriers for women’s access to identity documents.”
  - “Most countries do not explicitly prohibit women from applying for an ID or the associated foundational documentation for themselves or their children. Rather, in many countries, gender-based differences in laws and regulations make it more burdensome for a woman than a man to obtain an ID or the foundational documents needed to get one.”
  - “In 35 countries, a married woman cannot apply for a passport through the same process as married men, and in 11 countries, married women cannot apply for an ID in the same way as married men.”

# 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 >](#)

### Relevant Exemplars

[Mobile Money Cash Transfer Experiment in Niger >](#)

[Mobile Phone and Livelihoods of Women Project >](#)

[Benazir Income Support Programme >](#)

[Reducing Tax Costs on Connectivity >](#)

[Mobile-Linked Bank Accounts >](#)

### Most Relevant for Segments

1 2 3 4

### 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—

## Key evidence relevant to this barrier

—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.”

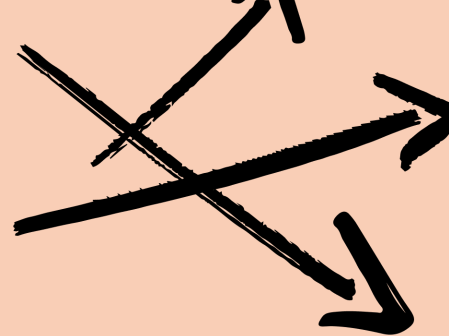
- **Female farmers are particularly affected by this barrier due to their lower levels of mobile phone ownership.** According to CGAP, women in rural and agricultural livelihoods have lower access to digital technologies, like mobile phones, that could enable adoption and use of digitally enabled marketplaces and—

### Key evidence relevant to this barrier

—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<sup>2</sup>, ATMs per 1000 km<sup>2</sup>) (Lenka et al., 2018).



# Accessibility

The Accessibility barrier category examines challenges women face in physically accessing financial service provider points of service. Points of service typically mean a physical location where a customer can access a variety of services, particularly more basic services related to transactional accounts such as cashing in or out (CICO). These points of service can include traditional branches of a bank or microfinance institution, ATMs, or more widely distributed networks of agents to name a few. Physical access to these points of service is a crucial part of the digital finance service delivery model, and is where digital and physical elements of the products meet. The Accessibility and Cost categories are highly related – the farther a woman finds herself from a point of service, the more costly it is to get there. For the purpose of this barrier category, we focused our evidence purely on distance and movement and placed all the evidence around cost in the *Cost of using DFS* barrier.

The evidence found that *mobility constraints* should be considered a barrier for women in Segments 1, 2, and 3 due to this barrier's close links to Social Norms barriers and *Broader legal constraints*. *Distance from the bank/FSP/CICO* was also found to be a relevant barrier for Segments 1, 2, and 3. Evidence showed that this barrier was also highly context-specific, and dealt mostly with rural populations. Distance is especially important for women, who, evidence suggests, have less time and ability to move longer distances than men.

*The barriers in this category are:*

Mobility constraints (e.g. legal curfews, norms) >

Distance from bank/FSP/CICO agent >

# Mobility constraints (e.g., legal curfews, norms)

This barrier points to specific mobility constraints of women to visit points of service; this may include mobility constraints derived from a lack of time or financial resources, social norms or regulations that limit their activity, movement, or employment, and/or curfews for women traveling at certain times of the day or night.

## Why is this barrier important?

Mobility and distance constraints prevent women across segments from being able to physically visit financial service access points. At times, these mobility constraints are due to domestic responsibilities that both limit their free time as well as their ability to leave the house. Women in Segments 1 and 2 are particularly affected by regulations or social norms that limit their employment opportunities, ability to hold land, and/or ability to open financial accounts without spousal approval. Women in Segments 3 and 4 face constraints in conducting financial transactions beyond those that are basic due to the cost of the time spent and distance travelled to access financial services.

## Connected Barriers



### *Prerequisites*

[Broader legal constraints >](#)



### *Social Norms*

All barriers in this category



### *Information Availability & Capability*

[Lack of peers/ family/ network who use DFS >](#)

[Basic literacy and numeracy >](#)



### *Human Resources*

[Lack of female agents >](#)

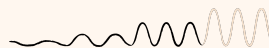
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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance



## Relevant Exemplars

[National Policies for Women Empowerment: Saudi Arabia >](#)

[Paving the Way for Women from the Inside Out \(TARA Program\) >](#)

[Benazir Income Support Programme >](#)

[Estancias Infantiles para Apoyar a Madres Trabajadoras Programme >](#)

[On Her Account: Can Strengthening Women's Financial Control Boost Female Labor Supply? >](#)

### Key evidence relevant to this barrier

- Women's domestic responsibilities limit their ability to travel longer distances. This leaves women more physically tied to the house and with less time to access financial services (Hunt and Samman, 2016).
- A study in Pakistan led by researchers at Harvard University and the Centre for Economic Research in Pakistan found that women in rural Punjab province were unlikely to participate in a skill training and market linkages program if it took place outside their village boundaries (even when transport is provided)(EPoD, 2018).
- "In 56 economies, the law treats men and women differently when it comes to freedom of movement. For example, in eight economies, a woman cannot travel outside the country in the same way as a man, and in 14 economies, a woman cannot leave her home at will. In 34 economies, a woman cannot choose where to live in the same way as a man." (World Bank, 2022).
- In a World Bank Survey (2015), 100 of 173 surveyed countries restrict women from pursuing the same economic activities as men or directly prohibit women from holding particular jobs.
- Women's domestic care responsibilities limit their ability to travel long distances for work (Salon and Gulyani, 2010; Dickerson, 2002; Schwanen, 2007 cited in ILO, 2016) and the burden of reduced mobility is borne disproportionately by women and children (Hunt and Samman, 2016).
- Women who have more control over their land tend to have greater self-esteem, respect from other family members, economic opportunities, mobility outside of the home and decision-making power (Bhatla et al., 2006; Rodgers and Menon 2012).
- "In 31 economies, a married woman cannot obtain a passport in the same way as a married man." (World Bank, 2022).
- A study on mobile financial services in Bangladesh found that women who use mobile money and live near mobile money agents have 3.7% more freedom of movement (Murshid et al., 2020).
- A study on strengthening women's financial control in India found that women with direct deposit and training on income reported higher levels of mobility than those with less control of their earnings. This indicates that financial and economic agency directly contributes to freedom of movement (Field et al., 2019).

# Distance from bank/FSP/CICO agent

This barrier refers to the issues of the geographic locations of points of service. Points of service are often close to roads or clustered in areas of economic activity rather than closer to women's communities. This barrier can also include the cost of time and money to travel to points of service.

## Why is this barrier important?

Financial service access points outside of urban/peri-urban areas are often limited or unavailable. The limited number of access points disproportionately affects rural women due to domestic responsibilities that limit both their available time and physical movement beyond the house costing them time and money for transportation. This is particularly prevalent for women in Segment 1 because they do not live close to a financial service access point.

## Connected Barriers



### Cost

[Cost of using DFS \(incl. transaction cost\) >](#)  
[Perceived and/or lack of money >](#)



### Social Norms

All barriers in this category



### Product & Service Quality

[Lack of products that meet women's needs >](#)  
[Reliability and quality of in-person services >](#)

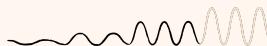
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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance



## Relevant Exemplars

[Mobile Money Cash Transfer Experiment in Niger >](#)

[Interest Rate Sensitivity Among Village Banking Clients in Mexico >](#)

[Benazir Income Support Programme >](#)

[Mobile-Linked Bank Accounts >](#)

[Women Citizenship Initiative >](#)

[The Impact of Incentives and Transparency on Usage of New Financial Products in Indonesia >](#)

[BETA Savings Account in Nigeria >](#)

[Self-Help Group Members as Banking Agents for Deepening Financial Inclusion in India >](#)

[Empirical Evidence from Uganda on the impact of mobile money on rural households >](#)

[The Impact of a Formal Savings Intervention in Sri Lanka >](#)

## Key evidence relevant to this barrier

- Financial diaries suggest that women tend to transact within a narrower geographic range than men, which is largely due to women having less free time than men on average. It may partly reflect restrictions on women's freedom of movement ([Zollman, 2016](#)).
- MFS in urban areas of Bangladesh are about one kilometer from women and take 7 minutes to reach. In rural areas, however, the median time increases to 10 minutes with 24% of users required to take public transportation to reach CICO agents ([World Bank, 2018](#)).
- In Peru, 28% of women cited distance from a financial institution as a barrier compared to only 18.7% of men ([AFI, 2016](#)).
- "Over 50% of adults in Indonesia do not own a financial account, and one third cite the distance they have to travel to a bank branch as the reason they are unbanked." ([CGAP, 2019](#)).
- 15% of Zambians with no formal accounts cited distance ("too far away") as the main reason for not having an account ([World Bank, 2017](#)).
- For low- and lower middle-income economies, the number of commercial bank branches per 100,000 adults and ATMs per 100,000 adults have remained stable at 12 banks and 23 ATMs respectively over the past few years with only a slight increase in 2020 ([IMF, 2021](#)).
- CICO agent set-up costs are 39% higher in rural frontier locations compared to typical agents in more urban areas. Dedicated rural CICO agents must make at least 11 transactions per day to breakeven which is a challenge ([BCG, 2020](#)).
- A study in Chile, Malawi and Uganda found that bank accounts were largely unappealing to rural unbanked households, even when the accounts were completely subsidized. In Malawi and Uganda, distance from the bank was correlated with usage of bank accounts meaning the farther away a person was to the bank, the less likely they would be to either use or open an account ([Dupas et al., 2011](#)).
- In Sri Lanka, a program provided participants with new mobile-linked deposit functionality with their bank accounts to enable remote deposits. Funds could be deposited without a—



### Key evidence relevant to this barrier

—transaction fee. The intervention led to a **44%** increase in the amount of total savings deposited to the partner bank. **Women who were located far away from branches were the most likely to use the service.** The study revealed insights on the preferences of women around services that help make life easier, as they are more likely to lack mobility and need smaller more frequent deposits (in Sri Lanka). Women were 8% more likely to try this product than men ([de Mel et al., 2018](#)).

- The Madagascar Financial Inclusion Project by WBG Operations targeted teachers' salaries and student scholarships in Madagascar. Demand among teachers was high because DFS reduced the distance they had to travel to deposit money, which was more secure and saved time (~two days per month). However, notable challenges included the cost of digitization and the lack of access points in remote areas (Delort, Dorothy. World Bank Group, 25 Mar. 2021. Webinar.).
- In 2013, 60% of Liberia's 75 bank branches were in the most populous county (home to the capital). The lack of banks in rural areas combined with the cash based economy caused rural teachers to spend over 18% of their monthly salaries on travel and related costs to collect their salaries from banks ([USAID, 2016](#)).

# Cost

The Cost barrier category examines the expenses associated with paying for tools needed to access DFS, fees for using DFS, and the ability (or lack thereof) to pay for services. Evidence found that the lack of money greatly affects the ability and willingness to pay for the costs of using DFS as well as the tools needed to access DFS, such as the internet.

**Three out of four barriers in this category were tagged as relevant across segments, as well as their prevalence worldwide and on a country-level.** Research found that the barriers in this category impacted the ability of people to initially open an account, maintain usage, and progress to more advanced uses.

*The barriers in this category are:*

Cost of mobile/internet >

Cost of using DFS (incl. transaction cost) >

Perceived and/or lack of money >

Non-transparent fee structures / hidden costs >

# Cost of mobile/internet

This barrier points to the cost of data services to access the internet over smartphones.

## Why is this barrier important?

Cost of mobile/internet has been cited as a top reason for not having a mobile device or using mobile internet (relevant to Segments 1 and 2), which prevents adoption of the tools needed for DFS. The high cost of mobile/internet has also been cited as a barrier for Segments 3 and 4 as it restricts the products/services the Segments can engage with. This barrier is also relevant for MSMEs as they attempt to explore more options in the e-commerce world and the digital economy.

### Connected Barriers



#### *Prerequisites*

[Phone/SIM ownership >](#)

[Internet/Mobile connectivity >](#)



#### *Cost*

[Cost of using DFS \(incl. transaction cost\) >](#)

[Perceived and/or lack of money >](#)

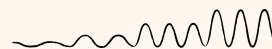
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### Most Relevant for Segments

1 2 3 4

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### Customer Journey Relevance



### Relevant Exemplars

[Mobile Phone and Livelihoods of Women Project >](#)

[Comunidades Conectadas y Hogares Conectados >](#)

[Internet Para Todos >](#)

[Aligning Libraries And USAFs For Rural Public Access >](#)

[Reducing Tax Costs on Connectivity >](#)

### Key evidence relevant to this barrier: cost of internet

- Affordability has worsened nearly everywhere in 2020, with the median cost of an entry-level, internet-enabled handset as a share of monthly GDP per capita increasing in all regions, except Sub-Saharan Africa ([GSMA, 2021](#)). Across eight countries surveyed in GSMA's *Consumer Survey* (2020) (Algeria, Kenya, Mozambique, Nigeria, Guatemala, Bangladesh, India, and Pakistan), "affordability" was the **2<sup>nd</sup> most cited barrier to using mobile internet by both men and women** ([GSMA, 2021](#)).
- "Affordability is a significant barrier for the poorest individuals. The poorest 20% in terms of income would currently expect, on average, to spend **more than 65%** of their monthly income on an entry-level internet enabled handset, and more than 7% of their monthly income on a data plan. This increases to more than 100% and 15% respectively in Sub-Saharan Africa." ([GSMA, 2021](#)).
- "The median cost of one GB of data as a share of monthly GDP per capita increased from 2.0% in 2019 to 2.2% in 2020, which means that more than half of LMICs are falling short of the Broadband Commission's affordability target. This represents **68 out of 128 countries** with pricing data... Mobile data remains least affordable in Sub-Saharan Africa, where the median cost as a share of monthly GDP per capita has remained relatively flat at around 4%." ([GSMA, 2021](#)).
- According to MSC, "**50%** of the population of Africa has almost no spending power. **Down payments and the cost of data preclude the vast majority from smartphone ownership.**" On a scale of 1 to 155 (from least to most expensive), IFS focus countries rank the following **in terms of cost per GB**: Pakistan ranks 16 at \$0.69 per GB; Bangladesh ranks 18 at \$0.70; Tanzania ranks 21 at \$0.73; Kenya ranks 39 at \$1.05; Nigeria ranks 51 at \$1.39; Uganda ranks 62 at \$1.62; Ethiopia ranks 81 at \$2.44 ([2022](#)).
- The cost of data affects the degree to which people are able to engage with DFS. For example, the GSMA [State of Mobile Internet Connectivity Report \(2021\)](#) found that 61% of mobile internet users across LMICs changed settings on a mobile device to set limit on data usage. Users across surveyed countries in Sub-Saharan Africa were also more likely than those in South Asia to set limits on data usage. GSMA posits that this is likely because **data is less affordable in the region**. Dialogue from the FinEquity community also showed that the cost of mobile data in Ethiopia affects *how* women entrepreneurs use their phones—

### Key evidence relevant to this barrier: cost of internet

- The Innovations in Financing Women Entrepreneurs project team found that many women just used their phones for messages rather than for DFS ([Summary of FinEquity Facilitated Dialogue, BMGF, 2021](#)).
- Cost of internet particularly affects MSMEs who are looking to transition to the digital economy:
    - Research from Microsave on the daily financial life of 25 corner shops in Indonesia and India found that entrepreneurs cite concerns about the cost of internet data potentially driving low adoption of DFS ([2021](#)).
    - According to the IMF, “SMEs’ growth prospects can be significantly boosted through enhanced access to affordable broadband internet and digital technologies. Going online enables SMEs to reach new clients and markets at low cost, reduce communication costs, and conduct business during the lockdowns.” However, the high cost of internet can delay the digital transformation of SMEs in MENAP, with the average cost of broadband packages declining but remaining unaffordable in several low-income countries ([2020](#)).
  - A study looking at Kenyan farmers’ use of market information services (MIS)—SMS mobile applications that send text messages about crop prices—found that farmers maintained small amounts of airtime on their phones (usually zero) as a result of not having enough money which prevented the farmers from maximizing the use of the MIS on their phones. The study also found that the financial cost of sending text messages were significant for the smallholder farmers. The cost of sending text messages became a problem when the resulting messages concerning crop prices were disappointing (i.e. MIS did not have information regarding the requested crop). The authors of the study posit that the benefits of the MIS were not worth the cost of sending the text messages ([Steinfeld et al., 2015](#)).
  - A household survey of 577 Kenyan farmers found that **“purchasing airtime credit and/or data bundles is the chief reason why respondents do not use their phones (of any type) as much as they would like”** resulting in the conclusion that “across all phone types, cost is still the greatest inhibitor of mobile phones and m-services use.” ([Krell et al., 2020](#)).

### Key evidence relevant to this barrier: cost of internet

- Research indicates the following concerning prepaid mobile plans ([Mesak et al., 2020](#)):
  - Prepaid plans played an important role in stimulating the adoption of mobile phones in emerging markets.
  - In 2012, an estimated 87% of mobile subscriptions in emerging markets were prepaid.
  - There is a correlation between prepaid mobile plans and lower per capita GNP.
  - Low-income users under 30 years old prefer prepaid plans.
- In South Africa, “the numbers of prepaid subscribers is considerably larger than the number of postpaid subscribers, likely because of South Africa’s current economic situation, **in which many lower-income people can only afford prepaid services**, as the postpaid service package is often more expensive and needs to be paid monthly.” ([Gao, 2021](#)).
- In IFS target markets, the percentage of pre-paid mobile subscriptions (as a percentage of all mobile subscriptions) is as follows: Bangladesh – 97.3%, India – 82.6%, Indonesia – 97%, Ethiopia – 99.4%, Nigeria – 95.5%, Tanzania – 95.7%, Uganda – 96.2%, Pakistan – 96.1%, Kenya – 97.9%. **Prepaid mobile subscriptions are considerably more popular than postpaid mobile subscriptions in these markets** (cited from reports in [DataReportal, 2021](#)).

# Cost of using DFS (incl. transaction cost)

This barrier points to the costs associated with using DFS, such as fees for engaging with the service as being too expensive for bottom-of-the-pyramid users.

## Why is this barrier important?

Cost of using DFS (such as making transactions) is cited as a barrier to adoption and usage of financial services globally and across markets, especially for users at the bottom-of-the-pyramid.

### Connected Barriers



#### *Prerequisites*

[Phone/SIM ownership >](#)

[Lack of credit history \(for credit products only\) >](#)



#### *Accessibility*

[Distance from bank/FSP/CICO agent >](#)



#### *Cost*

[Perceived and/or lack of money >](#)

[Cost of mobile/internet >](#)



#### *Product & Service Quality*

[Lack of products that meet women's needs >](#)



#### *Consumer Protection*

[Over-charging >](#)

### Most Relevant for Segments

1 2 3 4

### Customer Journey Relevance



### Relevant Exemplars

[Interest Rate Sensitivity Among Village Banking Clients in Mexico >](#)

[Reducing Tax Costs on Connectivity >](#)

[Mobile-Linked Bank Accounts >](#)

[Mexico's Tiered KYC >](#)

[Reducing Bank Overdraft Usage through Price Discounts and SMS Reminders >](#)

[Digitizing payroll for factory workers in Bangladesh >](#)

[The Role of Information on Retirement Planning >](#)

[The Impact of a Formal Savings Intervention in Sri Lanka >](#)

[The Persistent Power of Behavioral Change: Long-Run Impacts of Temporary Savings Subsidies for the Poor >](#)

## Key evidence relevant to this barrier

- According to the *Findex (2021)*, cost is an important barrier to account ownership reported by **36%** of adults without an account at a financial institution. The volume of reporting that accounts are too expensive was twice as high in Latin America and the Caribbean. In Brazil, Colombia, Honduras, Nicaragua, Panama, Paraguay, and Peru specifically, **more than 60%** cited cost as a barrier.
- Using data from the *Findex (2017)*, the Center for Global Development estimates that the percentage of people who do not have a financial account because it is too expensive (excluding high income people) is as follows (*2019*):
  - East Asia and Pacific – 20%
  - Europe and Central Asia – 32%
  - LAC – 53%
  - MENA – 20%
  - South Asia (including high income people) – 25%
  - Sub-Saharan Africa – 30%
- In *Regulatory Approaches To Digital Payments Transaction Costs In Sustaining Financial Inclusion In Africa (2021)*, AFI states:

“In response to the COVID-19 pandemic, regulators in several African countries introduced moratoriums reducing and waiving transaction costs on digital payments. The resultant evidence pointed to an unprecedented spike in access and usage of digital payments, with some countries recording over **50% increment in usage** within the first week of implementation of the moratoriums. **This perhaps provides the strongest validation yet on the impact of low transaction cost in driving access and usage of digital payments.**”
- Kenya was one country that introduced transaction fee waivers during COVID-19. Digital payments increased by 35% in retail sectors, 18% in pharmacies, and 54% in agribusinesses. Also, “in July 2020, the Central Bank reported that Kenyans transacted a record KES 450.9 billion (approximately US \$4.18 billion) on mobile phones, with usage boosted by increased service uptake. Furthermore, the number of mobile money subscribers rose to 62 million, and the transactions totalled 158 million during the same month.” (*AFI, 2021*).



### Key evidence relevant to this barrier

- In a survey of mobile money customers in Ivory Coast, **15.5% cited "service is too expensive" as the reason why they were inactive on their mobile money accounts. Fifteen percent cited "high prices" as the reason for reverting to cash. Nearly 21%** of respondents suggested to decrease prices as a way to increase activity rates, which was the most popular response ([IFC, 2018](#)).
- A study examining the effect of mobile banking on microfinance groups in the Philippines found that members exposed to mobile money were **67%** more likely to avoid mobile deposits due to the mobile banking transaction costs. Members who made less frequent mobile deposits due to the transaction costs were more likely to keep their cash somewhere else and rely on informal savings ([Harigaya, 2016](#)).
- In Burkina Faso, female entrepreneurs do not perceive DFS as conducive to, or compatible with, their professional lives. For instance, **high transaction costs** are prohibitive for people making several small transactions over the course of a day. As one female FGD participant notes:
  - "The transaction costs are very high. For a withdrawal of 5,000 FCFA (\$8.30 US) from an account, you pay 250 FCFA (\$0.40 US) [in fees]. If we could reduce the cost of withdrawal to 100 FCFA (\$0.15 US) for those with an account, it would be able to help us women. For those who do not have an account, it is worse, they have to pay 400 FCFA (\$0.65 US) and there is a code. ... One strategy to help women and get them to use these services is to **make account transfers free of charge for women.**" ([Female FGD participant, MIT D-Lab, 2020](#)).

# Perceived and/or lack of money

This barrier refers to how customers at the bottom-of-the-pyramid do not have enough funds for basic formal financial services that work for their needs. This barrier could also be linked to the interpretation that cash and use of cash is cheaper than paying transaction fees and other costs associated with digital financial services.

## Why is this barrier important?

Perceived and/or lack of money prevents people, especially women, from opening accounts and using DFS/financial products to meet the full extent of their needs (such as saving). Lack of money is consistently cited as a barrier to account ownership and product usage globally and across individual markets.

### Connected Barriers



#### Accessibility

[Distance from bank/FSP/CICO agent >](#)



#### Cost

[Cost of using DFS \(incl. transaction cost\) >](#)

[Cost of mobile/internet >](#)



#### Social Norms

All barriers in this category



#### Information Availability & Capability

[Financial literacy >](#)

### Most Relevant for Segments

1 2 3 4

### Customer Journey Relevance



### Relevant Exemplars

[Mobile Money Cash Transfer Experiment in Niger >](#)

[Mobile Phone and Livelihoods of Women Project >](#)

[The impact of financial incentives on female land ownership in Tanzania >](#)

[Interest Rate Sensitivity Among Village Banking Clients in Mexico >](#)

[Comunidades Conectadas y Hogares Conectados >](#)

[Internet Para Todos >](#)

[Aligning Libraries And USAFs For Rural Public Access >](#)

[Benazir Income Support Programme >](#)

[Farm to Market Alliance \(FtMA\) >](#)

[The Persistent Power of Behavioral Change: Long-Run Impacts of Temporary Savings Subsidies for the Poor >](#)

[DigiFarm >](#)

[Mexico's Tiered KYC >](#)

[Estancias Infantiles para Apoyar a Madres Trabajadoras Programme >](#)

[Rwanda's Land Tenure Regularization Program >](#)

## Key evidence relevant to this barrier

- According to the *Findex (2021)*, the **most commonly-cited reason** for not having an account at a financial institution was lack of money. For **62%** of respondents, this was one of multiple reasons; for 12% of respondents, it was the sole reason. Poorer people account for a disproportionate share of the unbanked. Globally, nearly half of unbanked adults come from the poorest 40% of households.
- Using data from the *Findex (2017)*, the Center for Global Development estimates that the amount of people who do not have a financial account *and* who report a lack of money as a reason—excluding high income people—is composed of the following (*2019*):
  - East Asia and Pacific – 66%
  - Europe and Central Asia – 51%
  - LAC – 59%
  - MENA – 73%
  - South Asia (including high income people) – 58%
  - Sub-Saharan Africa – 76%
- *Perceived and/or lack of money* also affects people with accounts and active DFS users. In 2014, DFS in Côte d'Ivoire seemed promising; the country had registered over 9 million mobile money accounts – and deposited over \$2.4 billion. Despite these developments, almost **half of all mobile money accounts in Côte d'Ivoire were inactive** meaning customers had not transacted in the past 90 days. 43.6% of respondents surveyed by IFC cited **irregular income** as the main reason given for inactivity. According to the IFC, “customers on irregular incomes do not consider themselves to have spare money to keep in their mobile money accounts, suggesting that they do not see mobile accounts as a convenient means of serving their everyday payment needs.” The second reason respondents gave for inactivity was that they had no need for a mobile money account (**27%**), and **15%** cited “high prices” as the reason for reverting to cash. According to the IFC, “this suggests that DFS does not appear as a compelling alternative to cash or other forms of financial services.” (*2018*).
- According to the *National Financial Inclusion Survey (2019)* in the Philippines, “lack of enough money remains the topmost reason for not having an account as reported by almost half (**45%**) of the unbanked respondents... **Regardless of having an account, the primary reason cited for not saving is still lack of money** (e.g., earning just enough, money used for other activities) and unemployment.”

## Key evidence relevant to this barrier

- The type of work that women are engaged in affects their ability to pay for and use DFS/financial services:
  - “Women have lower incomes than men, often because of the kind of work they do.” ([DFID, 2013](#)).
  - “Results from a study done by UN Women and the World Bank show that between the age of 20 and 34, women are more likely to be poor than men.” ([ILO, 2017](#)).
  - “With more than half the day spent in unpaid household labor, women in the DRC find few business opportunities outside small, unprofitable trading activities. Even when they operate more lucrative ventures, like wholesale trade, their profits are **four times lower** than men.” ([FinDev Gateway, 2022](#)).
  - “In Solomon Islands, 80% of unpaid domestic care work is performed by women, and 81% of women carry out unpaid agricultural work in rural areas compared to 58% of men. This means they lack the means to become formally financially included. **In Solomon Islands, 55.5% of women cite lack of—**
- money as a reason for not opening a bank account.**” ([UNCDF, 2020](#)).
- The [FinAccess Survey \(2021\)](#) in Kenya found that a majority of respondents cited lack of money to save, no regular income, and high cost of operating a bank account as main reasons why they have not used bank account in the last 12 months. **56.3%** cited no money to save, **23%** cited they can't afford to maintain an account, and **35.3%** cited no job/regular income. These three figures are higher than the 2019 numbers (35.1%, 19.3%, and 21.6% respectively), but could also be influenced by COVID-19. Additionally, **54.6%** cited “lack of enough money” as impacting savings and **65.4%** cited “can't afford” as a reason for not having insurance ([FSD Kenya, 2021](#)).
- IPA surveys of DFS users in Nigeria, Kenya, and Uganda highlight how lack of money is affecting usage of financial services:
  - **60%** of respondents in Nigeria indicated that they have less income because of the pandemic. To pay for food, savings, and other expenses, 26% of respondents indicated that they depleted their savings, and 14% indicated that they borrowed regardless of their ability to pay ([IPA, 2021](#)).

**Key evidence relevant to this barrier**

- In Kenya, 64% of respondents have less income than prior to the pandemic. **51%** borrowed regardless of the ability to repay, and nearly **40%** skipped a required loan payment ([IPA, 2021](#)).
- In Uganda, due to financial stress/lowered incomes, **56%** of respondents plan to pay back mobile loans "later" and 15% plan to only partly pay ([IPA, 2021](#)).

# Non-transparent fee structures / hidden costs

This barrier points to fee structures that are not clearly defined for customers at points of service such as agents or online. This may also include overly complicated fee structures (e.g., percentage or tiered pricing).

## Why is this barrier important?

This barrier is linked to other barriers that precede it and, if overcome, would help alleviate the challenges surrounding non-transparent fee structures. Improving aspects related to barriers such as Reliability and quality of in-person services, *Digital literacy*, and *Financial literacy* can help reduce the frequency in which non-transparent fee structures occur. This barrier might be higher priority in countries that don't have policies or regulation that promote transparent pricing. For example, Nigeria has poor fee transparency while other markets, like Kenya, have more transparent pricing and tariffs.

## Connected Barriers



### *Information Availability & Capability*

[Financial literacy >](#)

[Digital literacy >](#)



### *Product & Service Quality*

[Reliability and quality of in-person services >](#)



### *Consumer Protection*

[Over-charging >](#)

[Frauds and scams >](#)

[Predatory lending >](#)

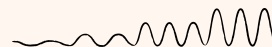
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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance



## Relevant Exemplars

[Kenya's Rules on Mobile Money Price Transparency Are Paying Off >](#)

[Regulations Drive Success of Digital Finance in Côte d'Ivoire >](#)

[Reducing Bank Overdraft Usage through Price Discounts and SMS Reminders >](#)

### Key evidence relevant to this barrier

- A study in Bangladesh suggests that mobile money users with less digital literacy who ask for help from mobile money agents are **44%** more likely to be charged an informal fee than more digitally literate users. Engagement with the account has large impacts on avoiding illicit transaction fees indicating substantial consumer protection gains from learning through active use of accounts ([Klapper et al., 2020](#)).
- Non-transparent fee structures are highly market-specific:
  - According to the [Nigeria Consumer Protection in Digital Finance Survey \(2021\)](#) by IPA, the top concern for DFS customers surveyed was “unclear or unexpected fees” at **25%**. However, IPA states that reviewing the digital interface could help reduce the instances of hidden fees in the market, pointing to how addressing digital literacy can help overcome this barrier.
  - In contrast, non-transparent fees are less of a concern in Kenya. In 2016, the Competition Authority of Kenya “required mobile financial services providers to disclose their costs via customers’ mobile handsets. Since then, disclosure has improved substantially in person-to-person payments, bill payments and digital credit” ([CGAP, 2018](#)). CGAP also found that pricing awareness improved from baseline to endline for M-Pesa and Airtel Money customers once the pricing guidelines were in place with customers being more likely to identify the correct fees for transactions.
- A mystery shopper audit of 1,000 microfinance firms in Uganda by IPA found that “inexperienced shoppers consistently received less information about products and pricing suggesting particular challenges for protecting consumers with limited formal financial sector experience, or less education. **68% of experienced shoppers** were given information on total cost of credit, compared to **12% of inexperienced shoppers.**” ([2020](#)).

# Information Availability & Capability

The Information Availability & Capability barrier category encompasses the internal (demand-side) and external (supply-side) information and knowledge that customers may or may not possess or have access to. With a lack of relevant and sufficient information and knowledge or capability, customers are ultimately prevented from adopting or actively using DFS.

Evidence across the multiple barriers found that supply-side actors play a significant role in enabling female customers to adopt and actively use DFS. Although women may find workarounds for using DFS when they lack basic information on DFS products or advanced capabilities, the progression from basic use to active use of DFS is greatly hindered by a lack of information and capability.

**Four of the six barriers in this category are tagged heavily across the segments and are connected to barriers in other categories.** The majority of the barriers analyzed are relevant for Segment 3 in particular, who is much more susceptible to being prevented from taking an active and diverse use of DFS when faced with this lack of information and capability.



*The barriers in this category are:*

Lack of peers/family/network who use DFS >

Basic literacy and numeracy >

Digital literacy >

Financial literacy >

Unclear or unavailable information about products/ uses >

Unclear or difficult process to open accounts >



# Lack of peers / family / network who use DFS

This barrier refers to the lack of connections women have with people who use DFS. Having a lack of peers or family members who have successfully experienced DFS may be a barrier to supporting new customers to onboard to DFS. Customers who may be unfamiliar with DFS products and services may experience difficulty in envisioning how DFS could be useful in their lives. The fears and uncertainties associated with trying out a new product and service may also prevent a customer from opening new accounts or exploring other uses of a digital wallet.

## Why is this barrier important?

Research demonstrates that women value informal networks, and gain information through their peers/family, which can encourage or discourage them from adopting DFS. This was very relevant for Segments 1 and 2 who might prefer to use cash or get information from their networks instead of opening accounts. This is also relevant for Segment 3 as women with accounts might feel more comfortable using different services/products when they see their friends using them. Evidence highlights the important role networks and word of mouth play in influencing women to adopt or use DFS. Without these networks and communication, women could lack awareness of DFS and/or actually refrain from its adoption and use.

## Connected Barriers



### Accessibility

[Mobility constraints \(e.g., legal curfews, norms\) >](#)



### Social Norms

All barriers in this category



### Information Availability & Capability

[Financial literacy >](#)

[Digital literacy >](#)

[Unclear or unavailable info about products/uses >](#)



### Consumer Protection

[Fear of making mistakes >](#)



### Product & Service Quality

[Reliability of payments system and network >](#)

## Relevant Exemplars

[Savings for Change Program >](#)

[Narrowing the Gender Gap in Mobile Banking – bKash in Bangladesh >](#)

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



### Key evidence relevant to this barrier:

- Women commonly “get their information about financial services from friends and family. When they have negative experiences, like “losing” their money, they are quick to tell people.” ([UNCDF, 2020](#)).
- A study in Bangladesh looking at the role of family networks in mobile money adoption found that female migrants that experienced finding out their originating family decided to adopt mobile money were 15% more likely to adopt mobile money than those without that experience – closing the digital gender gap ([Lee et al., 2021](#)).
- Research in Kenya and Cote d’Ivoire found that women “rely more on their peers than communications from digital service financial providers (DSFPs). Respondents, including both experts and end-users from both countries, strongly stated that women in lower-income areas trust their peers the most, which is reflected in their greater dependence on the community savings groups, such as tontines.” ([Caribou Data, 2021](#)).
- “Family and friends remain the primary source of financial information for women in Bangladesh, with 83% of survey respondents (n=2000 users, and n=2000 non-users of MFS across the country) reporting that they receive information about finances from household members.” ([IFC, 2018](#)).
- According to IPA's [Uganda Consumer Protection Digital Finance Survey \(2021\)](#), 55% of survey respondents in Uganda chose a mobile money provider based on whether or not others use the provider. Almost 30% choose a provider based on a friend/family recommendation.
- “A survey conducted by Airtel Money in Malawi indicated that a word of mouth recommendation from a friend was the most important factor in influencing a decision to subscribe to mobile money. The survey further indicated that the reason such a recommendation was so effective was that it indicated that not only was the service valuable, but that the service was also understandable. Although the Airtel survey did not contain disaggregated gender information, anecdotal information obtained from the former Director of Airtel Money Malawi indicated that women are more influenced by a friend’s recommendation than men.” ([USAID, 2018](#)).

**Key evidence relevant to this barrier:**

- According to the FSD Kenya's *FinAccess Household Survey (2021)* in Kenya, 45% of respondents relied on friends and family members for financial advice compared to 43.3% who relied on their own knowledge. In terms of demographics, 50.0% of females and 39.7% of males receive financial advice from friends/family.
- A study looking at female microentrepreneurs from India's largest women's bank found that demand for a business training program was higher among those women who were able to bring a friend, and that women who attended with a peer were more likely to borrow and report increased business activity, expenditures and income (Field et al., 2015).

# Basic literacy and numeracy

This barrier refers to the functional literacy and numeracy and their significant association with women's use of DFS. Low levels of literacy and numeracy may contribute to a lack of awareness and understanding of DFS since interfaces (USSD and smartphone apps) are text-heavy.

## Why is this barrier important?

Basic literacy and numeracy are precursors to adopting and actively using DFS. Evidence shows a strong relationship between women's awareness and use of DFS and literacy and numeracy. Women also make up a large portion of the global illiterate population. Although there may be workarounds to using DFS products for illiterate populations, the lack of literacy and numeracy hinders comfort and sustained use of DFS.

## Connected Barriers



### *Prerequisites*

[Phone/SIM ownership >](#)

[Broader legal constraints >](#)



### *Accessibility*

[Mobility constraints \(e.g., legal curfews, norms\) >](#)



### *Social Norms*

All barriers in this category



### *Information Availability & Capability*

[Financial literacy >](#)

[Digital literacy >](#)

[Unclear or difficult process to open an account >](#)



### *Product & Service Quality*

[Reliability and quality of in-person services >](#)



### *Consumer Protection*

[Fraud and scam >](#)

[Fear of making mistakes >](#)

## Relevant Exemplars

[Digital Wallet Adoption for the Oral Segment in India >](#)

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



### Key evidence relevant to this barrier:

- Literacy and numeracy stand out as significant drivers for mobile money awareness and frequent use among both men and women (even more so for women) in Bangladesh, Nigeria, Pakistan, India, Uganda and Tanzania. Crown et al. recommend focusing on reaching illiterate female populations through differentiated advertising. They note that “microfinance institutions have seen significant success in their marketing strategies for illiterate populations, and suggest that these successful strategies be applied to market DFS to this population.” ([EPAR, 2015](#)).
- Despite progress in educational access, “an estimated 781 million people aged 15 and over remain illiterate. Nearly two-thirds of them are women – a proportion that has remained unchanged for two decades.” ([UN, 2015](#)).
- “In Bangladesh, as the ability to text is usually correlated with higher educational attainment, the high correlation between text savviness and account registration might be a general indication of the relationship between literacy and account registration.” (Intermedia and BMGF, internal document, 2017).
- “The ability to read a long number proved to be a very effective predictor of engagement with mobile money... Intermedia concludes that in Côte d’Ivoire ‘financially numerate adults had nearly 2.5 times greater odds of having a registered mobile money account than did the average adult.’” (Intermedia, 2018 as cited in [Matthews, 2019](#)).
- “Mobile money – as a product of the information revolution -- is also a natural delivery channel. It may be a decade or two before the average illiterate villager has a smart phone -- potentially enabled with voice recognition, text-to-speech and biometric identification capabilities, as well as numeracy games and similar specialized apps. Once that happens, technology will no longer be a limiting factor in efforts to achieve financial inclusion. It is important that when that moment arrives, the solutions to the demand side capability and behavior issues have been designed and proven, and are ready for migration to more robust platforms.” ([Matthews, 2016](#)).
- More educated and numerate people have much higher rates of basic and advanced use of mobile money per CGAP’s [Financial Inclusion Insights Report: Cote d’Ivoire \(2018\)](#). More than 60% of the non-financially numerate individuals surveyed were aware of mobile money, but unregistered, while less than 20% were—

**Key evidence relevant to this barrier:**

- registered. Of those registered, less than 5% were actively advanced users, nearly 10% were active basic users, and nearly 5% were registered inactive users.
- “The standard for literacy in Pakistan is to be able to write your own name. Unfortunately, most women in Pakistan are unable to do this.” Fieldwork conducted by Continuum (a design firm commissioned by CGAP) researching techniques to find ways to help G2P beneficiaries in Pakistan, revealed that the women in their study “could not read in their own spoken language, and many of them—could not read anything at all. Many of them did not understand symbols, icons, illustrations, and instructions.” This proved to be extremely challenging for Continuum when considering designs and innovations for G2P ([CGAP, 2014](#)).
- **Women deploy workarounds to transact in their day-to-day lives.** In Tanzania and Northern Kenya, women pair their income streams with discrete expenses as a tool for budgeting and accounting. For example, earnings from selling crops are used to pay school fees pairing a large amount of income (selling crops) with a large expenditure (school fees). Daily earnings from eggs and poultry go towards daily expenses. This “mental accounting” method is used by women and men with low literacy, and, with women having lower literacy rates, this method is more prevalent among women. These analog workarounds prove more difficult to replicate with digital financial services. For example, the [Women & Money Report \(2019\)](#), tells the story of Nuria—a woman in Northern Kenya—who taught herself how to recognize numbers and the specific placement of options on her phone to complete mobile transactions even though she cannot read ([IDEO and BMGF, 2019](#)).

# Digital literacy

This barrier refers to the ability to interact with, use, and navigate digital platforms and devices. In the DFS context, we specifically consider a customer's ability to use a mobile phone (feature or smartphone) and to navigate through USSD menus or smartphone apps.

## Why is this barrier important?

Women without financial accounts and with low digital skills levels were often distrustful of DFS, which prevented them from adopting digital tools such as mobile money accounts. Research also shows that women who do have accounts, but have low levels of digital literacy, required assistance to use the digital product. Low levels of digital literacy also came up as an issue for entrepreneurs seeking to use online platforms. Evidence showed that MSMEs sometimes struggled to understand the value of digital platforms due to low levels of digital literacy. In response, many RCTs introduced digital skills training across segments potentially signifying that the importance of focusing on the *Digital literacy* barrier.

## Connected Barriers



### Prerequisites

[Phone/SIM ownership >](#)

[Internet/mobile connectivity >](#)



### Social Norms

All barriers in this category



### Information Availability & Capability

[Unclear or difficult process to open account >](#)

[Financial literacy >](#)

[Lack of peers/family/network who use DFS >](#)

[Unclear or unavailable info about products/uses >](#)

[Basic literacy and numeracy >](#)



### Product & Service Quality

[Navigability of user interface of the digital product >](#)

[Lack of products that meet women's needs >](#)



### Cost

[Non-transparent fee structures / hidden costs >](#)



### Consumer Protection

[Over-charging >](#)

[Frauds and scams >](#)

[Fear of making mistakes >](#)

[Online/phone/social media harassment >](#)

[Difficulty resolving complaints >](#)

[Potential \(or actual\) privacy violations >](#)

## Relevant Exemplars

[Mobile Money Cash Transfer Experiment in Niger >](#)

[Mobile Phone and Livelihoods of Women Project >](#)

[Comunidades Conectadas v Hoqares Conectados >](#)

[Aligning Libraries And USAFs For Rural Public Access >](#)

[Kenya's Rules on Mobile Money Price Transparency Are Paying Off >](#)

[Regulations Drive Success of Digital Finance in Côte d'Ivoire >](#)

[Business Women Connect Program >](#)

[Mobile Financial Services for Female Entrepreneurs \(MFS\) Program >](#)

[Reducing Bank Overdraft Usage through Price Discounts and SMS Reminders >](#)

[Digitizing payroll for factory workers in Bangladesh >](#)

[Digitizing Rural Women's Savings Groups in Tanzania >](#)

[Digital Wallet Adoption for the Oral Segment in India >](#)

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



### Key evidence relevant to this barrier:

- For survey respondents across 15 LMIC countries, literacy and digital skills ranked second in the top four barriers to mobile phone ownership for both men and women ([GSMA, 2019](#)).
- “Many MSME entrepreneurs cannot intuitively appreciate the benefits or value proposition of the use of digital technologies. They struggle to trust, navigate, and use technology to market their products and services, receive payments, and access digital financial services. Carefully designed and delivered digital skilling programs based on an understanding of their mental models can enable MSMEs to use digital technology to grow their businesses.” ([MSC, 2021](#)).
- A study of women’s participation in the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) work program in India shows that women who received a bank account, and the training to directly deposit earnings into that account were more likely to engage in the labor market than those without direct deposit. Direct deposits and training enabled women whose husbands followed gender norms (those that constrain women) to improve their labor force participation compared to women in similar gender norm contexts without direct deposit access ([Field et al., 2016](#)).
- A study ([ADB, 2020](#)) comparing digital and financial literacy across several countries in South Asia and Sub Saharan Africa found that:  
  
**“Digital literacy is a major driver of positive financial behavior, and may matter even more than financial literacy, especially in Sub-Saharan Africa which has seen a rapid expansion in DFS and mobile money services...”** Specifically, a one-unit increase in the financial and digital literacy indices increases the likelihood of currently saving by 2.33 and 3.26 percentage points, respectively. In addition, the likelihood of saving with a bank increases by 2.07 and 2.35 percentage points, respectively. In terms of economic significance, the probability of formal saving increases by 6.9% for a one-unit increase in the financial literacy index, and by 7.8% for a digital literacy increment... Increases in financial and digital literacy levels are associated with increases in borrowing, both formally and informally... In addition, the marginal effects for digital literacy are larger than those for financial literacy for each of the behaviors. **The findings suggest the need for greater emphasis on digital literacy when designing financial literacy strategies and programs. Moreover, the results hint at the—**



**Key evidence relevant to this barrier:**

**—potential of digital literacy to surpass financial literacy by providing a more efficient and less costly tool to stimulate financial behaviors that build resilience, precisely in settings where DFS are developing.”**

- “Women usually require 5 to 10 interactions on average compared to 3 to 5 for men before they are confident to use the service and initiate transactions.” (GSMA, 2014).

# Financial literacy

This barrier refers to concepts ranging from financial awareness and knowledge—including of financial products, institutions, and concepts—to financial skills, such as the ability to calculate compound interest payments, and to financial capability more generally and in terms of money management and financial planning.

## Why is this barrier important?

Although there remains a significant gender gap in financial literacy, especially for women entrepreneurs, evidence shows women develop workarounds to financial literacy, and can still use financial products without having high financial literacy levels. Evidence shows financial literacy was more relevant for women-owned MSMEs due to the necessity in learning more about budgeting and financial management. While some financial literacy topics can be important, their absence does not necessarily impact a woman's decision to use a digital financial service, but rather their confidence when using DFS. Lack of more advanced financial literacy becomes a barrier to more advanced usage of DFS, especially for women entrepreneurs in Segments 2, 3 and 4.

## Connected Barriers



### *Social Norms*

All barriers in this category



### *Information Availability & Capability*

[Lack of peers/family/network who use DFS >](#)

[Unclear or unavailable information about products /uses >](#)

[Digital literacy >](#)

[Basic literacy and numeracy >](#)



### *Cost*

[Perceived and/or lack of money >](#)

[Non-transparent fee structures / hidden costs >](#)



### *Consumer Protection*

[Over-charging >](#)

[Frauds and scams >](#)

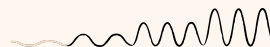
[Fear of making mistakes >](#)

[Predatory lending >](#)

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



## Relevant Exemplars

[Savings for Change Program >](#)

[Interest Rate Sensitivity Among Village Banking Clients in Mexico >](#)

[Kenya's Rules on Mobile Money Price Transparency Are Paving Off >](#)

[Regulations Drive Success of Digital Finance in Côte d'Ivoire >](#)

[DigiFarm >](#)

[Business Women Connect Program >](#)

[Mobile Financial Services for Female Entrepreneurs \(MFS\) Program >](#)

[Women Citizenship Initiative >](#)

[Reducing Bank Overdraft Usage through Price Discounts and SMS Reminders >](#)

[Digitizing payroll for factory workers in Bangladesh >](#)

[Digitizing Rural Women's Savings Groups in Tanzania >](#)

[The Role of Information on Retirement Planning >](#)

[Less is More: Experimental Evidence on Heuristic-Based Business Training in Ecuador >](#)

**Key evidence relevant to this barrier:**

- At the global level, 30% of women are financially literate, compared to 35% of men ([GFLEC, 2017](#)).
- Low financial literacy is the second highest barrier to women-owned MSME lending in multiple countries, including Indonesia, Costa Rica, Ghana, Bangladesh, Mexico, Fiji, Tajikistan, Timor-Leste, Tonga, Samoa and Palestine ([AFI, 2017](#)).
- 25% of MSMEs surveyed in India, Indonesia, Bangladesh, Philippines, Uganda, Kenya, and Ghana cite lack of, poor business development skills and/or market awareness as a key constraint in growing their business ([MSC, 2021](#)).
- “Women are three times more likely than men to be unable to afford retirement savings and they also have significantly lower rates of financial literacy due to their lack of financial exposure. However, financial literacy is one of the most commonly adopted interventions for making the population financially included. Regulators are increasingly employing smart financial education techniques to reach out to a wider audience.” ([AFI, 2020](#)).
- According to the [S&P Global Financial Literacy Survey \(2014\)](#), financial literacy is significantly lower among women. However, this continues to change as “more countries include women’s financial inclusion among policy objectives in national financial inclusion strategies and countries address women’s financial capability at the national level.” ([GPFI, 2020](#)).
- According to the [Global Financial Inclusion and Consumer Protection Survey \(2017\)](#), 35% of responding jurisdictions (124 total) report having a national strategy in place for financial capability.
- An RCT conducted in Ecuador illustrates how women’s unpaid work can negatively impact their financial and business literacy.

“A sample of 2,408 microentrepreneurs were randomly assigned to three different groups with about 800 people per group: traditional training, heuristic training, and the control group (which did not receive any training). Women represented 68% of the sample... The promising results of the heuristic approach seem to be driven by women entrepreneurs, who were more likely than men to adopt best practices and consequently—

**Key evidence relevant to this barrier:**

—experienced larger gains in both sales (10%) and profits (10%) in comparison to women in the control group. Again, when looking only at women who actually completed the heuristic training, both average sales and profits increased by 17%. These findings may partly be explained by women doing worse at baseline, and then catching up with the men later. But the data also tells another story. **Women in the sample reported devoting significantly more time than men to household chores (3 hours vs. 1 hour) and to child and elder care (2.9 hours vs. 1.5 hours). Women also dedicated the same amount of time to their businesses as men (12 hours per day and 6.7 days per week). This evidence suggests that women could be more cognitively taxed than their male counterparts**, making the simpler nature of the heuristic training better suited to their needs... The results show that simpler training, based on rules of thumb rather than excessive information, is a more effective method for microentrepreneurs, especially women, whose mental bandwidth is already overtaxed by the demands of work, home, and in many cases, the daily struggles of life in low-income communities." ([Arraiz, 2019](#))

- **Women deploy workarounds to transact in their day-to-day lives.** In Tanzania and Northern Kenya, women pair their income streams with discrete expenses as a tool for budgeting and accounting. For example, earnings from selling crops are used to pay school fees pairing a large amount of income (selling crops) with a large expenditure (school fees). Daily earnings from eggs and poultry go towards daily expenses. This “mental accounting” method is used by women and men with low literacy, and, with women having lower literacy rates, this method is more prevalent among women. These analog workarounds prove more difficult to replicate with digital financial services. For example, the [Women & Money Report \(2019\)](#), tells the story of Nuria—a woman in Northern Kenya—who taught herself how to recognize numbers and the specific placement of options on her phone to complete mobile transactions even though she cannot read ([IDEO and BMGF, 2019](#)).

**Key evidence relevant to this barrier:**

- 94% of respondents (n=4000) in Bangladesh that received financial literacy training were likely to be confident in making financial decisions, when compared to 13% of respondents feeling confident if they did not receive training. A mix of users and nonusers received financial literacy training ([World Bank, 2018](#)).
- Percent of rural men and rural women who have knowledge of advanced financial concepts ([IDEO and BMGF, 2019](#)):
  - Tanzania: 18% women vs 24% men
  - Kenya: 20% women vs 29% men
  - Nigeria: 13% women vs 18% men
  - Bangladesh: 24% women vs 33% men
  - India: 13% women vs 15% men
  - Pakistan: 11% women vs 15% men

# Unclear or unavailable info about products / uses

This barrier refers to the disclosure of information related to products and services and how it may deter women. Without clear information about the terms and conditions of a loan or savings product or the range of potential uses of a digital wallet, a customer may not be able to discern the expected value of the product or service for her needs. Similarly, a customer may not be able to inquire about a product or service due to social norms, reliability of in-person services, or other contextual factors.

## Why is this barrier important?

Evidence finds that women cite the lack of information about DFS products and their uses as reasons for not adopting and using financial products. This barrier is highly linked to the *Lack of peers/family/network who use DFS* barrier because women typically seek out product information from informal networks rather than FIs and FSPs in the same way as men. Evidence also demonstrates that FSPs fail to share information about DFS products through channels that women use to access information. Lack of information on DFS does not allow for an increase in awareness about the products and prevents customers from growing trust in the offerings.

## Connected Barriers



### *Social Norms*

All barriers in this category



### *Information Availability & Capability*

[Financial literacy >](#)

[Digital literacy >](#)

[Lack of peers/family/network who use DFS >](#)



### *Product & Service Quality*

[Navigability of the user interface of the digital product >](#)

[Lack of products and services that create value >](#)

[Reliability and quality of in-person services >](#)



### *Consumer Protection*

[Frauds and scams >](#)

[Fear of making mistakes >](#)

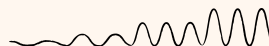
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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance



## Relevant Exemplars

[Paving the Way for Women from the Inside Out \(TARA Program\) >](#)

[Business Women Connect Program >](#)

[Mobile Financial Services for Female Entrepreneurs \(MFS\) Program >](#)

[The Role of Information on Retirement Planning >](#)

[The Impact of Incentives and Transparency on Usage of New Financial Products in Indonesia >](#)

### Key evidence relevant to this barrier:

- A survey conducted by FINCA DRC revealed that “women have less information on financial products compared to men” as shown in the inability to name more than one or two basic products.” 22% of surveyed women were unable to name more than two products from each category (loans, savings, mobile banking and insurance) versus 14% of surveyed men ([2020](#)).

- A World Bank field note ([2018](#)) states:

“In Uganda, women lacked information on the sources of credit. When asked why they borrowed from a particular source, the most quoted reason by women was that it was the only available option – always by a higher percentage than men. When asked why they didn’t use a financial institution, 35% of women indicated that they didn’t know about it – 10% more than men. This finding points to financial education and informational campaigns about financial options as a fundamental way to drive up the level of financial inclusion for women, at least in the case of Uganda.”

- USAID’s [The Role Of Trust In Increasing Women’s Access To Finance Through Digital Technologies \(2018\)](#) states:

“The USAID-funded mSTAR program in Bangladesh worked to migrate USAID Implementation Partners to DFS. This included programs working with women entrepreneurs. In its work, mSTAR took on the role of helping to develop end user trust in DFS. Although mSTAR found that most program staff owned mobile phones and were aware of mobile money, most did not use it or limited their use to basic products and services such as personal transfers. mSTAR cites the broad lack of awareness of the intricacies of DFS and limited use as generating a lack trust.”

- “One of the most common reasons for women not using DFS is the lack of knowledge and understanding of how these services function and the benefits of using them. Particularly, in MENA DFS are still new and trust and lack of awareness of such services limit uptake by women.” ([Seep, 2020](#)).
- 38.3% of respondents of FSD Kenya’s [FinAccess Household Survey \(2021\)](#) cited “lack of information” as the reason for not having a savings and credit co-operative society (SACCO) account.

**Key evidence relevant to this barrier:**

- The IFC's survey on the women's mobile financial services market in Bangladesh offers the following evidence ([2018](#)):
  - Only 16% of all women interviewed feel confident in their ability to make optimal financial decisions .
  - Only 10% of female MFS users know how to change their personal identification numbers (PINs).
  - Only 20% of female MFS users understand the terms and conditions of using MFS.
  - Only 10% of female MFS users compared service providers before choosing one.
  - Only 10% of female MFS users indicate that they are aware of their rights as users.



# Unclear or difficult process to open an account

This barrier refers to account opening requirements and processes that may be cumbersome and prohibitive for some customers typically related to documentation, ID, contracts, and other prerequisites. In some cases, the time to open an account may be longer than anticipated due to lack of transparent communication.

## Why is this barrier important?

Evidence found for this barrier is almost always related to Prerequisites or Social Norms such as access to ID or legal inequalities for opening an account. The lack of access to the foundational elements required to open an account causes the difficult process to open accounts. While there is little evidence pointing to the *process* of opening up an account posing a barrier, the evidence points to the needed elements and documents before opening an account as a barrier.

## Connected Barriers



### *Prerequisites*

[Broader legal constraints >](#)

[Digital/Foundational ID >](#)

[KYC requirements >](#)



### *Social Norms*

All barriers in this category



### *Information Availability & Capability*

[Basic literacy and numeracy >](#)



### *Product & Service Quality*

[Navigability of user interface of the digital product >](#)

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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance



## Relevant Exemplars

[Mobile Money Cash Transfer Experiment in Niger >](#)

[Mobile Phone and Livelihoods of Women Project >](#)

[Paving the Way for Women from the Inside Out \(TARA Program\) >](#)

[Mobile Financial Services for Female Entrepreneurs \(MES\) Program >](#)

[Business Women Connect Program >](#)

[Mobile-Linked Bank Accounts >](#)

[Narrowing the Gender Gap in Mobile Banking – bKash in Bangladesh >](#)

[The Impact of a Formal Savings Intervention in Sri Lanka >](#)

[BETA Savings Account in Nigeria >](#)

**Key evidence relevant to this barrier:**

- The biggest barrier in the mobile money customer journey for women is at the registration stage. The biggest gender gaps were observed at the registration stage in Tanzania, Kenya, and Uganda. In Tanzania, 66% of customers registered were men versus 57% being women. In Kenya, 70% were men versus 64% being women. In Uganda, 43% were men versus 29% being women (BMGF, internal document, 2020).
- “In some economies, women are unable to open a bank account in the same way as men. Women are sometimes required to provide permission or documentation that is not required of men. Some laws specify that women can open accounts separate from their husbands only if they meet certain conditions, such as being independently employed.” (GPII, 2020).
- “Initial application sign-up is a barrier to the adoption and use of apps. Reducing the number of steps and making each step simple and clear can ease app use. Finding the right balance of ease-of-use can greatly speed customer acquisition.” (CGAP, 2016).
- In BRAC Bangladesh’s cash transfer program, the familiarization of each participant with the account opening process, and transfer protocols and being linked to the closest agents aided in supporting households with phone access and no active mobile money accounts. “Thanks to close coordination and support, 94% of recipients successfully received the full cash transfer upon first attempt. Most failed first attempt transfers were due to incorrect numbers, inactive accounts, and submission of accounts registered on other mobile banking platforms.” (SSIR, 2020).
- In a study examining the impact of bKash on migrants and migrant families in Bangladesh, the treatment group received training on how to enroll and set up an account. The training treatment increased the adoption and use of mobile banking by migrants, with increases by women of similar magnitude to those by men (Lee et al., 2021).

# Product & Service Quality

The product and service quality barrier category covers the inadequate provision of quality products and services that prevent customers from seeing the value/benefit in adopting or continuing use of DFS. Evidence for this barrier category found that the *perception* that product and service quality is weak oftentimes presents a greater barrier to adoption and use of DFS than *actual* poor quality service delivery.

When confronted with the barriers in this category, women in Segments 1 and 2, who do not yet have accounts, do not see the value in adopting DFS. For women Segment 3, confrontation with poor product and service quality could diminish interest in sustained use of DFS or exploring more advanced products. **Four of the five barriers in this category are relevant across segments and customer journey stages.**



*The barriers in this category are:*

- Reliability of payments system and network >
- Reliability and quality of in-person services >
- Lack of products that meet women's needs >
- Lack of products and services that create value >
- Navigability of user interface of the digital product >

# Reliability of payments system and network

This barrier refers to the reality of limited connectivity and data in many parts of the world. At times, data networks shut down which can delay transactions from going through. This can cause distrust and fear about loss of funds. Weakened network performance, or the perception of unreliable payment systems and networks, can also discourage customer and potential customer's adoption and use of DFS.

## Why is this barrier important?

Women's lower levels of trust in DFS are highly linked to unreliable payments system and network issues. Research shows that this barrier impacts women with and without financial accounts. Women without accounts may limit uptake when they hear about problems from others (since reliance on informal networks is so strong), and women with accounts limit activity because of fear of issues and distrust in the network.

## Connected Barriers



### *Prerequisites*

[Internet/Mobile connectivity >](#)



### *Information Availability & Capability*

[Lack of peers/family/network who use DFS >](#)



### *Consumer Protection*

[Difficulty resolving complaints >](#)

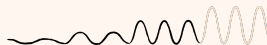
## Relevant Exemplars

N/A

## Most Relevant for Segments

2 3 4

## 1 Customer Journey Relevance



### Key evidence relevant to this barrier:

- “In Côte d’Ivoire, female respondents [participating in focus group discussions] voiced greater concerns over network issues and worries that transactions were not being completed, contributing to their lower levels of trust in digital finance overall.” ([Caribou, 2021](#)).
- Just over 72% of mobile banking users surveyed in Kenya as part of FSD Kenya’s [FinAccess Household Survey \(2021\)](#) cited the “inability to access account through mobile/internet banking/ATM/system downtime” as a challenge.
- “Network quality and provider reputation matter most for choosing a mobile money provider. Almost 45% of survey respondents (these are users of DFS) in Kenya choose a mobile money provider based on having a better network quality/coverage.” ([IPA, 2021](#)).
- “Women in low and middle income countries cite service delivery issues (network quality and coverage and agent or operator trust) and technical literacy and confidence as key barriers to access and using mobile technology.” ([K4D, 2017](#)).
- The inability to transact due to network downtime is a top consumer concern in multiple countries studied by CGAP including Bangladesh, Nigeria, Tanzania, Colombia, Haiti, India, and Kenya. “Network unreliability both erodes trust in the service and can result in harm or risky customer behaviors. Users in multiple countries say they are afraid to conduct transactions because of the possibility of a network failure. Unreliability affects both nonusers (those who may limit uptake when they hear of problems from others) and users (some of whom report limiting their activity as a result).” ([CGAP, 2015](#)).
- One of the biggest impacts of the government shutdown of mobile money in 2016 is that customers “may have lost faith in a system that can be turned off and on at the whim of the government regulator. The result of this distrust was visible for everyone, especially mobile network operators, as many users emptied out their mobile wallets as soon as platforms went live.” Mobile money users in Uganda have been used to network outages and waiting to make transactions, but the complete shutdown proved to be a different experience ([CGAP, 2016](#)).

# Reliability and quality of in-person services

This barrier refers to a range of factors about the reliability and quality of in-person services a customer experiences. One example relates to the expectation of mobile money agents having sufficient float to conduct the transactions customers need. If the agent does not consistently have float, the perceived cost of traveling to the agent (time, financial cost, etc.) might not be worth the uncertainty of the transaction. Other questions begin to surface related to the reliability and quality of the service: Will service agents treat customers respectfully? Will a customer visit a bank branch during opening hours only to find it closed? Will the line for service be too long?

## Why is this barrier important?

Women's trust and desire to use DFS is negatively affected when they encounter unreliable and unsatisfactory in-person services. Notably, for women who already own an account with a FSP and wish to develop their use of DFS beyond basic usage—for example to take out a loan—they are hindered in doing so due to poor treatment from bank agents and lack of trust in how agents may use their information.

## Connected Barriers



### Accessibility

[Distance from bank/FSP/CICO agent >](#)



### Social Norms

All barriers in this category



### Consumer Protection

[Over-charging >](#)

[Frauds and scams >](#)

[Fear of making mistakes >](#)

[Online/ phone/ social media harassment >](#)

[Difficulty resolving complaints >](#)

[Potential \(or actual\) privacy violations >](#)

[Predatory lending >](#)



### Cost

[Non-transparent fee structures/hidden costs >](#)

[>](#)



### Human Resources

[Lack of female agents >](#)

[Lack of women in leadership at DFS >](#)

[providers and policymakers >](#)



### Information Availability &

### Capability

[Basic literacy and numeracy >](#)

[Unclear or unavailable info about products/ uses >](#)

## Relevant Exemplars

[The Role of Gender in Agent Banking >](#)

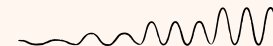
[The Impact of Incentives and Transparency on Usage of New Financial Products in Indonesia >](#)

[Paving the Way for Women from the Inside Out \(TARA Program\) >](#)

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



### Key evidence relevant to this barrier:

- “In China, for instance, in interviews with International Finance Corporation (IFC), women entrepreneurs say loan officers don’t treat them with dignity or may claim they aren’t knowledgeable about the banks’ products and services, making women feel unwelcome at banks.” ([Council for Foreign Relations, 2016](#)).
- According to IPA’s [Uganda Consumer Protection in Digital Finance Survey \(2021\)](#), “agent trust is particularly strongly correlated with issues related to agent misconduct, missing or incorrectly sent money, and poor-quality customer care.”
- “Research in Kenya and Côte d’Ivoire showed that women rely on access points (in the case of our FGDs and IDIs, agents) more so than men, particularly because they provide trust, information, and assistance.” ([Caribou, 2021](#)).
- Lack of liquidity tends to be a principal source of customer dissatisfaction, and represents a real risk, as it “deprived users of their own money.” “Lack of liquidity in Tanzania results in denial of an average of five transactions per agent per day – equal to 14% of daily transactions.” ([CGAP, 2015](#)).
- 22-55% of mobile money users have been unable to complete a transaction due to insufficient agent liquidity across Ghana, Kenya, Rwanda, Tanzania, and Uganda ([CGAP, 2015](#)).
- In Kenya, a leading agent network development inhibitor is the lack of adequate float and long periods of wait time taken by agents to rebalance ([EFInA, 2018](#)).
- “Insufficient agent liquidity can also compromise the confidentiality of customers’ personal information. In Uganda, for example, some agents said that when they lack liquidity, they frequently call another agent, provide the customer’s PIN, have the other agent complete the transaction, and then reconcile the amounts later.” ([CGAP, 2014](#)).
- “Mobile agents are often very *male* spaces in India. They can be intimidating for women to visit, and there is a risk of female customers’ mobile numbers being recorded and misused either by the retailer or a bystander.” ([GSMA, 2018](#)).

# Lack of products that meet women's needs

This barrier refers to the lack of products that meet the unique experience, needs and contexts of women. For example, many women experience limited mobility due to social norms and/or do not have personal ID and might rely on their husband's ID. Designing products and services that take into account their specific needs may result in higher uptake and usage rates for female customers.

## Why is this barrier important?

Research shows that women with accounts don't have solutions that are customized to meet their needs so they are limited in the types DFS products they can use. Women without accounts are not highly motivated to open accounts because of the flexibility of cash and their informal networks. DFS products are oftentimes not made with women's preferences for flexibility in mind affecting women's interest in adopting them. This barrier is very closely related to *Lack of products and services that create value*.

## Connected Barriers



*Prerequisites*  
[KYC requirements >](#)



*Accessibility*  
[Distance from bank/ESP/CICO agent >](#)



*Cost*  
[Cost of using DFS \(incl. transaction cost\) >](#)



*Social Norms*  
All barriers in this category



*Information Availability & Capability*  
[Digital literacy >](#)



*Product & Service Quality*  
[Lack of products and services that create value >](#)  
[Navigability of user interface of the digital product >](#)



*Consumer Protection*  
[Over-charging >](#)  
[Predatory lending >](#)



*Human Resources*  
[Lack of women in leadership at DFS providers and policymakers >](#)

## Relevant Exemplars

[Savings for Change Program >](#)

[Paving the Way for Women from the Inside Out \(TARA Program\) >](#)

[DigiFarm >](#)

[Farm to Market Alliance \(FtMA\) >](#)

[The Role of Gender in Agent Banking >](#)

[BETA Savings Account in Nigeria >](#)

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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance





### Key evidence relevant to this barrier:

- According to AFI's findings from 30 interviews with policy-makers and thought leaders from around the world, "biases against female customers are common among loan officers, and bank branches are often not a welcoming environment for women. Women report feeling uncomfortable and that they do not belong. Banks also have limited opening hours and customer outreach does not take women's needs into account." ([AFI, 2016](#)).
- "In the Philippines, women entrepreneurs say they prefer pawn shops to banks because they receive loans almost instantly with very little paperwork. Unlike banks, the pawn shops also accept moveable assets as security, which makes it easier for women to borrow." ([Council on Foreign Relations, 2016](#)).
- "Some FSPs in Solomon Islands and Papua New Guinea (PNG) have a perception that women are not commercially viable customers. As a result, products aren't designed to suit women's needs and channels aren't effective in reaching them. Many banks in PNG charge account opening, maintenance and withdrawal fees. Women see their savings depleted by these charges without understanding why and begin to lose trust." ([UNCDF, 2020](#)).
- For their work designing a new smartphone app for mobile money in Pakistan, GRID Impact found that, "Potential female mobile money users have unique needs. In other markets, providers experienced that women needed more interactions with mobile money services than men before feeling confident enough to use the service independently. This may indicate the need for 'trial' or 'supported' transactions to allow women to experience the service." ([GRID Impact, 2014](#)).
- Financial responsibilities are gendered. Financial diaries of low-income women suggest that men are typically responsible for earning household income and managing large investments in assets such as land and housing. By contrast, women often handle daily expenses and risk management (which can include use of insurance products as well as less formal methods of scraping together emergency funds from disparate sources). However, there is a gap between demand for savings and savings devices – the meta-analysis of savings interventions in Sub-Saharan Africa notes that "the aggregated evidence from 24 meta-analyzed trials points to a gap between the demand for savings and the actual—

**Key evidence relevant to this barrier:**

—provision of reliable, safe, and easily accessible institutionalized savings devices." (Zollman and Sanford, 2016; Steinert et al., 2018).

- There are many gendered barriers that prevent women from benefiting from PAYGo solar, as outlined in CGAP's *Examining PAYGo Solar Through a Gender Lens: An Exploratory Study (2021)*:
  - "Providers lack gender targeted business strategies; although women are a customer segment with distinct energy needs and repayment behaviors, providers don't seem to treat them as such."
  - "PAYGo solar devices tend to be marketed as modern technologies that 'transform lifestyle', with lesser emphasis on how they can alleviate women's constraints and meet their energy needs."
  - "Currently, PAYGo providers do not report any sex disaggregated data on customer access or impacts. We do not know how many women customers and beneficiaries PAYGo solar products serve, or whether such data is being collected."

# Lack of products and services that create value

This barrier refers to the lack of specific benefits or value-adds to the lives of customers. For potential DFS customers who have yet to engage with DFS, they need to understand what digital products will offer them that cash or other financial methods cannot. The transition from cash to digital can be difficult if the perceived “costs” (not just financial) outweigh the perceived benefits. The same would be true for DFS customers exploring the potential range of financial services DFS can offer – moving beyond basic transactions.

## Why is this barrier important?

This barrier is highly linked to the *Lack of products that meet women's needs*. The evidence found for this barrier related greatly to the different life stages of women, or their different customer journey phases – at each stage, women need a different type of product which isn't made available to them. Given that women cannot find DFS offerings relevant to these life stages or customer journey phases, they seek out informal financial services and don't see the benefit of adopting DFS. The lack of services and products that create value prevents women in Segment 2 from opening an account, and Segment 3 from exploring new use cases. This barrier is highly linked to *Unclear or unavailable product information* as the lack of awareness about products and services can lead to a lack of understanding about the benefits of adopting and using DFS.

## Connected Barriers



### *Social Norms*

All barriers in this category



### *Information Availability & Capability*

[Unclear or unavailable information about products /uses >](#)



### *Product & Service Quality*

[Lack of products that meet women's needs >](#)

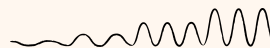
### *Human Resources*

[Lack of women in leadership at DFS providers and policy makers >](#)

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



## Relevant Exemplars

[Estonia's E-identity program >](#)

[Savings for Change Program >](#)

[Paving the Way for Women from the Inside Out \(TARA Program\) >](#)

[DigiFarm >](#)

[Farm to Market Alliance \(FtMA\) >](#)

[The Role of Gender in Agent Banking >](#)

[BETA Savings Account in Nigeria >](#)

[The Persistent Power of Behavioral Change: Long-Run Impacts of Temporary Savings Subsidies for the Poor >](#)

**Key evidence relevant to this barrier:**

- “Women use informal financial services more than men—be it for saving or borrowing—suggesting that informal services continue to provide value unavailable from other channels. One of the reasons is that some of such products (for example, merry-go-rounds) are multi-purpose and flexible, as they serve as a saving mechanism, credit source and insurance mechanism.” [\(World Bank, 2018\)](#).
- “In a survey determining reasons for inactivity of mobile money accounts, the second most popular reason was no need to use it, at 27%. This suggests that DFS does not appear as a compelling alternative to cash or other forms of financial services. This could partly be due to relatively low awareness of the benefits of DFS among customers, and partly because mobile money accounts at the time could only be used for a limited range of payments in Côte d’Ivoire.” [\(Mastercard Foundation and IFC, 2018\)](#).
- Of 2000 female non-users of mobile financial services (MFS) surveyed, most non-users (43%) indicate that they do not find MFS useful, “pointing to a need for more diversified use cases and better communication of existing use cases.” This was also the case among the metro, rural, and non-municipal samples of women across Bangladesh [\(IFC, 2018\)](#).
- “The life cycle dictates that different products may be more valued at different points in time for young, prime-age, and elderly consumers: access to school loans, social protection and remittance transfers, payments services, health insurance, enterprise and stock insurance, life and disability insurance, low-cost savings instruments, etc.” [\(Gamage et al., 2017\)](#).

# Navigability of user interface of the digital product

For customers with lower digital literacy rates, using USSD or smartphone mobile money apps can be intimidating and unknown. If the digital interface is not designed with low digital literacy levels in mind, it may prevent usage due to complex language, transaction flows, etc. Ensuring that an app or digital interface is user-friendly and designed using best practice principles can help reduce this barrier, especially for novice DFS users.

## Why is this barrier important?

Evidence shows that comfort with using a digital product increases with use. The evidence does not show that women are not wanting to practice using it, but that using it more frequently helps overcome this issue. This barrier is closely linked to the *Digital literacy* and *Financial literacy* barriers.

## Connected Barriers



### *Prerequisites*

[Phone/SIM ownership >](#)



### *Social Norms*

All barriers in this category



### *Information Availability & Capability*

[Digital literacy >](#)

[Unclear or unavailable information about products /uses >](#)

[Unclear or difficult process to open an account >](#)



### *Consumer Protection*

[Fear of making mistakes >](#)

[Difficulty resolving complaints >](#)



### *Product & Service Quality*

[Lack of products that meet women's needs >](#)

## Relevant Exemplars

[Digitizing payroll for factory workers in Bangladesh >](#)

[Digitizing Rural Women's Savings Groups in Tanzania >](#)

[Digital Wallet Adoption for the Oral Segment in India >](#)

## Most Relevant for Segments

1 3 4

## Customer Journey Relevance



### Key evidence relevant to this barrier:

- Recent evidence from wage digitization in Bangladesh garment factories suggests that usage can encourage increased comfort with navigating financial technology ([Klapper et al., 2020](#)).
- In Tanzania and Northern Kenya, DFS usage is higher, and women are more comfortable with navigating DFS than in other contexts (mobile money in particular). Women are slowly gaining confidence as they transact because they have interacted with it more often. However, beginners still fear making mistakes and have lower confidence ([IDEO and BMGF, 2021](#)).
- “Analysis of transaction data—which is based on smartphones only—showed that just 13% of transactions originated from within a DFS app, while the rest were via USSD or SIM toolkit channels. This suggests that DFSPs still have not convinced people to use their app-based services due to lack of familiarity, poor user experience and fear of incurring data or battery recharge costs and taking up memory on the phone.” ([Caribou, 2021](#)).
- In a study of more than 50 users in Pakistan, GRID Impact found that “customers who independently use mobile money successfully are more likely to use it again. First time experience matters a great deal for future use.” ([GRID Impact, 2016](#)).
- According to Sonal Jaitly of MSC, “learning to use and adopt a digital interface is a complex journey for women. There are indeed design questions that the supply side must answer and integrate to facilitate this journey for women who struggle with predominantly English and complex interfaces.” (Dialogue Participant, [Finequity Dialogue, 2021](#)).
- “Navigation from hierarchical menus common in USSD are disliked by consumers. Users like to go directly to the thing they need done. Some refer to this as “shallow” navigation, allowing users to navigate directly to what they want. For example, The Karandaz Pakistan home screen provides clear transaction options with little need for the customer to search or dig. Menus should avoid “navigating” and focus on “doing”. The options should be presented as a limited list. Menus should not use technical jargon and instead offer direct links to action steps.” ([CGAP, 2016](#)).

**Key evidence relevant to this barrier:**

- The *Nigeria Consumer Protection in Digital Finance Survey (IPA, 2021*, as cited in *MSC, 2022*) found that 16% of digital finance customers cited "difficulty using shortcode menu or app" as a common challenge. This was the 4th most cited challenge among customers.
- Between July 2019 and February 2020, DreamSave provided smartphones, a monthly data plan, and a digital ledger application to 13 savings groups comprising 10-25 members each, 70% of whom were women in the Mara region of rural Tanzania. The introduction of a group smartphone increased members' curiosity about using this technology for other purposes. Members from both existing and new groups reported spending time outside of their savings groups learning how to navigate both the phone and the app, thus increasing digital literacy and capability (GenderTech, 2021 as cited in BMGF, internal document, 2021).

# Consumer Protection

This barrier category looks into the extent to which some of the risks associated with digital finance influence women's adoption and use of DFS. A lack of consumer protection policies and regulations might undermine the delivery of financial services to women and erode consumer trust in digital financial services. Here, we examine six barriers of consumer protection—**Online/Phone/Social media harassment; Fraud and scams; Fear of making mistakes; Difficulty resolving complaints; Potential (or actual) privacy violations; Over-charging; and Predatory lending**—to understand the extent to which they prevent women's DFS. Women are more likely than men to face harassment online that discourages them from using phones or adopting the internet – two important factors for DFS. Further, women tend to be more sensitive to fees than men and are also less likely to find workarounds to avoid them. Yet, they are more likely than men to be overcharged when using DFS.

Our team did not find evidence that the remaining four barriers within this category directly impact uptake and use. That is not to say these barriers are not important and influential in a customer's experience, but rather that the evidence base has not been developed.

- As more excluded segments of the population adopt DFS, they are likely to encounter frauds and scams. In addition, some may have the fear of making mistakes when using DFS.
- A lack of customer redress mechanisms is a major consumer protection issue. Women, for many reasons including lack of knowledge on how to file complaints, tend to have fewer redress issues.
- Like many customer segments, women value data privacy and may not be comfortable divulging personal information to DFS agents.
- Cases of predatory lending are increasing with the rise of digital credit, but there is no evidence that connects the barrier to low adoption or usage of DFS.

*The barriers in this category are:*

Potential (or actual) privacy violations >

Predatory lending >

Over-charging >

Fraud and scams >

Fear of making mistakes >

Online/Phone/Social media harassment >

Difficulty resolving complaints >



# Potential (or actual) privacy violations

This barrier refers to situations where customers' personal identifiable information is breached or exposed to third parties.

## Why is this barrier important?

Evidence shows that while both men and women value data privacy, it is not a factor that inhibits adoption and/or use of DFS or other financial services. For women, this barrier mirrors the challenges and threats they encounter in their physical lives, which can lead to negative experiences when using DFS. While privacy violations are an increasing issue across quickly developing markets, many countries (policy-makers, regulators, and providers) are implementing data protection frameworks to limit this barrier's negative impact on customer and the financial sector.

## Connected Barriers



*Information Availability & Capability*

[Digital literacy >](#)



*Product & Service Quality*

[Reliability and quality of in-person services >](#)



*Consumer Protection*

[Online/Phone/Social media harassment >](#)  
[Fraud and scams >](#)

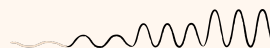
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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance



## Relevant Exemplars

[Estonia's E-identity program >](#)

[Aadhaar Project >](#)

[Regulations Drive Success of Digital Finance in Côte d'Ivoire >](#)

[The Role of Gender in Agent Banking >](#)

**Key evidence relevant to this barrier:**

- Data protection is also becoming a key factor shaping DFS access and use, especially by women ([CGAP, 2018](#)), and recent studies show that in both higher and lower-income countries, consumers value protection of their personal data ([UNCDF, 2021](#)).
- A major deterrent for women from DFS is the fact that they have to divulge personal information (such as mobile numbers) to agents, who might, in turn, misuse it. This lack of trust and awareness of risk exposure are pertinent issues that must be addressed to allow uninhibited use of financial services by women ([AFI, 2020](#)).
- A study found that a majority of low-income customers in Kenya were willing to pay a premium for greater protection of their personal data in digital loan services ([CGAP, 2020](#)).
- Interviews with low and middle-income men and women suggest women see data use violations far differently than men do, and that DFS providers should take this into account. Women's concerns parallel the challenges and threats they encounter in their physical lives, such as location tracking and sexual harassment ([CFI, 2021](#)).
- Research in India revealed that concerns about their data and security can lead women to curtail their use of different services and self-censor their behavior. Women might also lack knowledge of how to safeguard their personal data and rely on male family members and more educated people for advice on how to protect their photos, social media messages, etc. ([Dalberg, 2017](#)).

# Predatory lending

This barrier refers to predatory lending practices that use unfair or deceptive tactics to lead a borrower to take on a loan whose terms benefit the lender. It can include imposing abusive loan terms on borrowers.

## Why is this barrier important?

There is no available evidence that this barrier hinders access and use of financial services for women (or men). Predatory lending is prevalent especially in regions such as East Africa and South Asia where digital credit is growing. This barrier is common for both men and women but with the latter (and other traditionally excluded customer segments) experiencing it greater. While the barrier can lead to negative consequences among consumers (e.g. over-indebtedness) that can undo the positive outcomes of financial inclusion, there is no evidence that indicates it discourages usage of DFS.

## Connected Barriers



### *Prerequisites*

[Lack of credit history \(for credit products only\) >](#)



### *Cost*

[Non-transparent fee structures >](#)



### *Social Norms*

All barriers in this category



### *Information Availability & Capability*

[Financial literacy >](#)



### *Product & Service Quality*

[Reliability and quality of in-person services >](#)

[Lack of products that meet women's needs >](#)



### *Consumer Protection*

[Over-charging >](#)

[Fraud and scams >](#)

## Relevant Exemplars

N/A

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



### Key evidence relevant to this barrier:

- “The development of digital lending is already raising concerns about predatory lending practices in some countries, which could become even more prevalent in the ongoing COVID-19 crisis. For instance, fintech borrowers who are unable to make loan repayments due to sudden loss of income, might be subject to aggressive debt collection practices and high late payment/default fees.” ([IMF, 2020](#)).
- “Many customers take out loans without knowing details of the terms, and many end up paying late, incurring large fees. The lender takes advantage of this ignorance, charging late fees well above those disclosed in the terms and conditions; consequently, some borrowers are paying rates as high as 32.5%, over just 6 weeks (equivalent to an APR of 1,000%).” ([Brailovskaya et al, 2021](#)).
- “Low regulation of digital credit providers, poses a risk to consumer protection via predatory digital lenders, whilst also constraining the lending capabilities of more reputable digital lenders (e.g. by limiting their access to CRB data).” ([Dalberg, 2021](#)).
- “Due to the ease of applying and quick approval process for obtaining digital loans, combined with limited information about the digital loans, there is a risk of over-indebtedness. Additional challenges and risks include the rise of shadow banking, the lack of transparency in disclosures and lack of recourse mechanisms for SME borrowers, lack of credit information sharing and potential bias in the data used for credit risk assessment models that could lead to exclusion of specific type of SME borrowers.” ([GFPI, 2020](#)).
- The rising popularity of FinTech companies is raising concerns about the proliferation of predatory lending practices, such as higher interest rates, confusing loan terms, and non-transparent operations ([Palladino, 2019](#)).
- A study in Mexico shows that loan officers voluntarily provide little information to low-income clients; more importantly, clients are never offered the cheapest product that fits their needs ([World Bank, 2017](#)).
- “Many lenders send unsolicited invitations to consumers to apply for digital loans, which can trigger borrowing with limited need—

**Key evidence relevant to this barrier:**

—or intention and, in turn increases the risk of non-repayment and over-indebtedness. Once prospective borrower seeks a loan, they are often not told the total cost of the loan on their mobile phone handset and are not able to review other key terms and conditions easily." ([AFI, 2017](#)).

- "A significant proportion of digital credit consumers in Kenya and Tanzania said they did not fully understand the costs and fees associated with their loans." 27% in Tanzania and 19% in Kenya report experiencing at least one form of poor transparency (e.g., unexpected fees, unexpected withdrawal by lender, or not understanding costs or terms of loan). "Further, 20% of digital borrowers in Kenya and 9% in Tanzania reported that they had reduced food purchases to repay a loan." ([CGAP, 2018](#)).
- "Digital lenders in India also seem to be following a practice of 'debt-shaming.' While installing some loan apps, borrowers are forced to provide consent to loan apps to access contact lists, call history, SMS logs, Facebook location, phone gallery, and a host of other information. Digital consumer credit apps then use this data in case of delayed or missed payments to pressure borrowers into repayments." ([CGAP, 2021](#)).

# Over-charging

This barrier refers to over-charging practices that typically involve a situation where customers pay more for financial products and/or services than if they had the information and opportunities necessary to effectively shop for alternatives. Over-charging can be a result of hidden fees and transaction charges and also higher interest rates due to biased lending practices.

## Why is this barrier important?

Evidence shows that cost is an important consideration for women. Therefore, the actual or perceived over-charging can demotivate uptake and/or use of DFS among women. Evidence does seem to indicate that with increased digital literacy, customers' susceptibility to over-charging can be mitigated as customers rely less on agents and can self-direct transactions more.

## Connected Barriers



### *Cost*

[Cost of using DFS \(incl. transaction cost\) >](#)

[Non-transparent fee structures >](#)



### *Information Availability & Capability*

[Financial literacy >](#)

[Digital literacy >](#)



### *Consumer Protection*

[Predatory lending >](#)

[Fraud and scams >](#)



### *Product & Service Quality*

[Reliability and quality of in-person services >](#)

[Lack of products that meet women's needs >](#)

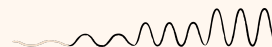
## Relevant Exemplars

[Digitizing payroll for factory workers in Bangladesh >](#)

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



**Key evidence relevant to this barrier:**

- Women are more sensitive to fees than men and are also less likely to find workarounds to avoid them. Thus, hidden and non-transparent fees discourage women from using DFS ([Findev, 2020](#)).
- IPA's *Nigeria Consumer Protection in Digital Finance Survey* (2021) found that 33% of digital finance customers cited "agent charged extra to complete a transaction" as a common challenge. This was the most cited challenge among customers ([MSC, 2022](#)).
- Female customers in Ghana are 41-55% more likely to be overcharged than male customers during over the counter (OTC) mobile money transactions ([Annan, 2020](#)).
- Analysis of transaction data in Kenya showed that "women pay on average US \$0.10 in fees per P2P transaction, compared to \$0.07 for their male counterparts, in part because men were more likely to make payments below the fee threshold of Ksh100 (US \$0.98)." It leads to a higher average of total fees paid per month, about US \$0.30 for women and US \$0.16 for men. Potential reasons are that "women are too pressed for time to spend the extra minutes breaking larger transactions into many smaller free ones, or they may be less aware of how to navigate fee thresholds (pointing to lower digital financial literacy than men)." ([Caribou, 2021](#)).
- A study in Bangladesh suggests that those users with less digital literacy who ask for help from mobile money agents are "44 percentage points more likely to be charged an informal fee than more digitally literate users." ([Klapper et al., 2020](#)).
- Recent consumer protection surveys of digital finance users show significant rate of over-charging in Kenya (3%), Uganda (32%), and Nigeria (42%) ([Blackmon, Mazer, and Warren, 2021](#)).

# Fraud and scams

This barrier refers to the range of potential negative or deceitful interactions customers may experience when using DFS, typically involving unauthorized access to personal information or tricking someone into willingly sharing their information. Financial customers—especially novice users—can and have fallen victim to fraud and scams committed by mobile money agents, for example, who request customers' pins or charge fake fees.

## Why is this barrier important?

While users experience fraud and scams, and while anecdotal evidence suggests frauds and scams are on the rise in some markets, evidence does not indicate that it directly or strongly inhibits access and use of financial services. The barrier is a side effect of the proliferation of technology, especially mobile phones and is also related to the fear of making mistakes, which can prevent women from utilizing the full range of DFS products and services available to them. We believe addressing other connected barriers will have a positive impact on this element of this barrier.

## Connected Barriers



### *Cost*

[Non-transparent fee structures >](#)



### *Information Availability & Capability*

[Financial literacy >](#)

[Unclear or unavailable info about products/ uses >](#)

[Digital literacy >](#)



### *Product & Service Quality*

[Reliability and quality of in-person services >](#)



### *Consumer Protection*

[Over-charging >](#)

[Fear or making mistakes >](#)

[Potential \(or actual\) privacy violations >](#)

[Predatory lending >](#)



### *Human Resources*

[Lack of female agents >](#)

## Relevant Exemplars

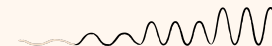
[Aadhaar Project >](#)

[BETA Savings Account in Nigeria >](#)

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance





**Key evidence relevant to this barrier:**

- DFS might cause data-protection related risks where “traditionally excluded customers may be more vulnerable to the compromise of data privacy, identity theft, and fraud because they lack alternatives”. These risks are likely to cause more harm to consumers who have “low levels of financial capability” ([World Bank, 2020](#)).
- “Advances in technology have resulted in the increased digitalisation of daily life, with most consumers leaving important digital footprints behind and often being unaware of the use and misuse made by big data collection platforms of their personal/financial information, including the risk of digital profiling. Customers’ lack of knowledge of financial products and digital technologies can also make them vulnerable to abuse and other digital risks such as online fraud, phishing, social engineering scams, account hacking attacks, data theft, etc.” ([OECD, 2017](#)).
- “The global boom in e-commerce sales has also been accompanied by a multiplication of fraud activities affecting merchants, including those MSMEs that recently moved their operations online. Consequently, the relentless rise in fraud and scam cases worldwide—  
—might severely undermine MSME trust in—and subsequent reliance on—digital financial products and services.” ([GFPI, 2021](#)).
- Women DFS users in Africa and South Asia are more vulnerable than men to cyber-fraud, particularly social engineering scams such as SMS and voice phishing ([Wechsler and Siwakoti, 2022](#)).
- In Kenya, respondents cited “fraud/attempted fraud” by mobile money providers (26.6% of respondents), mobile banking (9.9% of respondents), and mobile apps (4.7% of respondents) as challenges ([FSD Kenya, 2021](#)).
- “Among mobile money users reported to have faced the risk of losing money, 71.4 percent indicated sending money to the wrong number as the key challenge. Other challenges included; hoax phone calls or SMS, cybercrime, and frauds on bank accounts and mobile bank accounts. Among bank account users, fraud was the main risk identified, with 34.5 percent of respondents indicating that such crimes were internal fraud and 25.9 perpetrated by phone fraud.” ([FSD Kenya, 2021](#)).

**Key evidence relevant to this barrier:**

- The *Nigeria Consumer Protection in Digital Finance Survey (2021)* found that 26% of digital finance customers cited "phishing by phone or SMS" as a common challenge. This was the third most cited challenge, out of nine, among customers ([MSC, 2022](#)).
- "Fraud reduction benefited women farmers especially: Instances of repayment fraud fell 85 percent after digitization of repayments, and anecdotal reports indicate farmers (particularly female farmers) and staff feel safer because the risks of holding cash are reduced." ([BTCA, 2017](#)).
- An IFC study covering 2,000 mobile financial services users and 2,000 non-users across Bangladesh found that "when compared to male agents, female agents were better behaved, easier to approach, more trustworthy, better at maintaining confidentiality, and could keep data secure." ([IFC, 2018](#)).
- "Mobile agents are often very 'male' spaces in India. They can be intimidating for women to visit, and there is a risk of female customers' mobile numbers being recorded and misused either by the retailer or a bystander." ([GSMA, 2018](#)).
- "Many rural women in Indonesia still lack the confidence to try new DFS services. DFS unfamiliar and difficult to learn, and the fear of making mistakes or getting scammed prevents them from trying them." ([IDEO, 2021](#)).
- A mixed methods study with over 2000 women beneficiaries of the Program Keluarga Harapan (a government funded conditional cash transfer) in Indonesia found that "low awareness of account functions is compounded by beneficiaries' limited confidence in conducting even basic transactions by themselves during the quarterly disbursement... Many remain fearful of the ATM. The stakes are high; they fear if they make a mistake they will lose their benefits." ([WWB, 2020](#)).
- As part of a 2016 smartphone mobile money app design project in Pakistan, GRID Impact found that mobile app designers should design ways for users to have positive first-time exploration and use, testing out transaction processes and features without the danger of conducting a transaction that can't be reversed. This "exploration" opportunity was important for customers to build confidence and trust in the DFS system ([GRID Impact, 2016](#)).

# Fear of making mistakes

This barrier refers to the unease or nervousness, often felt by first time or novice users of DFS about transacting independently on a mobile device due to the fear of making a mistake (e.g., sending the wrong amount of money to a contact or sending the money to the wrong contact entirely), which can prevent them from exploring DFS uses independently.

## Why is this barrier important?

The fear of making mistakes can prevent women from utilizing the full range of DFS products and services available to them. It is closely related to barriers in the information availability & capability category, as having clear information and digital skills can build confidence in using DFS. It is also closely linked to frauds and scams, though while users experience fraud and scams and anecdotal evidence suggests frauds and scams are on the rise in some markets, evidence does not indicate that it directly or strongly inhibits access and use of financial services. Addressing the connected barriers may have a positive impact on the fear of making mistakes.

## Connected Barriers



### *Information Availability & Capability*

[Basic literacy and numeracy >](#)

[Digital literacy >](#)

[Unclear or unavailable info about products/ uses >](#)

[Lack of peers/ family/ network who use DFS >](#)

[Financial literacy >](#)



### *Product & Service Quality*

[Reliability and quality of in-person services >](#)

[Navigability of user interface of the digital product >](#)



### *Consumer Protection*

[Fraud and scams >](#)

[Difficulty resolving complaints >](#)

## Relevant Exemplars

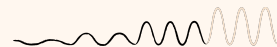
[Aadhaar Project >](#)

[BETA Savings Account in Nigeria >](#)

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



# Online/Phone/Social media harassment

This barrier refers to repeated behavior aimed at intimidating, scaring, angering, or shaming individuals through technology platforms.

## Why is this barrier important?

Even though women experience more instances of harassment such as unwanted calls and text messages and cyberbullying compared to men, there is not sufficient evidence to say, with confidence, that it negatively influences women's uptake and usage of financial services. There is some evidence that harassment can discourage from acquiring mobile devices necessary for accessing DFS, but compared to other barriers, the evidence here is limited.

## Connected Barriers



*Prerequisites*  
[Phone/SIM ownership >](#)



*Social Norms*  
All barriers in this category



*Information Availability & Capability*  
[Digital literacy >](#)



*Product & Service Quality*  
[Reliability and quality of in-person services >](#)



*Consumer Protection*  
[Potential \(or actual\) privacy violations >](#)

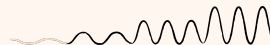
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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance



## Relevant Exemplars

N/A

**Key evidence relevant to this barrier:**

- “As previously excluded women become first-time users of digital technologies, they are particularly exposed to risks such as new forms of gender-based violence, abuse and harassment in digital contexts. This includes cyber crimes such as cyber-bullying, cyber blackmail and extortion, and other cyber security threats to data, reputation, and physical safety, to which women may be particularly exposed.” ([GFPI, 2020](#)).
- “Mobile phones have become conduits for threats that have always existed (e.g., bullying) as well as new ones (e.g., online identity theft).” They can lead to “unsolicited harassing phone calls and text messages, cyberbullying, online harassment, mobile theft and feeling unsafe or uncomfortable when purchasing or topping up devices.” ([GSMA, 2018](#)).
- “Safety concerns about mobile use fall into three broad categories: physical threats (e.g., harassment at points of sale and gender-based violence), voice and SMS harassment, and various online threats via mobile internet... In Bangladesh and Pakistan, among other countries, operators have noted a tendency for men to register on behalf of women, reportedly due to women’s fear of harassment.” ([Kabir et al., 2018-19](#)).
- Research in South Asia found that women are more likely to face harassment and other cyber threats when engaging with technology ([Sambasivan et al., 2019](#)).
- “Harassment of women may present a notable deterrent to their use of and familiarity with ICT and DFS, reducing financial, technical and cybersecurity knowledge and experience. Women in Bangladesh have shared concerns about personal and contact information shared during DFS onboarding and during agent assistance. Once onboarded, many also reported experiencing some form of sexual harassment when using DFS and receiving such phone calls from unknown men.” ([Wechsler and Siwakoti, 2022](#)).
- “Social norms influence how mobile-related safety concerns affect women’s mobile access and use. For example, in South Asia fears of the ‘negative side of the internet’ (e.g., fraud, misuse of personal images and exposure to explicit images) were found to contribute to women’s internet access being policed or denied by gatekeepers (typically male).” ([GSMA, 2018](#)).

**Key evidence relevant to this barrier:**

- “In Mexico, for instance, 40% of women who do not own a mobile reported concerns about strangers contacting them as a main barrier to ownership (versus 24% of men).” This concern about being contacted by strangers is also a barrier to mobile internet uptake. “For example, in Chile, 49% of women (versus 23% of men) who used a phone but had not used mobile internet, stated being concerned that they or their family may be exposed to harmful content online was a barrier to using mobile internet.” (GSMA, 2018).

# Difficulty resolving complaints

This barrier refers to the difficulty in handling complaints and the necessary redress mechanisms that are accessible, affordable, independent, fair, accountable, timely and efficient. The barrier arises when customers are unable or unaware of how to address complaints and issues related to their financial services, or when financial services providers and authorised agents do not have the necessary mechanisms in place.

## Why is this barrier important?

Although redress is a key building block for trust in financial services and an important aspect of consumer protection, the evidence does not suggest that this is a barrier for adoption and use among women (and men). It is important to note that, compared to other barriers, there is not as much evidence on this barrier that is sex disaggregated and specific to women. The few studies conducted on this barrier involve customers already using a form of DFS. A majority of the evidence focuses on potential ways regulators and providers in different markets can address the issue.

## Connected Barriers



### *Social Norms*

All barriers in this category



### *Information Availability & Capability*

[Digital literacy >](#)



### *Product & Service Quality*

[Reliability and quality of in-person services >](#)

[Reliability of payments system and network >](#)

[Navigability of user interface of the digital product >](#)



### *Consumer Protection*

[Fear of making mistakes >](#)

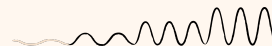
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## Most Relevant for Segments

1 2 3 4

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## Customer Journey Relevance



## Relevant Exemplars

[Estonia's E-identity program >](#)

[Regulations Drive Success of Digital Finance in Côte d'Ivoire >](#)

**Key evidence relevant to this barrier:**

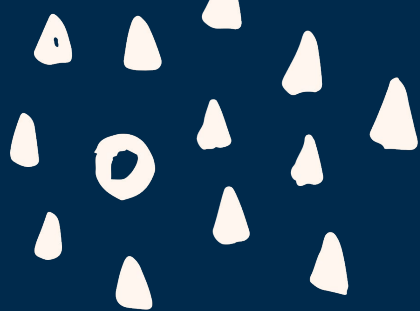
- “Product recourse builds trust in DFS by assuring women that addressing issues can be simple and quick. Knowing that you can get your money back if you make a mistake and can talk with a customer service representative if there is an issue are two of the most important components in establishing trust.” ([USAID, 2018](#)).
- “Weak performance in resolving complaints and queries are major issues in consumer protection.” ([OECD, 2017](#)).
- “With regard to formal channels of issue resolution, among respondents who face issues, only 12 percent used call centers, while 4 percent used bank branches. Most customers facing issues raise them with their agents. Among those who face issues, 44 percent choose not to complain. This can be attributed to 69 percent of respondents believing that issues they raised in the past were not resolved within a reasonable timeframe.” ([IFC, 2018](#)).
- Research conducted by IPA in Uganda found that women appeared to have less redress issues. “Women are 45% of MM subscribers, yet only 32% of complaints.” Women's complaints are similar with men's but are reported less. Findings were inconclusive as to whether the gender differences were due to usage-based risk or less awareness on how to file complaints ([IPA, 2020](#)).
- A case study in Ghana revealed the difference in the way men and women approach grievance redressal mechanism. “While men were more knowledgeable and confident when addressing their grievances through the designated channels (in case of a mobile money product), women seemed lagging on both fronts.” ([AFL, 2020](#)).



# Human Resources

The Human Resources barrier category examines how the absence of women in leadership positions across various actors in the DFS ecosystem—namely regulators, providers, and agents—influences the number of women customers. The underlying hypothesis of addressing the barriers in this category is that putting more women in leadership roles in the DFS ecosystem will equip actors to better serve and meet the needs of women customers, leading to increased adoption and usage of DFS by women.

*Lack of female agents* was found to be relevant for multiple segments of customers while *Lack of women in leadership at DFS providers and policy-makers* was not. Evidence revealed that the lack of female agents can hinder women from adopting and using DFS, especially in markets where social norms prohibit women from interacting with men. The research also found examples of markets where an increase in female agents led to more women DFS customers. However, the evidence related to the second barrier does not demonstrate as clear of a causal relationship; further industry research is needed to determine if there is a direct link between women customers and women in leadership at providers and regulators.



*The barriers in this category are:*

Lack of women in leadership at DFS providers and policy-makers >

Lack of female agents >

# Lack of women in leadership at DFS providers and policy makers

This barrier refers to how a lack of female leadership at DFS providers and policy-makers may pose a challenge, not only for advancing women's careers and equity, but also for serving female customers. The hypothesis is that improved representation of female leaders will lead to a more inclusive view of customers.

## Why is this barrier important?

There is little evidence on the link between women leadership in financial institutions and/or in policy-making and female customers' use of DFS. Evidence is focused on the dearth of women in leadership positions of financial institutions. Having women in leadership could potentially lead to more women friendly products and services, but there is no indication the barrier has impact on access and use. However, there is data to suggest that women-led financial institutions appear more likely to serve female customers. While this data is encouraging, we do not see a direct link to an increase in female customers' usage of financial services.

## Connected Barriers



### *Social Norms*

All barriers in this category



### *Product & Service Quality*

[Reliability and quality of in-person services >](#)

[Lack of products that meet women's needs >](#)

[Lack of products and services that create value >](#)



### *Prerequisites*

[Broader legal constraints >](#)



### *Human Resources*

[Lack of female agents >](#)

## Relevant Exemplars

[Women's Business Ownership Act >](#)

[Paving the Way for Women from the Inside Out \(TARA Program\) >](#)

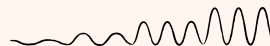
[Hiring women into senior leadership positions >](#)

[Female leadership, performance, and governance in microfinance institutions >](#)

## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



**Key evidence relevant to this barrier:**

- The OMFIF's [Gender Balance Index \(2019\)](#), which covers 173 countries, indicates that 35 central banks (or 20% of the total) have no women on their board and that only 14 central banks are headed by women. Additionally, Asia has the lowest regional central bank Gender Balance Index score at 9%.
- The impact of women's lack of representation in senior roles in finance—where women represented only 2% of bank CEO positions and less than 20% of board seats in the vast majority (80%) of cases—found that banks with boards with a higher percentage of women had a lower share of non-performing loans, higher capital buffers and stability ([IMF, 2018](#)).
- A study in India found that women make up only 22% of bank employees and 12% of microfinance institution employees. The resulting male-oriented culture makes it harder for these institutions to attract and serve female customers – many of whom might prefer to interact with female service providers ([McKinsey 2018](#)).
- The Fintech Benchmarks' sample of 20 fintechs further shows that female-led fintechs appear more likely to serve female clients. The median female-led fintech had a customer base that was 58% female, compared to 35% female for fintech that did not have women in leadership positions ([CFI, 2020](#)).

# Lack of female agents

This barrier refers to the lack of female agents in financial services. In contexts where cultural norms prohibit women and girls from interacting with men outside of their families, a lack of female agents may mean lower DFS usage for female customers. For these contexts, some researchers and providers believe that ensuring sufficient representation of female agents might help drive uptake and usage of DFS.

## Why is this barrier important?

Evidence shows that female agents can help women customers trust and adopt DFS, but female agents are greatly underrepresented in agent networks around the world. Increasing the number of female agents could help drive the volume of DFS transactions and encourage unbanked women to use DFS.

### Connected Barriers



#### *Accessibility*

[Mobility constraints \(e.g., legal curfews, norms\) >](#)



#### *Social Norms*

All barriers in this category



#### *Product & Service Quality*

[Reliability and quality of in-person services >](#)



#### *Human Resources*

[Lack of women in leadership at DFS providers and policy-makers >](#)



#### *Consumer Protection*

[Fraud and scams >](#)



#### *Prerequisites*

[Broader legal constraints >](#)

### Relevant Exemplars

[Mobile Financial Services for Female Entrepreneurs \(MFS\) Program >](#)

[The Role of Gender in Agent Banking >](#)

[Self-Help Group Members as Banking Agents for Deepening Financial Inclusion in India >](#)

### Most Relevant for Segments

1 2 3 4

### Customer Journey Relevance



### Key evidence relevant to this barrier:

- “Agents generally represent the primary and most tangible touchpoints for most DFS customers. They market and sell products and provide support and guidance on how to use products and services. However, in MENA, most e-payment agents are male, and women sometimes report feeling uncomfortable interacting with them due to prevailing norms regarding male-female interactions outside the home.” ([Marketlinks, 2020](#)).
- In a post written for CGAP, the authors state ([Imboden and Rashid, 2021](#)):

“In 2020, only 7% of the female population in Pakistan had a formal account. One of the reasons for this is that agent network’s potential to advance women’s financial inclusion remains largely inaccessible to women...Between 2017 and 2020, the financial inclusion gender gap has not narrowed but rather grown from 13 to 29 percentage points, according to the Financial Inclusion Insights survey... **Women avoid dealing with male agents due to social norms that restrict non-familial interaction and mobility. If more women were agents, this may not be such an issue. However, just 1 in 100 agents in Pakistan is a woman.** The same norms that—limit women’s use of agents, along with other norms such as restrictions in work outside the home and access to technology, make it difficult for women to become agents.”
- “There is a clear preference for female agents among women in Bangladesh, with 52% of respondents in a survey of mobile financial services (MFS) users and nonusers indicating in the affirmative. Respondents believe that female agents would behave better and provide superior service. However, despite this preference, most respondents (97%) visit male agents to conduct transactions. **Less than 1% of all MFS agents in Bangladesh are female. This highlights the need to proactively recruit female agents.**” ([IFC, 2018](#)).
- In a study on use of mobile money in Pakistan, GRID Impact found widespread distrust in technology that prevented “customers from independent use of mobile money services and persistent reliance on professional intermediaries, even when they are aware of the convenience of independent use.” In a market like Pakistan with strong social norms that make it difficult for female customers to interact with male agents, the need for female agents is even stronger given the reliance on intermediary support to transact ([GRID Impact, 2016](#)).
- “One example of a cultural constraint on usage of financial services among women is that many women may be more comfortable utilizing formal financial services when they can interact with a female point of contact, which is often not a readily available option.” ([Brookings, 2016](#)).

### Key evidence relevant to this barrier:

- “Several studies suggest that lack of access to same-sex mobile money agents prevent women from using mobile money services. For example, in Rwanda, research showed that female customers prefer interacting with female agents rather than with male agents. Also, results from GSMA’s 2018 Global Adoption Survey revealed a strong positive correlation between the percentage of female agents in a provider’s network and the proportion of female customers. These studies suggest that female agents emerge as powerful assets for reaching female customers.” ([GSMA, 2019](#)).
- Research on Bank Sakhis in India “shows that women agents have distinctive strengths that help them better serve their customers. Women customers find women agents easier to approach, trustworthy, and great at maintaining confidentiality.” **However, less than 10% of Bank Sakhis are women** ([Hindu Business Line, 2021](#)).
- The share of female agents in FINCA’s agent network in the DRC ranges from 7% to 34%. Despite the low accessibility of female agents, “female customers are on average 7.5 percentage points more likely to transact with a female agent than with a male agent.” Women with higher balances also prefer to “seek women agents when they are particularly concerned about disclosing financial information to men.” Women in this study have a **“robust—**  
**—preference to transact with female agents. Yet, since there are fewer female agents, they are less easily accessible. This implies that it is often less convenient (and sometimes more expensive) to visit a female agent to conduct business. Better representation of women agents could promote ease of access and comfort for women to use DFS.”** These findings were replicated with a smaller data set from a randomized controlled trial in Senegal and found the same trends ([World Bank, 2020](#)).
- Women across markets in Sub-Saharan Africa are “less likely to have an account at a formal financial institution. They constitute a mere 24% of formal SMEs owners in Sub-Saharan Africa. Meanwhile, providers’ agent selection criteria often include having a bank account, a registered business as well as a minimum capital requirement. For this reason, operating largely in the informal sector, with low start-up capital, little collateral, and limited access to finance makes it difficult for women to fit providers’ desired agent profile. As a result, few women-owned businesses are recruited as agents.” ([MSC, 2016](#)).
- “Mobile agents are often very ‘male’ spaces in India. They can be intimidating for women to visit, and there is a risk of female customers’ mobile numbers being recorded and misused either by the retailer or a bystander.” ([GSMA, 2018](#))

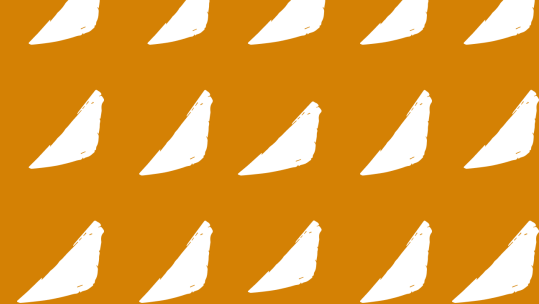
# Social Norms

This barrier category examines discriminatory norms and practices against women that influence their uptake and use of digital financial services (DFS). It is important to consider gendered social norms because they affect and shape the behaviors of customers (women and men), FSPs, and policy-makers.

This analysis looks into how four social norms affect women's adoption and use of DFS. We find that all the four barriers within this category are relevant to all customer segments:

- Gendered social norms lead the assumption that men are the default customers. As a result, products and services are designed, marketed, and delivered in ways that ignore women's livelihoods and consequently their needs and preferences.
- Limited bargaining power driven by the belief that men should be household heads and/or sole decision-makers hinders women's uptake and use of digital financial services.
- Women's agency over their finances is often questioned discouraging them from opening accounts and/or using the accounts they already have.
- Across the globe, women perform an unequal amount of unpaid work that limits their mobility and ability to earn income – both factors that prevent their access and use of DFS.

**Many of the other barriers we researched are rooted in, or influenced by social norms.** As a result, resolving this barrier category would go a long way in addressing the gender gap in DFS and WEE in general.



*The barriers in this category are:*

Ambivalence or antagonism towards women's financial independence >

Expectation that men control HH finances >

Women's disproportionate time burden >

Biases that center men as financial customers >

# Ambivalence or antagonism towards women's financial independence

This barrier refers to the beliefs that women should not and/or cannot be trusted to have agency over their finances, and, therefore, cannot make decisions on financial products and services. Antagonism towards women's financial independence may manifest in resentment, anger, or negative feelings towards women who seek financial independence.

## Why is this barrier important?

Evidence shows that women's financial independence is important to their adoption and use of financial services. Solutions that address other barriers without tackling financial independence are less likely to stick and might not lead to full WEE.

### Connected Barriers



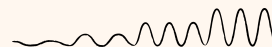
#### *All Other Barriers*

Social norms barriers influence and are connected to all other barriers

### Most Relevant for Segments

1 2 3 4

### Customer Journey Relevance



### Relevant Exemplars

[Mobile Money Cash Transfer Experiment in Niger >](#)

[National Policies for Women Empowerment: Saudi Arabia >](#)

[The Hindu Succession Act >](#)

[Women's Business Ownership Act >](#)

[Benazir Income Support Programme >](#)

[DigiFarm >](#)

[Farm to Market Alliance \(FtMA\) >](#)

[Business Women Connect Program >](#)

[Mobile Financial Services for Female Entrepreneurs \(MFS\) Program >](#)

[Estancias Infantiles para Apovar a Madres Trabajadoras Programme >](#)

[Self-Help Group Members as Banking Agents for Deepening Financial Inclusion in India >](#)

[Digital Sub-Wallets for Increased Financial Empowerment of Women >](#)



### Key evidence relevant to this barrier:

- “Research suggests that women may prefer savings accounts with controls (or security features) that make it more difficult for them to accede to their spouses’ demands on them and on their funds.” ([GPFI, 2014](#)).
- A qualitative study with over 90 men and women and a host of providers and NGOs revealed that many people believe that “women are not as financially savvy as men and should consult with their husbands and fathers rather than make financial decisions on their own... **When women have safe ways to incrementally demonstrate their financial savviness, it can help shift people away from the belief that there is an innate gender difference.**” Additionally, “part of the reason why young women have so few accounts is that they are more comfortable relying on their fathers’ accounts.” ([CGAP, 2019](#)).
- A study involving 93 men and women, mostly of Syrian Arab origin living in Turkey, found that the four social norms with the strongest influence on women’s behavior as consumers of financial services were: Women should not have financial privacy from their husbands, women should not have savings of their own, women should not have assets in their own name, and women should not own large businesses ([CGAP, Marketshare Associates, 2020](#)).
- A study in Uganda shows that a dual-pronged approach focused on women’s financial autonomy as well as intra-household relationships can succeed in increasing women’s participation in discussions about finances ([Eckhoff et al., 2019](#)).
- In a government workfare program reaching over 100 million people in India, women received benefits paid digitally into an account. This intervention led to increased employment compared to those paid in cash. The biggest impact was on women whose husbands had expressed the most opposition to their wives working ([Field et al., 2019](#)).
- Business for Social Responsibility (BSR) HERfinance program partnered with leading apparel companies—H&M, Marks & Spencer, Target, Li & Fung, Lindex, Debenhams, and Fast Retailing—to improve worker wellbeing through payroll digitization in Bangladesh. A key result was 69% decrease in women citing an inability to save because a family member controls their salary ([World Bank, 2020](#)).

**Key evidence relevant to this barrier:**

- In Niger, women who received digital welfare transfers reported increased access to land shared with their spouses, improved mobility, and more involvement in key agricultural activities ([Aker et al., 2016](#)).
- **The privacy afforded by mobile disbursement of unconditional cash transfers may increase intra-household decision-making.** Although quantitative evidence from a study in Niger does not indicate that women were able to hide their transfer amount from their husbands, focus group interviews revealed that transfer recipients were able to wait to discuss how the transfer would be used until reaching the privacy of their home, whereas cash recipients immediately handed over the transfer to the accompanying household member at the transfer distribution point ([Aker et al., 2016](#)).
- Research conducted by FSD Zambia in 2019-20 involving 352 married couples in 22 villages, and focus group discussions across five villages in Zambia found that neither husbands nor wives should save money in secret from their spouses, although, there is less tolerance for men to violate this norm than for women. Despite this relative tolerance, wives hiding savings from their husbands can lead to backlash, including wife-beating ([Barr et al., 2020](#)).
- In Uganda, women whose loans were automatically deposited into their mobile money accounts saw "a 15% increase in business profits and an 11% increase in the value of business capital" relative to women who received their loans in cash. These impacts were even larger for women who reported experiencing family pressure to share money. After ruling out alternative hypotheses, the author's evidence suggests that the mobile money account was used as a way to safely and privately store money ([Riley, 2019](#)).
- Women across the African continent do the majority of purchasing both offline and online (a 2019 study revealed that women are the primary purchasers 60% of the time (in 60% of South African households) – similar to households in the United States and the United Kingdom) yet they are less likely to have a bank account or have access to credit cards or mobile money. Most women must either depend on their partners for payment solutions or they opt for offline marketplaces or websites that use cash-on-delivery only ([ITC, 2020](#)).

**Key evidence relevant to this barrier:**

- In Kenya, cash transfers significantly reduce violence against women (~20% reduction in physical violence) but do not seem to change norms or beliefs about whether violence is acceptable ([Haushofer and Shapiro, 2016](#)). A follow-up qualitative study didn't find much evidence for norm change. In fact, the UCT appeared to enable respondents to better fulfill traditional gender roles, decreasing gender role stress. However, the alleviation of financial strain at the household level led to declines in intimate partner violence (IPV). In addition, respondents reported higher psychological wellbeing, such as increased optimism and happiness, at the individual and relationship levels. Finally, treatment couples reported improved communication and decision-making. The paper is not yet public (Haushofer & Shapiro, forthcoming).

# Expectation that men control HH finances

This barrier refers to social norms that expect men to be household heads and to control finances. Women are, therefore, taken out of the picture as potential customers of financial services as there is an expectation they will not control or manage financial accounts for their household. The result is a decrease in women's bargaining and decision-making.

## Why is this barrier important?

Because evidence shows that a lack of decision-making in the household reduces women's bargaining power and limits access and use of DFS. Incentives geared at addressing bargaining power and other power dynamics within the household promotes DFS adoption and use.

### Connected Barriers



#### *All Other Barriers*

Social norms barriers influence and are connected to all other barriers

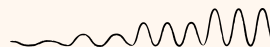
### Relevant Exemplars

[On Her Account: Can Strengthening Women's Financial Control Boost Female Labor Supply? >](#)

### Most Relevant for Segments

1 2 3 4

### Customer Journey Relevance



**Key evidence relevant to this barrier:**

- “Financial inclusion programs seem to work best when they address women’s bargaining power within a household. **If women have control over their own accounts—rather than sharing accounts with men in the household—they are able to invest their money how they see fit. Depositing salary or government transfers into a woman’s personal account can also increase her employment prospects.**” ([The New Humanitarian, 2018](#)).
- “A recent financial inclusion program in the Indian state of Rajasthan required women to be designated head of household when it came to receiving government benefits. This led to 66% of women who did not have a bank account prior to the program being signed up to a financial institution.” ([The New Humanitarian, 2018](#)).
- “Access to financial resources alone, without addressing household dynamics or gender norms, does not consistently improve women’s agency.” ([J-PAL, 2018](#)).
- “Women tend to have lower levels of decision-making power within the household regarding finances based on norms such as “women should not have financial privacy from their husband,” and “women should not have savings of their own.” ([CGAP, 2021](#)).
- Financial diaries of low-income women suggest that men are typically responsible for earning household income and managing large investments in assets such as land and housing. By contrast, women often handle daily expenses and risk management (which can include use of insurance products as well as less formal methods of scraping together emergency funds from disparate sources) and tend to make high-frequency and low-value transactions ([Zollman, 2016](#)).
- In 31 out of 189 countries, husbands are considered to be the legal head of households. This reduces women’s legal rights to sign documents, get a job, or open a bank account without the permission of their husband or male head of household ([World Bank, 2018](#)).

**Key evidence relevant to this barrier:**

- The need for improvement in attitudes towards girls and women's access to and control over household economics came up as a common barrier among women at different life stages (Kore Global, internal document, 2020).
- “Many women remain dependent upon their husbands. About one in three married women from developing countries have no control over household spending on major purchases. About one in ten are not consulted about the way their own earnings are spent.” ([IPA, 2017](#)).
- Research in Uganda found that “women who hide money from their husbands show increased economic outcomes, while those who don't hide money obtain negative impacts. This is consistent with women having little control over resources, and so hiding money is the only way to retain control.” ([Fiala, 2017](#)).

# Women's disproportionate time burden

This barrier refers to the social norms that lead to the heavy reliance on women as primary caretakers for their household leading to less time to engage in paid work or having to work additional hours in the home in addition to paid labor.

## Why is this barrier important?

There is evidence on the relationship between labor force participation and the uptake and use of financial services. Yet currently, in many parts of the world, both high-income and low-income markets, women still perform a significant amount of unpaid work that limits their mobility, access to DFS, and ability to generate income.

### Connected Barriers



#### *All Other Barriers*

Social norms barriers influence and are connected to all other barriers

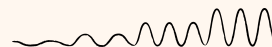
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### Most Relevant for Segments

1 2 3 4

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### Customer Journey Relevance



### Relevant Exemplars

[The Hindu Succession Act >](#)

[Less is More: Experimental Evidence on Heuristic-Based Business Training in Ecuador >](#)

[Estancias Infantiles para Apoyar a Madres Trabajadoras Programme >](#)

[On Her Account: Can Strengthening Women's Financial Control Boost Female Labor Supply? >](#)

**Key evidence relevant to this barrier:**

- **A study of 90 countries found that “women devote on average roughly three times more hours a day to unpaid care and domestic work than men”** ([UN, 2019](#)). Women in Asia and the Pacific spend from up to 2 to 11 times more time everyday in unpaid care work than men and work more hours when paid and unpaid care work are combined ([ILO, 2018](#)).
- The COVID-19 pandemic further increased women's share of unpaid work.
  - On average, women did three times more unpaid care work than men at home even before COVID-19. 34% of women reported that domestic work increased the most for women. Women typically shoulder a more significant burden of care ([World Bank, 2020](#)).
  - Previous crises (preceding COVID-19) have shown a heightened burden of care work for women when they lose their jobs, and a denial of job opportunities when jobs are scarce. As a result, concerns have been raised regarding the impact of the COVID-19 crisis on women's situation in the labour market along with the positive (albeit slow) changes in the distribution of unpaid care work ([ILO, 2020](#)).
- Unpaid work, such as familial responsibilities, creates time poverty:
  - In Bangladesh, 60% of women spend an average of 10 hours per day on work on unpaid labour compared to 10% of men, which “restricts women from opportunities of accessing formal financial institutions” ([UNCDF, 2018](#)).
  - “Normative expectations such as “women should take care of children” or “women should prioritize household responsibilities” mean that women spend significant amounts of their time on unpaid care responsibilities (e.g., cooking, cleaning, caring for children and elders).” ([CGAP, 2021](#)).
  - Women's domestic care responsibilities limit their ability to travel long distances for work ([Salon and Gulyani, 2010](#); [Dickerson, 2002](#); [Schwanen, 2007 cited in ILO, 2016](#)) and the burden of reduced mobility is borne disproportionately by women and children ([Hunt and Samman, 2016](#)).



### Key evidence relevant to this barrier:

- An RCT conducted in Ecuador illustrates how women's unpaid work can negatively impact their financial and business literacy.

"A sample of 2,408 microentrepreneurs were randomly assigned to three different groups with about 800 people per group: traditional training, heuristic training, and the control group (which did not receive any training). Women represented 68% of the sample... The promising results of the heuristic approach seem to be driven by women entrepreneurs, who were more likely than men to adopt best practices and consequently experienced larger gains in both sales (10%) and profits (10%) in comparison to women in the control group. Again, when looking only at women who actually completed the heuristic training, both average sales and profits increased by 17%. These findings may partly be explained by women doing worse at baseline, and then catching up with the men later. But the data also tells another story. **Women in the sample reported devoting significantly more time than men to household chores (3 hours vs. 1 hour) and to child and elder care (2.9 hours vs. 1.5 hours). Women also dedicated the same amount of time to—**

**—their businesses as men (12 hours per day and 6.7 days per week). This evidence suggests that women could be more cognitively taxed than their male counterparts,** making the simpler nature of the heuristic training better suited to their needs... The results show that simpler training, based on rules of thumb rather than excessive information, is a more effective method for microentrepreneurs, especially women, whose mental bandwidth is already overtaxed by the demands of work, home, and in many cases, the daily struggles of life in low-income communities." ([Arraiz, 2019](#)).

- Unpaid work limits participation in the digital economy:
  - From a survey of 378 women workers in the gig economy, 44% of women responded "sometimes" and 37% of women responded "yes" to the question, "Do your childcare responsibilities limit the paid work or business you can do?" ([ODI, 2019](#)).

**Key evidence relevant to this barrier:**

- ILO research on microtask workers (those who take up tasks or “gigs” through online platforms) found that 13% of women workers, compared to 5% of men workers, could “only work from home” due to care responsibilities. However, women performed fewer hours of paid work, while spending a similar amount of time doing unpaid work (looking for tasks, undertaking unpaid tests etc.) as men. Women also had less access to social insurance when compared to men in a setting where only about 3 out of 10 workers surveyed were covered by some form of social insurance (Berg et al., 2018; Behrendt et. al., 2019).
- There is link between labor force participation and financial inclusion gender gap:
  - Analysis by Mastercard Foundation found that a 10% decrease in the labor force participation gap is correlated to an increase in financial inclusion equity by as much as 6%. The research argues that “increasing and maintaining a woman’s involvement in the job market can directly help her sustain income and improve her chances of accessing financial tools.” (Mastercard Foundation, 2018).
  - Key results of regression analysis involving 174 countries found that “closing the employment gap by one percentage point is associated with a 0.18 percentage point lower financial inclusion gap” (Kabir and Lugman, 2018-19). This gap is smaller than the gap between access to mobile phones and financial inclusion – one percentage point lower mobile phone gap between men and women is associated with a 0.94 percentage point lower financial inclusion gap.
  - “Women’s sense of safety in the community also influences the financial inclusion gap... The legal discrimination indicator also plays a significant role: where women face higher levels of legal discrimination, the financial inclusion gap is likely to be greater.” (Kabir and Lugman, 2018-19).

# Biases that center men as financial customers

This barrier refers to the concept that men are the primary financial customers in a market, due to prevalence in the workforce, earning potential, and other socioeconomic factors. As such, financial service providers tend to design products and services with their experience in mind rather than the diverse and, often unique, needs of female customers.

## Why is this barrier important?

Because current research shows that a majority of FSPs are taking a gender-neutral approach in their service and product offerings which defaults to the preferences and needs of men. Cultural norms promote the idea that men control finances and are the default decision-makers in households, which results in products and services that are designed and marketed for men. Women who are often seen as homemakers with no financial independence or bargaining power are not typically considered as viable customers.

## Connected Barriers



### All Other Barriers

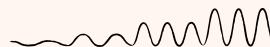
Social norms barriers influence and are connected to all other barriers



## Most Relevant for Segments

1 2 3 4

## Customer Journey Relevance



## Relevant Exemplars

[BETA Savings Account in Nigeria >](#)

[Digital Sub-Wallets for Increased Financial Empowerment of Women >](#)

[Empowering MSMEs: Creating a Better Banking Experience for Women-Led Micro, Small, and Medium Enterprises in Kenya >](#)

**Key evidence relevant to this barrier:**

- “Most FSPs assume that data on financial services is gender-neutral. However, **evidence shows that gender-neutral data on financial services defaults towards men’s needs and preferences...** Traditional credit scoring models can be biased against women, even when female applicants have the same characteristics as men in terms of income, business size, and more.” ([Data2X, 2020](#)).
- Product design and delivery do not typically factor in women’s livelihoods. In a majority of developing countries, many women are self-employed. Digitized wages can not easily reach them because they are not considered as formally employed. On the other hand, they will not receive government cash transfers if they do not meet the stipulated poverty threshold ([CGD, 2018](#)). Further, in Bangladesh loan officers analyze repayment capacity based on the household income and expenditure which is often owned and controlled by men ([CFI, 2021](#)).
- Women’s feelings that formal financial services are not made for them coupled with gender-blind marketing of products “can also result in women not accessing information on products” ([IFPRI, 2019](#)). This might mean women do not seek out how to apply for financial products or information on how to use them. **As a result women feel underserved and misunderstood reporting this as one of the main barriers to accessing financial services** ([Global Banking Alliance for Women, 2016](#)).
- “Bank opening hours can also be problematic for women as many banks are often only open when women are carrying out their household duties or economic activities.” ([IFC, 2016](#)).

# Connected Barriers Map by Barrier

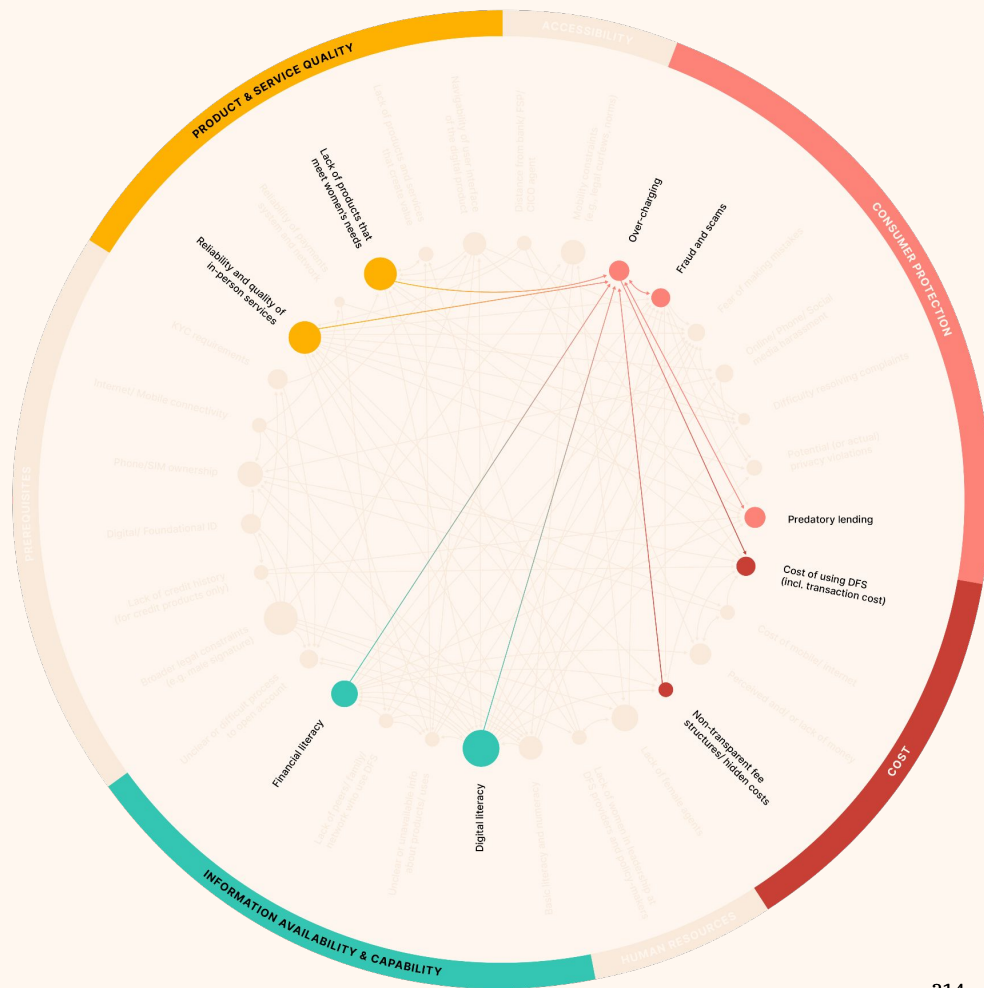




Connected Barriers

# Over-charging

See barrier details >



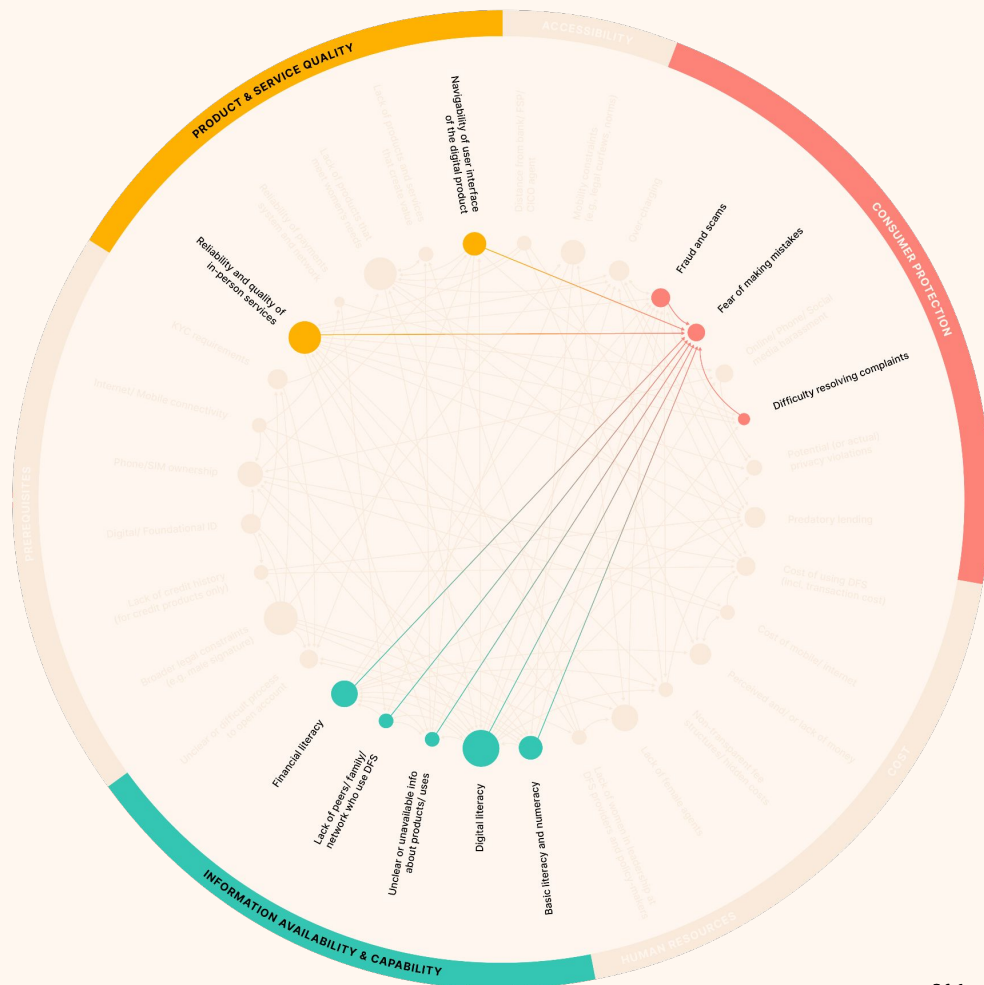




Connected Barriers

# Fear of making mistakes

See barrier details >

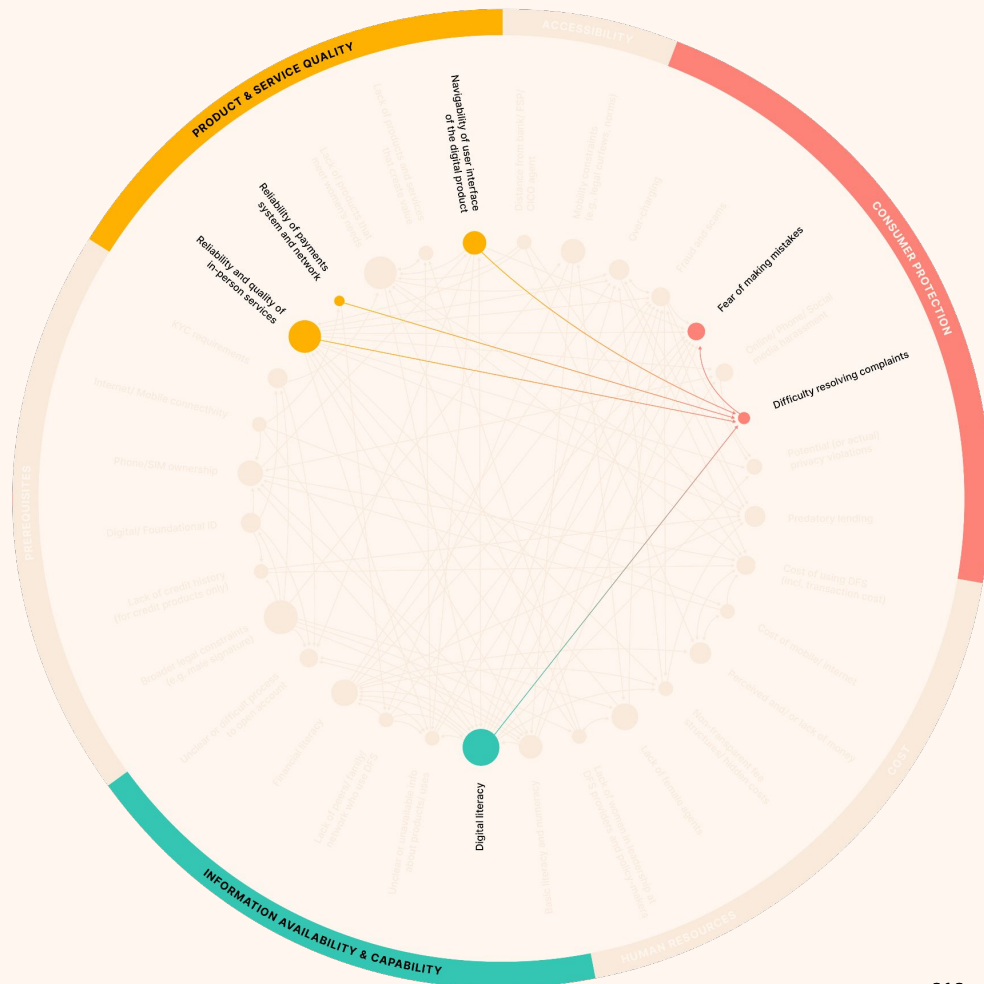




Connected Barriers

# Difficulty resolving complaints

See barrier details >





Connected Barriers

# Predatory lending

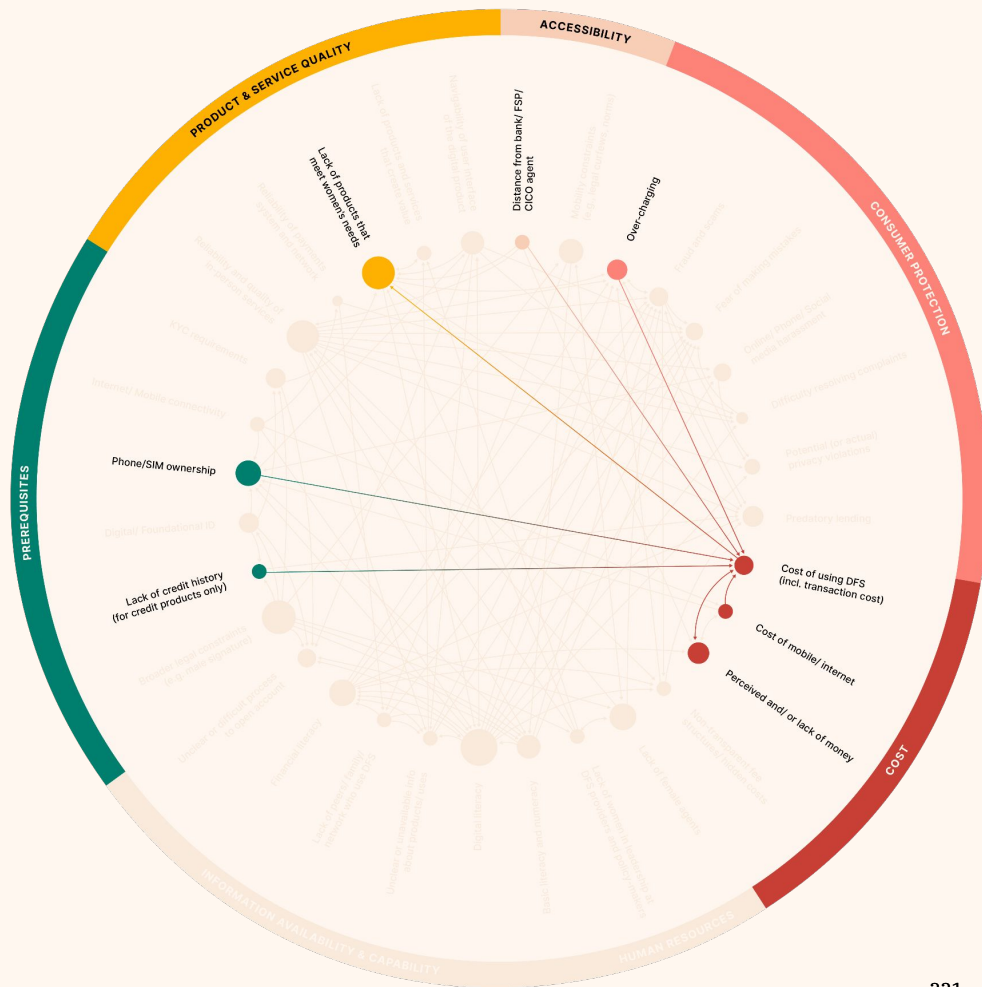
See barrier details >



Connected Barriers

# Cost of using DFS

See barrier details >





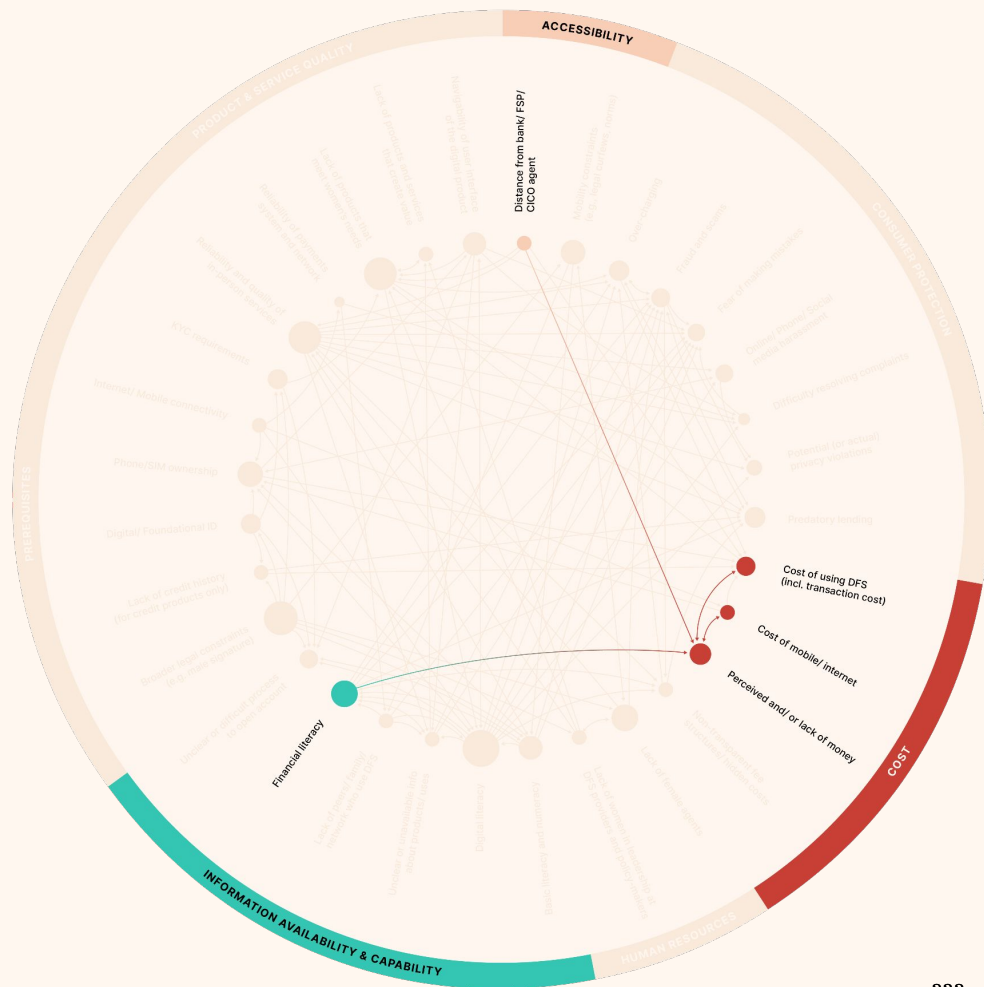




Connected Barriers

# Perceived and/or lack of money

See barrier details >

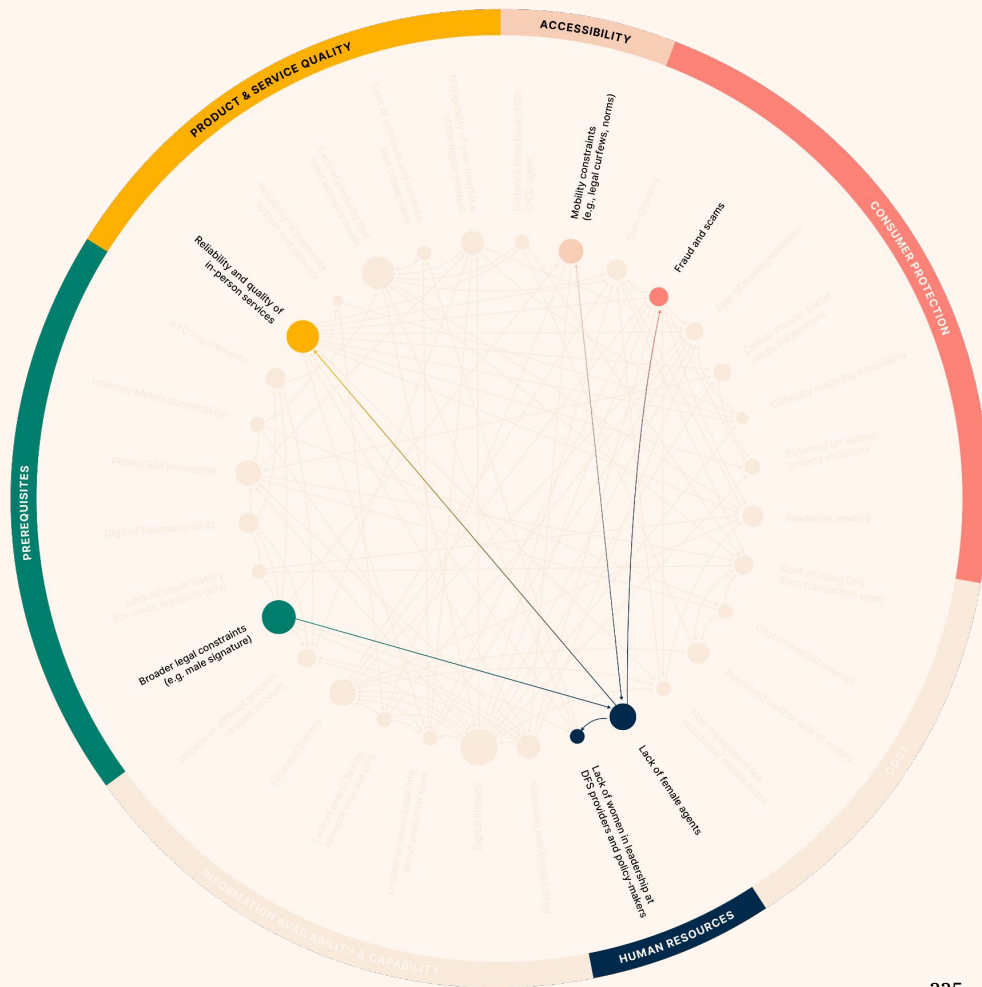




Connected Barriers

# Lack of female agents

See barrier details >







Connected Barriers

# Digital Literacy

See barrier details >







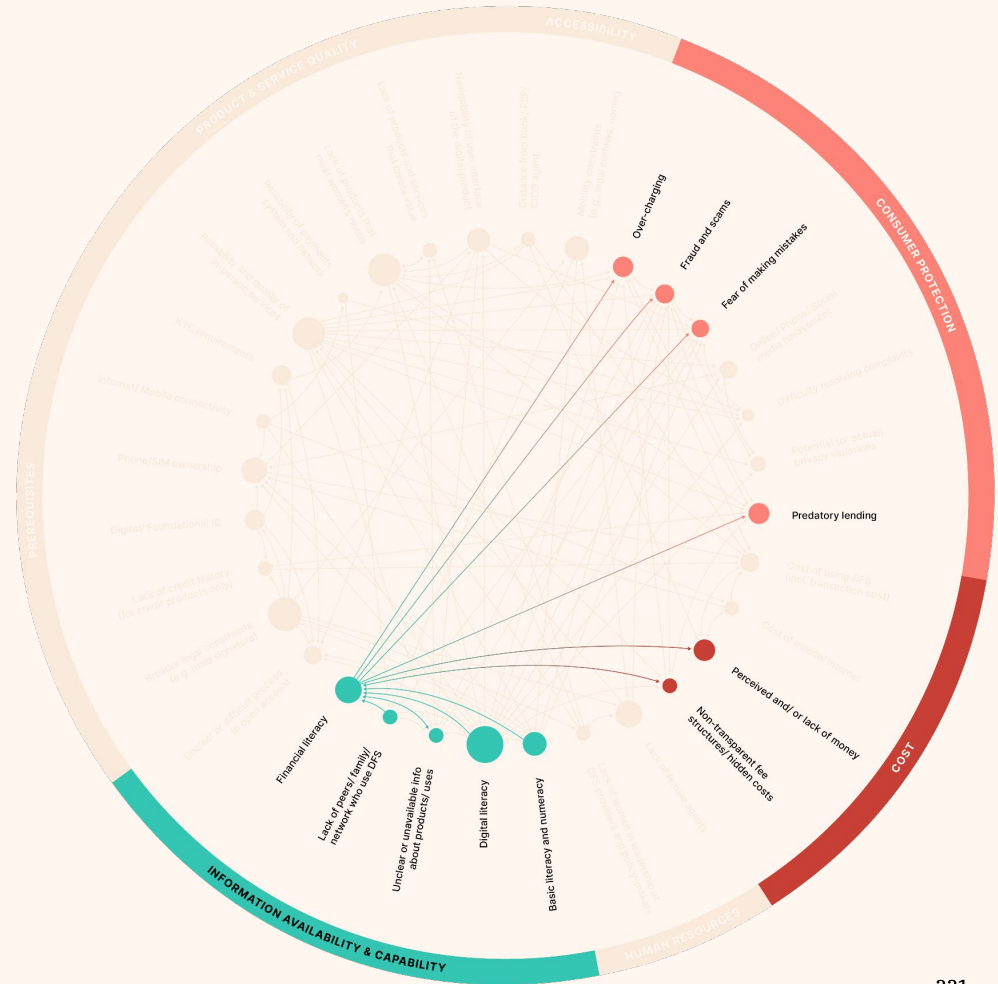




Connected Barriers

# Financial literacy

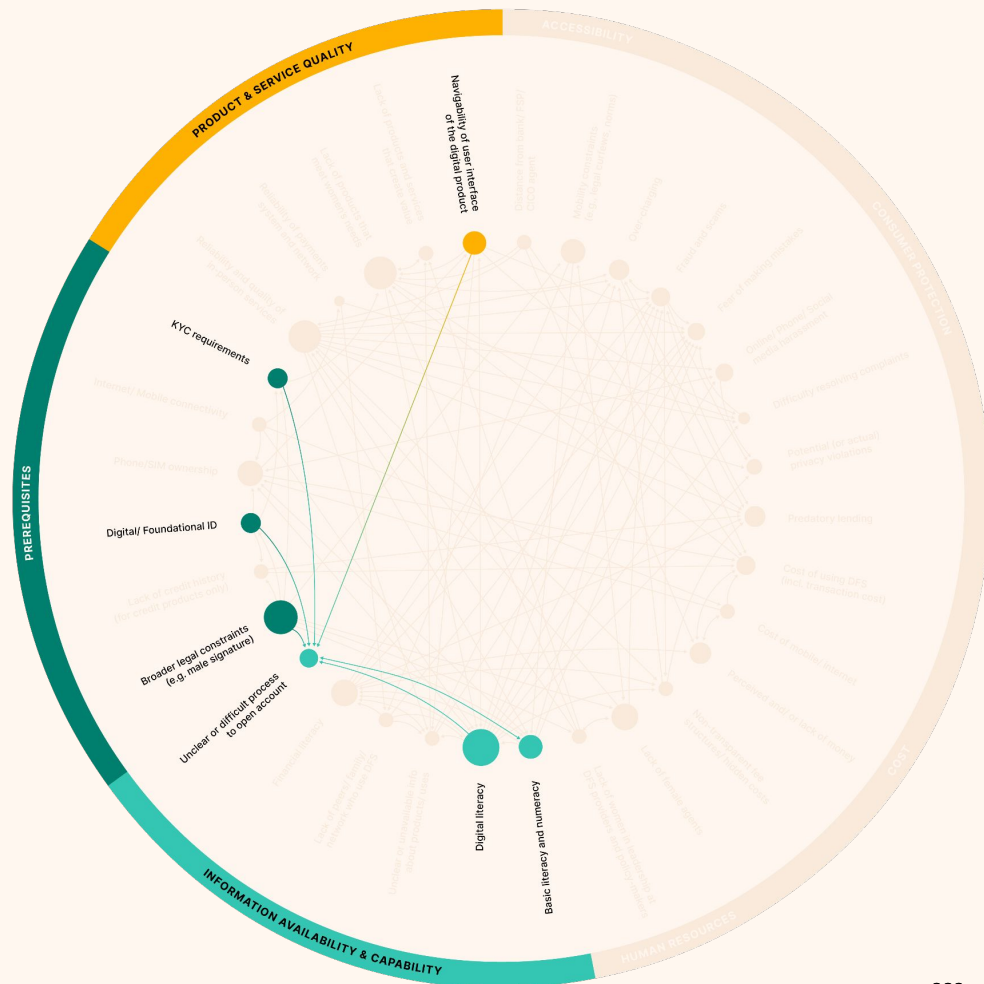
See barrier details >



Connected Barriers

# Unclear or difficult process to open account

See barrier details >





Connected Barriers

# Lack of credit history (for credit products only)

See barrier details >

















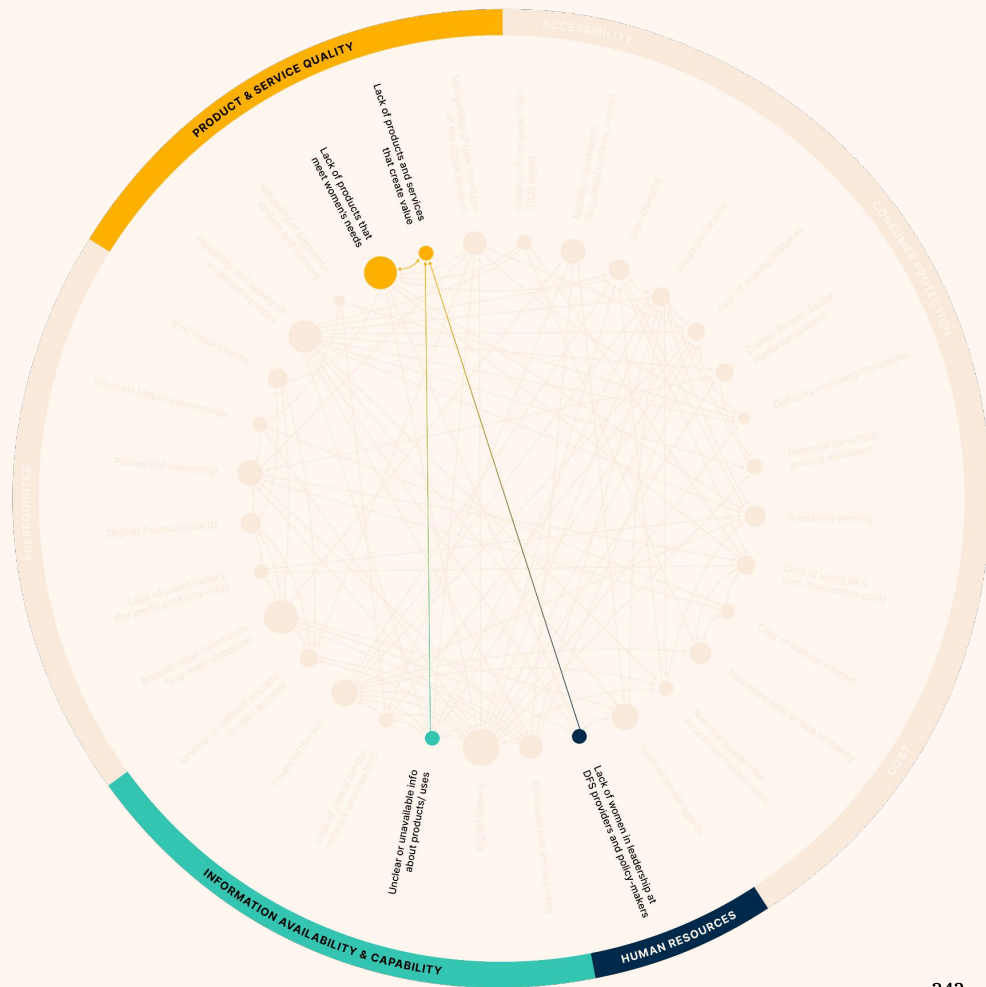




Connected Barriers

# Lack of products and services that create value

[See barrier details >](#)





*Annex*

# Exemplars

## Comprehensive List of Exemplars (1 of 2)

Mobile Money Cash Transfer Experiment in Niger >

Estonia's E-identity program >

National Policies for Women Empowerment: Saudi Arabia >

The Hindu Succession Act >

Women's Business Ownership Act >

Savings for Change Program >

Mobile Phone and Livelihoods of Women Project >

The Impact of Financial Incentives on Female Land Ownership in Tanzania >

Interest Rate Sensitivity Among Village Banking Clients in Mexico >

Paving the Way for Women from the Inside Out (TARA Program) >

Hiring Women into Senior Leadership Positions >

Female leadership, performance, and governance in microfinance institutions >

Comunidades Conectadas y Hogares Conectados >

Internet Para Todos >

Aligning Libraries and USAFs for Rural Public Access >

Benazir Income Support Programme >

Aadhaar Project >

Kenya's Rules on Mobile Money Price Transparency are Paying Off >

Regulations Drive Success of Digital Finance in Côte d'Ivoire >

DigiFarm >

Farm to Market Alliance (FtMA) >

Business Women Connect Program >

Reducing Tax Costs on Connectivity >

Mobile Financial Services for Female Entrepreneurs (MFS) Program >

Mobile-Linked Bank Accounts >

Mexico's Tiered KYC >

Women Citizenship Initiative >

The Role of Gender in Agent Banking >

Reducing Bank Overdraft Usage through Price Discounts and SMS Reminders >

Rwanda's Land Tenure Regularization Program >

Digitizing Payroll for Factory Workers in Bangladesh >

## Comprehensive List of Exemplars (2 of 2)

Digitizing Rural Women's Savings Groups in Tanzania >

The Role of Information on Retirement Planning >

Digital Wallet Adoption for the Oral Segment in India >

Less is More: Experimental Evidence on Heuristic-Based Business Training in Ecuador >

The Impact of Incentives and Transparency on Usage of New Financial Products in Indonesia >

Estancias Infantiles para Apoyar a Madres Trabajadoras Programme >

BETA Savings Account in Nigeria >

Self-Help Group Members as Banking Agents for Deepening Financial Inclusion in India >

Empirical Evidence from Uganda on the Impact of Mobile Money on Rural Households >

The Impact of a Formal Savings Intervention in Sri Lanka >

On Her Account: Can Strengthening Women's Financial Control Boost Female Labor Supply? >

Digital Sub-Wallets for Increased Financial Empowerment of Women >

Empowering MSMEs: Creating a Better Banking Experience for Women-Led Micro, Small, and Medium Enterprises in Kenya >

The Persistent Power of Behavioral Change: Long-Run Impacts of Temporary Savings Subsidies for the Poor >



# Detailed Information by Exemplar

# Mobile Money Cash Transfer Experiment in Niger

"In response to the 2009–10 drought and food crisis in Niger, an international non-governmental organization, Concern Worldwide, designed a short-term social protection program. The program sought to prevent increases in malnutrition and asset depletion by providing unconditional cash transfers to approximately 10,000 drought-affected households during the "hungry season" – the 5-month period before the harvest." (Aker et al., 2016).

"Targeted households in 96 villages in Niger received a monthly unconditional cash transfer, with women as the primary beneficiary. The first delivery channel provided the cash transfer manually, whereby cash was distributed in individual envelopes (the standard mechanism). The second delivery channel provided the cash transfer electronically, whereby program recipients received the transfer via the m-transfer system, as well as a m-transfer-enabled mobile phone. The third delivery mechanism was the same as the manual cash mechanism, but households also received a m-transfer-enabled mobile phone." (Aker et al., 2016).

Using a randomized experiment, the authors of this paper study the effects of using mobile money in delivering a cash transfer program in Niger.

## Quick facts

### Barriers addressed



#### Prerequisites

[Phone/SIM Ownership >](#)



#### Accessibility

[Distance from bank/FSP/CICO agent >](#)



#### Cost

[Perceived and/or lack of money >](#)



#### Social Norms

[Ambivalence or antagonism towards women's financial independence >](#)



#### Information Availability & Capability

[Digital literacy >](#)

[Unclear or difficult process to open an account >](#)

### Segment focus

1 2 3 4

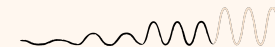
### Geography

Niger

### Sources

[Aker et al., 2016.](#)

### Customer Journey Relevance



### Key stakeholders involved

Concern Worldwide  
Zain (now Bhartia Airtel)  
96 villages in Niger

# Mobile Money Cash Transfer Experiment in Niger

## Key activities

1. Identification of 96 vulnerable villages for the cash transfer intervention via a village vulnerability exercise
2. Assign 32 villages to one of three interventions:
  - Cash group: manual cash disbursement through envelopes at a designated collection point
  - Zap group: receive cash transfer via mobile-money equipped phone
  - Mobile group: mirrored the cash disbursement group but also received a mobile money-enabled phone and training
3. Assessment of program through a regression analysis using four datasets including household surveys and village-level surveys

## Outcomes/results

- “Receiving a cash transfer via mobile money led to different uses of the transfer and increased household diet diversity.” (Aker et al., 2016).
- Participants in the Zap group had lower costs to get the transfer. “While cash and mobile program recipients traveled an average of approximately 4 kilometers (round-trip) from their home village to obtain the transfer, Zap program recipients traveled 2 kilometers to “cash out” at the nearest agent... Including the waiting time during the transfer, the average cost savings to Zap program recipients over the program period would have been about 20 hours.” (Aker et al., 2016).
- “Mobile phone usage was higher among the Zap and Mobile households as compared with the Cash households.” (Aker et al., 2016).
- “Overall, 53% of program recipients in the Cash villages reported that they were responsible for spending at least part of the cash transfer, and almost all recipients (99%) stated that they were consulted on how to spend the cash transfer.” (Aker et al., 2016).

# Mobile Money Cash Transfer Experiment in Niger

## Key enabling environment factors for the intervention

- Concern Worldwide encouraged/influenced the mobile phone operator to register m-money agents for the program.
- Although phone ownership was low before the program started, the population was relatively digitally literate. 61% of respondents had used a mobile phone in the few months.

## Key design elements and principles that led to successful outcomes

- The program was designed for women; the mobile phone, digital literacy training, and cash transfers were given to the woman of the household in all treatments.

## Potential for scale/replicability

The benefits of the program in the Niger context—a country with limited road infrastructure, low literacy rates, and high financial exclusion—suggest that the approach could thrive in less marginalized countries with more developed infrastructures, higher literacy rates, and lower rates of financial exclusion.

## Challenges encountered during the program

One challenge encountered during the program was related to the limited mobile money agent network in Niger. While program recipient households in this study “used mobile money to receive their cash transfer, they did not use it to receive remittances or to save – two important aspects of financial inclusion.” (Aker et al., 2016). The researchers hypothesize that this is potentially related to the limited mobile money agent network in the country.

## Mobile Money Cash Transfer Experiment in Niger

### Recommendations from the research

While no recommendations are explicitly given in the study, the authors suggest that future programs that take a similar approach should aim to execute the program in a country with a strong agent network. By operating with an established network, future programs can determine if participants take up other financial services use cases like receiving remittances or saving.

“

*The approach could thrive in less marginalized countries with more developed infrastructures, higher literacy rates, and lower rates of financial exclusion.*

# Estonia's E-identity Program

"After gaining independence from the Soviet Union in 1991, Estonia, one of the smallest nations in Europe, was left with little public infrastructure and virtually no commercial activity. It needed to build high-functioning government services for its residents and fledgling private sector." (Braverman and Kuntz, 2012).

The Government of Estonia began building a robust digital ID ecosystem using citizen information from the Population Register Act. "The Population Register Act issues a unique number to every Estonian resident, termed the Personal Identification Code ('PIC'). The PIC is issued to every individual at birth or any time after application to the processor of the Population Register ('PR'), but it does not function independently as a digital ID." (Digital ID, 2020). The government used this PIC as the input into a robust digital ID program.

## Quick facts

### Barriers addressed



#### Prerequisites

[Digital/Foundational ID >](#)  
[KYC requirements >](#)



#### Product & Service Quality

[Lack of products and services that create value >](#)



#### Consumer Protection

[Difficulty resolving complaints >](#)  
[Potential \(or actual\) privacy violations >](#)

### Segment focus

1 2 3 4

### Geography

Estonia

### Sources

[Braverman and Kuntz, 2012;](#)  
[Digital ID, 2020;](#) [Enterprise Estonia;](#) [Kotkas, 2022;](#)  
[Privacy International, 2022.](#)

### Customer Journey Relevance



### Key stakeholders involved

Government of Estonia  
Banks  
Telcos

# Estonia's E-identity program

## Key activities

"In 2003, the government launched the first version of its e-government portal ([www.eesti.ee](http://www.eesti.ee)), which offered secure online access to a handful of government services." (Braverman and Kuntz, 2012). "When a resident applies for the issue of a digital ID, the information they submit is checked against the Population Register, and they are issued a digital ID (or e-ID) that is made unique by the inclusion of the PIC." (Digital ID, 2020).

"The e-ID and the ecosystem around it are part of any citizen's daily transactions in the public and private sectors. People use their e-IDs to pay bills, vote online, sign contracts, shop, access their health information, and much more. Holders of a digital identity need not be Estonian residents anymore however. Since 2014, Estonia has also offered a program called e-Residency for anyone who wishes to become an e-resident of Estonia and access its diverse digital services regardless of citizenship or location." (Enterprise Estonia). "Private-sector entities, such as banks and telecommunications companies, also offer services through the state portal – and thus have an incentive to invest in maintaining the infrastructure backbone." (Braverman and Kuntz, 2012). The country also expanded the system to have a mobile ID service accessible via smartphones equipped with SIM cards.

## Key uses of the e-ID:

Cited from Enterprise Estonia:

- A legal travel ID for Estonian citizens travelling within the EU
- A national health insurance card
- A proof of identification when logging into bank accounts
- Digital signatures
- Internet voting
- To check medical records, submit tax claims, etc.
- To use the e-Prescription service

## Outcomes/results

"Today, Estonia's 1.3 million residents can use electronic ID cards to vote, pay taxes, and access more than 160 services online, from unemployment benefits to property registration... More than 99% of the country's people now have electronic ID cards, and every day approximately 10,000 users visit the portal." (Braverman and Kuntz, 2012). 70% of the population use an ID card regularly for public services. 94% of taxes are filed online through the portal.

# Estonia's E-identity program

"Estonia is, to date, the only nation where citizens can cast online ballots in every type of election from local to parliamentary. When Estonia held the world's first binding election using internet voting in 2005, a mere 2% of voters cast ballots online; in the 2011 parliamentary election, that number rose to nearly 25%." (Braverman and Kuntz, 2012).

## Key enabling environment factors for the intervention

The government invested heavily in creating this electronic ID program (upfront investment of €50 million to €100 million). "To attract users, the government offered a 30% discount on public transportation to people who registered with the e-ID system. The number of e-ID card holders increased 213% in 12 months." (Braverman and Kuntz, 2012). There are also legal frameworks in place governing the digital ID. First, the Population Register Act creates the input for the ID (a personal identification code), and the Identity Documents Act governs the issue of the digital ID, or the e-ID, incorporating this PIC.

## Key design elements and principles that led to successful outcomes

- Open platform: Any institution can use the infrastructure and it works as open source.
- Transparency: Citizens have the right to see their personal information and how it is used by the government by checking log files. "Every Estonian can review the full history of inquiries about him or her, including police-, banking-, and health-related inquiries. If a user does not recognize or approve of an inquiry, they can file a complaint with Estonia's Information Services Agency." (Braverman and Kuntz, 2012).
- Efficient: Data is collected only once by an institution, which reduces bureaucracy and redundancy.
- Multiple use cases: Citizens can use the ID to vote, pay taxes, access unemployment benefits, register property etc.



# Estonia's E-identity program

## Potential for scale/replicability

This program operates on a national scale and has greatly increased the number of services available on the e-portal. "A number of national governments—including those of Belgium, Germany, Italy, and the Netherlands, as well as a handful of Middle Eastern countries—have launched or are planning to launch e-ID card programs. None of them are as far along the path as Estonia. Other countries expanding their programs can take inspiration from how it overcame some foundational challenges." (Braverman and Kuntz, 2012).

## Challenges encountered during the program

Estonia experienced foundational challenges when launching this ambitious program but was able to overcome them. For example, when the platform first launched, the services provided were extremely limited, so demand was not initially high. To build a user base quickly, the government provided incentives through subsidized transportation, which helped attract the initial user base. The government then scaled up the amount of services available once it had built an established user base.

## Recommendations from the research

Estonia's program offers several lessons learned and recommendations for those wishing to build a digital ID ecosystem:

1. Build a user base quickly: Estonia succeeded in this by offering subsidized public transportation in exchange for registering in the system.
2. "Address privacy concerns: Estonia's residents can opt out of making their data accessible." (Braverman and Kuntz, 2012).
3. Scale up the amount of use cases of the e-ID.

# National Policies for Women Empowerment: Saudi Arabia

“Under Saudi Arabia’s male guardianship system, every woman must have a male guardian who has the authority to make a range of critical decisions on her behalf. Traditionally, a woman’s male guardian from birth is her father and once she is married her guardian becomes her husband. In other cases, such as when a woman’s father or husband has died, a brother or even her son may serve as her male guardian. All women in Saudi Arabia are subject to this practice. Until August 2019, women in Saudi Arabia were universally treated as legal minors, requiring a male relative’s permission for a range of critical decisions, such as working, obtaining family records, and applying for a passport. Women who traveled abroad were required to be accompanied by a male relative, including if they were attending school. Women also could not serve as legal guardians of their own children.” (Equality Now).

From 2018 to 2019, the Saudi government issued multiple laws and policies to catalyze a positive impact on women participation in the labor market. Several studies have assessed the short-term impact of each policy to understand the effect of policy on women’s participation in labor force. The assessments are “based on the adoption of well-known indicators approved by the International Labor Organization (ILO) and the official entities in Saudi Arabia, such as the Ministry of Labor and the General Authority for Statistics” (Alotaibi, 2020).

## Quick facts

### Barriers addressed



#### Prerequisites

[Broader legal constraints >](#)  
[Digital/Foundational ID >](#)



#### Accessibility

[Mobility constraints \(e.g., legal curfews, norms\) >](#)



#### Social Norms

[Ambivalence or antagonism towards women’s financial independence >](#)

### Segment focus

1 2 3 4

### Customer Journey Relevance



### Geography

Saudi Arabia

### Key stakeholders involved

Government of Saudi Arabia  
Ministry of Interior’s Civil Affairs

### Sources

[Al Arabiya, 2021](#); [Dawn, 2021](#);  
[Equality Now](#); [Alotaibi, 2020](#).

# National Policies for Women Empowerment: Saudi Arabia

## Key activities

1. In 2018, the restriction on women's right to drive was lifted.
2. In August 2019, Saudi Arabia changed the laws to allow “women above the age of 21 to apply for passports and travel freely without the permission of a male guardian. Other changes to the law have also allowed women to register a marriage, divorce, or their child’s birth and to be issued official family documents.” (Al Alarabiya, 2021).
3. Additionally in August 2019, the Kingdom passed reforms to protect women from employment discrimination and to make medical decisions related to birth and pregnancy about their own body.
4. As of 2021, “Saudi women can now live on their own without requiring the consent of their father or male guardian after a new legal amendment by the Kingdom.” (Dawn, 2021).

## Outcomes/results

Repealing these laws has had positive impacts on Saudi women's empowerment. “The female labor force participation rate was 15.1% in 2010. A major shift occurred in 2016 when it reached 18%, and this transformation continued when it reached 20.5% in 2019. This slight increase that happened in women’s participation in labor market is due to granting women the right to drive in 2018. In the same year, and according to the statistics of Saudi Traffic Department there were 125,000 Saudi women who applied to extract driving licenses. Furthermore, the Saudi government issued a policy that allows women to travel without male consent, which enabled women to gain flexibility in terms of transport to gain a wider range of choices regarding job vacancies.” (Alotaibi, 2020).

The gender gap on the rate of economic participation between men and women “reached its highest peak in 2013 at 48.3%, but it started to decrease in favor of women reaching 46.8% in 2015, and then it reached 42.8% in 2019.” (Alotaibi, 2020). From 2015 to 2019, the percentage of increase in women's economic participation was 5% due to the new laws and regulations passed.

# National Policies for Women Empowerment: Saudi Arabia

## Key enabling environment factors for the intervention

At the G20 meeting of 2019, Saudi Arabia took an interest in the Women Empowerment Initiative that targets lessening the wage gaps among men and women. The government also created the Saudi Vision 2030, which seeks to raise the participation of women into the workforce to 30% by 2030.

## Key design elements and principles that led to successful outcomes

The main element to Saudi Arabia's interest in women's empowerment is repealing discriminatory laws. This involved removing discriminatory language. For example, paragraph (b) from Article 169 of the "Law of Procedure before Sharia Courts" once stated that "an adult single, divorced, or widowed woman would be handed over to her male guardian." (Dawn, 2021).

The language was replaced with an amendment which states: "An adult woman has the right to choose where to live." (Dawn, 2021). This new language explicitly centers women and ensures that women can choose where to live.

## Potential for scale/replicability

These laws apply on a nationwide basis and affect all women in Saudi Arabia. Governments with similar legal restrictions in place can follow similar steps by setting women's economic empowerment targets accompanied by legal action.

## Challenges encountered during the program

"Women in Saudi Arabia still require the permission of a male relative to:

- Leave prison
- Marry, or Divorce
- Or to exit a domestic abuse shelter

Women also still cannot pass on citizenship to their children, and male guardians are still able to file cases of disobedience against a woman, which includes absence from the home. Moreover, filial disobedience is still recognized as a crime." (Equality Now).

## National Policies for Women Empowerment: Saudi Arabia

### Recommendations from the research

Researchers recommend studying the impacts of repealing these discriminatory laws more long term to see how women's economic empowerment changes over time. Additionally, more work is needed (as identified by the challenges listed above) to make men and women fully equal under the law.

“

*Repealing these laws has had positive impacts on Saudi women's empowerment. The female labor force participation rate was around 15.1% in 2010. A major shift occurred in 2016 when it reached 18%, and this transformation continued when it reached 20.5% in 2019.*

# The Hindu Succession Act

“Despite the Constitution mandating gender equality, inheritance in India was traditionally strongly biased against women. The 1956 Hindu Succession Act (HSA) distinguishes individual property from joint ancestral assets which include land. The fact that rights to the latter are limited to a group—the coparcenary—that comprises only males severely limits females’ ability to inherit joint property. To eliminate the gender inequality inherent in this practice, a number of states reformed this Act by passing substantively similar amendments—referred as Hindu Succession Act Amendments or HSAA—starting from 1987.” A World Bank research team used survey data from three Indian states, one of which amended inheritance legislation in 1994, to assess first- and second-generation effects of inheritance reform using a triple-difference strategy (World Bank, 2014).

## Quick facts

### Barriers addressed



#### Prerequisites

[Broader legal constraints >](#)  
[Lack of credit history >](#)



#### Social Norms

[Ambivalence or antagonism towards women's financial independence >](#)  
[Women's disproportionate time burden >](#)

### Segment focus

1 2 3 4

### Geography

[India >](#)

### Sources

[World Bank, 2014](#)

### Customer Journey Relevance



### Key stakeholders involved

World Bank  
 India's National Council for Applied  
 Economic Research  
 Government of India

# The Hindu Succession Act

## Key activities

In 1994, two states in India reformed the Hindu Succession Act to allow women and men the same ability to inherit joint family property. This reform required that coparceners' daughters will attain coparcenary rights by birth, thereby making their status equal to that of sons. Though the HSAA was adopted by a select set of states initially, it was adopted at a national level in 2005.

To analyze effects of inheritance reform, the World Bank used "data from a 2011 follow-up to the 2007 Rural Economic and Demographic Survey (REDS) conducted by India's National Council for Applied Economic Research (NCAER) in Maharashtra, Uttar Pradesh and Orissa. The household survey collected information on three generations – the head and spouse at the time of the survey (generation II), their parents (generation I), and their children (generation III). The total sample comprises 1,209 households with 3,193 generation III descendants."

## Outcomes/results

When examining daughters whose mothers had been affected by HSAA, the team found that they spent 7% more time on study than those in households where mothers had not been affected by the HSAA. This suggests a strong second-generation effect of the reform. These results suggest that "the HSAA empowered mothers beyond the assets transferred to them, thereby helping to increase the amount of education consumed by girls versus boys, in line with recent emphasis on the far-reaching impacts of female empowerment."

For the 15–18 year old age group, compared to male siblings, "the HSAA is estimated to have led adolescent females to increase the amount of time spent on productive work by more than 30%, mainly by reducing time spent on schooling and household chores."

## Key enabling environment factors for the intervention

- The Indian Constitution mandated gender equality.
- Both state governments and national governments took interest in reforming the discriminatory Act.

# The Hindu Succession Act

## **Potential for scale/replicability**

Though the reforms were initially adopted by several states, the entire country adopted the amendments in 2005. “Evidence on long-term effects of inheritance law reform beyond the immediate beneficiaries is relevant for India and beyond. At a global level, understanding of longer-term impacts of such a measure will help appreciate the potential and limitations of inheritance reform, compared to other measures and policies, as a means to promote gender equity.”

## **Recommendations from the research**

The research team suggests to assess the extent to which the results found in this study carry over to other settings, including in North Indian states. The team also recommends for India more precisely gauge HSAA-induced benefits, which will “affect the social desirability of measures to more actively disseminate this piece of legislation or support and monitor its implementation.”



# Women's Business Ownership Act

Up until 1988, a woman in the United States who wanted to get a business bank loan could not do it without the signature of a male relative. This restriction remained in place until the Women's Business Ownership Act (H.R. 5050) was passed in 1988 with the help of the National Association Women Business Owners (NAWBO).

The Act was created to address “the needs of women in business by giving women entrepreneurs recognition, resources, and by eliminating discriminatory lending practices by banks that favored male business owners.” (NAWBO, 2018). The bill was signed into law by President Ronald Reagan.

## Quick facts

### Barriers addressed



#### Prerequisites

[Broader legal constraints >](#)  
[Lack of credit history \(for credit products only\) >](#)



#### Social Norms

[Ambivalence or antagonism towards women's financial independence >](#)



#### Human Resources

[Lack of women in leadership at DFS providers and policy-makers >](#)

### Segment focus

1 2 3 4

### Customer Journey Relevance



### Geography

USA

### Key stakeholders involved

U.S. Government  
 National Association Women Business Owners (NAWBO)  
 Small Business Association  
 National Women's Business Council (NWBC)

### Sources

[Congress.gov, 1988;](#)  
[NAWBO, 2018;](#) [Tadeo, 2018;](#)  
[Hathi Trust; Taylor, 2022](#)

# Women's Business Ownership Act

## Key activities

Many significant changes were included in H.R. 5050:

- H.R. 5050 established the Women's Business Center program, which provides low-cost counseling and training and focus on women who want to start, grow, and expand their small business.
- "H.R. 5050 required that the U.S. Census Bureau include C corporations when presenting data on women-owned firms. Prior to the inclusion of this data, statistics for women business owners were not accurate and diminished the vital contribution women were making in the business world." (NAWBO, 2018).
- "H.R. 5050 eliminated all individual state laws that required women to have a male relative sign a business loan." (NAWBO, 2018).
- "H.R. 5050 required the creation of the National Women's Business Council (NWBC). This bi-partisan council consists of women entrepreneurs and women's organizations that advise the president, Congress, and the Small Business Association (SBA) on policy and program recommendations." (NAWBO, 2018).

## Outcomes/results

"The number of women-owned businesses increased by 31 times in the last four decades—rising from 402,000 businesses in 1972 to 12.3 million businesses, or 40% of all firms—in 2018 according to an American Express report on the state of women-owned businesses. Revenue from women-owned enterprises stood at \$1.8 trillion in 2018." (Taddeo, 2018).

Since 1989, the number of Women's Business Centers has grown from four to over 100. Additionally, the implementation of *H.R. 5050: The Women Business Owner's Act* has "helped women to start and grow privately-held businesses at nearly twice the rate of all other businesses." (NAWBO, 2018).

# Women's Business Ownership Act

## Key enabling environment factors for the intervention

A Congressional Committee identified four barriers to women owned businesses that they wished to address through this act (Hathi Trust):

- "The need for technical training to maximize growth potential of women owned business"
- "Inequality of access to commercial credit"
- "Virtual exclusion of women owned business from government procurement activities"
- "Inadequacy of information and data relative to women owned business"

These findings were included in the Committee Report filed on June 28, 1988. These findings helped formulate the basis for public policies and programs to benefit women entrepreneurs.

The National Association of Women Business Owners (NAWBO) was also a main supporter of this bill, arguing that stereotypes of women created barriers to having more women business owners.

## Key design elements and principles that led to successful outcomes

The law was grounded in research done by the congressional committee to best inform the elements included.

The Act addressed inequalities in the law and also provided capacity-building elements through the Women's business center program. These centers were intentionally implemented for low-income women and women of color.

## Potential for scale/replicability

This Act is applicable to all 50 states. However, the number of Women's Business Centers can continue to expand to serve women in marginalized communities. This rests on Congress's decision to dedicate money to building women's capabilities (see challenges section).

# Women's Business Ownership Act

## Challenges encountered during the program

Congress voted to cut funding for women's development centers, which has slowed down the establishment of more Women's Business Centers across the country.

## Recommendations from the research

Countries looking to adopt a similar act can learn from the U.S. experience by:

1. Implementing the law at a national level
2. Incorporating capacity-building into the law
3. Targeting historically marginalized groups, such as low-income women and women of color

“

*The Act addressed inequalities in the law and also provided capacity-building elements through the Women's business center program. These centers were intentionally implemented for low-income women and women of color.*

# Savings for Change Program

"The Saving for Change (SfC) program began in Mali in 2005 to assist women in organizing themselves into simple savings and credit groups. The program is meant to address the needs of those who are not reached by formal financial service providers or traditional ROSCAs. As part of the program, about 20 women voluntarily form a group that elects officers, establishes rules, and meets weekly to collect savings from each member... When a member needs a loan, she asks the group for the desired amount; the group then collectively discusses whether, how, and to whom to disperse the funds. Loans must be repaid with interest, at a rate set by the members, and the interest collected is also added to the communal pool of funds. SfC introduced a novel oral accounting system which helps the women manage their debts and savings totals." (J-PAL).

"Unlike formal lenders, SfC group members lend their own money, so collateral is not required. The fact that all money originates from the women themselves, as opposed to outside loans or savings-matching programs, also increases the incentives to manage this money well. In addition, the program is designed to be self-replicating through "replicating agents" in each village. Once the first group is established in an area, members themselves become trainers and set up new groups in their village and the surrounding area." (J-PAL).

## Quick facts

### Barriers addressed



#### Prerequisites

[Lack of credit history \(for credit products only\) >](#)



#### Information Availability & Capability

[Financial literacy >](#)

[Lack of peers/family/network who use DFS >](#)



#### Product & Service Quality

[Lack of products that meet women's needs >](#)

[Lack of products and services that create value >](#)

### Segment focus

1 2 3 4

### Customer Journey Relevance



### Geography

Mali

### Key stakeholders involved

IPA (research team)  
Oxfam  
BMGF  
Freedom from Hunger  
Strømme Foundation  
6,000 women in 500 villages

### Sources

[J-PAL](#); [Oxfam, 2019](#); [Beaman et al., 2014](#).

# Savings for Change Program

## Key activities

“In order to test the impact of the SfC program as well as different strategies for encouraging replication, researchers randomly selected 500 villages in the Segou region of Mali to participate in the study. These villages were randomly divided into two treatment groups of about 100 villages each, and one comparison group with nearly 300 villages.

1. The first group received the SfC program with a structured, three day training for replicators who received a handbook on how to start and manage savings groups.
2. The second group received the SfC program with an informal, organic training program in which trainers answered questions, but did not provide any formal instruction to replicators.
3. The comparison group did not receive the SfC program.” (J-PAL).

## Outcomes/results

- “Average savings in treatment villages increased by US \$3.65 or 31% relative to the comparison villages. The SfC program also—

—significantly increased women’s access to credit. Women in the treatment villages were 3% more likely to have received a loan in the past twelve months, and this loan was more likely to have come from a savings group rather than from family and friends.” (J-PAL).

- “In addition livestock holdings increased, and households in treatment villages owned on average US \$120 more in livestock than those in comparison villages, a 13% increase. In Mali, owning livestock is a preferred way to store wealth and mitigate against risks such as drought or illness.” (J-PAL).
- “Villages that received structured replication training rather than informal training had higher participation rates in SfC.” (J-PAL).
- “Both male and female members of households perceived a general pattern of increased empowerment among SfC members over time. Although they did not themselves use the term, they indicated growth of many components one would associate with empowerment: greater economic independence for members within their households, independence for members within their households, increased leadership and sense of potential and purpose, and increased status in the household and in the larger community.” (Oxfam, 2019).

# Savings for Change Program

## Key enabling environment factors for the intervention

Limited supporting financial infrastructure is required for this intervention. Once the initial trainings are conducted to familiarize women with the program, the model requires no other financial infrastructure.

## Key design elements and principles that led to successful outcomes

- The SfC model is designed to function independently of outside support once established.
- Money originates from women and is managed by women, allowing them to manage their own micro-institutions. This also helps women to build trust with each other and the financial services.
- The program is designed to be flexible. The women in each group can modify rules related to participation and systems and transparency to adapt the program to their preferences and needs.

## Potential for scale/replicability

SfC has potential for replicability, and the program has already expanded to other countries. Started in Mali, SfC has grown to include Cambodia, El Salvador, Guatemala, Mali, and Senegal. The limited financial infrastructure required by the program makes it a practical intervention to replicate and adapt across contexts. Additionally, “since its introduction, other organizations have sought to capitalize on the structure established by SfC, taking advantage of readily available groups of women already self-organized and united in purpose. The existence of SfC therefore serves to attract NGOs, information campaigns, and external collectives who may be willing to collaborate on future programs.” (Oxfam, 2019).

## Challenges encountered during the program

The authors of the SfC evaluation report identified several challenges with the program. First, most SfC groups are not positioned to find partnerships with organizations that provide access to external markets. A second challenge was that even after many years in the SfC program, the research team noted—

## Savings for Change Program

—“limited innovations and strong risk aversion in women’s selection of where to invest in entrepreneurship, often resulting in market saturation... As a result, even in areas where SfC has successfully increased women’s entrepreneurship, women are by and large taking out loans for the same activities as when they began the program.” (Oxfam, 2019).

### Recommendations from the research

The authors of the SfC evaluation report identified several recommendations to consider. First, “SfC has succeeded where other microfinance institutions have failed in large part because financial control and decision-making rests in the hands of the women themselves” (Oxfam, 2019). If additional trainings are incorporated into the program, they need to maintain the same principles of transparency and autonomy that have allowed the program to be successful. Second, research has indicated that supplemental education can be linked to SfC around literacy, small business development, and civic education.

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*SfC has succeeded where other microfinance institutions have failed in large part because financial control and decision-making rests in the hands of the women.*



# 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).

## 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

1 2 3 4

### Geography

[Tanzania >](#)

### Sources

[Roessler et al., 2018.](#)

### Customer Journey Relevance



### Key stakeholders involved

1,352 Tanzanian women  
BRAC  
Social Action Fund (TASAF)  
Tanzanian MNOs

# Mobile Phone and Livelihoods of Women Project

## 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.”

# Mobile Phone and Livelihoods of Women Project

## 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.

## Mobile Phone and Livelihoods of Women Project

### 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.*

# The Impact of Financial Incentives on Female Land Ownership in Tanzania

"The 1999 Land Act created a legal pathway for both men and women to access formal land tenure rights in Tanzania. However, the reform has had limited reach – even in urban areas, the proportion of land covered by a formal title is less than 15%. This has been due, in part, to the high cost of formalization, which has kept land titles out of reach for the majority of urban poor... Furthermore, self-reported female ownership of land is low. Approximately 70–75% of all land registered with a residential license is done so with a single male name. Researchers partnered with the Women's Advancement Trust (WAT) to conduct a randomized evaluation to investigate whether Tanzanian households could be induced to grant formal land ownership rights to women. Using price incentives, they aimed to address two potential obstacles to women's access to formal land ownership: the high price of formal land titles, and the sole ownership of land titles by men." (J-PAL, 2016).

"The World Bank, in collaboration with the Ministry of Lands, the Dar es Salaam City Council, and the Kinondoni Municipality contracted a private surveying company to survey approximately 1,100 parcels of land in randomly assigned blocks in Mburahati Barfu and Kigogo Kati settlements. These neighborhoods were selected based on their low levels of access to infrastructure and public utilities, as well as their lower rates of female land ownership." (J-PAL, 2016). To the knowledge of the authors, this is the first study to introduce randomized variation in financial barriers to access to property for women.

## Quick facts

### Barriers addressed



#### Prerequisites

[Broader legal constraints >](#)

[Lack of credit history \(for credit products only\) >](#)



#### Cost

[Perceived and/or lack of money >](#)

### Segment focus

1 2 3 4

### Geography

[Tanzania >](#)

### Sources

[J-PAL, 2016](#); [Ali et al., 2016](#).

### Customer Journey Relevance



### Key stakeholders involved

Women's Advancement Trust,  
Ministry of Lands, Dar es Salaam  
City Council, Kinondoni Municipality  
Mburahati Barfu and Kigogo Kati  
settlements, World Bank, Private  
surveying company (unnamed)

# The Impact of Financial Incentives on Female Land Ownership in Tanzania

## Key activities

“Residents in the surveyed blocks were given the option to repay a heavily subsidized cost of 100,000 Tsh (US \$67) in exchange for a land title. Residents in comparison blocks were still able to purchase land titles for the full government price, in excess of 500,000 TSh (US \$335). Within treatment blocks, households were randomly allocated up to two vouchers redeemable for different discount levels on title price:

- Conditional voucher: Roughly half of vouchers were made redeemable only if a female household member was included as an owner on the title application.
- Unconditional voucher: This voucher was a general, unrestricted price discount.

Vouchers took on values ranging from zero to 80,000 TSh (US \$54) in iterations of 20,000 TSh (US \$13). The research team presented vouchers to households after short presentations by WAT about the benefits of title ownership and co-titling at a block-wide information session.” (J-PAL, 2016).

## Outcomes/results

Cited from (J-PAL, 2016).

- “Receiving a conditional subsidy increased the probability that households included a woman’s name on their land title by 3–3.3% for every 10,000 TSh (US \$7) increase in subsidy.”
- “Offering price discounts increased resident demand for land titles. On average, researchers estimated that residents were willing to pay between US \$40–50 to purchase a land title. An increase of 10,000 TSh (US \$7), or 10% of the default CRO price, reduced the probability that residents would purchase a title by nearly 3%.”
- “Conditional vouchers raised the number of women listed on titles by nearly twice as much. Nearly all households that received conditional vouchers listed women on titles, achieving near gender parity in land ownership with no reduction in demand for titles.”

# The Impact of Financial Incentives on Female Land Ownership in Tanzania

## Key enabling environment factors for the intervention

- Legal pathways already exist in Tanzania that enable women to gain access to formal land tenure rights.
- The intervention received interest from local governments in participating in the program design.

## Key design elements and principles that led to successful outcomes

- The intervention was designed to take place in areas with low rates of female land ownership and limited access to infrastructure and public utilities.
- The program incorporated presentations and information sessions on the importance of land ownership into the program design.
- The program was made to be affordable through a subsidy pricing model, enabling low-income women to participate in the intervention who had previously been excluded from obtaining land titles.

## Potential for scale/replicability

The combined cost of town planning and surveying for the project was considerably lower than the Ministry of Land's estimates, signifying that cost of the program itself might not be a barrier to scale or replication. However, the program did experience delays from the government, which is an issue to keep in mind for future replication projects.

## Challenges encountered during the program

Unfortunately, external factors have prevented the actual issuance of tiles to applicants. After flooding in 2011, the Ministry of Lands rezoned the majority of the study area as ineligible for formal land titles. The government also increased the price for the NGO to process applications. However, the results of the study indicate that this subsidy model increases demand among women for formal land ownership, signifying that there is an opportunity for future research to replicate this model and follow through with the land granting process to see how legal land rights impact women's empowerment/livelihoods.

# The Impact of Financial Incentives on Female Land Ownership in Tanzania

## Recommendations from the research

The research team recommends that future programming and research will consider whether or not changes in land ownership affect women's bargaining power inside the household. Additionally, after witnessing the challenges associated with working with the government, the team hopes that future programs and similar interventions will delve deeper into the challenges in the delivery and enforcement of land rights by the state.

“

*Conditional vouchers raised the number of women listed on titles by nearly twice as much... achieving near gender parity in land ownership with no reduction in demand for titles.*



Exemplars

# Interest Rate Sensitivity Among Village Banking Clients in Mexico

"Compartamos Banco is the largest microfinance institution in Mexico with branches in every state and over two million borrowers." (J-PAL, 2019). "Borrowers from this institution tend to lack the income and/or collateral required to qualify for loans from banks and other "upmarket" lenders." (Karlan et al., 2013).

Compartamos and a research team from IPA implemented a new pricing model "to measure Compartamos borrowers' reactions to varying interest rates in order to determine the impact of the cost of borrowing on loan take-up, the amount people borrowed, and their repayment rates. The study focused on the bank's most popular product – a group liability loan for women to invest in business or economic activities called Credito Mujer. In order to borrow, clients must form a group of 10 to 50 women who are 18 years of age or older." (J-PAL, 2019). Compartamos depends on the group members to screen out women who are uncreditworthy.

"As part of the implementation of a new pricing model, Compartamos lowered the interest rates on Credito Mujer loans in eighty regions. Researchers then randomly assigned forty regions to the "high rate" group which received loans about 10% below previous interest rates (which were about 100% annually, on average), and 40 regions to the "low rate" group which received loans about 20% below prior interest rates. The study uses administrative data from Compartamos and data from credit bureaus for up to 29 months after treatment began to measure the impact of the low-rate scenario relative to the high-rate scenario." (J-PAL, 2019).

## Quick facts

### Barriers addressed



*Prerequisites*

[Lack of credit history >](#)



*Accessibility*

[Distance from bank/FSP/CICO agent >](#)



*Cost*

[Cost of using DFS >](#)

[Perceived and/or lack of money >](#)



*Information Availability & Capability*

[Financial literacy >](#)

### Segment focus

1 2 3 4

### Geography

Mexico

### Sources

[J-PAL, 2019](#); [Karlan et al., 2013](#).

### Customer Journey Relevance



### Key stakeholders involved

Compartamos Banco  
IPA (research team)  
Compartamos Banco clients  
Mexican Credit Bureau

# Interest Rate Sensitivity Among Village Banking Clients in Mexico

## Key activities

“Loan officers targeted self-reported female entrepreneurs and promoted the Credito Mujer product through diverse channels, including door-to-door promotion, distribution of fliers in public places, radio, promotional events. As loan officers gained more clients in new areas, they promoted less frequently and relied more on clients to recruit other members.” Loan officers then visited the groups twice to explain loan terms and processes. The women were responsible for selecting “creditworthy” group members. “Each group then elected a treasurer to collect payments from each group member, at each weekly meeting... If a group member did not make her weekly payment, the President (and loan officer) typically solicited and encouraged “solidarity” pooling to cover the payment and keep the group in good standing. All payments were placed in a plastic bag that Compartamos provided, and the Treasurer then deposited the group’s payment at either a nearby bank branch or convenience store.” (Karlan et al., 2013).

## Outcomes/results

Cited from J-PAL, 2019:

- “By the third year, areas that offered lower interest rates were bringing in significantly more first-time borrowers and more borrowers with both high and low education relative to regions under the high-rate scenario. Decreasing the interest rate did not generate detectable effects on delinquency (any lateness in repaying loans) or on severe delinquency (more than ninety days late in repaying loans).”
- “Microfinance clients were extremely responsive to changes in the price of loans: outstanding loan balances increased by more than 10% due to the 10% reduction in the interest rate.”
- “Overall, there was no change in Compartamos’ profits due to the lowered interest rate... These findings suggest that MFIs may be able to lower rates to both attract and retain more clients, who in turn borrow greater amounts.”

# Interest Rate Sensitivity Among Village Banking Clients in Mexico

## Key enabling environment factors for the intervention

- “Compartamos has partnerships with six banks (and their convenience stores) and two separate convenience stores. The banks include Banamex (Banamex Aqui), Bancomer (Pitico), Banorte (Telecom and Seven Eleven), HSBC, Scotiabank, and Santander. The two separate convenience stores are Oxxo and Chedraui.” (Karlan et al., 2013). These established relationships gave the women access to many places to drop off their loan payments, helping to prevent distance from becoming a barrier to participation.
- Compartamos creates incentives for repayment. “Members of groups with arrears are not eligible for another loan until the arrears are cured; members of groups that remain in good standing qualify for larger subsequent loan amounts and lower interest rates. Compartamos also reports individual repayment history for each borrower to the Mexican Official Credit Bureau.” (Karlan et al., 2013).

## Key design elements and principles that led to successful outcomes

- Credito Mujer was promoted through diverse channels to reach a diversity of women.
- The program incorporated financial literacy elements through in-person visits by loan officers.
- The program featured a women-centered design model; women clients recruit other candidates, screen them, and oversee loan repayments.

## Potential for scale/replicability

This program has the potential to be scaled/replicated due to the women-centered design model. After the two trainings conducted by loan officers, the women themselves are responsible for managing their finances. The women also conduct most of the marketing and outreach activities. Overall, the women participants do most of the heavy lifting of the program. The program also did not result in changes in Compartamos’ profits, suggesting that fear of loss of profits may not be a factor inhibiting supply-side actors from replicating or scaling up the program.

## Interest Rate Sensitivity Among Village Banking Clients in Mexico

### Recommendations from the research

The research team recommends several avenues of future research. First, given the positive results of the program for both Compartamos and the women participants, the team is interested in understanding why Compartamos did not lower interest rates earlier. The report also recommends examining “innovations with respect to lending technology, such as mobile devices with customized software for credit officers (that are being implemented by many lenders, including Compartamos).” (Karlan et al., 2013).

“

*This program has the potential to be scaled/replicated due to the women-centered design model. After the two trainings conducted by loan officers, the women themselves are responsible for managing their finances.*

# Paving the Way for Women from the Inside Out (TARA Program)

BRAC Bank in Bangladesh saw gaps in financial inclusion as “an opportunity to accelerate Bangladeshi women’s access to financial services, and become the country’s leading bank for women... Leadership at BRAC recognized that increasing female representation within its workforce was a crucial first step to becoming a first mover in the market. When CEO Selim Hussain came on board in 2015, women represented just 13% of total employees and 5% of senior managers. While the share of women mirrored women’s underemployment in Bangladesh at large, it was far from reflecting the general population. Hussain made it a goal to create a more diverse and inclusive workplace.” (Financial Alliance for Women, 2020).

## Quick facts

### Barriers addressed



#### Prerequisites

[Broader legal constraints >](#)  
[Lack of credit history \(for credit products only\) >](#)



#### Accessibility

[Mobility constraints \(e.g., legal curfews, norms\) >](#)



#### Information Availability & Capability

[Financial literacy >](#)  
[Unclear or unavailable information about products/uses >](#)



#### Product & Service Quality

[Lack of products that meet women's needs >](#)  
[Lack of products and services that create value >](#)  
[Reliability and quality of in-person services >](#)



#### Human Resources

[Lack of women in leadership at DFS providers and policy-makers >](#)

### Segment focus

1 2 3 4

### Customer Journey Relevance



### Geography

[Bangladesh >](#)

### Key stakeholders involved

BRAC Bank  
 Financial Alliance for Women  
 IFC

### Sources

[Financial Alliance for Women, 2020.](#)

# Paving the Way for Women from the Inside Out (TARA Program)

## Key activities

Beginning in 2016, BRAC took several steps to foster a more diverse workforce including holding a forum to allow female employees to give feedback. “The bank’s leadership found that women did not feel supported in their career growth, nor did they feel safe, valued or heard. This forum was then formalized as an internal support group called TARA. In response, BRAC introduced new and updated policies. These included a zero-tolerance policy for workplace harassment and a new platform for safely submitting complaints, as well as mandatory training on diversity, gender and sexual harassment. BRAC also launched a pickup and drop-off service to ensure that women could travel safely to and from work. BRAC then sought to increase female representation and advancement opportunities by actively recruiting women.” The bank implemented training and mentoring programs “to help women move up the ladder and charting more defined career paths for high-potential employees.” The bank also “adopted a suite of retention efforts—based on feedback from women at the firm – including renovating its daycare center to better support working mothers, offering flexible work schedules, and installing more female—

—restrooms. Once BRAC had instituted its internal diversity and inclusion efforts, it began building an external woman-centered strategy”. BRAC conducted interviews and focus group discussions with women customers to understand their needs and preferences, which resulted in BRAC designing financial products and services that could meet their needs and be valuable to them. Some of the products and services included motorbike loans for women facing mobility issues, risk-assessment practices to provide women without credit history access to credit, training and business development for entrepreneurs, and a special TARA microsite that advertises the women-centric products and services.

## Outcomes/results

“The impact of BRAC’s internal and external efforts are evident. Today, BRAC employs almost 1,000 women – more than any other institution in the Bangladeshi financial services industry and an increase of almost 20% between 2016 and 2019. In addition, the number of women in senior management positions has almost doubled in this period.”

# Paving the Way for Women from the Inside Out (TARA Program)

## Outcomes/results (cont.)

“Customer data also reflects the success of the bank’s TARA program. Between 2016 and 2019, its total number of female customers rose by an average of 8% annually, while women SME customers increased by an average of 3% annually.”

“When it comes to lending, bank’s retail loans to women have increased at an annual rate of 16% between 2016 and 2019, while loans to women-owned micro, small and medium enterprises have increased at an annual rate of 22%. The bank has also succeeded in extending its reach to previously unbanked women. The bank reports that they now represent around one-third of TARA Retail customers and half of TARA SME customers.”

## Key enabling environment factors for the intervention

The success of BRAC’s internal and external efforts were a result of the bank’s leadership team’s willingness and determination to listen to employees and customers. The leadership team proceeded to make institutional changes based on the feedback received.

## Key design elements and principles that led to successful outcomes

- BRAC addressed internal diversity and representation issues first before attempting to address external issues.
- The bank puts both women employees and customers at the forefront of its decision-making. For example, the TARA program was specifically designed to support women employees, and continues to do so by offering a grievance redressal mechanism. The program is also designed to specifically inform women customers of the products and services designed for them through its website.
- “BRAC set up an incentive system for its sales force to encourage them to work with more female customers. These include earning additional rewards toward business targets if they sell to women.”
- The bank uses feedback from customers in designing products for them – such as trainings, credit access, and mobility loans.

# Paving the Way for Women from the Inside Out (TARA Program)

## Potential for scale/replicability

TARA leveraged both agents and digital platforms to reach as many women as possible and scale up the program. “BRAC set up TARA desks inside its 13 busiest branches to give customers direct access to agents who are specially trained in its women-centered products and inclusive customer service approach. And at other branches or from home, customers can dial a dedicated help line to reach a TARA specialist... BRAC also gathered a team of 300 agents to target customers who live outside of its branch network. For its digital delivery, BRAC developed a specialized TARA microsite within its corporate website that promotes all of its women-centered financial and non-financial solutions. And it created the TARA Mobile Banking app to give customers more personalized information about banking services, promotions with partners and relevant community events.” Organizations seeking to replicate BRAC’s program can leverage some of these distribution channels.

## Challenges encountered during the program

BRAC Bank has continuously adapted its policies, strategies, and products to address challenges that they encountered. For example, BRAC discovered that many of the branches outside of the main city weren’t serving any TARA customers. To rectify this, the bank recruited a team of 300 agents to specifically serve customers outside of the branch network. The bank also realized that many women customers distrusted the banking system. This led BRAC to design a variety of non-financial solutions to complement its extensive financial offerings, such as business trainings and mentorship programs. Even though challenges emerged during the program, BRAC was able to internalize the feedback and adjust their plans accordingly to better serve both their employees and customers.



# Paving the Way for Women from the Inside Out (TARA Program)

## Recommendations from the research

BRAC Bank has three key recommendations for organizations seeking to make their workplace and customer base more gender-balanced:

1. “Embrace the opportunity to become a first mover in the market.
2. Lower barriers to access by becoming a long-term partner for women.
3. Strengthen internal diversity and inclusion efforts before reaching outward.”

# Hiring Women into Senior Leadership Positions

“Women continue to be underrepresented in leadership positions. This underrepresentation is at least partly driven by gender stereotypes that associate men, but not women, with achievement-oriented, agentic traits (e.g., assertive and decisive). These stereotypes are expressed and perpetuated in language, with women being described in less agentic terms than men.” (Lawon et al., 2022).

In the cited paper, the authors “show that hiring women into leadership positions—as CEOs or members of executive boards—can provide pathways to systemically and positively changing gender stereotypes encoded in language. They suggest two processes by which increased female representation could induce systemic and positive language change: 1) unconscious, incidental shifts in attitudes toward the appointed women and/or, 2) conscious, strategic intention to signal the agentic qualities of organizations’ female leaders.” (Lawon et al., 2022).

## Quick facts

### Barriers addressed



*Human Resources*

[Lack of women in leadership at DFS providers and policy-makers >](#)

### Segment focus

1 2 3 4

### Geography

Global

### Sources

[Lawson et al., 2022.](#)

### Customer Journey Relevance



### Key stakeholders involved

S&P 500 companies

# Hiring Women into Senior Leadership Positions

## Key activities

“Study 1 aimed to test whether hiring a female CEO is related to an increase in the association of women with agency between the periods before and after hire. To capture organizations’ outward-facing language, the authors extracted 1) DEF 14A filings (definitive proxy statements), 2) 10-K filings (annual reports), and 3) transcripts of investor calls for all S&P (Standard and Poor’s) 500 organizations in a 10 year window between 2009 and 2018. They identified the subset of these organizations that had 1) a female CEO in the sample period, 2) text data available for at least three pre-hiring and post-hiring, and 3) a male CEO predecessor prior to the female hire.” They “measure the change in the gendering of organizations’ language before and after hiring a female CEO using an unsupervised natural language processing algorithm that estimates the semantic meaning of references to gender and references to agency.”

Study 2 aimed to measure how “female representation on executive boards is associated with changes in the gendering of language.” The team used “word embeddings to convert organizational documents into measures of gender stereotypes (women’s

association with agency and communality)” to study “the relationship between the proportion of women on companies’ executive boards and the female-agency association longitudinally across 345 former and current S&P 500 companies.”

## Outcomes/results

- “Hiring female CEOs and board members is associated with changes in organizations’ use of language, such that the semantic meaning of being a woman becomes more similar to the semantic meaning of agency. In other words, hiring women into leadership positions helps to associate women with characteristics that are critical for leadership success.”
- The findings suggest that “changing organizational language through increasing female representation might provide a path for women to break out of the double bind; when female leaders are appointed into positions of power, women are more strongly associated with the positive aspects of agency (e.g., independent and confident) in language, but not at the cost of a reduced association with communality (e.g., kind and caring).”

# Hiring women into senior leadership positions

- 72.7% of the target organizations “saw an increase in the association between the semantic meaning of female and agency words, while only 27.3% of control organizations did in the same time period.”
- “The findings suggest that when organizations are incentivized to portray their female leaders in positive ways, stereotypes can change in a way that is both systemic, removing the burden of stereotype change from the individual, and positive, in that it does not reflect a trade-off between appearing competent and likeable.”

## Challenges encountered during the program

The authors indicate several limitations / remaining questions from their research:

1. “To what extent is the observed effect causal?”
2. “To what extent do the effects generalize beyond the appointed female leaders and impact perceptions of women more broadly?”
3. “At what level of seniority do the benefits of female representation cease to be present?”
4. “To what extent do the results generalize to other organizations?”

## Recommendations from the research

The authors recommend using this research as evidence that “hiring female leaders might not only combat discrimination by making the top seem possible for other women but might also indirectly do so by changing our understanding of what it means to be a female leader.”

# Female Leadership, Performance, and Governance in Microfinance Institutions

“This paper investigates the relations between female leadership, firm performance, and corporate governance in a global panel of 329 Microfinance Institutions (MFIs) in 73 countries covering the years 1998–2008. The microfinance industry is particularly suited for studying the impact of female leadership on governance and performance because of its mission orientation, its entrepreneurial nature, diverse institutional conditions, and high percentage of female leaders.” (Strom et al., 2014).

## Quick facts

### Barriers addressed



*Human Resources*

[Lack of women in leadership at DFS providers and policy-makers >](#)

### Segment focus

1 2 3 4

### Geography

Global

### Sources

[Strom et al., 2014.](#)

### Customer Journey Relevance



### Key stakeholders involved

329 Microfinance institutions (MFIs)

# Female Leadership, Performance, and Governance in Microfinance Institutions

## Key activities

The data set is “based on rating assessment reports gathered by specialized rating agencies and encompasses 329 MFIs operating in 73 different countries worldwide in the years 1998–2008. At each rating, the raters collect data for the rating year and years immediately preceding. In this way, up to six years of data for an MFI are available for the period 1998–2008.” The authors use several variables for this analysis, including female leadership, corporate governance, financial performance, and general characteristics. Each of these variables are defined by a set of sub-variables. For example, the female leadership variable is measured through having a female CEO, having a female Chair, having one or more female Directors, the number of female Directors, female Directors as a fraction of all Directors, and the number of female Directors if there are three or more. The authors use “a straightforward probit method to predict the female leadership variables” and measure relationships.

## Outcomes/results

The study finds “female leadership to be significantly associated with larger boards, younger firms, a non-commercial legal status, and more female clientele.”

Furthermore, the authors find that “a female Chief Executive Officer and a female Chair of the Board are positively related to MFI performance.”

“Female leadership is more likely in MFIs that have a gender bias toward female clients, in MFIs concentrating on the urban market, in NGOs, and cooperatives more than in shareholder-owned MFIs (the omitted category), and in younger MFIs.”

“Female-led MFIs perform better with less oversight and less monitoring.”

# Comunidades Conectadas y Hogares Conectados

In 2010, Costa Rica’s Constitutional Court positioned internet access as a human right. After this ruling, “the government adopted digital inclusion as a top priority to empower citizens to actively contribute to the nation’s development. By 2012, 93% of Costa Ricans had mobile phone access, yet only 43.7% had access to the internet.” Three years later, just 49.4% of the population used the internet. “One reason for the lack of progress on access was that devices and service costs were still too expensive for the country’s poorest households. Beyond those dealing with poverty, Indigenous people, female-headed households, and self-employed persons experienced high levels of digital exclusion... With progress on connectivity stalling, renewed attention was given to the importance of delivering universal access for all citizens. This culminated in the launch of CR Digital, a national plan designed to connect the whole country to the internet within two years. Through this plan, FONATEL received an injection of an additional \$300 million dollars and was designated the lead organization for a five-phase plan.” (A4AI, 2019).

## Quick facts

### Barriers addressed



*Prerequisites*

[Internet/Mobile connectivity >](#)



*Cost*

[Perceived and/or lack of money >](#)  
[Cost of mobile/internet >](#)



*Information Availability & Capability*

[Digital literacy >](#)

### Segment focus

1 2 3 4

### Geography

Costa Rica

### Sources

[A4AI, 2019](#); [SUTEL, 2018](#);  
[Comunidades Conectadas](#);  
[Hogares Conectados](#).

### Customer Journey Relevance



### Key stakeholders involved

National Telecommunications Fund (FONATEL), Presidential Social Council, Superintendencia de Telecomunicaciones (SUTEL), Service Providers (ICE, Tigo, Cabletica, Telecable, Coopesesca, Coopesantos, Coopeguanacaste and Cable Pacayas)

# Comunidades Conectadas y Hogares Conectados

## Key activities

The first phase of this plan, Comunidades Conectadas, aimed at “building infrastructure (fiber optic networks, telephone towers, among others) to bring telephone and Internet services to populations in coastal, rural and border areas where it was not profitable to invest for telecommunications companies.” (Comunidades Conectadas). The program also brought free internet connectivity to schools, clinics and community centers.

“The second phase, Hogares Conectados or connected homes, focused on providing every Costa Rican household with fixed-line internet access and devices needed to get online and use the internet. Families eligible for the program typically include those who are poor, Indigenous, disabled, elderly, or low-income entrepreneurs. FONATEL subsidizes the cost of internet connections (up to 80%) and laptop purchases (up to 100%) for families who qualify for support based on their household finances. Program beneficiaries can visit participating service providers and the head of household signs a contract to receive their connection and equipment. After the subsidies are taken into account, families are expected to—

—cover the remaining costs... Since the program launched, private sector and civil society stakeholders have run activities, funded by FONATEL, to build awareness of the benefits of internet access, facilitate training to develop digital literacy, and show how everyday citizens can interact with their government.” (A4AI, 2019).

## Outcomes/results

- As of November 2021, nearly 179,000 vulnerable families throughout the country have a computer and an internet connection, thanks to the Hogares Conectados program. A total of 610,000 people have gained connectivity from this program.
- “Approximately 95% of the families who have participated in Hogares Conectados to date are female-headed households, meaning that more women than before—especially those in rural areas—are benefiting from this plan.” (A4AI, 2019).



# Comunidades Conectadas y Hogares Conectados

## Outcomes/results (cont.)

- Around 400 rural educational institutions have received an internet connection as part of the Comunidades Conectadas program, and reported that access has helped streamline their administrative work and provide classrooms with innovative instructional materials.
- 81% of households said that they did not have Internet and computer services before being part of the Hogares Conectados Program.

## Key enabling environmental factors for the intervention

The success of this program resulted from an enabling policy environment introduced by the Government of Costa Rica. First, Costa Rica's Constitutional Court ruled internet access to be a positioned as a human right. Second, the Government of Costa Rica launched CR Digital – a plan to get universal access to the internet through five phases.

## Key design elements and principles that led to successful outcomes

- The program was designed to make internet access affordable through subsidized internet connection and laptop costs. This enabled historically marginalized communities to receive internet access and gain connectivity.
- Programs implemented by the private sector and civil society run activities in parallel to Comunidades Conectadas and Hogares Conectados, funded by FONATEL, to develop digital literacy and build awareness of the internet. This component is crucial, as GSMA has stated that access to internet is not sufficient to guarantee that people will adopt it.

## Potential for scale/replicability

These programs operated on a national scale and in places where telecommunications companies do not find profitable to invest in, such as coastal areas and rural zones. As the program progressed, it continued to scale, with more mobile network operators joining the—

## Comunidades Conectadas y Hogares Conectados

–programs as partners. To replicate this program in other contexts, the markets should have a conducive enabling environment and governments with a strong political will.

### Challenges encountered during the program

CR Digital originally intended for all individuals to have internet access within two years of the program's launch. Although this goal was not met, the number of people accessing the internet continued to increase, digital literacy programs operated in tandem, and mobile network operators/players continued to join the program.

### Recommendations from the research

The success of the program highlights the importance of serving communities and areas that are not deemed as profitable for service providers. Additionally, digital literacy trainings operating in tandem with providing internet services are crucial to equip the population with the tools and capacity needed to actually take advantage of the services provided.

“

*As of November 2021, nearly 179,000 vulnerable families throughout the country have a computer and an Internet connection, thanks to the Hogares Conectados program. A total of 610,000 people have gained connectivity from this program.*

# Internet Para Todos

"About 22% of the population of Peru lives in rural areas and by 2017, mobile penetration in the country was approaching 80%. Despite these access levels, a large proportion of Peruvians do not have mobile broadband and in 2018, at least 80% of towns in Peru had no internet coverage, especially if they were located in rural areas. For Peruvians living in the area of the Andes mountain range, before June 2019 it was impossible to go online because the infrastructure to do so did not exist there." ([A4AI, 2022](#)). "Rural internet coverage has long been a challenge as technologies are not designed for areas with low population density, and business models are usually incompatible with the needs of the rural population. Large-scale infrastructural investments are also generally geared towards urban areas." ([Oxford Business Group](#)). To address this urban-rural divide, the government "began the Internet para Todos initiative (IpT, or 'Internet for Everyone' in English), a public-private partnership, in June 2019. This partnership aimed to connect 6 million rurally located Peruvians by the end of 2021." ([A4AI, 2022](#)).

## Quick facts

### Barriers addressed



#### Prerequisites

[Internet/Mobile connectivity >](#)



#### Cost

[Perceived and/or lack of money >](#)  
[Cost of mobile/Internet >](#)

### Segment focus

1 2 3 4

### Geography

Peru

### Sources

[Telefónica](#); [A4AI, 2022](#);  
[Oxford Business Group](#);  
[IADB](#).

### Customer Journey Relevance



### Key stakeholders involved

Telefónica  
Facebook  
CAF  
IDB Invest

# Internet Para Todos

## Key activities

“As a tool for the government to bridge the digital divide, the IpT is furthering this goal by adopting a revenue sharing model to reduce network implementation costs, deploying more inexpensive and innovative OpenRAN network architecture and technologies, offering wholesale access to 3G and 4G broadband infrastructure, and working in partnership with local communities to help reduce deployment costs.” (A4AI, 2022). “Internet Para Todos offers wholesale access to Telefónica’s rural broadband infrastructure allowing any mobile operator to use existing 3G and 4G infrastructure.” (Oxford Business Group).

## Outcomes/results

“To date, over 1,000 rural communities have benefited from IpT and 1.5 million people have been able to access the internet for the first time. With over 3,000 cell sites upgraded from 2G to 4G, the IpT has also taken great strides to make the connectivity meaningful.” (A4AI, 2022). Teachers in schools have received donated tablets and are using a rotational system so that all students will have the—

—opportunity to build their digital skills. IpT aims to connect 6 million rurally located Peruvians by the end of 2021.

## Key enabling environment factors for the intervention

The Government of Peru has worked to ensure that rural populations “are not excluded from the digital revolution” and has been a critical enabler for IpT’s work in Peru. “One of the first steps taken was the introduction of the Telecom Law, which enabled the creation of the Telecom Investment Fund. This fund was designed to facilitate finance for telecommunications infrastructure deployment and service provision in rural areas, with funds coming from telcos’ annual revenue. To help lessen the financial burden on network operators, the government went further by promoting infrastructure sharing so that rural populations can benefit from such collaborations in the private sector. Law No. 28295 promotes telecommunication sector competition and enables infrastructure sharing to reduce costs for rural network deployments.” (A4AI, 2022).

# Internet Para Todos

## **Key design elements and principles that led to successful outcomes**

This program was designed to be affordable for mobile network operators by promoting infrastructure sharing and the creation of the Telecom Investment Fund. These design elements help reduce barriers to serving rural areas.

Téléfonica has also begun donating internet-enabled devices so that residents can build their digital skills and take advantage of the new internet access.

## **Potential for scale/replicability**

“Beyond Peru, the goal of IpT is to replicate the approach in other Latin American and Caribbean countries where some 100 million people still do not have internet access. Today, IpT partners are exploring opportunities to expand to isolated areas of Colombia as a next step.” (IADB).

## **Recommendations from the research**

The IpT partners have made it clear that adopting a revenue sharing model can help prove that connecting communities in isolated areas can provide a financial return.

Aside from recommendations made by the partners, IpT could benefit from integrating more digital literacy training into the programming. Digital literacy training does not seem to be a major focus, unlike Costa Rica’s Hogares Conectados program discussed previously. By implementing more digital skills building activities, IpT partners can ensure that residents are actually taking advantage of the services provided to them.

# Aligning Libraries and USAFs for Rural Public Access

“Universal Service and Access Funds (USF) are often a major component of a government’s ability to help extend internet access into rural areas. Libraries are one of the venues where countries frequently situate public access, not only because these places are generally known for their safety, but also because they are sites where people can learn and develop new skills.” (A4AI, 2022). Jamaica’s USF is “an agency under the Ministry of Science, Energy, and Technology mandated to ensure access to information and communication technology tools to facilitate development.” (USF). “In Jamaica, its USF is used in part to support the Jamaica Library Service (JLS) in its quest to provide meaningful connectivity to all citizens.” (A4AI, 2022).

## Quick facts

### Barriers addressed



*Prerequisites*

[Internet/Mobile connectivity >](#)



*Cost*

[Perceived and/or lack of money >](#)  
[Cost of mobile/internet >](#)



*Information Availability & Capability*

[Digital literacy >](#)

### Segment focus

1 2 3 4

### Geography

Jamaica

### Sources

[A4AI, 2022](#); [JLS.gov, 2017](#).

### Customer Journey Relevance



### Key stakeholders involved

Jamaica Library Service (JLS)  
Government of Jamaica

# Aligning Libraries and USAFs for Rural Public Access

## Key activities

"Since January 2009, Jamaica's USF has enabled donations of computers and various software packages (antivirus, office suite, etc.) needed to keep the devices running properly. A top-up to the initial level of funding (US \$440,176) for the JLS was given in 2013, adding a further \$33,000 to purchase more public access computers and software. In parallel, the USF has allocated 44 wide area network connections to major public libraries, including libraries where internet service was not commercially viable, enabling these institutions to interconnect while also provisioning high-speed internet access for people who visited the benefiting libraries. In 2019, the government announced further funding to establish more community access points, including in St. James and Portland, both rural parts of the island. All access points make the internet available for low or no cost to people of all ages and a variety of digital citizen services are made available to enhance civic participation. People can even bring their own devices to libraries in Jamaica covered by the USF if they do not own one and can learn how to use computers through free training courses offered." (A4AI, 2022).

## Outcomes/results

"In January 2009, the USF donated computer systems and supporting software in the amount of US \$440,176. The donation included 349 public access computer systems which at the time represented more than a 100% increase in public access computers. The provision of the items was critical in the organization's quest to implement free computer and internet access to the public. The details of the donation were: 333 Desktop Computers, 16 Notepads, 160 UPS, 349 licenses of Microsoft Office Suite, 349 Antivirus Software, 349 copies of computer reservation software." (JLS, 2017).

"In 2013, as the JLS sought to offer greater levels of service to public the USF donated approximately JA \$5.2 million to purchase computers and supporting software. These items constitute approximately 30% of the organization's current inventory of public access computers and included: 400 Computers, 400 UPS, and Microsoft Office Suite licenses." (JLS, 2017).

"The USF has also provided Wide Area Network (WAN) connections to 44 of the major public libraries island-wide. The initiative, which commenced 2012, resulted in high speed fiber connections installed in 13 parish libraries and 31 branch libraries island-wide." (JLS, 2017).

# Aligning Libraries and USAFs for Rural Public Access

## Outcomes/results (cont.)

The WAN provided “interconnection between branches as well as high-speed access to the Internet.” (JLS, 2017).

## Key enabling environmental factors for the intervention

Internet infrastructure and affordability has support from the Government of Jamaica.

## Key design elements that led to successful outcomes

This program was designed to be affordable for residents to reduce cost barriers to internet adoption.

This initiative also incorporates digital skills building elements into the programming to build people’s capacities to actually use the internet and internet-enabled devices.

This program is designed to leverage the common goals of community institutions and government agencies to deliver—

— services to a large percent of the population.

## Potential for scale/replicability

The strategy adopted by Jamaica demonstrates the potential for community institutions, like libraries, in other countries to align with the mandate of the Universal Service & Access Fund to deliver expanded affordable and meaningful connectivity to unconnected communities. In particular, these options hold a unique prospect in reducing the cost barrier to use more expensive equipment, such as desktop or laptop computers, and to develop skills through onsite educational support and training.

## Recommendations from the research

Research points to the JLS and USF’s programming as an exemplar in driving meaningful connectivity at a low-cost to excluded populations. Countries or governments looking to expand internet access should use Jamaica as a case study and look to forge partnerships with community institutions that share common goals around broadband connectivity.



# Benazir Income Support Programme

Launched in 2008, “the Benazir Income Support Programme (BISP) is the Government of Pakistan’s flagship social safety net program and is one of the largest and most systematic social protection initiative to be launched in Pakistan. At its core, the BISP is an Unconditional Cash Transfer (UCT) providing quarterly cash payments directly to female beneficiaries within households that are deemed eligible through the implementation of the BISP poverty scorecard that targets households for the program.” (BISP Evaluation, 2020).

The latest impact evaluation of BISP is from Oxford Policy Management in 2019, which uses a mixed-methods approach. “The core of the evaluation is based on a household survey targeted at beneficiary households, and a comparable subset of non-beneficiary households that can be used as an adequate counterfactual... This is combined with a qualitative research component that will provide a broader understanding of the context in which the program is operating and inform an understanding of potential impacts that are difficult to cover comprehensively and sensitively using only a quantitative survey.” (BISP Evaluation, 2020).

## Quick facts

### Barriers addressed



#### Prerequisites

[Phone/SIM Ownership >](#)  
[Digital/Foundational ID >](#)  
[KYC requirements >](#)



#### Accessibility

[Distance from bank/FSP/CICO agent >](#)  
[Mobility constraints \(e.g., legal curfews, norms\) >](#)



#### Cost

[Perceived and/or lack of money >](#)



#### Social Norms

[Ambivalence or antagonism towards women’s financial independence >](#)

### Segment focus

1 2 3 4

### Geography

[Pakistan >](#)

### Sources

[BISP Evaluation, 2020;](#)  
[Research Collective, 2019;](#)  
[World Bank, 2016.](#)

### Customer Journey Relevance



### Key stakeholders involved

Government of Pakistan, National Database and Registration Authority (NADRA), Department for International Development (UK), Pakistan Post (formerly), Oxford Policy Management (evaluation), World Bank, USAID, Asian Development Bank

# Benazir Income Support Programme

## Key activities

“BISP has implemented a range of payment mechanisms since its inception, including from the post office, smart cards, or mobile phones. Originally all beneficiaries received their instalments through the Pakistan Post, who were expected to deliver cash to beneficiaries’ doorsteps. This system was phased out and replaced from 2012 with the Benazir Debit Card (BDC) – an ATM card that could be used to collect instalments from any ATM machine (or a POS agent) in Pakistan.” Beneficiaries have also been given access to phones and SIM cards to collect their payments in certain districts. Currently, beneficiaries receive their quarterly payments through two main payment systems (BISP Evaluation, 2020):

- “Benazir Debit Card (BDC): Beneficiaries are provided with an ATM card from which a beneficiary can draw her instalment from an ATM machine or from a franchise/retail agent of a partner bank through a Point of Sale (POS) machine. BISP is in the process of transferring all BDC beneficiaries to the Biometric Verification System detailed in the following point.”

- “Biometric Verification System (BVS): a system through which a beneficiary’s biometric information is collected. To collect her instalment, a beneficiary would present her Computerised National Identity Card (CNIC) – against which her biometric information has been tagged and can be verified at the payment collection point. Payments are disbursed through six partner banks who work through their branch networks, retail agents, franchise, or in partnership with mobile phone companies.”

## Outcomes/results

- “The switch to the Biometric Verification System (BVS) payment mechanism is associated with a slight increase in the proportion of women that retain control over money received through the BISP.” 73% of the women beneficiaries decide how the BISP cash is used (BISP Evaluation, 2020).
- “The BISP continues to have a strong impact on women’s empowerment in a wide range of dimensions including greater mobility, increased autonomy in decision-making, increased personal savings, increased political participation, and a reduction in some forms of gender-based violence.” (BISP Evaluation, 2020).

# Benazir Income Support Programme

## Outcomes/results (cont.)

- There are consistent and positive impacts of the BISP on the mobility of women across three categories (travel alone to the market, travel alone to the health facility, and travel alone to a friend's home), but "most positively for the categories relating to the ability of women to travel to markets, or health facilities alone." (BISP Evaluation, 2020).
- The 2019 evaluation reports "a positive and statistically significant increase in the proportion of women who can personally save" – of 4% that is "attributable to the BISP." (BISP Evaluation, 2020).
- One of the most "frequently cited impacts of BISP has been a marked increase in rural women's access to computerized national identity cards (CNICs), a prerequisite for obtaining the program. CNICs can be seen as the first step to citizenship and rights claims in Pakistan." (Research Collective, 2019). The enrollment of women for the national identity cards has doubled since the start of the program.

## Key enabling environment factors for the intervention

BISP has support from Pakistan's government to carry out the program. This government support has enabled the program to be carried out at a large scale across the country. This program also has large international recognition, which has attracted funders like the UK's Department for International Development.

## Key design elements and principles that led to successful outcomes

- The program deposits the money to the women of the household, not men.
- The program has been iterated and changed to better meet the needs of the beneficiaries as time went on. For example, the program moved away from cash delivery through the Pakistan Post because that approach was often too time consuming for the women.
- The program mandates having a National Identity Card for eligibility. This requirement helped encourage access to ID – an added bonus to the program's goals.

# Benazir Income Support Programme

- BISP has designed and implemented complementary social protection programs. BISP also launched the Waseela-e-Taleem initiative, a conditional cash transfer program that requires families receiving cash payments to enroll children between the ages of 5 to 12 to enroll in primary education.

## Potential for scale/replicability

"BISP is performing well in terms of cost efficiency with program costs ranging from a minimum of PKR 3.33 to a maximum of PKR 5.24 for every PKR 100 transferred to a beneficiary." The BISP compares favorably to other social protection programs globally. Cost-transfer ratios of major global cash transfer programs range from 5% to 53%. "This places the BISP as one of the more cost efficient social protection programs in the world. A big driver of this cost-efficiency is the ability to operate at scale, reaching approximately 5.7 million households across Pakistan." (BISP Evaluation, 2020). The program has also led to complementary programs being designed, such as the Waseela-e-Taleem initiative, a conditional cash transfer program that requires families receiving cash payments to enroll children between the ages of 5 to 12 to enroll in primary education. Overall, this program is cost-effective, operates at a large scale, and has expanded beyond the initial scope.

## Challenges encountered during the program

The 2019 Oxford Policy Management evaluation "found evidence of delays to disbursements of payments, which means that 17% of beneficiaries had received fewer than three payments in an annual cycle" (as opposed to the target of four payments per year). Additionally, "despite considerable efforts made by BISP to periodically increase the nominal value of the transfer", the 2019 evaluation finds that "the real value of the transfer has decreased by 9% since 2011" due to high rates of inflation observed in Pakistan over the period 2011 to 2019 (BISP Evaluation, 2020).

## Recommendations from the research

The 2019 evaluation recommends BISP to tailor future programming or communication with beneficiaries to the needs of beneficiaries with lower levels of literacy and education, since only 6% of BISP beneficiaries have completed primary education. Additionally, given the extensive reach of BISP and cost-effectiveness, the programs should consider developing more complementary social protection programs such as the conditional cash transfer education program that has already been implemented.

# Aadhaar Project

"India has a population of 1.2 billion people and approximately 400 million people are unable to prove their identity (in 2011)... The inability to prove one's identity precludes the poor, the marginalized, and the underprivileged populations of India from gaining access to benefits and subsidies, applying for welfare benefits, accessing education, opening a bank account, or attaining employment. The goal of Indian government officials in implementing a broad identification system is to successfully address the concerns of national security, corruption, and anti-poverty efforts. There have been many documented cases of fake identities, fraud, and duplication of welfare services across the country... In order to improve the economic situation of all of its residents, the Unique Identification Authority of India (UIDAI) implemented an ambitious and innovative program known as Aadhaar. Aadhaar, which translates to "support and foundation" in most Indian languages, would allow residents to prove their identity through a unique identity number provided by the officially recognized agency. The issuing of an Aadhaar number would be provided to all residents of India, whether or not they are permanent citizens." (Chin et al., 2015).

## Quick facts

### Barriers addressed



#### Prerequisites

[Digital/Foundational ID >](#)  
[KYC requirements >](#)



#### Cost

[Perceived and/or lack of money >](#)



#### Consumer Protection

[Fraud and scams >](#)  
[Fear of making mistakes >](#)  
[Potential \(or actual\) privacy violations >](#)

### Segment focus

1 2 3 4

### Customer Journey Relevance



### Geography

[India >](#)

### Key stakeholders involved

Unique Identification Authority of India (UIDAI), The Planning Commission of India, Ministry of Electronics and Information Technology, Enrollment agencies, Authentication user agencies

### Sources

[Chin et al., 2015; Aadhaar Dashboard, accessed 2022;](#)  
[Perlstein, 2017.](#)

# Aadhaar Project

## Key activities

Enrollment is free and occurs through duly designated third-party enrollment agencies. To become an official enrollment agency, an organization is required to go through proper training and testing on procedures and use of the enrollment kit. Each kit is packed into a briefcase and includes the following: a laptop, the enrollment software, fingerprint reader, iris scanner, webcam, laser printer, and monitor. Participation in Aadhaar is voluntary for all residents. Crucially, it enables eKYC – a function which greatly enhances the efficiency of the KYC process and fosters financial inclusion. To enroll, residents can go to any authorized enrollment agency, complete an Aadhaar application form, and present current identification documents. If an enrollee does not have identification documents, they can still enroll with the help of an “introducer” – a person whose identity has already been verified. The “introducer” vouches for the enrollee, sidestepping the requirements for identification documents. The enrollee will then have their biometric data recorded and is entered into the database. The assigned Aadhaar number for an individual is connected to all biometric data collected during the enrollment process. A trained enrollment center employee photographs the enrollee, records the iris scans of the—

—eyes, collects demographic information, and takes imprints of all 10 fingers. Each enrollee’s data is then uploaded to the Central Identification Data Repository (CIDR) for deduplication. The term “deduplication” refers to the process where the CIDR checks to determine whether or not the biometric data submitted already exists in the database. If no equivalent record exists, then a unique, randomly generated 12-digit number will be mailed to the enrollee.

## Outcomes/results

- According to the UIDAI’s Aadhaar Dashboard, 1,331,920,291 Aadhaar numbers have been generated as of April of 2022. Additionally, 622,578,411 Aadhaar have been updated, and 70,711,414,709 authentication transactions have been completed.
- There 1,307,544 certified supervisors and operators, 888 active enrollment agencies, and 237 Authentication User Agencies.

# Aadhaar Project

## Key enabling environment factors for the intervention

“Aadhaar’s ecosystem and public-private partnership structure is considered to be its greatest strength. Aadhaar’s implementation momentum does not reside entirely within the bounds of government or even within a narrow set of government and private organizations. Rather, the project has a broad array of organizations with a vested interest in its ongoing evolution and success.” (Chin et al., 2015).

## Key design elements and principles that led to successful outcomes

- Enrollment is free, ensuring that users at the bottom of the pyramid can enroll in the program.
- The program is designed to be inclusive. Transgender individuals can register for this program, as well as noncitizens of India. Additionally, “multiple biometric data are recorded in order to enable the inclusion of all residents in India. Fingerprints, for example, can be worn away by physical labor. Since many of the poor residents of India have occupations that require heavy physical labor, a fingerprints-only identification scheme would continue to disenfranchise many of them.” (Chin et al., 2015).

- The program is designed to enable individuals who don’t meet the KYC requirements to enroll as long as they have the help of an “introducer” – someone whose identity has already been verified.
- The program has incorporated “anti-duplication” systems to ensure that each person is associated with one number, which minimizes the risk of fraud, scams, or identity theft.

## Potential for scale/replicability

The Aadhaar Project is the largest-scale program for establishing biometric identity ever to be launched around the world (as of 2022). Other countries around the world have also been experimenting with incorporating biometrics into their ID programs, such as Nepal, Tanzania, and Nigeria. One of the reasons why India’s program has been able to operate on such a large scale is the formation of public-private partnerships throughout the country. Countries wishing to scale up their ID programs to the level of the Aadhaar project should seek to leverage partnerships with different stakeholders to improve operational efficiency and outreach.

# Aadhaar Project

## Challenges encountered during the program

The Aadhaar Project has suffered from political divisions in the past. For example, in the 2014 national elections, some candidates questioned the safety of the Aadhaar technology and how the program's funding was used. This raised tensions among citizens who started to distrust the program. The Supreme Court of India has also challenged the constitutionality of Aadhaar.

## Recommendations from the research

Based on the concerns over security and privacy of Aadhaar, future programming should incorporate consumer protection trainings or presentations to resolve doubts that individuals may have concerning their identity and data protection. Additionally, the major strength of Aadhaar is its ability to make public-private partnerships. The program should continue leveraging these partnerships in the future to ensure that those at the bottom of the pyramid can become included via formal identification.

“

*One of the reasons why India's program has been able to operate on such a large scale is the formation of public-private partnerships throughout the country.*



# Kenya's Rules on Mobile Money Price Transparency are Paying Off

"For years, Kenya's digital financial services providers did a poor job disclosing the costs of person-to-person transfers, bill payments and loans." (CGAP, 2018). "This has resulted in poor consumer understanding of costs in many cases. For example, 40% of CGAP survey respondents who used paybill services on M-Pesa reported thinking this service was free when in fact most paybill transactions carry hidden fees." (CGAP, 2016). "To address this lack of transparency, the Competition Authority of Kenya (CAK) in 2016 required mobile financial services providers to disclose their costs via customers' mobile handsets... To understand what impact (if any) this was having on consumers, CGAP surveyed 825 Kenyan DFS users in November 2016 just before providers began complying with the new policy, and again in November 2017, after most providers had complied." (CGAP, 2018).

## Quick facts

### Barriers addressed



*Cost*

[Non-transparent fee structures / hidden costs >](#)



*Information Availability & Capability*

[Financial literacy >](#)

[Digital literacy >](#)

### Segment focus

1 2 3 4

### Geography

[Kenya >](#)

### Sources

[CGAP, 2018](#); [CGAP, 2016](#).

### Customer Journey Relevance



### Key stakeholders involved

DFS providers  
Competition Authority of Kenya (CAK)

# Kenya's Rules on Mobile Money Price Transparency are Paying Off

## Key activities

"The Competition Authority of Kenya (CAK) on October 29, 2016 announced an important new standard for pricing in digital financial services. All financial services providers that offer services via digital channels must now present consumers full information on the costs before they use the service on the same screen on which the consumer is transacting.

This action by CAK is noteworthy for several reasons:

1. The insistence on disclosing costs on the transaction channel reflects the way many consumers process pricing information – in a "just-in-time" manner when they are at the point of making a transaction versus traditional approaches such as posting of tariff fees at agent locations.
2. The enforcement applies to all types of providers.
3. The ruling applies to a wide range of product types. This should set a standard for better transparency as new products leverage digital channels. The more complex the products offered through these digital channels, the more crucial it is to have simple, standardized

product information easily available and understandable to consumers." (CGAP, 2016).

## Outcomes/results

"For M-Pesa and Airtel Money, consumers' pricing awareness improved from baseline to endline across several transfer amounts." (CGAP, 2018). The percentage of respondents who correctly guessed how much they would have to pay to send someone Ksh 500 increased from 14% to 71% among M-Pesa customers, and 37% to 83% among Airtel Money customers.

"Survey findings for M-Shwari show that people who had taken an M-Shwari loan of Ksh 200, Ksh 500 and Ksh 1,000 were more aware of the costs after the CAK policy." (CGAP, 2018). From baseline to endline, the percentages were as follows:

- Ksh 200 loan: 52% to 80%
- Ksh 500 loan: 0% to 38%
- Ksh 1,000: 0% to 56%

# Kenya's Rules on Mobile Money Price Transparency are Paying Off

## Outcomes/results (cont.)

"Withdrawal fees from mobile money and banking agents were not impacted by the CAK policy. Not surprisingly, there was not much change—and sometimes change in the wrong direction—regarding price awareness for these transactions." (CGAP, 2018). For example, the percentage of customers who correctly estimated cash-out fees for a Ksh 200 transaction at an M-pesa agent decreased from 77% at baseline to 60% at endline.

## Key enabling environmental factors for the intervention

Kenya's rules on mobile money price transparency stemmed from an enabling policy environment created by the Competition Authority of Kenya.

## Key design elements that led to successful outcomes

The CAK insisted on disclosing costs on the transactions on the same screen as the customer's transaction. This "reflects the way many consumers process pricing information in a "just-in-time" manner when they are at the point of making a transaction versus traditional approaches, such as posting of tariff fees at agent locations." (CGAP, 2016). The ruling also applied to a range of product types, which helped ensure standardization and transparency as digital channels and products were taking off.

## Potential for scale/replicability

The CAK has the authority to make this mandate cover even more transaction types, such as withdrawing from a mobile money or banking agent. Policy-makers in other markets can follow Kenya's example and issue similar basic rules on mobile money price transparency.

## Kenya's Rules on Mobile Money Price Transparency are Paying Off

### Challenges encountered during the program

"Withdrawal fees from mobile money and banking agents were not impacted by the CAK policy." (CGAP, 2018). The percentage of people who correctly estimated cash out fees at an agent did not change much from baseline to endline, and, in some cases, even decreased. For example, the percentage of people who correctly guessed the fees to cash out Ksh 500 only increased by 1% from baseline to endline.

### Recommendations from the research

CGAP suggests that "if policy-makers are serious about ensuring consumer protection keeps pace with product innovation, they would do well to follow Kenya's lead by issuing basic rules and monitoring providers' disclosure of key terms and prices on digital channels." (CGAP, 2018).

CGAP did not do an RCT due to ethical reasons; however, doing an RCT can help better determine full causality.

“

*CGAP suggests that if policy-makers are serious about ensuring consumer protection keeps pace with product innovation, they would do well to follow Kenya's lead by issuing basic rules and monitoring providers' disclosure of key terms and prices on digital channels.*

# Regulations Drive Success of Digital Finance in Côte d'Ivoire

"In 2006, a year before the rise of M-Pesa in Kenya, the Central Bank of West African States (BCEAO) released its *Guidelines for Electronic Money Issuers*, which allowed both banks and non-banks to issue e-money and establish agent networks. Within just two years, Orange Money would become the first player in Cote d'Ivoire to introduce a mobile money service followed two months later by MTN and by Moov in 2013. Following a political crisis in 2010 and 2011, during which many Ivorians turned to the security of mobile money to send money to friends and family cut off by violence and instability; hopes were high that Côte d'Ivoire would rapidly emerge as a leading market for DFS in Sub-Saharan Africa." (CGAP, 2019).

"However, the inadequacies of the 2006 regulations quickly became apparent. Despite permitting MNOs and other non-banks to become e-money issuers, the regulations lacked clarity on several important aspects, such as the compliance obligations for non-banks and the respective roles and responsibilities of e-money issuers and distributors." These regulations "left MNOs at the mercy of bank partners, which served as intermediaries between the MNOs and BCEAO and whose approval was required to recruit new agents or introduce new products and services." (CGAP, 2019).

"After engaging with industry players and observing regulators' approaches in markets like Kenya and the Philippines, BCEAO recognized the need to provide greater regulatory certainty and decided to take action. In 2015, the central bank issued new regulations that clarified the position of non-banks and encouraged them to abandon partnerships with banks and begin issuing e-money themselves through subsidiaries under BCEAO supervision." (CGAP, 2019).

## Quick facts

### Barriers addressed



#### Cost

[Non-transparent fee structures / hidden costs >](#)



#### Information Availability & Capability

[Financial literacy >](#)

[Digital literacy >](#)



#### Consumer Protection

[Difficulty resolving complaints >](#)

[Potential \(or actual\) privacy violations >](#)

### Segment focus

1 2 3 4

### Customer Journey Relevance



### Geography

Côte d'Ivoire

### Key stakeholders involved

Central Bank of West African States (BCEAO)

Service providers

### Sources

[CGAP, 2019](#); [IFC, 2021](#);

[CGAP, 2018](#).

# Regulations Drive Success of Digital Finance in Côte d'Ivoire

## Key activities

The 2015 regulations introduced “the ability of non-banks to recruit and manage their own agent networks and launch their own products, measures to ensure price transparency, customer recourse mechanisms, and personal data protection... The new regulations also clarified rules around the non-exclusivity of agents, promoting competition and allowing providers to take advantage of the existing agents network built by others to establish their own presence in previously underserved areas.” (CGAP, 2019).

## Outcomes/results

The independent management of agent networks, price transparency, and customer recourse mechanisms allowed the private sector to expand their agent network from fewer than 20,000 agents in 2014 to nearly 100,000 by 2018.

“Orange quickly launched an e-money subsidiary and received a license from BCEAO in February 2016 followed shortly thereafter by MTN. The autonomy, flexibility and agility that full ownership of mobile money services bestowed on the MNOs—particularly the ability to directly manage their agent networks and obtain new revenue from interest earned on customer float held at banks—had an almost immediate impact on investment. For instance, annual growth in Orange Money’s agent network, which stood at just 37% in 2014, skyrocketed to 70% in 2015 and continued to accelerate through 2018.” (CGAP, 2019).

“By 2018, with more and more Ivorians adopting and using mobile money, the volume and value of mobile money transactions had grown dramatically,” as well as the number of registered and active mobile money users (CGAP, 2019).

# Regulations Drive Success of Digital Finance in Côte d'Ivoire

## Key enabling environmental factors for the intervention

BCEAO adopted an enabling regulatory approach with basic regulatory enablers, including agent networks/use of agents, price transparency, and customer recourse mechanisms.

## Key design elements that led to successful outcomes

Aside from implementing basic regulatory enablers previously discussed, BCEAO engaged with industry players and studied other regulatory approaches in markets including Kenya and the Philippines. These activities helped inform Cote d'Ivoire's own regulations.

## Potential for scale/replicability

BCEAO's experience with adopting regulations indicates that these regulations can be replicated across markets; BCEAO took learnings and best practices from other markets and key industry players in forming its own regulations. CGAP notes that BCEAO can also do—

—more to introduce more regulations, such as allowing mobile money providers to pass along the interest earned on float to customers.

## Challenges encountered during the program

According to CGAP, “other issues, such as the lack of a simple and affordable e-signature process and biometric national ID, have impeded the introduction of second-generation products like savings, credit and insurance. And limits on non-MNOs' access to USSD has made it harder for fintechs to offer innovative products and services to customers.” Additionally, “BCEAO prevents mobile money providers from passing along the interest earned on float to customers.” (CGAP, 2019).

# Regulations Drive Success of Digital Finance in Côte d'Ivoire

## Recommendations from the research

CGAP offers several recommendations for BCEAO:

1. Allow mobile money providers to pass along the interest earned on float to customers to increase the value of these services to customers.
2. Implement a simple and affordable e-signature process and biometric national ID to introduce second-generation products like savings, credit, and insurance.
3. Remove limits on non-MNOs' access to USSD to enable fintechs to offer innovative products and services to customers.

“

*By 2018, with more and more Ivoiriens adopting and using mobile money, the volume and value of mobile money transactions had grown dramatically, as well as the number of registered and active mobile money users.*



# DigiFarm

"Women account for nearly half of the world's smallholder farmers and greatly contribute to agricultural activity yet are disproportionately affected by systemic challenges in the agricultural sector such as access to markets, credit, inputs, knowledge, and land. Digital solutions have potential to revolutionize the livelihoods of farmers, however, challenges that constrain meaningful use of digital services by female users limit sustainable impact for women smallholder farmers. The agriculture sector in Africa has been facing systemic challenges over the past decades including issues around markets, credit, quality inputs as well as knowledge and networks. These challenges disproportionately affect female smallholder farmers who contribute greatly to agricultural labor and productivity." To address these challenges, "Safaricom (East Africa's leading network provider launched DigiFarm in 2017) integrated mobile platform of digital services for farmers." (Mercy Corps, 2021).

"DigiFarm—accessible on a basic feature phone—provides farmers with access to products and services enabling them to conveniently source, transact, learn, and grow their farms." (Mercy Corps, 2021).

## Quick facts

### Barriers addressed



#### Prerequisites

[Lack of credit history \(for credit products only\) >](#)



#### Cost

[Perceived and/or lack of money >](#)



#### Social Norms

[Ambivalence or antagonism towards women's financial independence >](#)



#### Information Availability & Capability

[Financial literacy >](#)



#### Product & Service Quality

[Lack of products that meet women's needs >](#)  
[Lack of products and services that create value >](#)

### Segment focus

1 2 3 4

### Customer Journey Relevance



### Geography

[Kenya >](#)

### Key stakeholders involved

Arifu  
Safaricom  
Mercy Corps AgriFin

### Sources

[GSMA, 2022;](#)  
[Mercy Corps, 2021.](#)

# DigiFarm

## Key activities

See below for an overview of DigiFarm's Services (Mercy Corps, 2021):

- **Inputs:** DigiFarm works with agrovets to offer farmers high quality, certified inputs at an affordable price point.
- **Input credit:** DigiFarm offers input credit to its farmers through credit partners in the form of a code used to access the inputs. A 20% deposit is required to access input credit.
- **Learning:** DigiFarm shares knowledge through education partners (e.g., Arifu educates on topics such as planting methods, farming, financial literacy, cultivation and best farming practices).
- **Crop insurance:** DigiFarm offers agri-insurance through partners in two forms: 1) bundled with input credit as mandatory insurance, and 2) a separate offering for farmers who decide to pay for inputs in cash.
- **Market linkages:** DigiFarm links farmers to markets through Digisoko and other partners (e.g., UNGA Group Limited, EABL, BIDCO and Capwell Industries).

## Outcomes/results

"DigiFarm has had over 1.3 million registered users since its launch... Women farmers report seeing an increase in yields and farm productivity due to enhanced access and use of certified, quality inputs provided by DigiFarm on credit. Farmers cite that the education they have received on good farming and agronomic practices from DigiFarm has simplified farming activities, helped them effectively use inputs, and reduced their cost of labor... Women have increased control over their finances and financial decision-making as earnings from sales through DigiFarm are sent directly to their cell phones." (Mercy Corps, 2021).

DigiFarm has also helped address cost barriers for women (Mercy Corps, 2021):

- **Increased incomes:** Women farmers are guaranteed a market for their produce, which enables them to sell more and offers higher prices than those offered by middlemen, increasing their income from farming.
- **Multiple income streams:** Women farmers have been able to add to the income streams in the household, enabling them to cover essential expenses such as food and school fees as well as non-essential aspirational goods such as TVs.

# DigiFarm

## Outcomes/results (cont.)

- **Disposable income:** The small down payment required for input credit results in women farmers reporting having more disposable income to use for other activities as they only pay a 20% deposit when they take an input loan.

## Key enabling environment factors for the intervention

“Safaricom’s strong brand has played a key role in creating awareness about DigiFarm and converting women farmers to register. Safaricom’s brand is well-known, familiar, and trusted amongst farmers, because most farmers recognize it from using its cell phone services and mobile money. The familiarity creates trust, especially among women farmers. Safaricom’s longevity in the market also creates an assurance among farmers that the DigiFarm brand will likely be a long-term initiative than other programs farmers may have worked with in the past.” (Mercy Corps, 2021).

## Key design elements that led to successful outcomes

“The platform is accessible on a basic feature phone, allowing farmers to access information and complete transactions conveniently.” (Mercy Corps, 2021).

Community level channels are leveraged to get women farmers to register for DigiFarm, such as friends, neighbors, DVAs, and local agroverts.

Money from sales is sent directly to women’s phones, enabling them to have access and control over their finances.

## Potential for scale/replicability

DigiFarm can expand the value chains that it works with, “particularly those engaging women farmers such as poultry value chains.” The program can also “expand the inputs delivery network to increase coverage of rural areas by enrolling more agroverts and input stores to reduce some of the mobility issues faced by women.” (Mercy Corps, 2021).

# DigiFarm

## Challenges encountered during the program

Mercy Corps AgriFin's evaluation of DigiFarm highlighted several challenges that hinder uptake of DigiFarm (2021):

- Limited awareness and understanding of the process and benefits of insurance constrain most women farmers' uptake.
- "Past negative experiences with insurance payouts for both women farmers and their community members have led them to believe that it is a waste of money."
- "Women are eager to engage with education-related services, but prefer to do this in a tactile way – through DVAs, training, or demonstration plots."
- "A perceived lack of relevance of some learn modules also drives low usage."
- "Learning modules take up women farmers' already constrained time, which is sometimes a disincentive to engaging frequently with content."
- "Women farmers' limited digital literacy levels compared to male farmers also present a barrier to learning."

## Recommendations from the research

The following are emerging as key opportunity areas for DigiFarm to increase women farmers' awareness of the platform and improve onboarding:

- Target women farmers more effectively in awareness raising and onboarding (at churches, markets, health centers, etc).
- Adapt the trainings to meet women's needs.
- "Incorporate more IVR (Interactive Voice Response) features in the learning which can enable women to learn while doing other tasks (e.g. cooking)." ([Mercy Corps, 2021](#)).
- "Increase training on insurance to enhance awareness and understanding of insurance and shift negative perceptions for both DVAs and farmers." ([Mercy Corps, 2021](#)).

# Farm to Market Alliance (FtMA)

"FtMA is a public-private consortium of organizations seeking to transform food value chains in emerging markets by building long-term linkages between suppliers (farmers), buyers and other key market players. FtMA is a multi-stakeholder partnership that supports smallholder farmers through a network of Farmer Service Centers (FSCs). It currently operates in Rwanda, Tanzania, Zambia and Kenya. FtMA takes a demand-led and holistic approach, tackling farmer challenges with partners through a recently launched, innovative FSC model. Since its launch in 2017, FtMA Kenya has been delivering a full set of services through a network of FSCs that are led by influential local business leaders and groups, and serve as key service hubs linking private and public sector partners with smallholder farmers. Prior to late Q4 2019, farmers were on-boarded onto FtMA service streams through FtMA field officers or Agribusiness Coordinators (ACs) that worked through local farming groups. These groups were predominantly self help groups that served as a platform for offering farming services and products... FSCs earn income by delivering to smallholder farmers quality agricultural products and service at the village level, thus reducing extra cost and inconvenience faced due to last mile delivery challenges. FtMA aggregates local smallholder farms through established agribusiness entrepreneurs, while driving revenue for these entrepreneurs. FtMA supports 394 FSCs across 12 counties well above the FtMA 2020 target of 360. The FSCs are projected to serve 72,500 farmers by the end of 2020." (Mercy Corps, 2021).

## Quick facts

### Barriers addressed



*Prerequisites*

[Lack of credit history >](#)



*Cost*

[Perceived and/or lack of money >](#)



*Social norms*

[Ambivalence or antagonism towards women's financial independence >](#)



*Product & Service Quality*

[Lack of products that meet women's needs >](#)

[Lack of products and services that create value >](#)

### Segment focus

1 2 3 4

### Geography

Rwanda, [Tanzania >](#), Zambia and [Kenya >](#)

### Sources

[GSMA, 2022;](#)

[Mercy Corps, 2021.](#)

[FtMA.](#)

### Customer Journey Relevance



### Key stakeholders involved

Mercy Corps AgriFin  
AGRA  
Bayer  
Rabobank Group  
Syngenta  
WFP  
Yara International ASA  
223,848 farmers

# Farm to Market Alliance (FtMA)

## Key activities

“FtMA offers a range of services to support farmers centering on: capacity-building and training, access to affordable finance, access to inputs and mechanization, and access to markets and post harvest support. FtMA Kenya has also launched digital services to support its FSCs and farmers, which include Interactive Voice Response (IVR) calls, SMS and Kuza Leadership Academy—to provide digital trainings—digital loans, YARA Connect and Hello Tractor to enhance access to inputs and mechanization respectively, as well as Twiga Foods and Farm2Go to enhance market facilitation.” (Mercy Corps, 2021).

## Outcomes/results

Cited from Mercy Corps, 2021:

“Women farmers have seen improved yields and productivity given the FtMA training on good agronomic methods and practices such as the best time to plant, and when and how to use inputs. Increased access to certified and quality seeds and inputs from agrovets run by FSC leads closer to home and input partners—

—such as Yara, has facilitated increases in yields. Women farmers have been able to diversify their farming practices and now practice mixed farming, crops and livestock.”

“FtMA trainings have encouraged FSC leads and farmers to shift from subsistence to commercial farming, and facilitated the shift by enhancing access to markets, which has resulted in higher incomes. FtMA has helped women FSC leads diversify income streams. Additionally, FSC leads gain commission for every farmer they onboard, increasing their income streams. Women FSC leads have reported enhancement of their entrepreneurship and business skills through mentors and training on good business practices such as bookkeeping.”

“There is increased decision-making power by women in the household as spouses trust the knowledge received from the trainings, and therefore allow women to make more contributions to farming decisions.”

# Farm to Market Alliance (FtMA)

## Key enabling environment factors for the intervention

“FtMA’s use of FSC leads, who are local entrepreneurs, enhances women farmers’ trust of FtMA and subsequent joining. FSC leads are local community members who are familiar to farmers—often trusted and even looked up to—which helps in gaining trust and buy-in from women farmers who typically have lower trust of new services compared to men farmers. The physical presence and familiarity of the FSC leads helps to get women farmers’ buy-in. Success of FSC leads and group leaders’ farms sparks interest among women farmers and generates awareness and trust of FtMA.” (Mercy Corps, 2021).

## Key design elements and principles that led to successful outcomes

Cited from Mercy Corps, 2021:

“The provision of relevant and targeted content drives usage through Interactive Voice Response (IVR) and SMS to the value chains that women engage in. Women farmers mentioned that they value the availability of this content as it enables them to plant more effectively and better protect the crops they are farming. Farmers also indicated the content was simple, easy to understand and—

—practical, as the content clearly highlighted which products (e.g. pesticides) to use.”

“FtMA’s non-digital registration process through FSC leads encourages women farmers’ registration. FtMA’s registration process involves a non-digital form for farmers to fill with a few basic questions. The forms require the farmer’s name, ID number, phone number, location, and farming activities. The non-digital nature of registration eases the process for women farmers as it eliminates the *Digital literacy* barrier.”

“The availability of in-person support in the registration process (through FSC leads), facilitates women farmers’ registration, as they have a trusted source of information for guidance and reassurance, as well as support for literacy challenges.”

## Potential for scale/replicability

FtMA already operates on a large scale and in four countries. In each country of operation, FtMA engages with a range of value chain actors, including private sector business, governments, farmer groups, markets off-takers and aggregators, farm input companies, financial institutions, insurance providers and extension service practitioners.

# Farm to Market Alliance (FtMA)

## Challenges encountered during the program

Cited from Mercy Corps, 2021:

- “Household responsibilities and required permission from husbands can limit women’s attendance to trainings.” “Limited awareness of digital loan providers by FSC leads drives lower applications for digital loans.”
- “Gendered roles determine women’s attendance of the trainings. Fewer women, compared to men, participated in the Crop Protection Trade fairs because it was viewed as more of a man’s responsibility.”
- “Limited sole ownership of collateral drives women farmers’ risk aversion to both non digital and digital loans. Negative past experiences with group loans, as well as with insurance payouts, have made farmers, particularly women, reluctant to take more input loans and trust insurance.”

## Recommendations from the research

Cited from Mercy Corps, 2021:

- “Work with Implementation Partners to proactively recruit more women through channels such as farming groups and cooperatives.”
- “Ensure FSC leads are aware of all loan provider options through trainings, IVR, or SMS to ensure they recommend the full range of provider options to farmers.”
- “Follow up IVR calls with a summary on SMS for farmers to have a repository of content for reference.”
- “Work with Implementation Partners and FSC leads to offer more trainings at the local level for farmers to address challenges of attending distant trainings for women farmers.”
- “Encourage FSC leads to collect produce from women from their farm or homes as additional support to help address women’s time and mobility constraints from accessing markets.”



# Business Women Connect Program

"The Business Women Connect (BWC) program was designed by TechnoServe to improve the business performance of women microentrepreneurs by providing them with improved access to savings through mobile money and business training. The BWC program in Tanzania consisted of two interventions... The first intervention (M-Pawa intervention) is a training session on M-Pawa and registration with the product. M-Pawa is a mobile finance product designed by Vodacom that allows customers to save money on an interest-bearing mobile savings account. It also enables users to access microloans conditional on good savings performance. The second intervention (Business Training intervention) is an intensive business skills training."

Researchers undertook an impact evaluation to present "short-term results from an experiment randomizing the promotion and registration of a mobile savings account among women microentrepreneurs (women working as street vendors and in markets) in Tanzania, with and without business training." The authors focus on savings, credit, and business practices (Bastian et al., 2018).

## Quick facts

### Barriers addressed



#### Prerequisites

[Lack of credit history >](#)



#### Social norms

[Ambivalence or antagonism towards women's financial independence >](#)



#### Information Availability & Capability

[Financial literacy >](#)

[Digital literacy >](#)

[Unclear or difficult process to open an account >](#)

[Unclear or unavailable information about products/uses >](#)

### Segment focus

1 2 3 4

### Customer Journey Relevance



### Geography

[Tanzania >](#)

### Key stakeholders involved

TechnoServe

Vodacom

Arifu

4,003 women microentrepreneurs

### Sources

[Bastian et al., 2018; Business Women Connect.](#)

# Business Women Connect Program

## Key activities

Cited from Bastian et al., 2018:

4,003 women microentrepreneurs were selected to participate in the study. The women were randomly assigned to the control group, the M-Pawa intervention, and both M-Pawa and Business Training interventions.

The M-Pawa intervention is “a 2.5-hour training session on the uses and benefits of Vodacom M-Pawa savings account, along with the general concept of savings and its benefits, and registration with the product.”

The Business Training intervention is “a twelve 2.5-hour weekly face-to-face training sessions on business skills. The training focused on different business skills, including business expansion and profitability, finance and record-keeping, entrepreneurship and business planning, and personal and professional efficacy.”

## Outcomes/results

Cited from Bastian et al., 2018:

- “The M-Pawa intervention positively impacted transactions probabilities, increasing the probability of a woman making at least one deposit and one withdrawal during the first 58 weeks by 39% and 32%.”
- “Women assigned to the M-Pawa intervention increased the number of deposits and withdrawals made during this period by 5.3 and 3.7 (control means are 1.4 and 1.6). These effects are 28% and 42% higher among women also assigned to the Business Training intervention.”
- “The M-Pawa intervention increased the probability of receiving a loan by 14%, the average number of loans received by 0.39, and the average total amount borrowed by TZS 4,594... These microloans are being repaid at fairly consistent rates. The M-Pawa intervention increased the probability of loan repayment by 11%, the average number of loan repayments by 0.72, and the average total amount repaid by TZS 3,730.”

# Business Women Connect Program

## Outcomes/results (cont.)

- “The overall positive impact of the M-Pawa intervention on women’s empowerment is mostly driven by increases in women’s say over how to spend money earned from their businesses, and on major household and children expenditures.”

## Key enabling environment factors for the intervention

This intervention had support from local governments. Participants received a certificate of completion upon finishing the Business Training intervention that was recognized by local governments.

## Key design elements that led to successful outcomes

- The program bundled the business intervention with the M-Pawa intervention. Bundling these products and services (savings, credit, trainings) introduced more value to women participants.
- The program used a variety of learning methods during the trainings, such as manuals, videos, activity based learning, etc.

- The intervention also incorporated elements from Arifu—a digital content and interactive learning platform to reinforce trainings and send out messages—such as weekly savings reminders.

## Potential for scale/replicability

The BWC program is already replicated in Nigeria and Mozambique, indicating that it has the potential to expand to additional countries. Organizations wishing to replicate this program should keep in mind that the success derived from both interventions bundled together.

## Recommendations from the research

The research identified the need to conduct long-term evaluations of the program to see the effects of the interventions on financial inclusion and empowerment over a longer period of time.

# Reducing Tax Costs on Connectivity

"Today, Kenya is known for being one of the most forward-thinking countries in Sub-Saharan Africa from a digital standpoint. This reputation was made possible by several government measures that enhanced access and affordability to telecommunications services." However, prior to these measures, Kenyans were paying high taxes for mobile services. For example, "in 2009 Kenyans were paying 16% VAT for mobile devices and a staggering total of 26% in VAT and airtime taxes for mobile services. This rendered mobile a luxury for most and low mobile teledensity masked the great demand for mobile services that was present by this time." (A4AI, 2022).

## Quick facts

### Barriers addressed



#### Prerequisites

[Phone/SIM Ownership >](#)

[Internet/Mobile connectivity >](#)



#### Cost

[Cost of using DFS \(incl. transaction cost\) >](#)

[Cost of mobile/internet >](#)

### Segment focus

1 2 3 4

### Geography

[Kenya >](#)

### Sources

[GSMA, 2011](#); [A4AI, 2022](#).

### Customer Journey Relevance



### Key stakeholders involved

Government of Kenya  
Kenyan MNOs

# Reducing Tax Costs on Connectivity

## Key activities

Recognizing that 1) handset prices were harming the MNO sector, and 2) “on its own, competition was no longer sufficient to expand internet access, the Kenyan government exempted mobile handsets from VAT in June 2009 just as the internet superhighway arrived.” (A4AI, 2022).

## Outcomes/results

“Mobile teledensity grew to reach 70% of the population while the number of mobile devices purchased increased by over 200%. As the customer base for mobile services grew, a price war saw that the three Kenyan MNOs lower their prices substantially to attract and maintain customers, that citizens enjoyed more affordable services, and that government revenues from the sector even grew.” (A4AI, 2022).

From 2006 to 2011, “the contribution of mobile telephony to the Kenyan economy has grown by almost 250%, while mobile-related employment has increased by 67%. As a result of improved coverage, quality of service, and affordability, the productivity impact of mobile telephony on the Kenyan economy is estimated to have increased by a similar scale.” (GSMA, 2011).

## Key enabling environment factors for the intervention

“Early work by the Government of Kenya involved the development of its ICT policy in 2006, which was quickly followed by the launch of the Vision 2030 plan in 2008. Each of these documents place science, technology, and innovation at the forefront of efforts to promote socio-economic development in the country.” (A4AI, 2022).

## Potential for scale/replicability

Removing the tax on handsets was implemented on a national scale. Other countries can adopt a similar regulation if they have similar market conditions to Kenya and seek to boost mobile phone ownership and the internet penetration rate.

## Challenges encountered during the program

“Mobile consumers in Kenya are still impacted by a specific tax on airtime. This tax is levied at 10% and is additional to VAT. This is amongst the highest in Africa, and contributes to raise consumer tax as a proportion of the total cost of mobile ownership in Kenya to 21%, well over both the African and the global average.” GSMA, 2011).

Exemplars

# Reducing Tax Costs on Connectivity

## **Recommendations from the research**

Researchers recommend to reduce the tax on airtime to reduce the total cost that Kenyans spend on their mobile devices each year and to make mobile phones / mobile use more affordable.

# Mobile Financial Services for Female Entrepreneurs (MFS) Program

The Government of Indonesia passed a law to support the development of branchless banking services for a large unbanked rural population. As a result of this new law, this intervention sought to increase the utilization of saving and other financial services by women business owners in Indonesia. The trial was conducted in 400 selected rural and semi-urban villages in five districts of East Java province in which branchless banking services (including basic savings accounts accessible through mobile phones) were made available.

“The randomized interventions supported by this trial included both supply-side treatments (higher agent incentives) and demand-side treatments (training and mentoring of female business owners)... As part of the experimental design the participating bank agreed to make a special effort to recruit female agents with 47% of the recruited agents being female... The data analyzed include both baseline and midline survey data on female and male business owners and branchless banking agents.” (Knowles, 2019).

## Quick facts

### Barriers addressed



#### *Social norms*

[Ambivalence or antagonism towards women's financial independence >](#)



#### *Information Availability & Capability*

[Financial literacy >](#)

[Digital literacy >](#)

[Unclear or difficult process to open an account >](#)

[Unclear or unavailable information about products/uses >](#)



#### *Human Resources*

[Lack of female agents >](#)

### Segment focus

1 2 3 4

### Geography

[Indonesia >](#)

### Sources

[Knowles, 2019](#); [Mercy Corps](#)

[Indonesia, 2021](#).

### Customer Journey Relevance



### Key stakeholders involved

Mercy Corps Indonesia

Government of Indonesia

Center for Global Development

J-PAL

SurveyMETER

Banks/banking agents

400 rural and semi-urban villages

# Mobile Financial Services for Female Entrepreneurs (MFS) Program

## Key activities

- Supply-side interventions: recruitment and training of branchless banking agents on marketing to the underbanked, how to use branchless banking online software, and features of branchless banking products/services
- Demand-side interventions: Four business owners in each village were trained and mentored by Mercy Corps Indonesia on financial and digital literacy, as well as given descriptions of branchless banking products and services.
- Impact evaluation: analyzing baseline and midline survey data for business owners and banking agents using statistical models

## Outcomes/results

Female business owner training and mentoring had a significant positive effect on six of the summary outcomes (knowledge of mobile money, relationships with mobile money agents, household decision-making, spousal roles, saving and general welfare). The

training/mentoring of women business owners had a highly significant positive effect on their knowledge of mobile money in general, and of digital wallet products and mobile saving products. “Both the demand-side and supply-side treatments had a positive estimated effect on total savings for women that was largest and statistically significant (+0.25, compared to an adjusted control value of 2.13) in the case of the total current savings balance... The results show consistently positive and significant effects of the demand- and supply-side treatments on the likelihood that a female business owner is the sole decision-maker in decisions about work outside the home, on whether to support other family members, on whether to save for the future, or on whether to sign up for a new banking product. The analysis also finds significant positive effects of the demand-side treatment on women business owner’s self-confidence, as measured by indices of women business owners’ assertiveness and positive attitudes.” The number of people opening and saving in branchless banking accounts in the past month is positively and significantly related to female agents (Knowles, 2019).



# Mobile Financial Services for Female Entrepreneurs (MFS) Program

## Key enabling environment factors for the intervention

“To promote financial inclusion, the Government of Indonesia recently passed a law to encourage large banks to develop branchless banking services, including basic savings accounts that are supported by village-based agents and that can be accessed using mobile phones... Five large Indonesian banks had already been approved to provide branchless banking (at the time of this study), and more are expected to be approved in the future.” (Knowles, 2019).

The intervention also took place in villages that have access to the internet, are not located in disaster-prone areas, have safe living conditions, and no potential for communal conflict.

## Key design elements and principles that led to successful outcomes

- The program bundled different types of training together (financial literacy, digital literacy, information about products).
- The program included interventions for both supply- and demand-side barriers to WEE-FI.
- The program was designed to be gender-intentional through an effort to to recruit women agents.

## Potential for scale/replicability

This intervention has the potential to be replicated, but only in environments conducive to the needs of the program design, such as in markets with strong internet connectivity and ICT infrastructure, as well as markets with robust agent networks. Due to the challenges encountered with recruiting agents, scaling up the intervention may take considerable time and effort.

# Mobile Financial Services for Female Entrepreneurs (MFS) Program

## Challenges encountered during the program

One of the main challenges encountered during the program was the lack of consistent access to reliable and affordable internet connectivity in rural areas. "Access to stable and affordable internet connectivity was needed to ensure that agents and customers could reliably use digital-based financial services. This issue affected a range of activities from the agent selection process, to the training of agents, to the training of women entrepreneurs, and to the point of time where agents and customers started making transactions." (Mercy Corps, 2021)

## Recommendations from the research

The research and design team identified several lessons learned from the MFS program. First, robust agent management strategy involving digital solutions is necessary for both the FSP and the customer experience. The team also suggests to de-prioritize financial criteria as the main component for the selection of agents. Rather, agents with strong literacy levels, large social networks, laptop owners, and those with disposable time should be chosen as agents.

“

*The training/ mentoring of women business owners had a highly significant positive effect on their knowledge of mobile money in general, and of digital wallet products and mobile saving products.*

# Mobile-Linked Bank Accounts

"While Sri Lanka has relatively high rates of formal bank account ownership, a large proportion of savings continues to be held in informal saving devices." Additionally, many people do not move beyond account ownership to more active usage (De Mel et al., 2018).

This study analyzes a field experiment in Sri Lanka that "aimed to reduce the ongoing banking transactions costs by allowing participants to make deposits into regular bank savings accounts through their mobile phone. The intervention allowed participants to make deposits through any mobile phone agent." (De Mel et al., 2018).

The intervention included a novel savings account mobile-deposit service provided by a partnering bank in Sri Lanka. The study design is a randomized controlled trial. Randomly selected individuals are mailed offer letters to participate. Those who accept are provided assistance opening a bank account, as well as given a mobile phone, SIM card, and demonstration of the service.

## Quick facts

### Barriers addressed



*Prerequisites*

[Phone/SIM Ownership >](#)



*Accessibility*

[Distance from bank/FSP/CICO agent >](#)



*Cost*

[Cost of using DFS \(incl. transaction cost\) >](#)



*Information Availability & Capability*

[Unclear or difficult process to open an account >](#)

### Segment focus

1 2 3 4

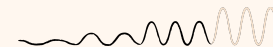
### Geography

Sri Lanka

### Sources

[De mel et al., 2018; J-PAL.](#)

### Customer Journey Relevance



### Key stakeholders involved

Large Government-Owned Bank (unnamed)  
 Mobile Network Operator (unnamed)  
 Software Company (unnamed)  
 1,625 customers

# Mobile-Linked Bank Accounts

## Key activities

First, the research team “worked with the mobile operator to train customer service representatives so that someone knowledgeable about the product was always available at the service call center.” Second, they offered participants a basic phone and SIM card for free. Third, they helped participants “open a savings account linked to the phone, including by covering the minimum balance of LKR 500 (US \$4.55)” required to open the account. Fourth, researchers also organized demonstrations on how to use the product at the customer’s house, “which included making two deposits of LKR 50 (US \$0.45) into each individual’s account.” Finally, researchers held a prize lottery of LKR 5,000 (US \$45.5) for two months in each municipality, with each deposit increasing the chances of winning (De Mel et al., 2018).

To measure savings behavior, researchers conducted two baseline surveys in 2010 and three follow-up surveys each year from 2011 to 2013. They also conducted monthly surveys over 25 months for a sub-sample of respondents in the treatment and comparison groups in addition to utilizing data from the mobile operator.

## Outcomes/results

- While the authors observed no increase in total household savings or in downstream welfare measures, such as household consumption or labor earnings, the introduction of a mobile-deposit service with zero transaction fees significantly increased the share of savings deposited with the partner institution (44%) and in the formal banking sector (27%) more generally.
- The authors found that women living at intermediate distances from formal banks, and those owning a mobile phone at baseline were significantly more likely to use the service. This suggests that those who experienced a reduction in transit costs (e.g., women who save smaller amounts more frequently relative to men, and those living further from the bank), and those already familiar with the technology’s interface, were most likely to use the service.
- Those living two to five kilometers from a bank branch are 11% more likely to try the service and deposited 70% more through the service.

# Mobile-Linked Bank Accounts

## Key enabling environment factors for the intervention

Sri Lanka has relatively high rates of formal bank account penetration.

## Key design elements and principles that led to successful outcomes

- Offering participants a free basic phone and SIM card
- Bundling product demonstrations and trainings into the intervention
- Fully subsidizing the cost to open the savings account at the bank
- The research team trained customer service representatives so that someone with product knowledge would always be available to assist at the service call center.

## Potential for scale/replicability

Even though this intervention had the most impact on women and those living far away from a branch, “Implementation Partners suspended the mobile-linked bank accounts after the evaluation. They did not see the usage rates as commercially viable to offer at a larger market-scale.” (J-PAL, 2018).

## Challenges encountered during the program

The authors found that women, those living at intermediate distances from formal banks, and those owning a mobile phone at baseline were significantly more likely to use the service. However, take up for the remaining sample was low. Of the entire sample offered free deposits, “only 26% made at least one deposit and only 7% made ten or more deposits.” (De Mel et al., 2018).

## Mobile-Linked Bank Accounts

### Recommendations from the research

This intervention, though it had implications for women, had limited impacts on the larger sample. Future research should use this RCT as a lessons learned for how to expand benefits of mobile-linked bank accounts to the entire sample. The team recommends diving deeper into behavioral constraints and withdrawal transaction costs as barriers to saving.

“

*... the introduction of a mobile-deposit service with zero transaction fees significantly increased the share of savings deposited with the partner institution (44%) and in the formal banking sector (27%) more generally.*

# Mexico's Tiered KYC

"In Mexico, a significant percentage of the population lacks access to formal financial services. These individuals are forced to rely on informal providers, in-kind savings, and cash transactions with high risks and high monetary as well as transactional costs. In the interest of fostering the design and supply of products focused on serving the unbanked, several financial authorities (CNBV, SHCP, and Banxico) joined efforts to identify aspects of the regulatory framework that could pose obstacles for expanding financial access. One of the main obstacles identified was the unequivocal implementation of KYC requirements. While Mexico passed an agent banking framework that allowed for an increase in the number of access points, account opening at these establishments was simply unviable if full KYC requirements were to be applied." (Dias and Faz, 2011)

## Quick facts

### Barriers addressed



#### Prerequisites

[KYC requirements >](#)  
[Digital/Foundational ID >](#)



#### Cost

[Cost of using DFS \(incl. transaction cost\) >](#)  
[Perceived and/or lack of money >](#)

### Segment focus

1 2 3 4

### Geography

Mexico

### Sources

[Faz, 2013](#); [Dias and Faz, 2011](#).

### Customer Journey Relevance



### Key stakeholders involved

Comisión Nacional Bancaria y de Valores (CNBV) Secretaría de Hacienda y Crédito Público (SHCP) Banxico

# Mexico's Tiered KYC

## Key activities

"In August 2011, Mexico approved a tiered scheme for opening deposit accounts at credit institutions. This scheme implements risk-based account opening requirements for low-value accounts. The innovation here is that it incorporated several "levels" of simplified accounts – requirements increase progressively as restrictions on transactions and channels are eased." (Faz, 2013)

The summary of accounts is as follows (Dias and Faz, 2011):

- **Level 1:** This is an "anonymous" account that can be opened at branches, agents, through the web, or "sold" through retailers; it is capped at US \$285 in monthly deposits and US \$380 maximum balance. Customers can use any channel—except mobile phones—to deposit, transfer or withdraw money.
- **Level 2:** This is a "named" account that can be opened "remotely". Customers self-report name, state and date of birth, gender and address. Monthly deposits are capped at US \$570. A physical/paper file with customer ID information does not—  
—need to be created. For these type of accounts opened remotely, a 24-month grace period is granted to banks in order to do a more complete KYC procedure.
- **Level 3:** This is the same as Level 2, but the bank is able to validate the self-declared data online against a public database; the cap in monthly deposits doubles to US \$1,140.
- **Level 4:** This can be opened only at branches, agents and enterprises (for mass payroll); it requires additional information to Level 3 (nationality, occupation, phone number, and ID). Information must be cross-checked against a valid ID document and thus account opening must be face-to-face. Monthly deposits are capped at US \$3,800; as with Level 2 and Level 3 paperless record keeping is allowed.
- **Level 5:** This is a full-fledged bank account, opened only at branches. The bank needs to file copies of ID, proof of address, tax ID and other."



# Mexico's Tiered KYC

## Outcomes/results

"Two years following the regulations, in 2013, the impact was as follows:

- It has led to a reorganization of different products in the market around a single scheme based on deposit accounts, giving visibility to products that were previously not considered deposit accounts.
- It has provided more flexibility for commercial banks who participate in the distribution of government payments.
- It has enabled new products, many designed around payment instruments, which would not have been possible without this regulation.

Additionally, 9.1 million accounts were opened in the two years that followed the publication of the scheme:

- 50% of which were Level 1 accounts
- 23% were Level 2 accounts
- 4% were Level 3

2.9 million prepaid cards that were previously operated by commercial banks for government programs were converted into Level 1 accounts when the scheme came into place, bringing the total to approximately 12 million "simplified" accounts in commercial banks to date (as of 2013)." (Faz, 2013)

## Key enabling environment factors for the intervention

Government support: the tiered approach was implemented by regulators in Mexico who wanted to address barriers faced by people participating in the informal sector and low-income individuals.

## Key design elements and principles that led to successful outcomes

The regulation called for five different types of deposit accounts, targeting different market segments and income brackets, allowing KYC requirements to be customized to particular segments. The regulations also allowed for non face-to face account opening and paperless record keeping.

## Mexico's Tiered KYC

### **Potential for scale/replicability**

This regulation applies to Mexico on a national level. Mexico's tiered KYC approach is thought to be an exemplar for other countries to follow. Countries looking to adopt tiered-KYC should use Mexico as a case study.

“

*The regulation called for five different types of deposit accounts, targeting different market segments and income brackets, allowing KYC requirements to be customized to particular segments.*

# Women Citizenship Initiative

"Although 92% of Egypt's population in 2017 reported owning an identity card, the World Bank ID4D database estimates that 57% of the unregistered Egyptian population, below the cutoff age, is female. Approximately 13% of the overall financially excluded population list cites lack of identity documentation as a key reason for their exclusion... According to stakeholder discussions, transactions made through the informal economy, and its implications for the integrity of the financial system are key challenges to KYC compliance in Egypt. The prominence of a gender gap in identification is an additional barrier to KYC as patriarchal, cultural and religious barriers prevent women from receiving identification in their own names. Poverty and illiteracy further exacerbate identity gender gaps." (AFI, 2019) However, in recent years, the Central Bank of Egypt (CBE) has authorized a key initiative to target the financial inclusion of women: the Women Citizenship Initiative.

## Quick facts

### Barriers addressed



#### Prerequisites

[Digital/Foundational ID >](#)  
[KYC requirements >](#)



#### Accessibility

[Distance from bank/FSP/CICO agent >](#)



#### Information Availability & Capability

[Financial literacy >](#)

### Segment focus

1 2 3 4

### Geography

Egypt

### Sources

[AFI, 2019.](#)

### Customer Journey Relevance



### Key stakeholders involved

Central Bank of Egypt (CBE)  
 UN Women  
 UNDP  
 National Commission for Women

# Women Citizenship Initiative

## Key activities

“Women Citizenship Initiative (WCI) represents Egypt’s most direct intervention to ensure the identification of women. Initiated in 2011 through a collaborative effort amongst UN Women, the UNDP, the National Commission for Women (NCW) and various other national departments and international stakeholders, the aim of the WCI is to issue more than a million national ID cards to Egyptian women. The WCI takes a two-pronged approach to achieve this:

1. Establish mobile registration points in marginalized areas to target excluded women.
2. Launch public awareness campaigns aimed at promoting the benefits of national ID cards.”

## Outcomes/results

According to AFI, the WCI achieved many positive outcomes within a short period of time (2019):

- “As of December 2014, 159,000 women have received national ID cards across Egypt: an additional 300,000 women are registered and waiting to receive national IDs.”
- “Enrolment procedures facilitate improved financial literacy among disadvantaged and remote women. This service is provided at no additional cost and may account for the rise in account penetration among women from 7% in 2011 to 27% in 2017.”
- “Identity card registration through the WCI bypasses the need for proof of address. Through the WCI, the registration of identity cards requires only the provision of a woman’s birth certificate. Together with CBE simplified mobile accounts, this suggests the enhanced ability of women to access financial services by avoiding the challenges of acquiring proof of address.”

# Women Citizenship Initiative

## Key enabling environment factors for the intervention

“Egypt’s 2013 tiered KYC regime has enabled it to make inroads in financial inclusion. The regime is defined by the following tiers: simplified KYC (with limits of up to EGP 10,000 and requiring national ID only), and full KYC (with no limits but requiring national ID, proof of address and proof of salary). In 2016, the CBE released the second version of its simplified KYC framework to promote financial inclusion. This framework includes the innovative development of capped mobile money accounts with simplified KYC requirements, through agent bank networks, as an alternative to standard bank accounts with full KYC requirements.”

## Key design elements and principles that led to successful outcomes

- Bypassing the need of proof of address
- Incorporating financial literacy awareness campaigns alongside the ID program at no additional cost
- Bringing mobile registration points to the women themselves, reducing distance barriers

## Potential for scale/replicability

WCI operates on a national scale. However, the program has the potential to include more segments of excluded women, such as women who are completely undocumented and women who are under the age of 16 (see challenges section).

## Challenges encountered during the program

“The WCI currently faces limitations to its impact on financial inclusion despite its positive objectives and outcomes:

- Women who are completely undocumented are excluded from this initiative: the WCI is unable to provide national ID cards to women who do not possess birth certificates.
- Women under the age of 16 are excluded from the WCI and vulnerable to systematic exclusion: young girls from remote or marginalized areas are therefore particularly disadvantaged by this program limitation.

# Women Citizenship Initiative

## Challenges encountered during the program (cont.)

- Conservatism in remote areas can hinder uptake of new services: women from conservative areas may be slow to participate, or even resistant to the provision of new services such as financial literacy programs due to their lack of financial education and their religious background."

## Recommendations from the research

"The successes of the WCI highlights the value of developing programs that directly target identity registration as a key prerequisite to financial services. However, as shown by its limitations, the effectiveness of these programs to promote wider economic empowerment critically depends on their support by broader reforms aimed at reducing disproportionate KYC burdens for women. In other words, although access to identity can go a long way to enable financial inclusion, policy initiatives such as CDD at customer premises and use of service providers in conducting KYC are proving to be contextually and culturally relevant to the country."

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*The successes of the WCI highlight the value of developing programs that directly target identity registration as a key prerequisite to financial services. However... the effectiveness of these programs to promote wider economic empowerment critically depends on their support by broader reforms aimed at reducing disproportionate KYC burdens for women.*

# The Role of Gender in Agent Banking

“This study utilizes a data set with 1.1 million transactions performed by 104,237 customers from a microfinance institution in the Democratic Republic of Congo, FINCA DRC, from 2017 to 2018... FINCA DRC is a subsidiary of FINCA international, an MFI operating in 23 countries worldwide which pursues women’s financial inclusion as part of its mission. FINCA DRC launched branchless banking in 2011 in an effort to expand outreach. FINCA’s network in the DRC has grown rapidly from 322 agents in 2014 to over 1,200 agents by April 2018, the end of this period of study. About 61% of the FINCA DRC customers are males. In addition, males comprise 77% of FINCA DRC agents.” (Chamboko et al., 2020).

The authors use a logistical and dyadic regression analysis to **study customer preferences for agent gender, transaction amounts, and agent gender preferences in markets with low female agent presence**. Though not studying an intervention, this report has implications for organizations wishing to pursue gender intentional agent networks.

The authors also assessed “whether the patterns found in FINCA DRC transactions also hold in Senegal, a more financially developed, slightly more gender equal, and a more stable, higher-income country than the DRC.” The authors test the patterns using data obtained from Baobab – a large MFI in Senegal.

## Quick facts

### Barriers addressed



#### Product & Service Quality

[Reliability and quality of in-person services >](#)  
[Lack of products that meet women’s needs >](#)  
[Lack of products and services that create value >](#)



#### Human Resources

[Lack of female agents >](#)



#### Consumer Protection

[Potential \(or actual\) privacy violations >](#)

### Segment focus

1 2 3 4

### Customer Journey Relevance



### Geography

Democratic Republic of the  
Congo, Senegal

### Key stakeholders involved

FINCA DRC, Baobab Senegal,  
104,237 Customers (DRC), 98  
customers (Senegal)

### Sources

[Chamboko et al., 2020.](#)

# The Role of Gender in Agent Banking

## Key activities

- Analysis of sex-disaggregated customer transactions from FINCA DRC (1.1 million transactions) and Baobab Senegal (936 transactions)
- Empirical analysis on a) the likelihood of transacting with a female agent, and b) the transaction amount
- Logistic regression and dyadic regression analyses

## Outcomes/results

According to Chamboko et al., this initiative had the following outcomes (2020):

- “Women are significantly more likely to transact with female agents (odds ratio 1.518, p-value=0.000) and this tendency increases both with the value of transactions and the customer’s balance. This pattern holds true in both the DRC and Senegal.”
- “Gender-based trust may be driving the observed gender homophily as female clients have a stronger tendency to use female agents for larger transactions. Larger amounts are riskier, and thus when the stakes are higher, female clients rely more heavily on female agents.”
- “Women are still more likely to transact with female agents even in locations where female agent presence is low.”
- “Both men and women transact higher average amounts at agents matching their gender (men US \$250 and women US \$221). When visiting agents of the opposite gender, the average female transaction declines to US \$133 (a 40% reduction) while transactions of males only show a 17% reduction (to US \$207).”
- “The underrepresentation of female agents may contribute to the persistent gender gap in financial access and usage.”



# The Role of Gender in Agent Banking

## **Potential for scale/replicability**

The paper demonstrates that the study can be replicated by including an additional analysis in Senegal, a market with different levels of financial inclusion, income, and gender equality than the DRC. Although this study uses data from microfinance institutions, additional analyses can be executed using data from other financial service providers, such as banks and mobile network operators. If obtaining sex-disaggregated customer transaction data from banks/microfinance institutions/mobile network operators is feasible, then this empirical model can be applied to determine agent gender preferences in additional markets. A potential roadblock to replicating this study would be the inability to collect enough sex-disaggregated data from financial service providers.

## **Recommendations from the research**

The results of this empirical study indicate a strong link between agent gender and customer preference. FSPs looking to be more gender intentional in their agent networks should use this evaluation as evidence for why female agents are necessary.

# Reducing Bank Overdraft Usage through Price Discounts and SMS Reminders

"Turkey's banking sector is well developed and innovative, with the highest percent of mobile banking users in Europe among internet users in 2013. However, because add-on charges for financial products, such as overdraft fees, can be complex and misleading, consumers may not fully understand the cost of using these additional services and may overuse them as a result. Researchers conducted a randomized evaluation to measure the impact of informational reminders and price discounts on bank clients' overdraft usage in Turkey. Researchers partnered with Yapi Kredi (YK), one of the five largest banks in Turkey's retail banking sector." (J-PAL).

## Quick facts

### Barriers addressed



#### Cost

[Cost of using DFS \(incl. transaction cost\) >](#)  
[Non-transparent fee structures >](#)



#### Information Availability & Capability

[Financial literacy >](#)  
[Digital literacy >](#)

### Segment focus

1 2 3 4

### Geography

Turkey

### Sources

[J-PAL; Alan et al., 2017.](#)

### Customer Journey Relevance



### Key stakeholders involved

108,000 bank clients  
 Yapi Kredi (YK)

# Reducing Bank Overdraft Usage through Price Discounts and SMS Reminders

## Key activities

“Researchers randomly assigned half of the 108,000 existing checking account holders with overdraft services to receive a reminder about the availability of overdraft service, but not the cost. Then, researchers sent each person in the sample one of six randomly selected messages

- Overdraft availability reminder only: This message reminded customers that their account had overdraft services but provided no additional information on the cost.
- Overdraft Interest Discount only: This message offered a 50% discount on all overdraft fees.
- Automatic-Bill Pay Discount only: This message offered extra rewards points for authorizing automatic bill payments from their accounts. Customers could redeem reward points when making purchases with the account’s debit card.
- Debit Card Discount only: This message offered extra rewards points for using their debit cards.

- Overdraft Interest Discount with Automatic-Bill Pay Discount: This message offered the same discount on overdraft fees and extra rewards points for automatic bill payments.
- Overdraft Interest Discount with Debit Card Discount: This message offered the same discount on overdraft fees and extra rewards points for using their debit cards.

Researchers also tested if the frequency or duration of the messages impacted client’s usage of YK’s products and services. While all participants received one message in September, afterwards, researchers randomly selected how often participants received additional SMS messages, either more frequently (every ten days), less frequently (every twenty days), or not at all during the evaluation. The messages also lasted longer for some randomly selected individuals, ending in November for some and in December for the others.” (J-PAL).

# Reducing Bank Overdraft Usage through Price Discounts and SMS Reminders

## Outcomes/results

- “Messages promoting the overdraft discount reduced overdraft usage, especially when combined with other discounts on debit cards and automatic-bill payments, because it reminded consumers of the price of overdraft services. In contrast, consumers increased overdraft usage when they received messages only on the availability of overdraft services.
- Customers who received the messages with an overdraft discount were 1.2% less likely to have used overdraft services relative to those who received messages on the availability of overdraft.
- More frequent messages reinforced the messages’ impacts on consumer choices: For both the overdraft availability and discount messages, there was no impact on clients who received just one message, thus repeated messages drove the impact on consumer’s overdraft usage.” (J-PAL)

## Key enabling environment factors for the intervention

Turkey’s banking sector is well developed and innovative. “91% of Turkish adults have a cell phone, for one of the highest penetration rates in the world, and Turkey has the highest rate of mobile banking in Europe among internet users, at around 50%, according to a 2013 ING survey.” (Alan et al., 2017). Turkish banks also use SMS-based promotions frequently, signifying that the concept of SMS reminders is not nascent or unusual for this population.

## Key design elements and principles that led to successful outcomes

- The program design leveraged SMS reminders, which were already popular for banks in Turkey. Thus, customers did not have to be introduced to this design element.
- The program incorporated varying frequencies of SMS reminders to test the impact of having repeated information campaigns.
- For the evaluation, “the bank selected participants who were almost likely to overdraft but had not used the service in the prior three months.” (J-PAL).

# Reducing Bank Overdraft Usage through Price Discounts and SMS Reminders

## Potential for scale/replicability

If the program were to be replicated, the market would have to have a relatively high mobile phone penetration rate, as well as a banking sector that has used SMS text messages to deliver information in the past. As seen in Turkey's example, the customers' existing familiarity with bank messages was crucial for this intervention to be successful.

## Challenges encountered during the program

"There was no evidence of long-term effects of the messaging campaigns; none of the changes in consumer behavior lasted beyond two months past the evaluation. The lack of long-term effects suggests that advertising or information campaigns must continue over time in order to be effective." (J-PAL).

## Recommendations from the research

Since the consumer behavior did not continue beyond two months past the evaluation, the research team suggests having sustaining and long-lasting information campaigns. FSPs looking to implement SMS reminders about pricing and products should consider implementing longer-term information campaigns to see if changes in consumer behavior last over time.

Exemplars

# Rwanda's Land Tenure Regularization Program

"Beginning in 1999, the Government of Rwanda (GoR) passed a series of laws, regulations, and policies designed to reform its land tenure system, with a focus on developing a system that promoted peace, economic development, and paid special attention to gender equality." (Santos et al., 2014) "In 2010 the Government of Rwanda launched a nationwide land tenure regularization (LTR) program, a first time land adjudication and registration process that was imagery-based and low cost (US \$5 per parcel)." (Ali et al, 2015). The World Bank designed a rigorous impact evaluation to determine the short-term impacts of the LTR program on perceived tenure security and women's access to land and land rights.

Additionally, to ensure that the rights of vulnerable groups, such as poor men and women, were fully included in land regularization efforts, Landesa partnered with CARE to "test a scalable model of public awareness and dialog that CARE had piloted in partnership with the NLC, the District of Musanze, and local NGOs." (Santos et al., 2014). The pilot had two objectives:

- "To strengthen the capacity of local officials and their understanding of the legal framework, with particular regard to the LTR process, land rights more generally, and land dispute resolution procedures."
- "To raise public awareness about the LTR process, land rights as established under the Rwandan legal framework, and land dispute resolution options."

## Quick facts

### Barriers addressed



#### Prerequisites

[Broader legal constraints >](#)  
[Lack of credit history >](#)



#### Cost

[Perceived and/or lack of money >](#)

### Segment focus

1 2 3 4

### Geography

Rwanda

### Sources

[Ali et al., 2015](#); [Santos et al., 2014](#); [Gillingham and Buckle, 2014](#).

### Customer Journey Relevance



### Key stakeholders involved

Government of Rwanda  
National Land Center  
Rwanda Natural Resource Authority  
Landesa  
CARE  
DFID

# Rwanda's Land Tenure Regularization Program

## Key activities

The GoR developed a nine-step administrative and legal procedure for the LTR program: “1) notification of areas for an LTR program, 2) local information dissemination through public meetings, with a particular focus on informing women and other vulnerable groups about the process, 3) appointment and training of local citizens to serve on Land Committees responsible for demarcation and adjudication, 4) demarcation of land using a participatory process to mark boundaries on photographic images of the area, 5) adjudication, recording personal details of claimants as well as persons of interest, issuing claim receipts, and recording objections and corrections when needed, 6) publication of adjudication records and compilation of a parcel index map, 7) objections and corrections period to finalize the record and disputant lists, 8) mediation period for disputes, and 9) registration and titling when title documents are prepared and issued.” (Santos et al., 2014).

The CARE and Landesa program sought to help the GoR increase outreach to women and vulnerable groups. CARE organized meetings with officials at the District, sector, and cell levels. They also “organized a number of grassroots level events and activities—

—that included village-level meetings, documentary film displays, focus group discussions with community representatives, and radio broadcasts.”

## Outcomes/results

- “In less than three years, the Rwanda Natural Resource Authority (RNRA) registered more than 10.7 million parcels (of the estimated 11.5 million parcels of land in Rwanda) and delivered about 6.7 million titles.” (Ali et al., 2015).
- There was a large improvement in “the perceived rights for female to be registered as a claimant (alone or jointly) on parcels owned by married couples, from only 33% in the baseline, to about 94% after the implementation of LTR.”
- “Women’s rights to mortgage, or lease outland also increased substantially (between 9% and 13% for the former, and between 8% and 10% for the latter).”
- CARE’s impact awareness pilot “eliminated gender biases in who attended the LTR meetings. It also led to an increase in women’s presence during demarcation and adjudication activities.” (Santos et al., 2014).

# Rwanda's Land Tenure Regularization Program

## Key enabling environment factors for the intervention

The 2010 LTR program was preceded by decades of government involvement and efforts to tackle land-related issues. "The adoption of the 1999 inheritance law was a first act that aimed at eliminating traditional bias against female land ownership rights. It was followed by the 2004 land policy and its codification in the 2005 organic land law (OLL) as well as the establishment of national and local institutional structures for overall land management and administration in the country." (Ali et al., 2015).

"Additionally, there was strong political pressure from GoR to conduct the LTR process as a one-off, nationwide activity. Because of the history of conflict, it was requested that all districts had to benefit from LTR simultaneously, and that there had to be an even distribution of work." (Gillingham and Buckle, 2014).

## Key design elements and principles that led to successful outcomes

- The LTR program paired legal frameworks with public awareness campaigns to help the program unfold in a gender-sensitive and socially inclusive manner.
- The cost of registering for land parcels and titles was made to be affordable, which helped low-income and excluded populations enter the program.
- The legal frameworks and the information campaigns included community members, which enabled marginalized groups of people to be reached.

## Potential for scale/replicability

The LTR program operated at a nation-wide scale. However, Rwanda's situation is unique given the history of conflict and the strong government support to roll out the program nationally. The unique scale and speed of the Rwanda LTR process would neither have been achieved without the legal framework established, nor without strong government ownership. Other countries may benefit from a regional approach versus a national approach.



# Rwanda's Land Tenure Regularization Program

## Challenges encountered during the program

Evaluations found that the LTR process paid less attention to women who are not legally married. "Perhaps due to a misinterpretation of the original letter and spirit of the law, the names of women who are not legally married are much less likely to have been recorded on land titles." (Santos et al., 2014). "Results also indicate that in very poor households, women are less likely to be named on on land titles and daughters are less likely to inherit land, even though the limited economic means of the family have no impact on whether the husbands' names are recorded on land titles or on the chances that the sons will inherit land. This gender-based difference cannot be explained away on legal or economic grounds, suggesting that the bias results from cultural or social norms."

## Recommendations from the research

To better reach women who are not legally married, "there is a need for clear recognition and public acknowledgment of the land rights granted to men and to women, regardless of their marital status." (Santos et al., 2014) "The language, materials, and training of the LTR process need to be updated to reflect this, officials need to receive clear and updated instructions, communities need to be alerted, and titles that have yet to be issued should be revised accordingly." Additionally, addressing cultural and social norms related to women's access to land "requires grassroots level behavioral-change campaigns, in addition to sensitizing officials, legal aid providers, and other service providers to the needs of the poorer households within their target constituencies."

## RCTs & Programs Currently Being Tested and Evaluated

Name	Summary	Barriers Addressed
<a href="#"><u>Incentivizing Savings through Default Deposits and SMS Reminders</u></a>	<p>"Researchers are partnering with Banco del Estado—a state-owned, but independently run bank in Chile—to evaluate the impact of default deposits, SMS reminders to save, and short financial training for bank clients in low-income urban areas on saving and spending decisions." (J-PAL).</p>	<p>Reliability and quality of in-person services</p> <p>Financial literacy</p>
<a href="#"><u>Tailored Microcredit in Rural Morocco</u></a>	<p>"In rural Morocco, where microcredit take-up is relatively low, researchers are conducting a randomized evaluation to test the impact of improved microcredit loan design on its take-up, as well as the welfare and business conditions of borrowers." (J-PAL).</p>	<p>Lack of credit history</p> <p>Lack of products and services that meet women's needs</p>
<a href="#"><u>The Impact of a Women-Specific Credit Scoring Model on Women's Access to Credit in the Dominican Republic</u></a>	<p>"Low-income women disproportionately lack access to credit in developing countries often because they are less likely to have credit histories, property rights, or formal earnings. Researchers are partnering with a bank and a mobile money operator in the Dominican Republic to evaluate the impact of credit scoring models designed specifically for women on access to credit." (J-PAL).</p>	<p>Lack of credit history</p> <p>Lack of products and services that meet women's needs</p>

## RCTs & Programs Currently Being Tested and Evaluated

Name	Summary	Barriers Addressed
<a href="#"><u>Providing Free Internet Connectivity to Improve Financial and Economic Outcomes in Kenya</u></a>	<p>"Researchers are partnering with a leading mobile network operator to investigate how the internet affects financial and economic outcomes, particularly for women. This randomized evaluation will measure the impact of providing free cellular data to mobile phone users on access to jobs and skills, access to formal and informal credit, use of the internet (including use of social networking), and political and social attitudes." (J-PAL).</p>	<p>Cost of mobile/internet</p> <p>Lack of credit history</p> <p>Internet/Mobile connectivity</p>
<a href="#"><u>Financial Inclusion for the Rural Poor in Peru</u></a>	<p>"Researchers are evaluating whether lowering the cost of accessing savings accounts through local point-of-sale enabled agents, and providing financial literacy training impacts the saving and consumption patterns of cash transfer beneficiaries in rural Peru." (J-PAL).</p>	<p>Financial literacy</p> <p>Distance from bank/FSP/CICO agent</p> <p>Cost of using DFS</p> <p>Perceived and/or lack of money</p>
<a href="#"><u>Delivering Conditional Cash Transfers Through Checking and Savings Accounts in Chile</u></a>	<p>"Researchers are partnering with the Chilean government to evaluate how transitioning a social welfare program from cash distribution to electronic transfers impacts recipients' access to their funds, as well as their savings and consumption decisions." (J-PAL).</p>	<p>Distance from bank/FSP/CICO Agent</p> <p>Cost of using DFS</p> <p>Perceived and/or lack of money</p>

## RCTs & Programs Currently Being Tested and Evaluated

Name	Summary	Barriers Addressed
<a href="#"><u>The Impact of Loans on the Survival and Performance of Small and Medium Enterprises (SMEs) in Colombia</u></a>	<p>"In Colombia, researchers are evaluating the economic impact of providing stimulus loans to SMEs—distributed via the government's COVID-19 relief program (Unidos por Colombia)—on SME survival, profits, and employment." (<a href="#"><u>J-PAL</u></a>).</p>	<p>Perceived and/or lack of money</p> <p>Lack of credit history</p>
<a href="#"><u>Evaluating Village Savings and Loan Associations in Uganda</u></a>	<p>"Researchers are studying the impact of VSLA trainings and group membership on access to credit, savings and assets, income, food security, consumption education, and empowerment." (<a href="#"><u>J-PAL</u></a>).</p>	<p>Perceived and/or lack of money</p> <p>Lack of credit history</p> <p>Financial literacy</p>
<a href="#"><u>The Impact of Flexible Credit for Entrepreneurs in Colombia</u></a>	<p>Researchers partnered with Kiva in Colombia to examine the impact of a flexible credit product on microentrepreneurs' demand for loans, business investment, and resilience to unexpected events and emergencies (<a href="#"><u>J-PAL</u></a>).</p>	<p>Lack of products that meet women's needs</p> <p>Lack of credit history</p> <p>Perceived and/or lack of money</p>

# Digitizing Payroll for Factory Workers in Bangladesh

“Electronic payroll accounts are a financial technology with potentially high returns to adoption that is currently being introduced to millions of workers worldwide. At the same time, payroll accounts are susceptible to many common consumer financial protection problems, such as shrouded fees, commission-based incentives, and barriers to use among inexperienced consumers.” To study the effects of active engagement with payroll accounts has on consumer learning, and how “learning by doing” occurs with exposure to electronic payroll accounts, the researchers conducted a field experiment with employees in the garment manufacturing industry in Bangladesh, an export industry that is increasingly being regulated regarding employee wages and transparency. The experiment introduced electronic payroll accounts to a population of largely unbanked factory workers and analyzed treatment results (Klapper et al., 2020).

## Quick facts

### Barriers addressed



#### Cost

[Cost of using DFS \(incl. transaction cost\) >](#)



#### Information Availability & Capability

[Financial literacy >](#)

[Digital literacy >](#)



#### Product & Service Quality

[Navigability of user interface of the digital product >](#)



#### Consumer Protection

[Over-charging >](#)

### Segment focus

1 2 3 4

### Geography

[Bangladesh >](#)

### Sources

[Klapper et al., 2020.](#)

### Customer Journey Relevance



### Key stakeholders involved

3,136 garment workers  
Two large garment manufacturing firms (unnamed)

# Digitizing Payroll for Factory Workers in Bangladesh

## Key activities

- A sample of 3,136 workers randomly assigned to either continue receiving wages in cash (control group), or begin receiving wage payments into a bank or mobile money payroll account (treatment group).
- “In a set of comparison treatments, workers were given an account but continued receiving monthly wage payments in cash.”
- “Treatment effects were measured through panel surveys and administrative data review.”

## Outcomes/results

“The results show that exposure to payroll accounts leads to increased account use and consumer learning. Those receiving accounts with automatic wage payments learn to use the account without assistance, begin to use a wider set of account features, and learn to avoid illicit fees, which are common in emerging markets for consumer finance.”

Workers in the payroll account treatment condition interact with the account more frequently, develop greater trust in the technology, learn to use the account without assistance, and learn how to avoid common consumer financial risks and use the account in the most cost-effective way. “The treatments have real effects, leading to increased savings and improvements in the ability to cope with unanticipated economic shocks.”

Those that received accounts with automatic wage payments were 4% to 11% more likely to have any savings and 25% more likely to have savings in a formal account.

# Digitizing Payroll for Factory Workers in Bangladesh

## Key enabling environment factors for the intervention

- Sufficient documentation for those in the treatment group was necessary to open payroll accounts. Fortunately, FSPs allowed employers to submit documentation on behalf of their employees, covering for those that might not have the proper documentation or knowledge of which documentation is required.
- The garment industry in Bangladesh is an export industry that includes a large labor force and is increasingly requiring the digitization of wages.

## Key design elements and principles that led to successful outcomes

- Demonstrate to employer the importance of investing in long-term employees – low seniority level workers whose tenure at the firm was too low to warrant opening a formal payroll account were excluded from participation.

- The employer and FSP played active roles in the process; the employer covered the costs of account opening for those in the treatment group.

## Potential for scale/replicability

There is potential for replicability in garment manufacturing industry globally, taking the approach of digitizing wages in export industries/sectors for which regulation is increasing.

This approach can also be replicated in other high export sectors, and sectors in which there is a large female workforce – for which regulators and importers can require increased transparency and digitization of wages.

This approach can also be replicated, however, it would benefit the initiative to study what results would look like if employees covered the costs/fees for account opening and transactions, not the employer.

# Digitizing Payroll for Factory Workers in Bangladesh

## Challenges encountered during the program

There were some initial resistance from employees in treatment group due to lack of trust in technology, but this decreased with increased interaction with the technology. Also, many workers did not have sufficient documentation, and had to rely on identification and guarantees provided by their employer to open an account.

## Recommendations from the research

Channeling wage payments into an account creates a strong incentive to engage with the account and learn about the features of the technology in a way that is not achieved by account opening alone. Channeling wage payments into formal accounts is an obvious next step with potentially large positive implications for access to finance and consumer learning in low- and middle-income countries where wage payments are still made predominantly in cash.

Some employers may want to avoid the transparency that comes with payroll accounts and may require nudges from regulators to adopt payroll accounts.

“

*Channeling wage payments into an account creates a strong incentive to engage with the account and learn about the features of the technology in a way that is not achieved by account opening alone.*



# Digitizing Rural Women's Savings Groups in Tanzania

"Digitizing savings groups—that is, introducing the use of mobile technology to provide support, access to formal accounts, or information to members—holds promise to improve members' experience and reduce group meeting times and errors in record-keeping. This research provides some of the first insights into these possibilities among savings groups. It examines whether a digital savings ledger impacts group meeting length, financial capability of each group member, trust, and social cohesion within the group." (Arnold, 2020).

For eight months between July 2019 and February 2020, Project Concern International (PCI), together with DreamSave, provided smartphones, a monthly data plan, and a digital ledger application to 13 savings groups composed of 10-25 members each—70% of whom are women—in the Mara region of rural Tanzania. The program's goal was to understand the impact of digital savings ledgers on women's savings groups. It tested the impact of a mobile phone on group dynamics and whether a mobile app improves savings group functioning with PCI's Women Empowered savings groups.

## Quick facts

### Barriers addressed



*Information Availability & Capability*

[Financial literacy >](#)

[Digital literacy >](#)



*Product & Service Quality*

[Navigability of user interface of the digital product >](#)

### Segment focus

1 2 3 4

### Geography

[Rural Northwestern Tanzania >](#)

### Sources

[Arnold, 2020;](#)

Gender Tech, 2021; BMGF, internal document.

### Customer Journey Relevance



### Key stakeholders involved

Project Concern International (PCI)  
DreamStart Labs (fintech)  
13 women's savings groups (298 members in total)

# Digitizing Rural Women's Savings Groups in Tanzania

## Key activities

- A total of six existing savings groups were selected ("paper-to-digital") and seven new groups were created ("born digital") to test the DreamSave App. During the program's timeline, groups used DreamSave to conduct group savings activities.
- Each group was provided with a "smartphone to mitigate any bias from only working with groups that had access to a group smartphone." (Arnold, 2020).
- Savings groups were provided with training on the use of the DreamSave app from PCI staff.
- Baseline and endline data collection via surveys with savings group members and review of DreamSave app data.
- DreamSave uses savings goals and SMS reminders to encourage savings contributions and loan repayments.

## Outcomes/results

- The introduction of a group smartphone increased members' curiosity about using this technology for other purposes. Members from both existing and new groups reported spending time outside of their savings groups learning how to navigate both the phone and the app, thus increasing digital literacy and capability.
- "By automating calculations for loan repayments, fines, and savings balances, DreamSave reduced time spent on financial transactions from 2.5-3 hours to 30-60 minutes. Members from both paper-to-digital and born digital groups reported positive feedback on the time savings." (Arnold, 2020).
- DreamSave app data revealed that 25% of "paper-to-digital" groups and 50% of "born digital" groups' loans were repaid before the due date.
- "DreamSave [in-app goals] and SMS reminders resulted in a significant increase in group discipline and members' ability to know how much they need to save to reach their goal." (Arnold, 2020).

# Digitizing Rural Women's Savings Groups in Tanzania

## Key enabling environment factors for the intervention

- Offline functionality of the DreamSave app made it possible for savings groups to enter data without seeking an area with connectivity.
- Willingness of savings groups to participate in testing/use of a digital savings ledger.
- The use of SMS reminders played an important role in increasing loan repayment discipline. GIFs, videos and stars to reward groups when reaching savings goals was popular among members as well.
- The introduction of group smartphones to all groups sampled was important in sparking interest in use and discovery of new technology.

## Key design elements and principles that led to successful outcomes

- “Purposely selected a population that would be difficult to reach and less familiar with smartphone technology to test what needs to ultimately be considered when digitizing rural savings groups.” (Arnold, 2020).
- DreamSave's “goal setting” feature significantly improved members' ability to know how much they need to save to reach their goal. “Women in new groups and existing groups reported a 50% and 70% increase, respectively, in knowing how much they needed to save for a specific goal.” (Arnold, 2020).

## Potential for scale/replicability

Organizations and providers can develop similar apps with notification and SMS capabilities – though, consideration should be made for women using shared household phone numbers by providing information on the implications of SMS reminders and how that information might be shared with other household members who use the same phone.

Organizations that conduct training of trainers and digitize women's savings groups can ensure that women have more access and exposure to smartphones by introducing group smartphones. This can contribute to growing their trust in digital tools and technology.

# Digitizing Rural Women's Savings Groups in Tanzania

## Potential for scale/replicability (cont.)

Providing more smartphones per group so as to make learning smartphone use faster for group savings members beyond the group bookkeeper.

Creating more adaptable apps that take into consideration the periodic or sudden changing group bylaws.

## Challenges encountered during the program

Cited from Arnold, 2020:

"Recruitment for the digital savings groups was challenging. One community facilitator (CF) for born digital groups reported that finding individuals to form a digital savings group took nearly twice as long as usual because when community members discovered they would be using a smartphone-based ledger some opted not to sign up."

"A key—and popular—feature of DreamSave was the SMS reminders sent to individual members' phones. Members have the option to—

—include a mobile phone number if they want to receive SMS messages with personalized meeting summaries, transaction receipts, and loan reminders. While these SMS messages are optional and the app explains that personal financial information will be sent to these numbers if they activate that feature, these implications were not well communicated and explained during training. For women whose primary phone was a shared household phone, the risk of entering this number was not well understood. These women did not anticipate their husbands' receiving the savings information, and when it came time for share-out this posed a problem. When one woman asked the bookkeeper to stop sending the messages to her husband, the husband received an SMS telling him that the notifications had been turned off and he became angry. It is common for women to save privately, away from their husbands and other household members. Further training is needed to prevent such unintended consequences in the future."

Communication challenges with groups in remote areas delayed necessary updates/adaptations to the DreamSave app.

The unique practices and cultures of the savings groups were not—

## Digitizing Rural Women's Savings Groups in Tanzania

—reflected in the DreamSave app. Though DreamSave deliberately decided not to pre-adapt the app, members mentioned some challenges in the use of the app given their particular practices.

### Recommendations from the research

“One of the key takeaways for savings group practitioners is that trainers need to be careful to educate members during setup of a new digital app so all members are aware of the settings and can make their own choices.” (Arnold, 2020).

As implementers “expand digitization of savings groups, adequate investment in digital literacy training—including identifying individuals with smartphone experience as community ‘champions’—will be essential to successful expansion.” (Arnold, 2020).

“Future expansion of DreamSave [or other digital savings ledgers] in rural areas with limited technology exposure will require more robust community engagement prior to the pilot to address the larger questions of trust and level of experience with digital technology...” (Arnold, 2020).

“

*The introduction of a group smartphone increased members' curiosity about using this technology for other purposes. Members from both existing and new groups reported spending time outside of their savings groups learning how to navigate both the phone and the app, thus increasing digital literacy and capability.*

# Narrowing the Gender Gap in Mobile Banking – bKash in Bangladesh

In recent years, Bangladesh has also been home to several large, innovative providers of mobile banking services, however, gender gaps persist in access to these services. Lee et al. conducted two connected field experiments in Bangladesh designed to examine gender gaps in the adoption and use of mobile banking, and estimate their broader impacts. “The study focused on migrants and their families, one of the main targets for mobile banking in Bangladesh. Members of the sample were mostly very poor and had limited education, however, mobile banking providers had done little to encourage their adoption.” The first experiment examined the impact of training programs on the enrollment and use and bKash, while the second experiment addressed the role of family networks directly in the uptake and use of mobile banking (Lee et al., 2021).

## Quick facts

### Barriers addressed



#### Information Availability & Capability

[Lack of peers/family/network who use DFS >](#)

[Unclear or difficult process to open an account >](#)

### Segment focus

1 2 3 4

### Geography

[Bangladesh >](#)

### Sources

[Lee et al., 2021.](#)

### Customer Journey Relevance



### Key stakeholders involved

bKash mobile banking,  
Sample of 815 household-migrant  
pairs

# Narrowing the Gender Gap in Mobile Banking – bKash in Bangladesh

## Key activities

- Identifying 815 household-migrant pairs - “migrants in Dhaka who had left Bangladesh’s northwest in search of jobs in the capital and the migrants’ families [most often their parents and siblings] who remained in the rural northwest and were dependent on the migrants’ remittances.”
- Use of an “encouragement design in which households were randomly assigned to receive a short training session on how to enroll in and use bKash, as well as receiving basic assistance with the enrollment process.”
- Randomly assigned a sample of migrants to “receive training and marketing about bKash before their originating families in the rural northwest were introduced to bKash. Another sample of migrants receive[d] training and marketing after their originating families. When this second group of migrants made their choices, they had the possibility of knowing whether their families had also decided to adopt or not.”

## Outcomes/results

- “The training treatment increased the adoption and use of mobile banking by migrants, with increases by women of similar magnitude to those by men.”
- “While adoption rates are similar for women and men, active use of bKash is lower for female migrants than for male (61% versus 71% respectively).”
- “Exposure to training, averaged across men and women, sharply increased the use of bKash accounts. While 21% of the control group used bKash at the endline, the treatment group’s rate of bKash use was triple that level (47.5% higher).”
- “The increase in bKash usage by similar amounts for men and women suggests that the relatively low rates of technology use by women can be countered by effective interventions.”
- “While the training experiment increased bKash adoption and use, impacts on levels of remittances were smaller for female than male migrants, consistent with lower earnings by female migrants.”

# Narrowing the Gender Gap in Mobile Banking – bKash in Bangladesh

- “Female migrants exposed to any family-network treatment were 15% more likely to adopt bKash, thereby closing the digital gender gap, and the overall impact for female migrants is statistically significant at the 10% level.”

## Key enabling environment factors for the intervention

- “The experiments took place against a backdrop of high take-up of bKash; the adoption rate for the sample that received training was 68%.”
- Good brand recognition for bKash and high general interest from population sampled.
- Migrant population sample was employed, participated in a DFID-funded training/employment program.
- “99% of individuals sampled had access to a mobile phone.”
- Young migrant population, open to technology, for which reliably sending remittances back to their rural-based families is a key obligation.

## Key design elements and principles that led to successful outcomes

Exposing female migrants to marketing messaging along with messages stating their family/network’s interest and use of mobile money, even if this wasn’t necessarily the case for their families.

## Potential for scale/replicability

Potential to scale and replicate messaging regarding family and networks use of DFS in addition to pairing DFS launch and marketing with training on its adoption and use.



# Narrowing the Gender Gap in Mobile Banking – bKash in Bangladesh

## Challenges encountered during the program

Lee et al. found that both women and men in the training experiment reported worsened self-reported health (physical and mental). “For women, those challenges added to a broader set of health challenges reported by women across the sample, in treatment and control groups. These unintended consequences of technology adoption also reflect a wider set of gender gaps that deserve attention.”

## Recommendations from the research

Evidence shows that the technology is embedded within a broader set of social and economic constraints and possibilities that are attached to wider inequalities. The research results on remittances highlight the need to target systemic inequalities and gender gap in wages.

“

*Female migrants exposed to any family-network treatment were 15% more likely to adopt bKash, thereby closing the digital gender gap, and the overall impact for female migrants is statistically significant at the 10% level.*

# The Role of Information on Retirement Planning

"Retirement planning behaviors are widely studied, yet population data show perplexing patterns of savings, especially among households who reasonably should expect to live long and healthy lives after separating from the workforce. Savings choices are increasingly focused on the decisions of individuals, rather than public plans or employer mandated pensions (Poterba, 2014). However, policy-makers' attempts to stimulate more individual-level savings have not shown strong effects (Duflo et al., 2007). One problem appears to be related to people failing to fully plan ahead for retirement and neglecting longer-run financial management in general. People who lack information about these issues may fail to make a plan, or proceed to design a plan based on incomplete information. Educational programs targeted to workers hold promise to help people recalibrate their expectations and shift their savings behavior. Well-targeted financial education might facilitate people to pursue their individual retirement saving preferences in ways that default rules or incentives alone cannot. This study looks at the effect of financial education on retirement savings offered to employees in an online format." (Collins and Urban, 2015).

## Quick facts

### Barriers addressed



*Cost*

[Cost of using DFS \(incl. transaction cost\) >](#)



*Information Availability & Capability*

[Financial literacy >](#)

[Unclear or unavailable information about products/uses >](#)

### Segment focus

1 2 3 4

### Geography

Wisconsin, United States

### Sources

[Collins and Urban, 2015.](#)

### Customer Journey Relevance



### Key stakeholders involved

1,052 credit union employees (80% women)  
45 credit unions  
Precision Information, LLC (an online financial education company)

# The Role of Information on Retirement Planning

## Key activities

- “Follow employees at 45 credit unions where access to a 10-unit online financial education course was randomly assigned at the firm level.”
  - Employees in control group were provided with a free 10-module online financial education program.
- Conduct a survey of sampled employees concerning their “self-assessed financial knowledge and self-reported behavior before and after the offer of education.”
- Review employer-based retirement account contributions before and after the intervention.

## Outcomes/results

- “Employees demonstrated high cooperation rates, with more than 90% of those offered education completing the online education modules.”
- “Employees offered the online education increase their level of self-reported financial knowledge, as expected.”
- “Exposure to the education is associated with greater self-reports of individual retirement plan participation.”
- A 47% increase in employer retirement contribution amounts demonstrated via administrative data.
- “A monthly increase of \$30 per employee at credit unions where the education was offered.”
- “No self-reported declines in education savings or increases in paying late fees on bills, suggesting that individuals are not substituting retirement savings with other uses.”
- “Employees exposed to the educational modules were also more likely to engage in broader financial management activities. The program shows an increase in budgeting (a 5 percentage point increase) and saving three months of expenses (an almost 9 point increase).”

# The Role of Information on Retirement Planning

## Key enabling environment factors for the intervention

- Sample of participants is formally employed with a steady income
- Employer offers employer-subsidized retirement contributions
- “It could be the case that a certain baseline level of financial knowledge must exist prior to engaging in workplace financial education, which might suggest the estimates of the study are on the higher end.”

## Key design elements and principles that led to successful outcomes

For participating employees, this was a low-cost intervention, as they were permitted to take the course during work hours on paid time.

## Potential for scale/replicability

In the United States, the program has been replicated in 13 other states as of 2015. The program could be scaled and replicated in other states and countries where employer-subsidized retirement programs are available.

Low cost online financial education (linked to employer retirement plans), accessible in the workplace during working hours (especially for women) could be scaled to incentivize savings.

- The sampled population in this study were mainly bank tellers who are exposed more to the financial system.
- One potential policy that would scale this program would be to provide subsidies to firms who provide online education at the workplace as an enhancement of tax incentives or changes in deferral limits.

# The Role of Information on Retirement Planning

## Recommendations from the research

- “Employees might generally benefit from education programs paired to incentives to save, if the costs of delivery and opportunity costs of attending education can remain relatively modest.”
- Teach on the distinction between saving for retirement and saving for emergencies (keeping the two apart).
- Promote retirement savings products/accounts with education-based approaches rather than default or automatic enrollment

“

*Low cost online financial education (linked to employer retirement plans), accessible in the workplace during working hours (especially for women) could be scaled to incentivize savings.*

# Digital Wallet Adoption for the Oral Segment in India

“Orality’ refers to the modes of thinking, speaking and managing information in societies where technologies of literacy (especially writing and print) are unfamiliar to most people. Orality encompasses not just speech but a wide range of modes for personal and collective information management that are preferred to text in oral cultures – from pictures, tallies and cash, to apprenticeship, rituals and songs... The oral segment in India includes approximately 264 million Indians. The goal of MicroSave’s work was to develop the conceptual wireframe of a mobile wallet for ‘oral’ (illiterate and neoliterate) people to use. The objective was to develop a front-end customer interface for mobile wallets that addresses evidence-based usability constraints the oral (illiterate and semi-literate) market segment face, thereby providing a superior customer experience.” (Matthews et al., 2017).

## Quick facts

### Barriers addressed



*Information Availability & Capability*

[Digital literacy >](#)

[Basic literacy and numeracy >](#)



*Product & Service Quality*

[Navigability of user interface of the digital product >](#)

### Segment focus

1 2 3 4

### Geography

[India >](#)

### Sources

[Matthews et al., 2017.](#)

### Customer Journey Relevance



### Key stakeholders involved

300 person sample for assessment of literacy and numeracy  
26 person sample for testing of mobile wallet  
MicroSave  
My Oral Village Inc.

# Digital Wallet Adoption for the Oral Segment in India

## Key activities

- Assessment of signing, reading and numeracy capabilities of 300 respondents.
- Conduct a capacity test to understand “the oral population's relationship with counting, calculations and money.”
- Focus group discussions with respondents to “develop and test wireframe designs of mobile wallet.”
- Design of mobile wallet based off findings from assessment, capacity test and focus groups.
- Test of the mobile wallet MoWo with respondents.

## Outcomes/results

- “People within the age-group of 26-35 years have fair mental math skills and higher likelihood to adopt new technology since at this age people have a higher willingness as well as higher ability to learn. Thus, this group have the potential to be early adopters of new mobile technology.”
- “Oral people do not understand abstract icons or symbolic depictions, such as, the front of an engine for a train, arrow to show send money to a wallet, a plus sign and rupee symbol to add money to a wallet, to name a few. Literates are able to comprehend abstract icons as they can read the accompanying text to confirm what these icons stand for.”
- “The mock demo video was an effective tool to teach people about transactions as was personal briefing.”

# Digital Wallet Adoption for the Oral Segment in India

## Key enabling environment factors for the intervention

The payment landscape in India has been witnessing a lot of change in digitization – rendering for studies and testing of what works best for illiterate and innumerate populations.

## Key design elements and principles that led to successful outcomes

- Assessing and testing capacity of target users was highly informative for the design of the mobile wallet to be tested.
- Pairing testing with mock demos and in-person briefing proved helpful in the introduction of the mobile wallet.

## Potential for scale/replicability

“Rapid prototyping of wireframes was conducted to come up with the design ideas of MoWO – Mobile Wallet for Oral. However, since testing is an evolving process, similar studies to enhance the look—

—and feel of MoWO and include increased number of transactions” can be conducted. Designing and testing of DFS following the key takeaways from the MoWo study can be done as well.

## Recommendations from the research

- “The oral segment should be treated as separate and distinct in digital financial services.”
- “FSPs targeting part or all of the segment should empirically test capabilities to identify relevant strengths and weaknesses of users to build highly usable and learnable designs.”
- “Early adopters in the segment may include youths aged 25-35, adopters of other mobile phone features like calculators and address books.”
- “An open-source library of oral icons, addressing the full range of digital financial services, should be developed for India.”



# Less is More: Experimental Evidence on Heuristic-Based Business Training in Ecuador

"While some recent studies have found positive impacts of business training on knowledge and practices, the evidence of the impacts on business outcomes has been both limited and mixed. This has led people to question the standard approaches to business training and adopt new techniques informed by research in psychology and behavioral economics." (Arraiz et al., 2019)

Arraiz et al. conducted a randomized control trial in Ecuador to "test and compare the effectiveness of two types of business training program for small business owners: a traditional training program and a program focusing on easily-digestible, rule of thumb-style business practices (which we call "heuristic training")."

## Quick facts

### Barriers addressed



*Information Availability & Capability*  
[Financial literacy >](#)



*Social Norms*  
[Women's disproportionate time burden >](#)

### Segment focus

1 2 3 4

### Geography

Guayas and Pichincha provinces, Ecuador

### Sources

[Arraiz et al., 2019.](#)

### Customer Journey Relevance



### Key stakeholders involved

Inter-American Development Banks  
IDB Lab  
Banco Pichincha  
GRID Impact  
Fundacion CRISFE  
2,408 sample of entrepreneurs

# Less is More: Experimental Evidence on Heuristic-Based Business Training

## Key activities

- “Collect individual-level data on the digit span recall test—a measure correlated with the ability to use attention to avoid distractions—which allows to explore why these training programs may be more effective, and for whom.”
- “The Inter-American Development Bank’s IDB Lab partnered with Banco Pichincha, the largest financial institution in Ecuador, to design and test two types of business training programs for small business owners: a traditional training program and a new training program focusing on easily-digestible, rule of thumb-style business practices, which the researchers call ‘heuristic training.’”
- Development of the heuristic training, in consultation with Banco Pichincha and IDB Lab staff; development of the traditional training based on its “more than 20 years of experience providing financial and entrepreneurship training programs.” Banco Pichincha oversaw the implementation of both trainings.
- “The 2,408 entrepreneurs were randomly assigned to three—

—different groups: 803 were assigned to the traditional training (12 bank officers), 801 were assigned to the heuristic training (11 bank officers), and 804 were assigned to the control group (12 bank officers).”

## Outcomes/results

- “The results show statistically significant and economically meaningful impacts on indexes of sales and profits for the heuristic training relative to the control of no training (0.06 and 0.08 standard deviation effect sizes, respectively; equivalent to increases of 7.3 and 8.2 percent, respectively).”
- “The study also allows to identify one of the main channels through which the heuristic training affects outcomes: inventory control and management.”
- “The heuristic training is also cost-effective; specifically, it has an internal rate of return of at least 37 percent, assuming conservatively that the effect completely disappears after one year, and including the cost of the design of the training.”

# Less is More: Experimental Evidence on Heuristic-Based Business Training

- “The researchers also find larger effects of the heuristic training for female entrepreneurs than for male entrepreneurs, mainly because women adopt the rules of thumb at a greater rate than their male counterparts. The analysis also shows that results are stronger for entrepreneurs with low recall (in the digit span recall test), a measure correlated with the ability to use attention to avoid distractions.”
- “Promising results for the heuristic training seem driven by women entrepreneurs, who were more likely to adopt the best practices from the training than men, and consequently experienced larger gains in sales and profits.”
- “The results suggest that cognitive load may “tax” entrepreneurs and influence the effectiveness of business training programs, both in general and across gender lines.”

## Key enabling environment factors for the intervention

“The delivery of the traditional training took advantage of the—

—existing organizational structure of Banco Pichincha. Specifically, it was integrated into the regular, in-person field visits by bank officers to the entrepreneurs. Thus, bank officers were trained by Fundacion CRISFE to deliver the training program, which they did during their regular visits.”

## Key design elements and principles that led to successful outcomes

- “The study sample includes more men than previous work does, which allows us to explore the gender dynamics at play.”
- “Our training was tailored to the needs of the entrepreneurs identified during the design phase using a positive deviance approach.”
- “The heuristic training differed from the traditional training in both content and methods, though both approaches covered similar topics.”

# Less is More: Experimental Evidence on Heuristic-Based Business Training

## Potential for scale/replicability

Design of training programs tailored to entrepreneurs' needs, constraints and bandwidth – especially for women.

## Recommendations from the research

“Development organizations need to look at the complexity and breadth of the material covered by training programs aimed at microentrepreneurs. For many entrepreneurs, daily life can impose serious constraints on attention and cognitive bandwidth. Training programs that use a one-size-fits-all approach and prioritize the provision of extensive information may not be ideal in such environments, since they require entrepreneurs to spend a great deal of cognitive effort to understand and adapt the training content to their unique business environment. By simply accepting these attention constraints among entrepreneurs as a given, and building training programs that take them into account, development organizations and policy-makers can more cost-effectively help business owners achieve their goals throughout the developing world.”

“

*The results show statistically significant and economically meaningful impacts on indexes of sales and profits for the heuristic training relative to the control of no training*

# The Impact of Incentives and Transparency on Usage of New Financial Products in Indonesia

“New technologies are often promoted by local agents, who work to inform the population about their potential benefits and promote their take-up. To understand how to maximize technology adoption, one must carefully consider not only how to incentivize local agents to exert more effort in the promotion of new technologies, but also how to ensure that this extra effort translates into higher take-up.” (Desseranno et al., 2021)

In this study, Desseranno et al. study “the design of financial incentives offered to local agents for acquiring new clients, showing how the level of these incentives affects agent effort and technology adoption.” They examine “the effects on take-up when these incentives are transparent (i.e., disclosed to the community) or not...When disclosed, agent’s financial incentives can affect technology adoption through two main channels: directly, by increasing agent effort (supply-side effect) but also indirectly, through a signaling effect that impacts potential clients’ perceptions (demand-side effect).”

## Quick facts

### Barriers addressed



#### Accessibility

[Distance from bank/FSP/CICO agent >](#)



#### Information Availability & Capability

[Unclear or unavailable information about products/uses >](#)



#### Product & Service Quality

[Reliability and quality of in-person services >](#)

### Segment focus

1 2 3 4

### Geography

[Rural East Java, Indonesia >](#)

### Sources

[Deserranno et al., 2021.](#)

### Customer Journey Relevance



### Key stakeholders involved

401 rural villages (4,828 household respondents) and agents within Partner bank (undisclosed)

# The Impact of Incentives and Transparency on Usage of New Financial Products in Indonesia

## Key activities

- “Introduce exogenous variation in the level of the incentives paid to the agents. In the low incentives treatment, agents are paid 2,000 IDR (US \$0.14) for each customer who signs up for a savings account (the status-quo), while they are paid 10,000 IDR (US \$0.71) in the high incentives treatment.”
- “Introduce exogenous variation in the transparency of the incentives paid to the agents. In the public incentives treatment, potential customers are informed about the agent’s incentive level while in the private incentives treatment this information is not disseminated.”

## Outcomes/results

- The study finds that “higher financial incentives increase take-up and usage of these products. This only holds, however, when financial incentives are unknown to potential clients (private—

—information). In villages where financial incentives are disclosed to potential clients (public information), raising incentives instead has no effect on take-up or usage, despite the fact that agent effort increases.”

- “When information on incentives is private, raising their level more than triples the take-up of new financial products, and increases the total amount of deposits/withdrawals, account balance, and savings by 18-20%. In line with an increase in agent effort, potential clients report that agents in the high incentives treatment are 2.7 times more likely to have offered them the products than in the low incentives treatment.”
- “When incentives are public information, the study instead finds that raising their level has a precise zero effect on the take-up or usage of the new financial products. Interestingly, this is not explained by agents responding less strongly to the incentives. In fact, they still prompt higher agent effort, even when they are public. Yet this additional effort does not translate into higher take-up due to a negative signaling effect.”

# The Impact of Incentives and Transparency on Usage of New Financial Products in Indonesia

## Key enabling environment factors for the intervention

- The rural context in the Java region is “ideally suited to study whether financial incentives affect demand perceptions through a signaling channel. The population is highly unbanked, branchless banking is largely unknown, and the level of trust in financial institutions is limited. Such characteristics mean that potential customers will rely on different heuristics (e.g., agents’ incentive level) when evaluating the products’ benefits and their willingness to adopt them.”
- In addition, the setting is “one in which other people’s earnings are typically kept private unless explicitly revealed by an outsider. This provides researchers with the opportunity to create exogenous variation in pay transparency by randomizing whether potential clients are informed or not about the financial incentives paid to the agents.”

- “In 2014 the Government of Indonesia adopted a law that establishes 6 banking services without the need for branch offices, called ‘branchless banking.’”

## Key design elements and principles that led to successful outcomes

- Focusing on both supply side and demand side impacts that the intervention could have (looking at both agents and customers).
- Considering customer reception of increased/no transparency in addition to agent performance/outcome.

## Potential for scale/replicability

Financial incentives can be replicated with other financial products, however disclosure of the incentives might not be the best route. This study could be replicated across different markets and with financial customers with more trust and experience with DFS.

# The Impact of Incentives and Transparency on Usage of New Financial Products in Indonesia

## Recommendations from the research

“In contexts with limited information and low trust about a new technology, financial incentives can affect technology adoption through a supply-side effect (agents’ greater effort), but also through a demand-side signaling effect (change in demand perceptions).” In such settings, organizations promoting new technologies must carefully consider the signals they send to potential clients, as these end up shaping the demand for their products. Particular attention should be paid to the transparency of financial incentives.

“

*When information on incentives is private, raising their level more than triples the take-up of new financial products, and increases the total amount of deposits/withdrawals, account balance, and savings by 18-20%.*



# Estancias Infantiles para Apoyar a Madres Trabajadoras Programme

“The importance of social protection has become increasingly recognised in recent years...but there has been little attention to the role that gender plays in the implementation and effectiveness of social protection programmes. It is often assumed that gender is already being addressed in social protection initiatives because many cash or asset transfer programmes and public works schemes target women, drawing on evidence that women are more likely to invest additional income in family wellbeing. In Mexico, the formal social security system provides social protection to approximately 50% of the population – those who are formally employed either in the private sector or by the government. Nevertheless, more than half of the population, working in agriculture, self-employed or in the informal sector, remains without coverage.” The Estancias Infantiles para Apoyar a Madres Trabajadoras (Child Care Services for Working Mothers) launched in 2007 is a “subsidised childcare services programme targeted at mothers in poor households (below a threshold of poverty of 1.5 minimum wages per household member) who work, are looking for work or are studying and do not have access to formal social security provided childcare. The programme was designed with the gender responsive objective of supporting women’s equal access to paid employment opportunities and higher levels of schooling, and building their capacity to lift themselves out of poverty and develop their capabilities in a more equitable manner.” (Perezniето and Campos, 2010).

## Quick facts

### Barriers addressed



#### Accessibility

[Mobility constraints \(e.g., legal curfews, norms\) >](#)



#### Cost

[Perceived and/or lack of money >](#)



#### Social norms

[Ambivalence or antagonism towards women’s financial independence >](#)  
[Women’s disproportionate time burden >](#)

### Segment focus

1 2 3 4

### Customer Journey Relevance



### Geography

Mexico

### Key stakeholders involved

SEDESOL (Federal Ministry of Social Development)  
 National System for Family Development (DIF)

### Sources

[Perezniето and Campos, 2010.](#)

# Estancias Infantiles para Apoyar a Madres Trabajadoras Programme

## Key activities

- “Childcare subsidies to mothers who are working, looking for work or studying. This applies also to single fathers who are responsible for the care of their children (a minority of beneficiaries)... To obtain the subsidy, mothers must state their income to verify whether they are under the poverty threshold and submit a letter that explains whether they are working, looking for work or studying.”
- “Promotion of new childcare centres under the Estancias model.”
- “Development of a network of childcare centres. These networks include Estancias that have been newly created under the programme and other childcare centres which already existed and joined the programme by providing subsidised services to children of mothers who qualify.”

## Outcomes/results

- “The programme had 1,500 Estancias by July 2007 and as of December 2009 there were 9,061 centres reaching approximately 241,019 beneficiaries (mostly mothers) and 261,862 children.”
- “According to a survey of perceptions of programme beneficiaries carried out in 2009 by external evaluators, 99% of beneficiaries replied they were satisfied with the service and felt that Estancias were a safe place to leave their children while they worked.”
- “The gender impact evaluation by a civil society observatory found that beneficiaries perceived the main benefit of the programme to be economic (44.8%); 28.4% found the main benefit was related to impacts on their family (including intra-household dynamics); 11.8% thought the main benefit was social; and 11.2% replied that it improved their self-esteem.”
- “50.9% of beneficiaries surveyed said that they had a paid job prior to the programme and 70.6% replied they had a job after participating in the programme;

# Estancias Infantiles para Apoyar a Madres Trabajadoras Programme

- 28.3% of respondents said they were housewives before the programme and the number went down to 4.6% after the programme; similarly, 94% of women reported an increase in income as a result of the programme."
- "The programme's design opens the door for women's participation in additional ways: most heads of Estancias are women who, through the programme, have become micro entrepreneurs. Additionally, the childcare centre provides young women in the community work opportunities as assistants. The programme has been recognised as generating approximately 46,400 sources of employment."

## Key enabling environment factors for the intervention

The National Development Plan of Mexico explicitly includes objectives proposing the elimination of any type of gender-based discrimination and the need to guarantee equal opportunities for men and women to develop and exercise their rights. More specifically, Strategy 16.6 refers to the "need to facilitate women's

access to labour markets through the expansion of the Network of Childcare Centres to Support Working Mothers."

## Key design elements and principles that led to successful outcomes

"Estancias was explicitly designed to fulfil a gender equality objective – more so than a child development objective – although in practice it has been doing both. It is framed by the National Policy for Equal Opportunities articulated in the National Development Policy."

## Potential for scale/replicability

This program could be adapted to better meet the needs of women, taking into account their working hours, responsibilities outside of the home, and children's ages. The program could also be scaled and complemented with activities that promote behavioural change in household dynamics.

# Estancias Infantiles para Apoyar a Madres Trabajadoras Programme

## Challenges encountered during the program

“A valid feminist critique of the programme suggests that this perpetuates the role of women in care functions.”

“The types of jobs that women are able to obtain as a result of Estancias have not changed significantly. First, to continue benefiting from the programme, women need to have a low income (1.5 minimum wages per household member or less), so beneficiaries are necessarily working in low-paid employment. Additionally, as explained above, most women have jobs in the informal sector (no contracts or social security benefits) or are self-employed. No cases of women who were using the programme to pursue their studies were found.”

“Given the competing needs of and time demands on beneficiary mothers, the limited duration of the childcare centres' shifts may in part have limited the broader programme aim to empower and increase the productive capacity of women, to help them get better jobs through more equitable access to higher levels of education.”

“Although the programme does support women's increased economic autonomy and in some cases has influenced their capacity to negotiate some domestic activities with spouses, there is not enough evidence of it triggering a deeper transformation of gender roles and women's empowerment. This may be related to the fact that, in addition to facilitating access to paid work, the programme does not have any complementary actions to promote behavioural change and to foster non-economic empowerment.”

## Recommendations from the research

“Although it is commendable that the programme makes gender equality goals explicit, currently, indicators that measure the impact on beneficiaries are not explicitly disaggregated by sex. Although the main beneficiaries of the programme are women, such sex-disaggregated indicators would be useful to have a better understanding of the impacts of the programme on both men and women.”

# BETA Savings Account in Nigeria

In Nigeria, lack of physical proximity and mobility constitutes as an important barrier for accessing formal financial services, which leads to a significant portion of the population being unbanked. Most of those not having access are women. The gendered discrepancies have inspired financial actors to orientate towards this market segment.

Diamond Bank in Nigeria (now called Access Bank) introduced a financial product designed for women, the BETA savings account and increased level of service, in the aim of shifting away from its typical banking procedures, which were much more complicated, lengthy and inaccessible. Customers had to visit the branch, provide identification, proof of address or income, fill out forms and include references from other Diamond Bank customers. The most important element of the project that tackles physical distance is the rollout of so-called BETA Friends, banking agents that directly visit customers' businesses (focusing on women owned-businesses, but not excluding men).

## Quick facts

### Barriers addressed



#### Accessibility

[Distance from bank/FSP/CICO agent >](#)



#### Social norms

[Biases that center men as financial customers >](#)



#### Information Availability & Capability

[Unclear or difficult process to open an account >](#)



#### Product & Service Quality

[Lack of products that meet women's needs >](#)  
[Lack of products and services that create value >](#)



#### Consumer Protection

[Fraud and scams >](#)  
[Fear of making mistakes >](#)

### Segment focus

1 2 3 4

### Geography

[Nigeria >](#)

### Sources

[WWB, 2014](#); [WWB, 2019](#).

### Customer Journey Relevance



### Key stakeholders involved

Diamond Bank (Now Access Bank)  
Women's World Banking  
EFInA  
Visa

# BETA Savings Account in Nigeria

## Key activities

Design of the program:

- Creation of the BETA account, an innovative digital savings account, targeting self-employed women.
- The Savings account was launched in 21 of Diamond Bank's 240 branches.
- BETA includes:
  - A transactional savings account; a commitment savings account (Target Savers), value-added services (balance inquiry, transfers, airtime top-up); mobile credit product
  - Introduction of "BETA Friends" – agents that visit a customer's business to open accounts, handle transactions

The launch of a pilot program in 2013, which resulted in 38,600 accounts opened (original goal was 16,000) (WWB, 2014).

Continuation of the program, with the latest results available from 2018 (WWB, 2018).

## Outcomes/results

BETA Savings Accounts:

- Number of customers increased from 335,119 in July 2016 to 601,245 in July 2018
- In July 2018, 38% of BETA customers were women
- On average, active BETA customers conduct five transactions a month and the gender gap in number of monthly transactions disappears with account maturity." (WWB, 2018)

BETA Target Savers Accounts:

- "During the period between July 2016 and July 2018, the total number of Target Savers customers nearly quadrupled from 9,994 to 52,355, of which 38% are female."

# BETA Savings Account in Nigeria

## Key enabling environment factors for the intervention

Nigeria's enabling regulatory environment simplifies opening accounts as there is requirement for IDs.

- Accompanied by the active participation of the Central Bank of Nigeria (CBN) in the integration of unbanked populations into the financial system, which inspired its regulation to adapt to these goals (for example facilitating microfinance) (WWB, 2014)

## Key design elements and principles that led to successful outcomes

Favorable BETA account features that made them accessible, such as (WWB, 2014):

- No need for ID, forms, signature
- No minimum balance, monthly or deposit fees
- ATM card provided in starter pack
- Reward scheme with cash prizes
- 3,6% yearly interest

Multi-channel delivery: Partnerships with mobile money providers that enabled customers to deposit and withdraw through their agents.

Incentive based system encourages BETA friends to scale up their customer bases, as they get paid based on account openings (and a service incentive for accounts with regular transactions).

## Potential for scale/replicability

There is a clear progression of the program based on the report available on the pilot program from 2013 and the research from 2018. During the pilot, 38,600 accounts were opened, while this number increased to 601,245 in 2018, which is a clear evidence of the scalability of the project.

## Challenges encountered during the program

Competition with existing informal financial services that have established social support: ajo and adako. BETA however has a competitive advantage as customers don't have to rely on others (as with the group savings with adako), and provides 24/7 access to savings (contrary to ajo, which pays at the end of the month).

## BETA Savings Account in Nigeria

While the BETA Savings design was explicitly geared towards women (while it didn't exclude men), only 40% of the account holders were women, which indicates that the project had difficulty in reaching their target audience. It appears that it is harder to convince women to open an account that they are not familiar with, as they require more information and might consult a friend or family member before making a decision (which doesn't seem to be the case for men). It is also useful to note that there does not seem to be a progression in this percentage from the launch of the pilot until the newer data from 2018.

### Recommendations from the research

It was evoked that women tend to make decisions differently – a way to make the program more inclusive is to make more information available (as this point was raised in the analysis provided by Women's World Banking).

There is no mention on the identity of BETA Friends. The program didn't take into account the importance of inclusion of female agents and their potential positive role. Increasing female agents can potentially increase the percentage of female beneficiaries as well.

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*During the period between July 2016 and July 2018, the total number of Target Savers customers nearly quadrupled from 9,994 to 52,355, of which 38% are female.*



# Self-Help Group Members as Banking Agents for Deepening Financial Inclusion in India

Limited penetration of bank branches across rural India has made access to formal financial services difficult for millions of people in rural communities. Advancements made in technology however made branchless banking possible and the situation has improved considerably over the past decade. In the past, the Indian government has launched programs, aimed at equipping every household with a bank account; its initiatives, such as the program called Pradhan Mantri Jan Dhan Yojana, has led to the opening of over 356 million bank accounts between 2014 and 2019. Nevertheless, formal financial services have stayed inaccessible due to several barriers, especially for women: one of the barriers being highlighted by the project is low mobility, as well as low literacy levels and cultural barriers. “In 2013-14, NABARD and GIZ jointly implemented a proof of concept entitled SHG Members as BC Agents under the Rural Financial Institutions Programme (RFIP)<sup>3</sup> and successfully demonstrated that SHG members as banking agents or Customer Service Points (CSPs) could deliver last mile banking services to the rural community in a cost-effective and sustainable manner. It was in this context, that the Bank Sakhi (female banker friend) Model—a gender-focused variant of the traditional BC model, was adapted by NRLM and piloted in seven states—via special funds made available under the dedicated funding line created under the NRLP in 2015–16.” (World Bank, 2020).

## Quick facts

### Barriers addressed



*Prerequisites*

[Digital/Foundational ID >](#)



*Accessibility*

[Distance from bank/FSP/CICO agent >](#)



*Social norms*

[Ambivalence or antagonism towards women's financial independence >](#)



*Human Resources*

[Lack of female agents >](#)

### Segment focus

1 2 3 4

### Geography

[India >](#)

### Sources

[Pinto and Arora, 2021](#); [World Bank, 2020](#).

### Customer Journey Relevance



### Key stakeholders involved

National Rural Livelihoods Mission (NRLM) (launched by Ministry of Rural Development, Government of India)

# Self-Help Group Members as Banking Agents for Deepening Financial Inclusion

## Key activities

Implementation of the gender-focused Business Correspondent (BC) Model under NRLM, named Bank Sakhi (meaning female banker friend) – also known as agent-led banking model

- SRLMs (State Rural Livelihood Missions) (autonomous bodies in India) identify SHG members and train them as BC agents
- SRLMs provide capacity-building, training and back-end support – in partnership with local banks and corporate BC agent network managers
- “State missions also provide financial support through partial grants/incentives and low cost credit through community institutions to meet the initial investment requirements of these Bank Sakhis, including procurement of hardware devices and working capital to conduct initial transactions.” (World Bank, 2020).

## Outcomes/results

Steady progress in the targeted low-income states (Bihar, Jharkhand, Madhya Pradesh, Odisha, Rajasthan and Chhattisgarh). Since the rollout of the program in 2015-2016, 1051 agents have been trained, and 728 agents have been deployed.

Technical support for the agents has been growing – a growing supply of digital wallets, micro-ATMs, and hardware.

The model relied on the nature of SHGs, which often have group accounts; however, for these, two individuals still needed to physically go to the bank. To get around this anomaly, the program incorporated dual authentication and micro ATMs, which improved access.

# Self-Help Group Members as Banking Agents for Deepening Financial Inclusion

## Key enabling environment factors for the intervention

- A conducive policy environment: The Government of India has initiated ambitious financial inclusion programs, such as that of Pradhan Mantri Jan Dhan Yojana (PMJD) (Pinto and Arora, 2021)
- Involvement of public actors at different levels: Besides the Government of India, SRLMs (Autonomous bodies under the State governments) had an active role in the project (World Bank, 2020)
- Previous projects that have recognized the importance of SHGs in their role of making women more economically empowered and financially included: An example can be found here, the [Self-Help Group Bank Linkage Programme](#)

## Key design elements and principles that led to successful outcomes

- Reliance on an already existent, established social network that women use (the SHGs)
- Ability to adapt during the project: The procedure of registering group accounts was not taken into account at first, but they developed technical solutions (the dual authentication system and the micro ATMs)

## Potential for scale/replicability

The model relies on Self-Help Groups (SHGs), which can potentially be culture/country-specific – in other regions they might be less prevalent, and less important, which could hinder the replicability of the program.

SHGs are quite relevant in India – both historically and nowadays, and are centered around offering training for women's empowerment—

# Self-Help Group Members as Banking Agents for Deepening Financial Inclusion

## Potential for scale/replicability (cont.)

—especially in entrepreneurship. In Maharashtra alone, 527,000 SHGs have had a role to play in accounting for over 50% of all women-led, small scale businesses in India.

While SHGs might seem specific to the Indian context, similar social structures are very popular especially in rural areas throughout the world.

## Challenges encountered during the program

While the program aimed to remove physical barriers to opening bank accounts, managing transactions, etc., it didn't take into account that SHGs often have group accounts linked to their individual accounts. For opening group accounts, two members of the group still needed to physically go to the bank for identification. For this reason, they introduced a dual authentication system and micro ATMs, which solved this problem, as they could manage everything online (World Bank, 2020).

## Recommendations from the research

The recommendations given by the authors can be summed up in two categories: supply-side initiatives and demand-side initiatives (World Bank, 2020):

- Supply-side initiatives:
  - The provision of a wider range of services (such as loans, insurance, pensions, savings products) under the BC model
- Demand-side initiatives:
  - A need to further invest in financial literacy training, as there is still scepticism of digital platforms
  - A need for structured monitoring and evaluation on the progress and impact of BC agents
  - Establishment of clear guidelines for customer protection and strong local grievance redressal architecture

# Empirical Evidence from Uganda on the Impact of Mobile Money on Rural Households

Recent studies have shown that over 70% of Ugandans own a mobile phone, with a lower penetration in rural areas (around 65%). This study however focuses on rural Northern Uganda, which is more underserved, with only 27.6% of households possessing a mobile phone. In addition, MTN is the most popular service provider where it has almost become a monopoly, especially in rural areas. This is why, in the framework of the program studied, IFC collaborated with Airtel Money: to increase competition (meaning lower prices), and to increase the penetration of mobile money in rural communities.

The areas included in the study have “high poverty rates, as well as low access to financial services, with a median distance to a bank branch being 25.2 km.” The study aims to analyze whether introducing mobile money agents can affect accessibility and the households’ financial behavior and to understand if these areas are *simply* “too remote and too poor to benefit from mobile money, or if mobile money would increase savings and remittance receipts.” (World Bank, 2019).

## Quick facts

### Barriers addressed



*Accessibility*

[Distance from bank/FSP/CICO agent >](#)

### Segment focus

1 2 3 4

### Geography

[Uganda >](#)

### Sources

[GSMA, 2019](#); [World Bank, 2019](#).

### Customer Journey Relevance



### Key stakeholders involved

Airtel  
IFC – Mastercard Foundation  
Partnership for Financial Inclusion

# Empirical Evidence from Uganda on the Impact of Mobile Money on Rural Households

## Key activities

The International Finance Corporation (IFC) collaborated with Airtel Uganda in the aims of measuring the impact in a field experiment of mobile money in poor, remote areas in Northern Uganda where “334 clusters of enumeration areas were assigned to a treatment or a control group, stratified by distance to a bank branch.” In 46% of the clusters (in the treatment groups) at least one Airtel Money agent was deployed.

- Rollout of 370 Airtel Money agents—who were identified by a professional services firm that also provided with equipment, training and marketing materials—in treatment clusters between January and June 2017.

## Outcomes/results

To correctly identify the impact of mobile financial services, the study used the SWIFT approach – a rapid poverty assessment tool which compares data on households in the treatment group to typical consumption, income, welfare.

The agent rollout increased mobile money usage in the treatment group by 4.2% in clusters that were far from bank branches. There was no statistically significant impact on clusters that were near bank branches. This suggests that there is demand for mobile money in remote areas if services are made available.

The effects on receiving or sending money via mobile money (as opposed to other channels, such as hand carrying the money) are positive for clusters far from a bank branch, but they are not statistically significant.

# Empirical Evidence from Uganda on the Impact of Mobile Money on Rural Households

Furthermore, the agent rollout increased the probability of not having to pay transportation cost for receiving money by 13%, even though this did not translate into increased frequency of receiving or sending money.

## Key enabling environment factors for the intervention

Mobile money and other Digital Financial Services have gained popularity and acceptance in Uganda, especially due to its usage in sending remittances.

Another enabling factor was the willingness of various stakeholders to engage in partnerships targeting financial inclusion:

- The government's commitment to the issue highlighted by the Uganda National Financial Inclusion Strategy 2017-2022
- Airtel has gained visibility and legitimacy from IOs like UNCDF, which has supported similar projects

## Key design elements and principles that led to successful outcomes

Airtel Money relied on an external professional services firm to identify potential agents. This firm already had a detailed database of businesses that could be approached based on information about the number of employees, type of business, annual turnover, proximity to closest bank branch, and business used mobile money before. This saved a lot of time and effort from Airtel's side, especially as the firm also helped with the logistics of recruitment and training as well as provision of marketing materials.

## Potential for scale/replicability

In countries where mobile money is a prevalent means of financial service, agents have a crucial role in accessing underserved populations; in fact, in over 80% of these markets, agent outlets outnumber bank branches. Agents are cost effective and overall efficient in reaching rural populations (GSMA 2019).

## Empirical Evidence from Uganda on the Impact of Mobile Money on Rural Households

### Challenges encountered during the program

As the program was implemented a couple of years before the study was conducted, the authors couldn't effectively measure long-term impacts of the agents rollout, and thus observed no impact of higher financial inclusion on poverty levels.

The data used to determine the impact of the program was not always straightforward; to measure the change in transactions, the authors obtained data from Airtel, which they had difficulty mapping to the clusters identified previously. The transactions were associated with a phone number, yet there was no information on the owner's identity and their location, which could only be approximated by the location of the cell phone tower used. This could have tampered with the results, so they tracked the phone numbers given by participants in the surveys.

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*In countries where mobile money is a prevalent means of financial service, agents have a crucial role in accessing underserved populations.*



# The Impact of a Formal Savings Intervention in Sri Lanka

“Over half of all adults in the world are unbanked, and 35% of whom report obstacles to saving in formal institutions that could be overcome through product and regulation changes. One possible solution is to increase access to savings accounts, which could help individuals who prioritize spending today over saving for the future and could lessen the pressure to respond to financial requests from friends and family. In fact, several studies have shown substantial impacts on household expenditures from increased access to savings accounts. However, limited evidence exists on the sources of income that lead to increased savings and on approaches that banks can utilize to bring the unbanked into saving. In 2008, the National Savings Bank (NSB) in Sri Lanka began a mobile Point of Service (POS) deposit collection for business owners within one kilometer of a NSB branch. NSB agents had a wireless POS mobile technology that allowed them to provide a receipt for the deposit and real time account information. NBS established branches in Banderawela and Mahiyangana – remote parts of the country where low-income, unbanked households live. Between December 2010 and May 2011, researchers conducted a randomized evaluation to test the impact of a deposit collection service on the amount of savings and the source of those savings.” (J-PAL)

## Quick facts

### Barriers addressed



#### Accessibility

[Distance from bank/FSP/CICO agent >](#)



#### Cost

[Cost of using DFS \(incl. transaction cost\) >](#)



#### Information Availability & Capability

[Unclear or difficult process to open an account >](#)

### Segment focus

1 2 3 4

### Geography

Sri Lanka

### Sources

[Callen et al., 2014; J-PAL.](#)

### Customer Journey Relevance



### Key stakeholders involved

National Savings Bank  
Consortium on Financial Systems  
and Poverty

# The Impact of a Formal Savings Intervention in Sri Lanka

## Key activities

“From a total sample of 795 individuals, 389 were randomly assigned to the mobile POS deposit collection treatment and the remaining individuals created the comparison group. Those in the treatment group were offered weekly, door-to-door savings deposit collection services and assistance opening bank accounts with a minimum balance of LKR 500 (US \$4.50 in 2010) at the local NSB branch. By May 2011, the original product design was proving to be financially unviable for NSB. Researchers introduced design tweaks to test the impact of lower cost collection services on the savings behavior of individuals to address these issues. To test the importance of frequency on savings behavior, one group received weekly door-to-door visits by a POS agent, while others received biweekly visits. To test the extent to which individuals were prompted to save, NSB provided neighborhood savings lockboxes to compare savings behavior to those who received door-to-door service. To test the effect of face-to-face contact on habit formation, researchers compared the group who transitioned from weekly visits to weekly box-pick with the group who transitioned from comparison to weekly box pick-up.” (J-PAL).

## Outcomes/results

Cited from J-PAL:

- “Both the original and modified versions of the deposit collection intervention led to an increase in savings. The amount of informal savings did not decrease suggesting the increase in savings came from additional savings.”
- “The frequency of transactions with formal banks was four times higher for those offered the mobile deposit collection service than for the comparison group. Those in the treatment group had over two transactions with formal banks per month compared to an average of 0.5 transactions per month in the comparison group. Savings at the NSB increased by LKR 425 (US \$4.26 in 2010) per month.”

# The Impact of a Formal Savings Intervention in Sri Lanka

## Outcomes/results (cont.)

- “Deposits from the substantially less expensive biweekly box collection were about 75% of deposits generated via more costly weekly home visits. Individuals transferred from weekly home visits under the first phase of this evaluation to weekly box collection significantly increased bank savings. This suggests those who had received weekly home visits formed habits around making regular deposits.”

## Key enabling environment factors for the intervention

- NBS had already rolled out an initial mobile POS collection strategy (Callen et al., 2014).
- Participating households had to receive income payments at least once a week – those participating in the study were either self-employed or daily wage workers.

## Key design elements and principles that led to successful outcomes

Substantial increases in savings and income are shown without any foregone consumption, and without the save-invest-earn channel that is suggested by other studies.

## Potential for scale/replicability

“Inexpensive deposit collection techniques, such as biweekly box collection, may be effective and viable models for generating savings deposits” for low-income customers (J-PAL).

# On Her Account: Can Strengthening Women's Financial Control Boost Female Labor Supply?

Like in many developing countries, female labor force participation in India has remained low. "Despite robust economic growth, the labor force participation rate for women aged 15-64 declined from 37% in 1990 to 28% in 2015. In 2015, Indian women were some of the least employed in the world (ILO, 2015), yet nearly one third of Indian housewives expressed interest in working outside the home." (Field et al., 2016).

In this paper, the authors examine "the role of supply-side constraints linked to low household bargaining power and traditional gender norms in suppressing female employment." They hypothesize that "increasing women's bargaining power could draw them into the labor force and may also increase their ability to control their own earnings and thereby further induce her to work." The authors argue that social norms – specifically norms internalized by men – play an important role in keeping Indian women out of the labor force, but that women are able to push back against these norms when they gain bargaining power (Field et al., 2016).

## Quick facts

### Barriers addressed



#### Accessibility

[Mobility constraints \(e.g., legal curfews, norms\) >](#)



#### Social norms

[Expectation that men control HH finances >](#)  
[Women's disproportionate time burden >](#)

### Segment focus

1 2 3 4

### Geography

[Madhya Pradesh \(MP\) state, India >](#)

### Sources

[Field et al, 2016.](#)

### Customer Journey Relevance



### Key stakeholders involved

Indian state of Madhya Pradesh (MP)  
 Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)

# On Her Account: Can Strengthening Women's Financial Control Boost Female Labor Supply?

## Key activities

- An RCT with 2,864 women in 197 local government units, called gram panchayats (GPs), in four districts of the Madhya Pradesh (MP) state with severe gender inequities and high poverty rates. The intervention had four treatment groups.
  - Accounts Basic: Eligible women were assisted to open an individual bank account located at a community banking kiosk.
  - Account Basic Linking: Eligible women opened an individual bank account and their account was linked such that they received their MGNREGS wages in their newly-opened community-based bank account.
  - Account Plus: Eligible women opened an individual bank account and received basic financial training to help them understand how to use their accounts more effectively.
  - Account Plus Linking: Eligible women opened an individual bank account, and their account was linked to their MGNREGS wages, and they received basic financial training.
- “Analysis combines administrative data from the MGNREGS public database, administrative bank data, and a detailed endline survey to generate results.”

## Outcomes/results

- **“Direct access to MGNREGS payments increased women's work and earnings:** Relative to women who received only a bank account, those who received linked bank accounts plus information on the utility of bank accounts were 34% more likely to be listed on MGNREGS payroll 15 months after the intervention. Moreover, the wages flowing into female-owned accounts was large. For women receiving a payment into an individual bank account, the average payment to women over the 15 month interval was \$61 – equivalent to 26% of women's annual income from non-MGNREGS sources.”

# On Her Account: Can Strengthening Women's Financial Control Boost Female Labor Supply?

## Outcomes/results (cont.)

- **“Private sector employment also increased for those in the link plus treatment arm.** Household survey data show that, roughly six months after the intervention, labor force participation was 12% higher and annual private sector earnings increased by 24% among women assigned to 'link plus'... The gains are concentrated among women who were least attached to the labor force prior to the intervention and among women whose husbands were most opposed to female work... Link plus women were more likely to engage in economic transactions outside the household and stated higher levels of mobility relative to the control group.”
- **“Receiving a bank account without supplementary information had no effects on employment or earnings:** Although the intervention roughly doubled the share of women who had bank accounts, receiving only a bank account—with or without supplementary information—had no observable impact on—

—women's employment or earnings. Thus, giving a woman a safe place to keep her wages is not enough; resources need to be explicitly directed to that savings account and women need to be given the basic tools to use it in order to precipitate behavior change.”

## Key enabling environment factors for the intervention

- Reserve Bank of India (RBI) regulations require rural bank branches “to conduct new customer information sessions that provide an overview of the benefits of using bank accounts, including saving for the future and receiving government benefits.”
- Collaboration with the Indian state of Madhya Pradesh (MP)

## On Her Account: Can Strengthening Women's Financial Control Boost Female Labor Supply?

### **Key design elements and principles that led to successful outcomes**

Women received assistance and training on how to open and use bank accounts. Initially, the project was designed to only give bank accounts to women, but feedback from the ground indicated that giving a woman a bank account that she does not feel empowered to access on her own, or does not trust, may not have an impact. Therefore, the intervention included assistance and training on bank accounts.

### **Recommendations from the research**

Further data collection is needed to understand “longer-run impacts of the interventions, including impacts on slow-moving, difficult-to change outcomes such as gender norms.”

“

*Feedback from the ground indicated that giving a woman a bank account that she does not feel empowered to access on her own, or does not trust, may not have an impact. Therefore, the intervention included assistance and training on bank accounts.*

# Digital Sub-Wallets for Increased Financial Empowerment of Women

The Digital Sub-wallets program (DSW) is a BMGF funded initiative, which has demonstrated that social norms work needs to be closely aligned with traditional financial inclusion efforts to achieve women's economic empowerment. CARE worked with PostBank Uganda to design digital sub-wallet – pockets of savings designated for a particular use to help women achieve their set goals (saving, particularly for school fees, medical emergencies, and longer-term purchases such as land).

The project's theory of change recognizes that women's power over their own money, as well as their participation in household decision-making are very limited. The authors hypothesized that providing married women with greater autonomy and voice in household decision-making would facilitate achievement of their own financial goals especially those believed to alleviate poverty, such as keeping children in school. The project has supported more than 1400 people in Western Uganda since 2017.

## Quick facts

### Barriers addressed



#### Social norms

[Biases that center men as financial customers >](#)

[Ambivalence or antagonism towards women's financial independence >](#)

### Segment focus

1 2 3 4

### Geography

[Western Uganda >](#)

### Sources

[Scott et. al., 2020.](#)

### Customer Journey Relevance



### Key stakeholders involved

PostBank Uganda  
CARE



# Digital Sub-Wallets for Increased Financial Empowerment of Women

## Key activities

- A multi-method study, using an RCT, psychological scales (scientific method of measuring empowerment), bank data, two extensive surveys, and a large sample of semi-structured interviews with 1,423 total participants (1,112 women with male partners, 213 women who did not have male partners, and 93 men)
- Two treatment groups for the RCT: "A mobile banking service with digital sub-wallet folders labelled for women, and the same service coupled with a course of seven household counselling sessions aimed at equalizing the influence of women and men in the context of family money management."

## Outcomes/results

- 38% of previously unbanked women signed up for bank accounts and increased their account ownership
- More participatory behavior among male partners regarding household budgets
- Women reported they are increasingly respected for their financial needs by their husbands, and a significant improvement to women's mental and emotional wellbeing
- 61% of women said their spouse now shares household financial decision-making with them

## Key enabling environment factors for the intervention

Project conducted a pilot which found that the household practices anticipated by the theory of change were as expected, and increased uptake for both interventions.

# Digital Sub-Wallets for Increased Financial Empowerment of Women

## Key design elements and principles that led to successful outcomes

- Project included gender and gender-based violence (GBV) prevention and protection training as part of the intervention. All trainers were trained in gender sensitivity and prevention of GBV to enhance their skills in supporting women during household dialogue sessions.
- The research resolved issues of measuring women's empowerment by basing the measure of empowerment on the woman's experience, specifically by using established psychometric scales that have previously been validated through rigorous scientific testing.

## Recommendations from the research

- "Collect additional data in order to better understand the reasons behind the effects on both married and unmarried women."
- Standardize the of measures of women's empowerment to allow comparison across projects. Having a reliable way to measure empowerment, as opposed to the number of accounts opened, is important for showing an independent impact on women. Using proxies is a problem because the uptake of an intervention does not necessarily lead to empowerment.

# Empowering MSMEs: Creating a Better Banking Experience for Women-Led Micro, Small, and Medium Enterprises in Kenya

"The MSME sector in Kenya is a major contributor to socioeconomic development, providing 50% of the country's employment and contributing 28.5% of its GDP in 2016. Despite its importance, the MSME sector faces constraints such as lack of access to capital and the lack of an enabling policy environment that limit the growth of MSMEs. Access to finance is an even greater challenge for women-owned MSMEs. In 2017, there was a 30% gap in financing between men and women-owned businesses. "One of the key barriers to accessing credit among women-owned MSMEs in Kenya is collateral"; lack of property rights and norms, and cultural constraints result in women being effectively disenfranchised (WWB, 2020).

"Women's World Banking (WWB) developed a multipronged solution in cooperation with Kenya Commercial Bank (KCB) to address identified business challenges and customer needs."

## Quick facts

### Barriers addressed



*Prerequisites*

[Lack of credit history >](#)



*Social norms*

[Biases that center men as financial customers >](#)

### Segment focus

1 2 3 4

### Geography

[Kenya >](#)

### Sources

[WWB, 2020.](#)

### Customer Journey Relevance



### Key stakeholders involved

Kenya Commercial Bank (KCB),  
Women's World Banking (WWB)

# Empowering MSMEs: Creating a Better Banking Experience for Women-Led Micro, Small, and Medium Enterprises in Kenya

## Key activities

In partnership, WWB and KCB conducted the following:

- Analyzed administrative data, interviews with bank staff at all levels, and focus group discussions with customers and potential customers (both male and female) to identify concrete business challenges and customer needs.
- Used insights to develop a multipronged proposition that was piloted in five branches in April 2017, expanded to five additional branches in October 2017, and had been rolled out to 207 branches by the end of 2020.

The proposition consists of four primary components:

- “Development of a relationship management model that enabled KCB to foster relationships with business customers, especially women”
- “Implementation of a new cash flow-based credit assessment methodology to support lending to women-led MSMEs”

- “Demonstration that non-financial business support services are integral to serving business customers”
- “Cultivation of a strategic gender focus”

## Outcomes/results

- Participation increase in decision-making on business growth, finances, employees and inventory for women-led businesses.
- Women’s access to credit increased. “At the start of the program, only 22% of MSME loans to sole proprietors went to women. In branches where the new proposition was rolled out, lending to women-led businesses grew to over 50% of the MSME loan portfolio.”
- Impact on women-led businesses:
  - 10% annual average growth rate of 70% of bigger businesses
  - Increase in median profits: 17% in good months, 10% in bad months

# Empowering MSMEs: Creating a Better Banking Experience for Women-Led Micro, Small, and Medium Enterprises in Kenya

## Key enabling environment factors for the intervention

- KCB is a major African commercial bank with a strong commitment to serve the women's market. KCB saw a strong business case for improving the offer for women-led businesses as only 22% of borrowers were women and only 9.6% of SME account holders had loans.
- The strong partnership between KCB and WWB enabled success.

## Key design elements and principles that led to successful outcomes

- Close monitoring of numbers during the pilot phase of the program allowed the bank to confirm the business case early on
- The process of testing and iterating the models/techniques in a few branches, and then incorporating improvements and rolling it out to more branches

## Challenges encountered during the program

- At the beginning, KCB was not collecting sex-disaggregated data on their clients making it impossible to know their gender performance and to do something about it. However, the systems were changed so as to make sex-disaggregated data collection part of the usual process.
- A disconnect between the credit risk staff at headquarters (where loan applications were approved) and the branch staff (where applications were prepared) at the early part of the project. "Credit panels at the branch level were initiated to support rigorous credit assessments and credit risk staff were included where possible to ensure applications met their standards."

# Empowering MSMEs: Creating a Better Banking Experience for Women-Led Micro, Small, and Medium Enterprises in Kenya

## Challenges encountered during the program (cont.)

- Bankers at the branch level weren't focused on broadening their loan client base because their attention was on multiple other tasks, such as loan renewals, opening accounts or handling customer inquiries. KCB created a dedicated salesforce whose goals were consistent with the goals of the new proposition to broaden their loan client base.

## Recommendations from the research

For FSPs:

- Change in portfolio requires communication at all levels to ensure there is alignment and buy-in from staff at all levels. Gender sensitization training for staff, and increase in quality and frequency of communications to ensure understanding of the proposition bank-wide – including the sharing of best practices from regions already successfully implementing the proposition are some potential interventions.
- Experiment with new lending methodologies and ensure tight coordination and collaboration between branch staff and the Credit Risk Department.

# The Persistent Power of Behavioral Change: Long-Run Impacts of Temporary Savings Subsidies for the Poor

“To date, most research on temporary incentives for behavior change has focused on education or health-related behaviors like gym attendance or substance abuse in developed-country contexts. Studies that track outcomes after incentives expire tend to do so for a limited period (e.g. one year or less after the intervention ends) and usually find that treatment effects decay over time. This RCT provides novel evidence that temporary incentives can have amplified effects in the long run, at least in the financial domain.” In this RCT, researchers tested “whether temporary, but high-powered, incentives to save can have persistent impacts on economic outcomes.” They also tested “whether directly incentivizing saving has a greater impact than delivering a comparable transfer via an unconditional cash payment.” (Schaner, 2018).

## Quick facts

### Barriers addressed



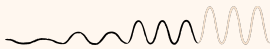
*Cost*

[Cost of using DFS \(incl. transaction cost\) >](#)  
[Perceived and/or lack of money >](#)



*Product & Service Quality*

[Lack of products and services that create value >](#)

<p><b>Segment focus</b></p> <p>1 2 3 4</p>	<p><b>Customer Journey Relevance</b></p> 
<p><b>Geography</b></p> <p><a href="#">Kenya &gt;</a></p>	<p><b>Key stakeholders involved</b></p> <p>Family Bank (Kenya)</p>
<p><b>Sources</b></p> <p><a href="#">Schaner, 2018.</a></p>	

# The Persistent Power of Behavioral Change: Long-Run Impacts of Temporary Savings Subsidies for the Poor

## Key activities

- “The experiment was conducted between July and September 2009 in partnership with Family Bank of Kenya.”
- “Study participants were recruited from 19 communities in two districts near the bank’s Busia branch in Western Province. Even though six formal banks were operating in Busia at the time, most of these banks did not offer low-cost accounts suitable for a low-income clientele. Importantly, Family Bank had just begun to market a new, low-fee account at the onset of the experiment.”
- Married couples who did not have any accounts with Family Bank, but expressed interest in opening one were given the opportunity to open up to three new formal bank accounts: one in the name of each spouse, and one held jointly by both spouses. “Before participants decided which accounts to open, each account was randomly assigned a temporary interest rate, which lasted for six months and ranged from 0 to 20% in annual terms to incentivize savings in the accounts. A subset—  
—of respondents were also randomly selected to receive modest cash payments ranging from \$0.13–\$3.75.”
- “All accounts opened at the meetings were funded with the Ksh 100 minimum balance to eliminate barriers to account use.”

## Outcomes/results

- “Both individual and joint accounts with higher interest rates were more likely to be used in the short run.”
- “The individual interest rate had a persistent effect on rates of account use, with account balances growing over time. In contrast, the impact of the joint interest rate appears to dissipate after the first six months.”



# The Persistent Power of Behavioral Change: Long-Run Impacts of Temporary Savings Subsidies for the Poor

## Outcomes/results (cont.)

- “Receiving the highest individual interest rate increased study participants’ probability of running a business by 10% (a 26% increase versus the no interest group), and increased the probability that a study participant reported entrepreneurship as his or her main occupation by 8%.”
- “Incentivizing study participants to save in individually owned bank accounts increased rates of entrepreneurship and overall household income.”
- “Incentivizing participants to save jointly, or simply delivering an unconditional payment in the form of a modest cash prize, had no robustly significant impact on long-run outcomes.”

## Key enabling environment factors for the intervention

Most banks in the experiment’s geographical zone did not offer low-cost accounts suitable for a low-income clientele. “Importantly—

—Family Bank had just begun to market a new, low-fee account at the onset of the experiment.”

## Potential for scale/replicability

“Further research focused on more scalable and standard short-term savings subsidy programs would help fill the evidence gap [in determining what exactly about the interest rates generated behavior change].”

Other experiments could also look into direct effects on women’s savings by interventions

## Challenges encountered during the program

The experiment bundled many features together making it difficult to identify which features were most important for generating persistent behavior change.

## There is a lack of studied exemplars for the *Reliability of payments system and network* barrier:

Addressing this barrier relies heavily on targeting infrastructure design and maintenance.

Policy-makers, regulators and FSP providers have a significant role in addressing this barrier and ensuring that payment systems and networks function smoothly.

Through increased use of DFS and a greater network of peers and family that use DFS, women will become more trustworthy of payment systems and be less hesitant to adopt.

Governments and the private sector have an important role in investing in infrastructure development so that a larger number of female customers can access DFS and use them without fear of downtime and unreliable networks.

September 2023

# Thank you!

*For questions please contact:*

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GATES foundation

