Information Availability & Capability

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

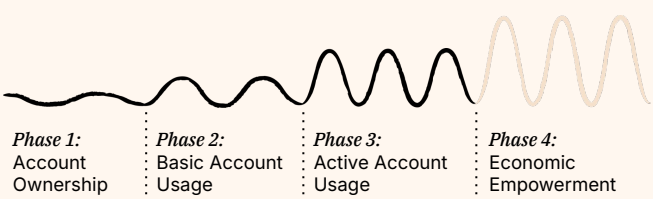
Product & Service Quality
Reliability and quality of in-person services

Consumer Protection
Fraud and scams
Fear of making mistakes

Most Relevant Segments

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

Customer Journey Relevance



Key evidence relevant to this barrier

- 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 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—

Key evidence relevant to this barrier

—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).

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

Exemplar

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).

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."

Key enabling environment factors for 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.”