



Prerequisites

# 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

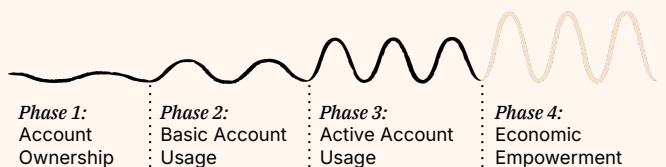


*Product & Service Quality*  
Reliability of payments system and network

**Most Relevant Segments**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Excluded, marginalized	Excluded, high potential	Included, underserved	Included, Not underserved

**Customer Journey Relevance**





### 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 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).



## Exemplar

### *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).

#### 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 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).

#### 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.—



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—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.

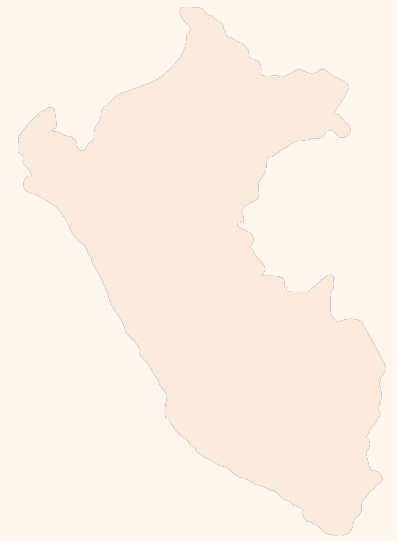
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### *Additional Exemplars*

Comunidades Conectadas y Hogares Conectados

Aligning Libraries And USAFs For Rural Public Access

Reducing Tax Costs on Connectivity



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GRID Impact and SIA's analysis revealed that this barrier along with 11 others require further research and examination as to how they affect the customer experience, other barriers and overall WEE-FI. More in-depth analysis can be found in the larger Barriers & Exemplars Analysis compendium deck.