Strategies Towards Universal Smartphone Access Report

Broadband Commission Working Group

High-level Briefing

Read the report: www.broadbandcommission.org/working-groups/smartphone-access/

The Report

This report, 'Strategies towards universal smartphone access' by the Broadband Commission Working Group on Smartphone Access represents the first multi-stakeholder analysis on the topic of smartphone access.

The Working Group on Smartphone Access was co-chaired by Nick Read, CEO of Vodafone Group, Houlin Zhao, Secretary General of the ITU and Rabab Fatima, UN High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS). The Working Group included representatives from: America Móvil; the government of Benin; the Food and Agriculture Organisation of the UN; the government of Ghana; the GSMA; the International Trade Centre; Intelsat; the International Science Technology and Innovation Centre for South-South Cooperation; Millicom; Smart Africa; ZTE; and the World Wide Web Foundation. The lead author of the report was Professor Christopher Yoo, John H. Chestnut Professor of Law, Communication, and Computer & Information Science at the University of Pennsylvania. The report has been informed by research from GSMA, ITU and 19 structured expert interviews, as well as insights from International Trade Centre (ITC) convened focus group of entrepreneurs and extensive desk research.

Prior to this report, efforts to address smartphone access challenges have been hindered by a lack of concrete information regarding their relative importance and the effectiveness of interventions to address them.

This study aims to evaluate their importance and make recommendations of priority actions – to drive real progress in the area of smartphone access and tackling the digital divide.

Context

Connectivity is an increasingly essential good in today's digital society, enabling critical access to information, education and opportunity that contributes to economic growth.

Despite the progress that has been made to get more people online, nearly 2.7 billion people – **around a third of the global population** – still cannot or do not access the internet.

The majority of people that remain **unconnected live in the least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing states (SIDS)**, which is exacerbating the digital divide in emerging markets and hindering countries from achieving their full socio-economic potential.

Around 97% of the world's population now has access to a mobile data network but there is a disparity between connectivity and adoption. The adoption gap arises when individuals do not use the internet

even when mobile network coverage exists; this is over **seven times (43%) larger than the coverage gap (6%) globally**, with the difference widening in South Asia (61% vs. 5% coverage gap), sub-Saharan Africa (53% vs. 19% coverage gap), and the Middle East and North Africa (48% vs. 7% coverage gap).

Why it matters

Smartphone access improves quality of life. National studies have consistently shown the **positive impact of internet adoption** on GDP. An ITU study of 145 countries between 2010-18 found that a 10% access increase to 3G or higher services yielded a 1.50% increase in GDP driven by a 1.76% increase in middle-income countries and a 1.98% increase in low-income countries. This effect was particularly strong in Africa (2.46% increase), Asia Pacific middle- and low-income countries (2.44%), European low-income countries (2.00%), Arab states (1.82%), and Latin American and Caribbean states (1.73%).

The benefits are felt at a personal level too. Studies of individual users conducted in Bangladesh and Ghana in 2020 found that **mobile Internet adoption is associated with a 3% increase in individual socioeconomic wellbeing.** Another survey in Senegal in 2011 and 2017 found that household consumption is 14% higher and **the extreme poverty rate is 10% lower in areas covered by 3G**. This indicates a very real correlation between smartphone access and socio-economic benefit.
This impact is felt more acutely by women and those with a basic level of literacy. In households in which smartphones are withheld from female family members, the digital divide is another blow to gender equality.

At the **institutional level**, mobile Internet can also support activities in agricultural, educational, and healthcare activities, as well as act as an enabler for more efficient government service delivery. Using education as an example, 2G and 3G support file sharing only in limited formats, while 4G and 5G can deliver seamless online interactions such as video tutorials and interactive learning exercises.

Challenges

Only 45% of adults in emerging economies (compared to at least 76% of adults in advanced economies) own a smartphone – with women disproportionately affected –due to both **supply-side and demand-side barriers**.

Affordability

In terms of supply-side barriers, **handset affordability** was identified as the top reason for not obtaining a smartphone in emerging markets due to high retail costs, duties and taxes, data costs, charging costs and other logistical challenges. **The cost of a smartphone can exceed 70% of the average monthly income of people living in low income countries**.

Handset affordability affects women more than men and is cited as the top barrier precluding women from smartphone ownership.

As a result, most individuals buy 2G phones which cost significantly less than 4G smartphones (US$ 6-10 compared with US$ 40). This can lead to what the World Bank has called a Consumption Gap **when people adopt the internet but their usage remains low because they are not using a smartphone or high-speed (4G/5G) networks.**

Digital Literacy

On the demand side, a **lack of consumer awareness, local incentives and basic digital skills** erodes consumer confidence, limiting the adoption of smartphones. Available studies show that technical and financial literacy contribute to consumer confidence in owning and using smartphones in emerging markets and the lack of content in local language, with local context, presents another challenge to overcoming operative difficulties.

Interventions

From these insights, the report identifies **three higher priority intervention areas**:

1. **Device financing**

For those who cannot bear the lump sum outlay when purchasing a mobile phone, affordable loans with flexible payment options make smartphones more accessible. Recommendations include:

a. allow customers to choose the frequency of their instalments to enable them to control their finances and increase confidence in loan repayments;
b. design targeted financing for marginalised communities, such as women, people from remote locations, and low-income individuals;
c. integrate device financing initiatives with mobile money to support customer repayment practices and provide potential financiers with creditworthiness data;
a. use device lock technologies to reduce the cost of device financing; and
b. take a holistic approach by increasing customer engagement with the financing service and guiding them through the whole process of acquiring and using a smartphone.

2. **Taxes and import duties:**

Different governments, especially in developing countries, have been imposing sector-specific taxes and import duties on smartphones that makes them inaccessible to many. Taxes on smartphones vary from country to country, and justifications for imposing import taxes on smartphones include stimulating local industry. However, some governments, especially in Africa, are levying taxes on smartphones in a way similar to luxury goods, resulting in excessively high final prices for devices. This also stimulates parallel (black) markets leading to a prevalence of poor quality devices. Recommendations include:

a. design tax reforms to consider the benefits of mobile broadband penetration;
b. set a long-term, balanced approach to taxation to meet domestic revenue collection objectives and provide a conducive environment for digital inclusion and economic development;
c. examine the total cost and net impact of mobile ownership when designing tax reforms; and
d. reduce taxes for devices below certain thresholds to incentivise smartphone manufacturers to cut prices to make their smartphones eligible for tax reduction/exemption.

3. **Improvement of distribution channels:**

For those living in remote or rural areas, there is often a lack of available handsets, skills training and retail outlets. Recommendations include:

a. partner with local retail chains and community organisations with whom local customers already engage have high levels of trust;
b. invest in training sales agents so they can effectively assist customers through the process of smartphone purchase and acquisition; and
c. provide agents with sample handsets to help first-time and price-sensitive customers decide on smartphone purchases.

Other intervention areas that **merit further exploration** include:

1. **Device subsidies:**

Device subsidies are one of the most universal ways of making smartphones affordable to customers who do not have mobile internet access. However, even if customers can pay the subsidised upfront cost of smartphones, they may not be able to afford the ongoing maintenance, data usage costs and electricity for phone-charging. There is also the risk of theft with high-value items or the opportunity for black market sales of subsidised devices while sellers pocket the difference. Recommendations include:

a. identify partners willing to finance the large investments required for device subsidy and ask governments to consider the development and coordination of national device and connectivity subsidy programmes in collaboration with other partners;
b. reduce ongoing costs of smartphone ownership by pairing device subsidy with data bundles;
c. encourage better utilisation of Universal Service Funds, including smartphone affordability and adoption;
d. budget for device swapping during upgrading of networks; and
e. partner with providers of complementary services, such as advertisers.

2. **Reuse of pre-owned devices:**

Currently, there are no quality standards for refurbishing preowned devices. This leads to a variable quality of refurbished models for retail, often resold at close to market value. Both could negatively impact the perception of customers. Disposing of refurbished devices in importing countries remains another challenge – one that impacts the environment. Recommendations include:

a. pursue strategic sourcing of devices to reduce the total costs of collecting devices for refurbishment and benefit from economies of scale;
b. standardise device quality testing and assurance to ensure that only devices that satisfy the required standards are imported; and
c. establish regulations on the importation, resale, and disposal of pre-owned devices that also avoid putting an undue burden on the distribution of refurbished devices.

The following actions should now be considered less attractive as a primary strategy for policymakers:

a. Local manufacturing because it is hard for local markets to build the skill base, scale and quality to compete with established global brands.

b. **Smart feature phones** which have failed to really differentiate in price from low-cost smartphones and do not have the functionality to enable users to fully utilise digital services.

Recommendations

The Broadband Commission will create taskforces to complete a five-point action plan resulting from its findings:

1. **initiate win-win partnerships with players across the digital value chain**;
2. **improve regulation on smartphone recycling and develop quality standards for pre-owned smartphones**;
3. **develop strategies for recycling of mid- and low-tier devices**;
4. **explore the use of Universal Service Funds and other government subsidies for smartphones**; and
5. **further explore the overall economic benefits of reducing tax and import duties on smartphones**.