

CONNECTIVITY

Telecoms build the networks, but smartphones still the missing link

Telecom networks cover nearly the whole of Uganda, but smartphone costs and digital literacy gaps are slowing Internet adoption.

Internet usage. |

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The telecommunications sector shows how infrastructure drives behaviour and behaviour drives revenue.

Over the past decade, mobile networks have expanded to reach most of the population. Fibre links are gradually connecting towns, and smartphones are steadily spreading into everyday life.

Yet the most revealing aspect of this transformation is not simply how far networks reach, but how people are beginning to use them.

The mobile market, dominated by MTN and Airtel, has steadily expanded.

By June 2025, registered Sim cards had reached 55.8 million, of which active subscribers within the previous 90 days had risen from 34.9 million in 2023 to 44.3 million over the same period.

The increase suggests network expansion, which is linked to smartphone user adoption that rose from 13.3 million in 2023 to 17.6 million in 2025.

The rise in smartphone usage, on the other hand, saw mobile internet subscriptions climb from 12.5 million to 16.5 million, which shows how device ownership is steadily pulling more citizens into the digital ecosystem.

Mobile internet traffic

In the same period, mobile internet traffic jumped from 156 million gigabytes to 254 million, while average monthly data consumption per user nearly tripled from 1.7GB to 5.1GB.

The surge in digital activity is also feeding directly into industry earnings. Telecom sector revenues rose from Shs1.36 trillion to Shs1.78 trillion, illustrating the commercial logic behind continued network investment.

Broader coverage attracts more users, higher usage produces heavier data traffic, and that traffic ultimately drives stronger revenues.

Investment has also reshaped connectivity, with mobile towers increasing from 3,312 in 2020 to 5,327 in 2025, according to UCC data, reflecting sustained efforts by operators to extend reach and capacity.



Rising smartphone ownership drives internet growth, as more users are able to access social media, mobile banking and digital services. PHOTO / FILE

Basic mobile networks that support calls, text messages, and simple internet browsing now stand at about 98 percent of the population.

Faster 4G networks, which enable services such as video streaming, social media, and mobile applications, cover between 82 and 96 percent of the country. Early 5G deployments have also begun appearing in select areas and currently reach about 15 percent of Ugandans.

GSMA shows that Uganda's 4G footprint ranks among the strongest in East Africa.

Key figures

55.8m

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16.5m

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Yet the rapid expansion of networks has not translated into equivalent growth in internet usage. Uganda increasingly faces what analysts describe as the "usage gap", whereby the share of people who live within reach of mobile broadband networks is high but remain offline.

In Uganda, about 75 percent of citizens live in areas covered by mobile broadband but do not use mobile internet, according to GSMA.

As a result, only about 22 percent of Ugandans, roughly 11 million people, actively use mobile internet today. Millions, therefore, remain excluded from digital services such as e-commerce, mobile banking, online education, and government platforms.

"Now, how is it possible that more than 70 percent of the population remains of-

line?" asks Angela Wamola, the GSMA head of Africa. "When you look at the statistics, we see that two out of four people who are not online have access to a device but have never gone online," she says, noting that such people, perhaps, lack relevant content in local languages, cannot afford continuous data usage, or face limited digital literacy.

Another major barrier is the cost of devices. Entry-level smartphones in Uganda cost between \$38 and \$39, equivalent to about 39 percent of GDP per capita. For the poorest 40 percent of households, the cost rises to roughly 96 percent of annual income, according to Finance Ministry data. Taxes account for about 35 percent of the retail price of low-end smartphones.

"This is why it's important to understand the barriers around adoption of smartphones, of which the biggest contributor comes from the availability of the device," Wamola says.

Framing the challenge

Industry leaders frame the challenge in similar terms. Soumendhra Sahu, managing director of Airtel, argues that expanding smartphone access is essential to unlocking the digital economy.

"It's not just about digital access; it touches everything," he says.

A similar view comes from Sylvia Mulinge, chief executive of MTN, who says smartphone adoption must accelerate significantly.

"Expanding coverage without devices in people's hands risks leaving our investments underutilised," Mulinge warns.

On MTN's network, smartphone penetration rose from 39.1 percent to 44.9 percent in the past year, partly through device-financing programmes.

But Caroline Mbugua, a GSMA senior director for public policy, says increasing smartphone adoption will require "significant investment and careful prioritisation of resources across the sector".

Thus, once devices become affordable, Wamola says the benefits expand quickly, from farmers accessing market prices and agricultural inputs to doctors consulting patients remotely and students reaching educational resources online.