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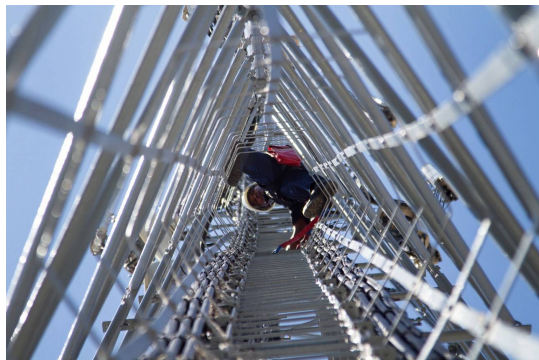
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In the Race for 5G, Africa Lags Far Behind

Telecom operators say consumer demand doesn't justify the huge investment needed to deploy the new wireless technology



By one estimate, just seven out of 46 countries in sub-Saharan Africa will have 5G technology by 2025. PHOTO: DEAN HUTTON/BLOOMBERG NEWS

By Alexandra Wexler

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JOHANNESBURG—While the rest of the world races to deploy next-generation 5G wireless technology, Africa is lagging behind, mainly because of poor consumers' inability to pay for fast data services and devices.

Trade association Groupe Speciale Mobile Association expects that by 2025, just seven out of 46 countries in sub-Saharan Africa will have 5G technology. The association estimates 5G will account for just 3% of mobile connections on the continent that year, versus 16% of connections world-wide.

JOURNAL REPORT

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That's even though smartphone connections in Africa doubled to 300 million in the three years through 2018, with another 400 million expected to be added by 2025, according to GSMA estimates. And about 44% of sub-Saharan Africa's population of more than a billion people is under 15 years old—a potentially enormous market for telecommunications companies' services.

But telecom operators on the continent—including MTN Group Ltd. [MTNOY 0.77% ▲](#) and Vodafone International Holdings BV's Vodacom Group Ltd. [VOD 0.55% ▲](#), both based in South Africa, and France's Orange SA [ORAN 1.23% ▲](#)—say they want customers in Africa to graduate to already widely available 4G networks before

sinking billions of dollars into a new technology that few will be able to use. "Let's fish where the fish are," says Rob Shuter, chief executive of MTN, which has more mobile-phone subscribers than AT&T Inc. and Verizon Communications Inc. combined.

Nearly half of sub-Saharan Africa's population is currently covered by 4G networks, but 4G accounts for just 10% of total connections, mostly because users opt for cheaper phones that don't support the technology, according to executives from telecom companies.

Focus on 3G and 4G

GSMA estimates that over the past five years, mobile operators have invested nearly \$40 billion in the region, mostly expanding 3G and 4G networks.

Orange, which has a strong presence in French-speaking areas of Africa, is investing about \$1 billion annually in its network in Africa and the Middle East, to expand coverage and increase speed. The mobile-network operator plans to launch 5G in Europe in the near future but is still rolling 4G out across the African continent.

Meanwhile, providers are racing to reduce the cost of both their smartphones and data—two essential ingredients to get more Africans to access the internet on their phones.

Of MTN's 240 million subscribers in Africa and the Middle East, about 160 million still use phones known as feature phones—devices that can make calls and send texts but don't provide internet access. Of the 80 million subscribers who use the mobile internet, about 80% still operate on 3G, Mr. Shuter says.

For now, 5G barely has a toehold on the continent. Vodacom has established 5G connections for two individual customers—a bank and a mining company—in the tiny landlocked nation of Lesotho, according to Andries Delpont, Vodacom's chief technology officer.

“It was half a proof of concept to see if it really worked: Can it provide fiberlike performance?” he says. “The customers' feedback was that it was more stable than fiber from a competitor.”

Vodacom has no plans to roll out 5G commercially anytime soon. Mountainous Lesotho is so far the lone country that has allocated 5G spectrum to Vodacom to launch a commercial service, Mr. Delpont says.

The affordability hurdle

Another major hurdle to the advent of 5G in Africa is the cost of a device that would be capable of running on 5G networks. Network operators in Africa work with suppliers to bring down the prices of smartphones, but even prices that are very low by Western standards can be a burden for most African consumers.

Vodacom sells phones that run 3G for about \$18 and 4G-compatible devices for around \$20. Orange sells a very basic 3G-enabled phone for \$20, including a data bundle. MTN launched a very basic 3G-enabled phone last year that retails for about \$23, and has plans to launch an Android entry-level smartphone priced at just over \$20 before the end of the year. But that's still a hefty price tag for a region where per capita gross domestic product averaged just \$1,574 in 2018, according to the World Bank.

“It's the lack of affordability that is holding us back,” Mr. Shuter says. “It's a real burden for somebody to spend even \$30 or \$40 on a handset.” Meanwhile, 5G devices can retail for well over \$1,000.

In many developed markets, operators subsidize the cost of a mobile phone when a customer is on a contract. But in Africa, most customers use prepaid or pay-as-you-go services. “It's difficult to subsidize handsets, which is a good way to improve access to a proper device,” says Elisabeth Medou Badang, senior vice president for Southern Africa and the Indian Ocean at Orange.

About 98% of Orange's customers in Africa are prepaid, as are about 96% of MTN's subscribers and about 92% of Vodacom's customers.

The GSMA estimates average revenue per user in the region at just \$4 a month—the lowest in the world—which puts additional strain on operators. Telecoms have boosted revenue in Africa by branching into other services, such as mobile payments and microloans.

“There is still a lot to do on 4G before thinking of something else,” says Ms. Medou Badang.

“Being a first mover in 5G, does it give a strong competitive advantage? I don’t know, but for sure lagging behind for some time will be a competitive disadvantage.”

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