

Data costs are preventing African consumers from taking full advantage of the crypto economy

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Cryptocurrencies offer a financial lifeline to people excluded from the formal financial economy and to those living in oppressive political or economic regimes. Digital private currencies allow individuals to move their money across national borders with minimal interference from confiscatory states.



Image source: Getty/Gallo

Connectivity costs and the crypto economy

When it comes to moving money across African state borders, many mobile money services have devised innovative, cheap solutions for consumers, using cryptocurrency systems.

For example, BitPesa, which is one of the most successful cross-border cryptocurrency start-ups to come from Africa. The service uses Bitcoin as a clearing currency (as opposed to the US dollar) to facilitate cheaper, cross-border money transfers to and from the African diaspora.

Likewise, Coin Cola is a cross-border peer-to-peer payments exchange that enables users to send Bitcoin to any African country and to integrate Bitcoin payments with other financial systems such as PayPal, Western Union or traditional bank accounts. The exchange fees are 0.7% of transaction value. The platform has regulatory approval and uses bank-grade security algorithms. It also offers a full fund guarantee to its customers.

However, most of these services still require a reliable, fast internet connection. This prevents many of Africa's poorest people from taking full advantage of the decentralised crypto-economy.

This is because although around 250-million Africans own a smartphone (according to the GSM Association which represents mobile network operators worldwide), reliable, fast-speed internet connectivity penetration is still a real barrier to crypto-economy participation across the African continent.

In Burundi, only 6% of the population is connected to the internet. In the Central African Republic, it's just 4%. In Guinea, it's 11% while in Niger it's 10%. This lack of connectivity hinders adoption because although cryptocurrencies themselves do not necessarily require an internet connection in principle, internet connectivity is essential to use crypto currencies for real-world retail transactions which require verification in real time.

The cost of data also makes internet-based transactions and communications prohibitively expensive for Africa's poorest people since sub-Saharan Africa has some of the highest mobile data costs in the world. Lowering data costs in sub-Saharan Africa is essential for wide-spread cryptocurrency adoption and freeing the movement of money between African countries.

Opening up the cross-border crypto opportunity

There are a few start-ups attempting to solve these connectivity challenges and develop ways for consumers to send and receive cryptocurrencies even if they are offline or without a reliable internet connection.

Dash is one of the companies that has developed a way to send its own cryptocurrency via text message, through its Dash Text service. Dash Text is currently available only in Colombia and Venezuela. Users can create a Dash e-wallet by sending a text message to the service's USSD network. They can then send, receive and check the balance on their Dash wallets using text commands without an internet connection. This means that people can continue to transact with each other even during a power outage or a government shutdown of the internet. There are currently no user fees for the service.

CentBee, a South African cryptocurrency start-up, has developed an alternative offline transaction service, known as Crypto Vouchers. With the system, users create a barcode voucher when they have internet connectivity (for example, at work, at home or at a free public Wi-Fi spot). The voucher is then available offline until such time as the user wants to make a purchase. This means that the customer does not need to be online when they use that voucher in a store. The idea is

that since stores own point-of-sale systems which are always connected, the store can validate the voucher in real time, without the customer having to use their own data at all.

There are still challenges that remain with these offline solutions, specifically consumer awareness and merchant adoption; as until more retailers accept cryptocurrencies, the usefulness for consumers remains limited.

Nonetheless, these initiatives indicate that Africa is well on its way to joining the global crypto economy.

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