

# Can blockchain technology really help Africa's economy?

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26 Feb 2021

While blockchain is not a new technology, adoption in Asia, the US and Europe has been far quicker than in Africa. However, the application of this technology on the African continent could lead to seismic advances in the economies and welfare of the continent.



Photo by Roger Brown from Pexels

Recently, Bitcoin surpassed \$54,000, hitting a \$1tn market cap. The world's top cryptocurrency has surged 60% this month alone, fuelled in part by mainstream investors like Tesla. Bitcoin is increasingly becoming more popular despite a fair amount of scepticism from early critics.

Like the rest of the cryptocurrencies, Bitcoin is a decentralised digital currency linked using cryptography and built on a technology known as 'blockchain'.

## What is blockchain really?

A blockchain is a distributed digital ledger system made of records often called blocks, which are linked together by means of cryptography, used to keep track of transactions across multiple devices.

Blockchain technology is attractive for use because no involved records (blocks) can be changed after the fact without altering subsequent records. Each record or block in the blockchain contains a cryptographic hash, an algorithm that keeps track of data such as timestamp and other transaction information, making the blockchain efficiently traceable.

It can run on both private and public systems; this is because it is often managed through peer-to-peer (P2P) networks, which is designed to follow an internode communication that helps in the process of validating each new block or record.

Blockchain was originally invented to serve as a digital transaction ledger to facilitate the distribution and exchange of Bitcoin by its creator(s), Satoshi Nakamoto, a pseudonym used by the person or group that created Bitcoin.

The idea behind blockchain and its use for Bitcoin was to solve what is known as the 'double-spending problem', the possibility that a digital currency can be spent twice. Its decentralisation makes it possible for digital currencies to be transferred with recourse to a central server, authority or a central bank.

## **Blockchain technology being used across industries**

Beyond its use in the financial sector for cryptocurrencies, blockchain technology has found other uses. Since blockchain is highly traceable, there are a number of industries that can use the technology.

Considering supply chain management in the mining industry, blockchain technology could be used to track the origin, transfer and delivery of gemstones and precious minerals. In a very similar way, this can also be used in the food supply industry.

Blockchain technology can help to track and guard against counterfeits, serving as an anti-counterfeiting technology for arts, certificates and other products etc. In the wake of the coronavirus vaccine, blockchain has been suggested for use in tracking persons who have been vaccinated. It is also used by some hospitals to track inventories, medical supplies and to transact with suppliers.

The applications of blockchain technology are in effect - endless. The only limitation is the creativity that we are using to solve problems in all these sectors. While the applications are vast, there is merit in focusing on key industries that would have the most impact on the African continent should they begin to adopt blockchain technology solutions.

## **Skills gap and opportunity created by a blockchain orientated economy**

This is the beginning of a new era of amazing solutions that are worth watching closely. As the use of cases of blockchain across the continent increases, so has the skill sets of African developers and engineers.

Blockchain engineers have now learnt to address complex contextual problems using the technology. Today, many companies, banks and financial institutions are investing in training their developers to be proficient enough to deploy blockchain technology.

Indeed, there is no shortage of talent on the continent, as Leila Janah noted: "Talent is equally distributed but the opportunity is not."

So, what is urgently needed is opportunities for African tech talents. Hence, closing the gap on the need for qualified blockchain engineers is something that requires utmost priority and there is an urgency that I hope we can all begin to

appreciate and create ways in which to address.

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