BLOCKCHAIN IN NIGERIA

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Dr Isa Ali Ibrahim FBCS, Director General/Chief Executive Officer of the National Information Technology Development Agency (NITDA), discusses the exploitation of regulatory instruments to unlock blockchain's potential in Nigeria.

Technological advancement has changed the way we think, the way we live and the way we socialise. Back in 1995, the bursting of the dot-com bubble was a figment of Bill Gates' imagination when he was present at a conference in which tech leaders highlighted the potential of an emerging technology: the World Wide Web. At the time, people could not do much online; there was virtually no online shopping, games or social media. However, upon returning to Microsoft headquarters, he dramatically shifted the company's strategy to focus more on the future possibilities.

Dot-com hype, boom and bust have come and gone. Early bird businesses like Microsoft, IBM, HP, etc. who created and captured values have reaped hugely. Digital business is slowly replacing legacy e-business while new technology trends like blockchain, artificial intelligence (AI) and internet of things (IoT), etc, have emerged to drive digital transformation. At the core of digital transformation is the digital economy.

Distributed ledger technology (DLT) can be described as a collection of components which includes distributed data storage, peer-to-peer networks, and cryptography, focusing on the sharing of data among the participating network nodes (operational participants). DLT consists of a series of networks of databases that allow its members to create, distribute and store information in a secured and efficient manner.

This technology innovation has the potential of transforming and revolutionising the conventional payment, clearing, and settlement transactions in the financial sector and, at the same time, change the way in which the record keeping, storage and transfer of a digital asset is carried out. The potential benefits of DLT are expected to improve cost reduction, end-to-end settlement speed, ability to audit data and resilience in the overall system.

Blockchain is usually managed and distributed across peer-to-peer networks. As it is in the form of a distributed ledger, it can exist without any centralised authority, or perhaps server managing it, and the quality of its data can be adequately maintained through computational trust and database replication. A blockchain is basically a list of records that grows continuously. Moreover, the append-only structure of blockchain only allows data to be added to the database, thereby making it impossible to alter or delete previously entered data on any of the earlier blocks. As such, blockchain technology is well-suited for managing records, processing transactions, tracing assets, recording events and voting.

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for many cryptocurrencies such as bitcoins. Cryptocurrencies are typically created by private entities without the backing of governments and transacted using digital mediums (usually relying on a peer-to-peer network of nodes, rather than a centralised server).

Having been created as the technology architecture for bitcoin in 2008, blockchain, as one of the leading new technology trends, has captured the interest of leaders across industry as a promising technology to leapfrog digital transformation. The technology was invented with a desire to disintermediate central authority, create temper-proof record and build trust relationships underpinned with cryptography in a digital economy. It produces a tamper-evident cryptographic record that can include time and identity information. Thus, it is a potentially useful tool for transactions between businesses in a digital economy.

Blockchain technology was pioneered by cryptocurrencies such as bitcoin. Bitcoin's emergence on the scene, in late 2017, and the ensuing frenzy across the media has brought cryptocurrencies into public mainstream and imagination. Businesses, governments, economists, and also enthusiasts, are now all looking for ways to apply the blockchain technology to other use cases. This frenzy has brought regulatory authorities on their toes. The blockchain, especially cryptocurrencies in recent development, has raised concerns over its legitimacy as a legal tender. This has led to major bans on cryptocurrency exchanges and trading in countries like China, Russia and Thailand.

Blockchain technology certainly has come to stay. It has the potential to shape and disrupt a number of industries, including banking, real estate, government and digital business overall.

It may interest the reader to know that blockchain technology remains immature and, thus, risky. A lot of people's money is trapped in cryptocurrencies and initial coin offering (ICO). More than 1690 cryptocurrencies currently exist in the market, with a total value of over $290.7 Billion USD market capitalization, over 12,138 market platforms, according to CoinMarketCap.

In addition, Gartner forecasts that the business value generated by blockchain will grow rapidly, reaching $176 billion by 2025 and $3.1 trillion by 2030. IT giants such as IBM, Cisco, Microsoft, and established institutions such as MIT, Government of Estonia and Republic of Georgia have all started investing and embracing the technology.

As the Chief Information Technology Officer of Nigeria, I have identified IT regulation as one of my strategic goals. Our focus is on emerging technologies; we use regulation as a major instrument to level the playing field, incentivise innovation and encourage home grown IT solutions. We have started the groundbreaking work to create new value chains around emerging technologies. From forecasts and projections by major technology pundits, it appears likely that blockchain technology will become significant in financial transactions worldwide, including Nigeria.

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Apart from being one of the major underlying technologies enabling virtual currencies, the blockchain technology has the potential of enabling the consummation of financial transactions using smart contracts at a lower cost, improve overall business efficiency and enhance record keeping. Hence, Nigeria cannot ignore this global development, if the nation must fulfil her dream of becoming one of the top 20 economies in the world.

Efforts are being made by the Nigerian government to provide frameworks, guidelines, standards and regulations for the adoption of blockchain technologies in the country. This led to constitution of an advisory forum in June 2017, with members drawn from different relevant stakeholder agencies including financial regulators and security agencies. My agency, the National Information Technology Development Agency (NITDA), is chairing the research committee of the forum.

Relevant agencies have issued cautionary notes to the public and banks to protect consumers while working on regulatory policies and guidelines. However, several opinions from private businesses and professionals have reinforced the fact that blockchain technology, virtual currencies and digital assets have come to stay in Nigeria and globally. This has triggered active participation of the Nigerian startups in the new ecosystem and value chain created by this technology.

With all these efforts, there are still many myths and inflated expectations surrounding blockchain technology in the country. In view of this, NITDA has commenced work on the development of standards and guidelines for adopting the technology generally in Nigeria. This is to complement ongoing work by financial regulators on how Nigeria can maximally benefit from the use of cryptocurrencies and digital assets.

References

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