



Co-Creating a Roadmap for Blockchain in Nigeria

Introduction

As digital transformation reshapes industries worldwide, blockchain technology has emerged as a key driver of transparency, security, and efficiency. Its importance cannot be overstated, especially for emerging economies seeking to improve trust, reduce costs, and promote inclusive growth.

Blockchain technology has gained traction worldwide, with countries such as Estonia, Switzerland, and Singapore leading the way in its adoption for government services, digital identity, and finance. According to the World Economic Forum, blockchain could add \$1.76 trillion to the global economy by 2030, underscoring its transformative potential (*Global Blockchain Impact WEF, 2020*).

For Nigeria, blockchain technology could drive significant advances in several areas

■ Financial Inclusion

Blockchain has shown promise in increasing financial inclusion, especially in communities with limited access to traditional banking. According to a study by McKinsey & Company, blockchain can reduce transaction costs by up to 80%, making financial services more accessible to underserved populations (*McKinsey, "Blockchain Beyond the Hype," 2018*).

■ Supply Chain Transparency

In agriculture, blockchain enables tracking and verification of products, improving transparency and efficiency. A report by Deloitte emphasised blockchain's ability to increase trust and traceability in supply chains, which could bolster Nigeria's agricultural sector (*Deloitte, "Blockchain in Supply Chain," 2019*).

■ Digital Identity

Blockchain-based identity solutions empower individuals with secure, tamper-proof digital identities. A recent study by Accenture and the World Bank highlighted blockchain's potential to address identity challenges in developing nations, with the capability to provide secure digital identities for over one billion people globally (*Accenture & World Bank, "The Identity Gap," 2021*).

These benefits illustrate blockchain's potential impact on Nigeria's economy and position as a leading digital innovator. This white paper discusses the development of a National Blockchain Policy for Nigeria. Therefore, a holistic approach to developing blockchains as a key driver of digital transformation is necessary.

Nigeria must establish a structured and forward-looking policy that harnesses blockchain's benefits to support economic growth, enhance transparency, and promote trust across sectors.

Objectives

This National Blockchain Policy aims to provide a structured, inclusive, and forward-looking framework for blockchain adoption in Nigeria. Building on the foundational work of the National Blockchain Strategy issued by the National Information Technology Development Agency (NITDA) in 2024, this policy will leverage input from top blockchain researchers of Nigerian descent worldwide to create a robust, inclusive framework. The goal is to ensure that Nigeria remains at the forefront of blockchain innovation while addressing unique challenges and opportunities in the Nigerian context.

To realise the full potential of blockchain in Nigeria, it's crucial to expand engagement efforts across a wide array of stakeholders, including government agencies, private sector leaders, academic institutions, and civil society. This approach will

■ **Facilitate Comprehensive Policy Development**

Nigeria can develop a policy that accurately reflects blockchain's opportunities and challenges by gathering input from various sectors.

■ **Promote Public Trust and Awareness**

Increasing understanding and addressing concerns can improve adoption rates and make blockchain's benefits accessible to all.

■ **Encourage Innovation**

Diverse stakeholder input will stimulate innovation, leading to creative solutions tailored to Nigeria's specific needs.

Methodology

Identification of Researchers

To identify top researchers in Blockchain globally, we utilised data from Lens, the same data source referenced by McKinsey in their "McKinsey Technology Trends Outlook 2023".

We extracted all articles in the field of blockchain, where the authors' affiliate institutions are located in Nigeria. This process yielded 2,292 publications, expanding to 6,779 records after splitting each article by its authors. At the global level, we retrieved data on top-published journal articles in Blockchain from the past decade (2013–2023).

■ Initial Analysis Using Generative AI

Generative AI technology was employed to analyse the data and identify active African researchers in the Blockchain field. The analysis identified

42

African Researchers

281

of these researchers had
names indicative of Nigerian origin

■ Human Verification

We conducted a human verification step to address potential inaccuracies due to cultural or religious naming overlaps. From the 42 names identified, 21 researchers were confirmed to be Nigerian based on additional checks of names, affiliations, and contextual information.

The following researchers have been identified to contribute to blockchain research

- | | |
|----------------------------|--------------------------------|
| ■ Abiola Salau | ■ Isioma Maureen Chiluwa |
| ■ Abraham Ayegba Alfa | ■ Ismail Adelopo |
| ■ Ahmad Sani Bello | ■ Jacob Abegunde |
| ■ Augustine Ikpehai | ■ Joseph Bamidele Awotunde |
| ■ Buhari Ugbede Umar | ■ Jumoke Popoola |
| ■ Chinwe Ifejika Speranza | ■ Odunayo Olowookere |
| ■ Chuka Oham | ■ Olayemi Mikail Olaniyi |
| ■ Emmanuel Abidemi Adeniyi | ■ Olusogo Popoola |
| ■ Eustace Manayi Dogo | ■ Roseline Oluwaseun Ogundokun |
| ■ Femi Emmanuel Ayo | ■ Timilehin Ogundare |
| ■ Ishaya Gambo | |

Next Steps

Crowd-Sourcing for Validation

We recognise the inherent limitations of automated models and are launching a crowdsourcing initiative for the second stage of the selection process.

We invite the general public to collaborate with us in refining the list of researchers by

- Proposing additional names of researchers.
- Confirm their country of residence and affiliate institutions, where applicable.

This collaborative approach ensures a more comprehensive and accurate representation of researchers contributing to Blockchain advancements.

Conclusion

Nigeria is at the threshold of a digital transformation, and blockchain technology offers an unprecedented opportunity to leap forward. To fully capture blockchain's potential, the national strategy must continue fostering innovation through research, public-private partnerships, and inclusive policymaking. By adopting a co-creation approach, Nigeria can develop a robust framework that ensures responsible and sustainable blockchain adoption. With the right policy in place, blockchain can transform Nigeria's economy, promote digital equity, and position Nigeria as a leader in the digital economy.

Kindly send your suggestions to
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