Blockchain: Still Africa's New Economic Frontier?

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Blockchain:

Still Africa's New Economic Frontier?

An Analysis By:
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CcHUB DESIGN LAB

We are a research and development lab innovating for social impact. We collaborate with global stakeholders to explore the application of technology to solve Africa's systemic problems in Public Health, Education, Governance and the Private Sector.

At the core of our philosophy is the belief that people are the heart and soul of our work. We don't merely design for our users; we design alongside them. From brainstorming revolutionary ideas to testing and prototyping solutions, people aren't just recipients; they are our partners. We embrace a human-centric approach to problem-solving, channeling our efforts into creating tangible value for individuals and communities. Design excellence, for us, is a fusion of innovation and social impact. We select projects based on their potential to spark transformative change.

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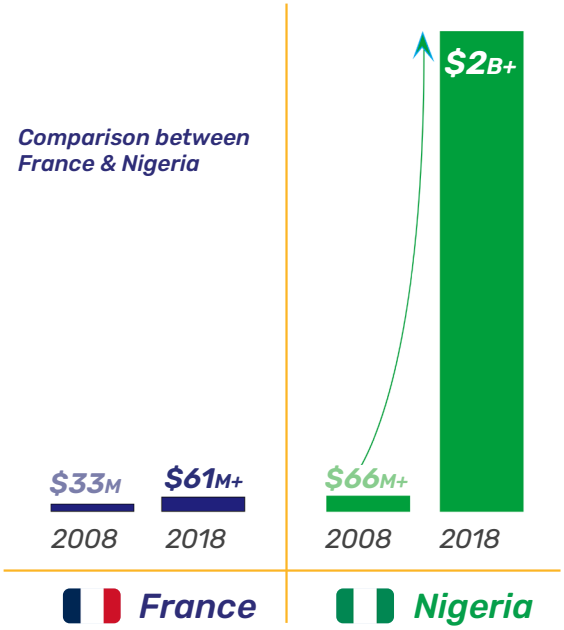
Growth Of Electronic Payments

"The digital payments market has matured faster in Africa than it has in Europe: the number of electronic payments in France grew from 33 million in 2009 to 61.5 million in 2018, but in Nigeria, the number of electronic payment transactions grew from 66 million in 2008 to over two billion in 2018...

- Statista

Comparison between France & Nigeria



21%

When it comes to institutions involved in blockchain technology in Africa, Kenya leads with 21%. This high percentage indicates a significant interest and investment in blockchain solutions within the country. Kenya has been a leader in financial technology with innovations like M-Pesa and is extending this innovative culture to blockchain.

M-PESA

The Africa Blockchain Report (2021) highlighted the concentration of blockchain activities in key regions like Nigeria, South Africa, Kenya, and Ghana.

Early Stage Ventures have attracted

55%

of all investements in the crypto space

* Crypto investment companies are heavily focused on early-stage ventures, with Seed funding accounting for over half of all investments suggesting a preference for high-risk, high-reward opportunities in the rapidly evolving crypto space.

$100M+

The Africa Blockchain Report (2021) reported that over $100 million in funding had been committed and a year-on-year growth rate exceeding 100% in blockchain technology,

Introduction

Introduction

- The African continent has been experiencing a rapid increase in blockchain technology adoption and investment. This growth is driven by the technology's potential to address various socio-economic challenges, such as financial inclusion, supply chain inefficiencies, and governance issues. The analysis explores insights into crypto-related investments by examining various aspects such as the amount of funds raised by crypto projects, the primary focus areas of blockchain investment firms, their preferred funding stages, and the frequency of funding rounds conducted globally. Additionally, it maps institutions and companies within the blockchain sector in Africa using the Google Maps API. The investment data sources include the CryptoRank repository, Google Maps, and other triangulated data sources.

  While this analysis provides valuable insights from these datasets, it is important to acknowledge data gaps, particularly concerning companies and institutions not listed on Google Maps and investment firms not covered in the comprehensive dataset used.

Literature Review

This literature review explores the funding landscape for blockchain companies and institutes in Africa, highlighting key investment trends, notable institutions, and the impact of such investments on the region's technological ecosystem. The digital payments market has matured faster in Africa than it has in Europe: the number of electronic payments in France grew from 33 million in 2009 to 61.5 million in 2018, but in Nigeria, the number of electronic payment transactions grew from 66 million in 2008 to over two billion in 2018, according to Statista. Blockchain technology has found diverse applications across Africa, from financial services to healthcare, agriculture, and government transparency. Notable blockchain startups have emerged, attracting significant investment from both local and international investors.

The 2019 Kenya taskforce report on emerging digital technologies underscores the potential advantages of blockchain technology in multiple sectors. The report highlights how blockchain can be pivotal in combating corruption, reducing national debt, fortifying democracy, enhancing public services, and promoting financial inclusion by lowering transaction costs.

Fintech and Financial Inclusion: BitPesa (Kenya) is one of the earliest blockchain companies in Africa, BitPesa uses blockchain to facilitate faster and cheaper cross-border payments. It has raised over $10 million in funding, highlighting investor confidence in blockchain's ability to enhance financial inclusion (Wangari, 2020). Paxful (Nigeria) is a peer-to-peer cryptocurrency trading platform, Paxful has gained traction by enabling users to buy and sell Bitcoin using various payment methods. It has raised significant funding, contributing to its rapid expansion across Africa (Akinsanmi, 2021).

Supply Chain and Agriculture: Twiga Foods (Kenya) uses blockchain technology to streamline agricultural supply chains, Twiga Foods has raised over $50 million to enhance food distribution and reduce waste. Blockchain technology ensures transparency and traceability in the supply chain, attracting substantial investment (Ndemo, 2019). AgriLedger (Côte d'Ivoire) is a platform that leverages blockchain to empower farmers by providing them with transparent and immutable records of their produce, ensuring fair pricing and reducing exploitation. It has received funding from various development agencies (Nwaogu, 2020).

The Africa Blockchain Report (2021) provided an in-depth analysis of the burgeoning blockchain ecosystem in Africa, focusing on the growth in startups, venture capital funding, and technological adoption throughout 2021. It reported over $100 million in funding had been committed and a year-on-year growth rate exceeding 100% in blockchain technology, Africa is emerging as a new hub for blockchain innovation. The report highlighted the concentration of blockchain activities in key regions like Nigeria, South Africa, Kenya, and Ghana. It also discusses the challenges posed by regulatory environments and infrastructure limitations, while noting the potential for blockchain technology to transform financial services and broader economic activities across the continent.

> *"The digital payments market has matured faster in Africa than it has in Europe: the number of electronic payments in France grew from 33 million in 2009 to 61.5 million in 2018, but in Nigeria, the number of electronic payment transactions grew from 66 million in 2008 to over two billion in 2018..."*
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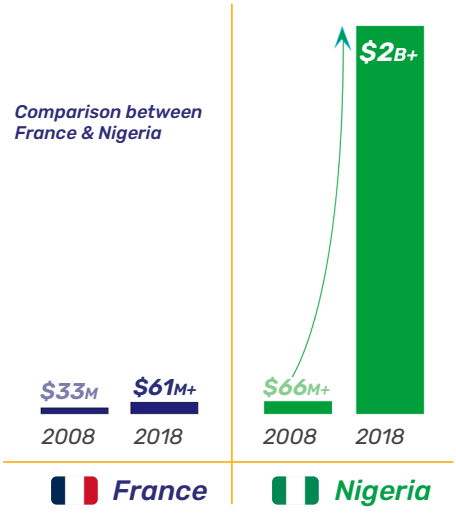


In healthcare, MediBloc (South Africa) uses blockchain to secure patient data and improve healthcare service delivery. It has garnered investment from health tech investors keen on enhancing data security and interoperability in African healthcare systems (Moyo, 2021).

Blockchain Institutes and Educational Initiatives: Several institutes and educational initiatives in Africa focus on training and research in blockchain technology. These institutions play a crucial role in building the necessary skills and knowledge to support the growing blockchain ecosystem.

Africa Blockchain Report (2022) focused on blockchain technology in Ghana, Zimbabwe and two other countries in Africa. It discussed the misconceptions about blockchain, its potential use cases, and the future of blockchain in these countries. The report highlighted the slow adoption of blockchain technology in Ghana and the need for more educational initiatives. It also emphasized the potential for blockchain to address issues such as land registry problems and certification authentication. In Zimbabwe, the report addressed the ban on cryptocurrencies and the potential impact on the country's participation in the global financial system. Overall, the report provides insights into the current state and future prospects of blockchain technology in these African countries.

In 2023, the 3rd edition of the Africa Blockchain Report revealed that the technology was striving in Mauritius with the support of clear government policies promoting fintech innovation. In addition, the report further stated that countries like Senegal, Mauritius, and Ethiopia are actively embracing blockchain technology, each with its unique approach. The report stated that Senegal has seen the introduction of e-CFA and AKOIN, contributing to blockchain innovation. Mauritius is positioning itself as a fintech hub with clear regulations for blockchain startups. Ethiopia reversed its ban on cryptocurrencies and is partnering with Cardano for blockchain-based projects in education. Despite the challenges, these countries demonstrate significant potential for blockchain growth and development, paving the way for innovation across Africa

Blockchain technology has found diverse applications across Africa, from financial services to healthcare, agriculture, and government transparency.

Global Crypto Funding

Global Crypto Funding

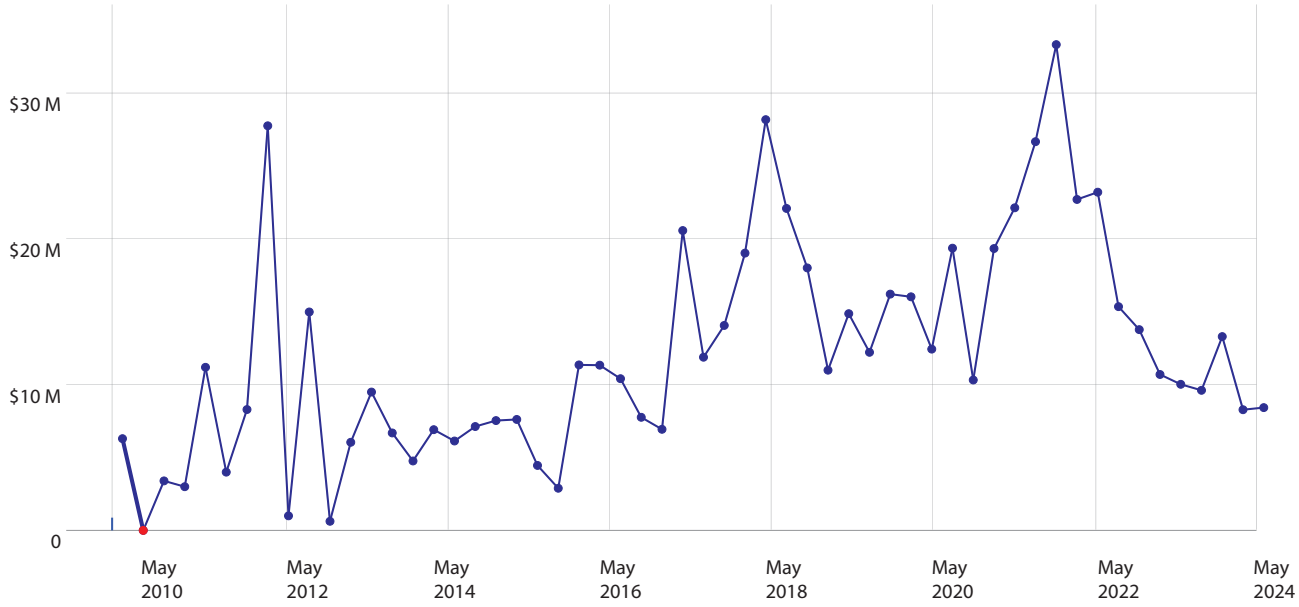


Figure 1: Global Funding Trends

CcHUB Blockchain Publication @2024
Source: Cryptorank website: https://cryptorank.io/

From 2009 to 2024, the cryptocurrency market has shown significant investment fluctuations, from initial volatility to growth, a peak bull market, and a recent correction. These trends highlight the market's dynamic nature, influenced by technological innovations, investor sentiment, and broader economic conditions.

2009 - 2013

Early Market Volatility (2009-2013): From 2009 to 2013, the cryptocurrency market was characterized by low average investments and high volatility. Starting at about $6.3 million in March 2009, investments saw dramatic peaks, including $165 million in March 2013. This period of fluctuation may potentially reflect the experimental and high-risk nature of the early blockchain industry.

2014 - 2017

Phase of Growth and Innovation (2014-2017): Between 2014 and 2017, the cryptocurrency market experienced a phase of steady growth and increasing investor confidence. Average investments grew consistently, reaching a high of $20,591,355 in June 2017, possibly driven by technological breakthroughs, the rise of ICOs, and increasing mainstream interest in blockchain technologies.

2018 - 2024

Bull Market Peak and Subsequent Correction (2018-2024): From 2018 to 2021, the market saw its highest average investments, peaking at $33,359,712 in December 2021 during a bull market phase. However, from 2022 to 2024, there was a notable market correction, with average investments dropping to $8,431,812 by June 2024, reflecting the typical market cycle of post-peak consolidation and a more cautious investment environment.

Funding Focus Areas

The following graph shows the focus areas for companies investing in global crypto-related activities

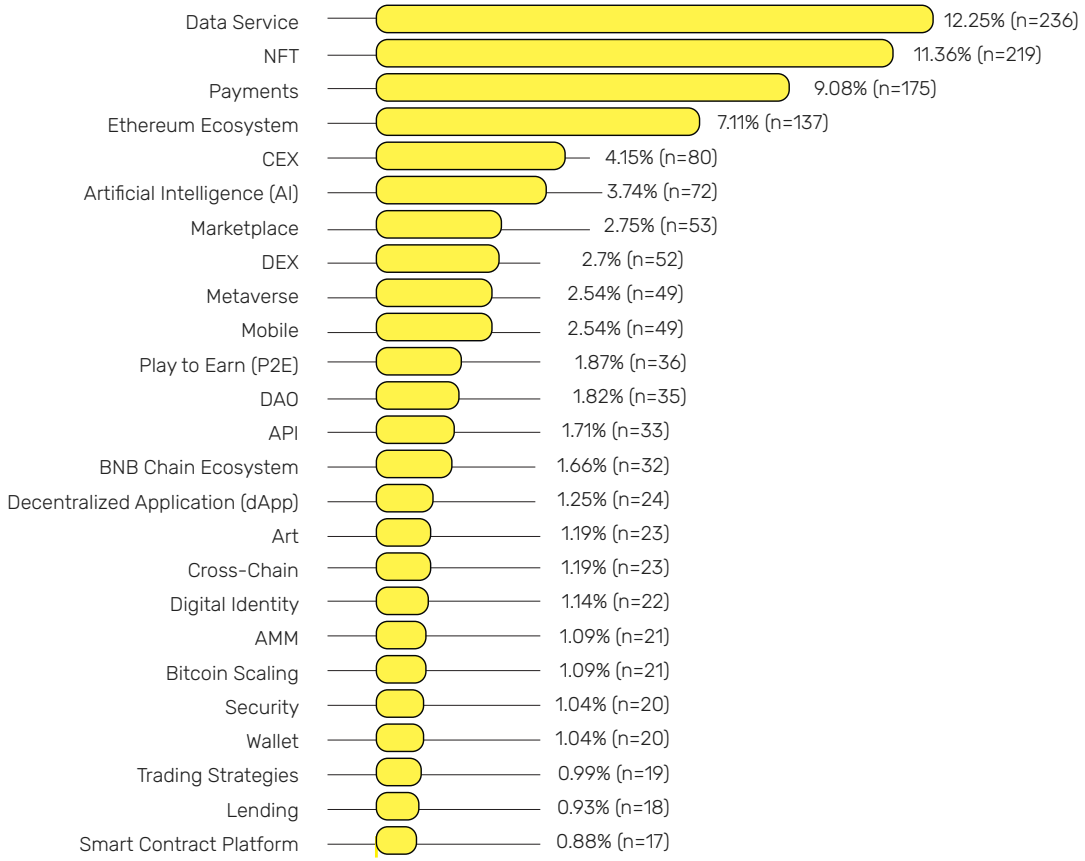


Figure 2: Funding Focus Areas

CcHUB Blockchain Publication @2024
Source: Cryptorank website: https://cryptorank.io/

The data reveals that data services and NFTs are the dominant areas of focus for cryptocurrency investment companies, with data services leading at 12%(n=236) and NFTs following closely at 11%(n=219). Investments in payments and the Ethereum ecosystem also hold significant shares, representing 9%(n=175) and 7%(n=137) respectively. Other notable areas of interest include centralized exchanges (CEX), artificial intelligence (AI), and marketplaces, each capturing between 3% and 4% of the investment focus. The prominence of these sectors highlights a trend towards both technological infrastructure and innovative applications within the crypto space, reflecting investor enthusiasm for the practical and creative potentials of blockchain technology. Emerging areas such as metaverse, mobile applications, and play-to-earn (P2E) games also show growing interest, while niche fields like privacy, carbon credits, and sports remain less explored but present future opportunities. Generally, the focus areas by the investment firms indicate a mature market with diversified interests, balancing foundational technologies with cutting-edge innovations.

Preferred Funding Stage

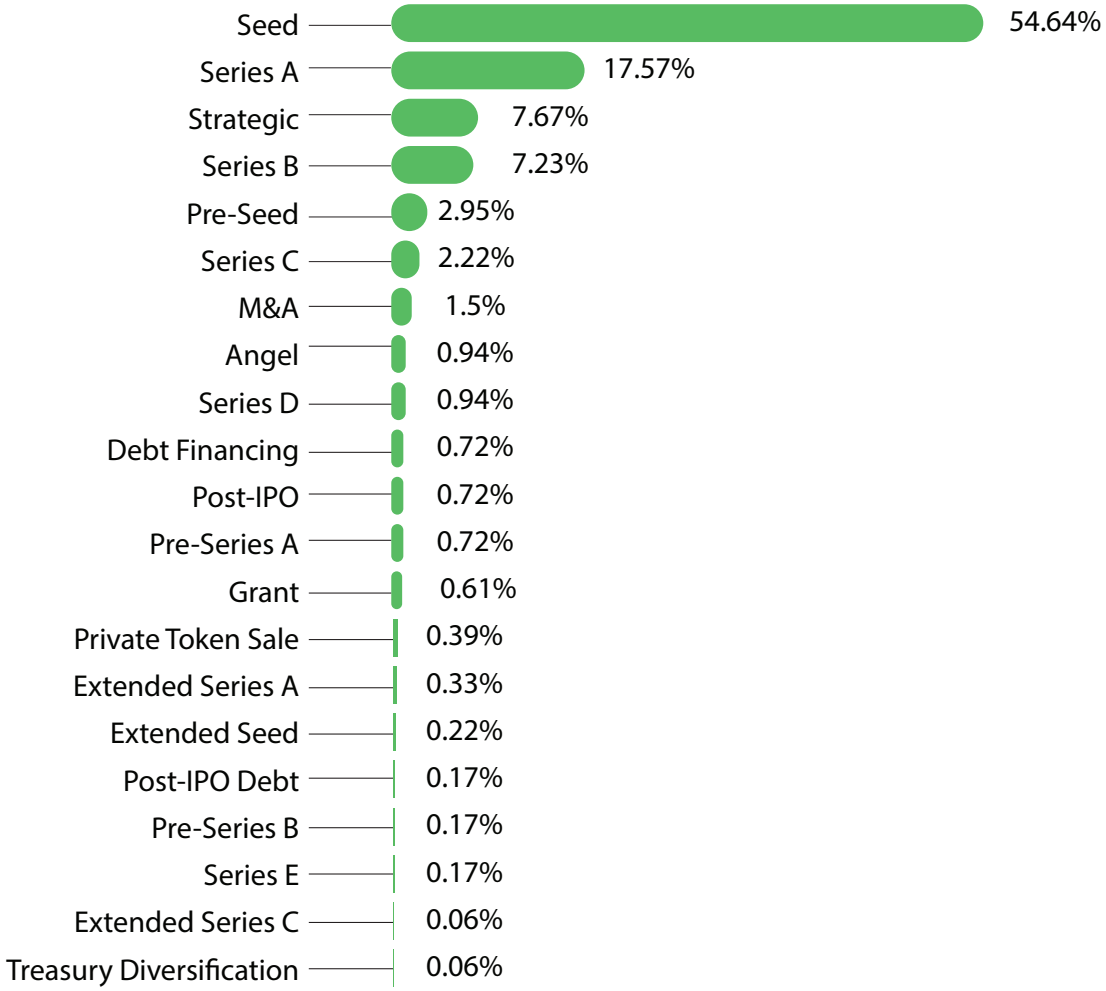


Figure 3: Preferred Funding Stage

CcHUB Blockchain Publication @2024
Source: Cryptorank website: https://cryptorank.io/

Crypto investment companies are heavily focused on early-stage ventures, with Seed funding accounting for over half (55%, n= 983) of all investments suggesting a preference for high-risk, high-reward opportunities in the rapidly evolving crypto space. Series A funding comes in second at 18%(n=316), indicating continued support for promising startups after initial seed funding. Strategic investments (8%, n=138) and Series B funding (7%, n=130) highlight a focus on companies with strong potential for growth and strategic partnerships. The data suggests a cautious approach with later-stage funding rounds (Series C, D, and E) receiving a significantly lower share of investments, potentially due to the higher valuation and lower risk-reward profile at those stages. Overall, the focus on early-stage ventures reflects the high potential and dynamism of the crypto space, with investors seeking to identify and support the next generation of blockchain-based companies.

Funding Rounds

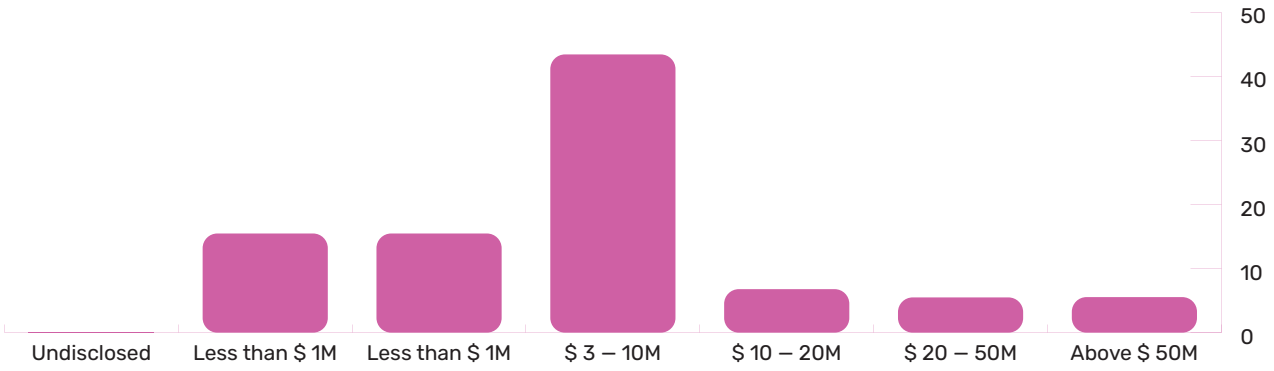


Figure 4: Funding Rounds

CcHUB Blockchain Publication @2024
Source: Cryptorank website: https://cryptorank.io/

Investment rounds by crypto investment firms show a clear preference for funding amounts in the $3–10M range, which accounts for 43.39% (n =870) of the investments. Smaller investments of $1–3M are also significant, representing 23.29% (n = 467). Less than $1M rounds make up 15.46% (n=310), indicating a focus on early-stage, smaller-scale investments. Larger funding rounds of $10–20M and $20–50M are less common, at 6.78% (n=136) and 5.49% (n=110) respectively. Investments above $50M, while the least common of the disclosed amounts, still constitute 5.54% (n=111), reflecting interest in high-value opportunities. Only one investment remains undisclosed, suggesting a trend toward transparency in investment amounts.

Number of Investments

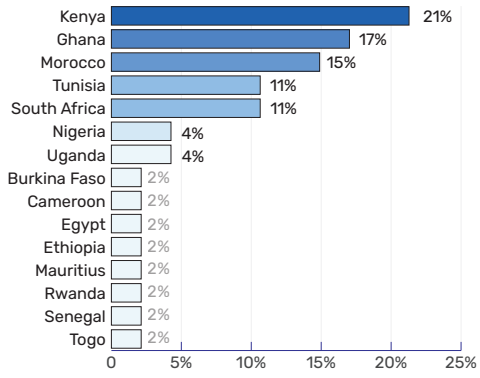
Number of Companies	Average Number of Investments	Investment Number Range
2,008	19	1 to 393

Table 1: Number Companies and Average Investments

On average, the 2,008 companies studied made 19 investments each, with some investors making just one investment and others making as many as 393 investments over the period under review.

Blockchain Institutions

The map below provides a summary of institutions offering training on blockchain-related subjects in Africa. 75% of the total blockchain training in Africa is offered in five African countries(9% of Africa countries), while Kenya institutions from Kenya offer 21% of all the training. Though blockchain technology is fast growing in Africa. The likes of Nigeria, Ethiopia and Egypt being the three largest populations in Africa are not significantly involved in blockchain training in Africa.



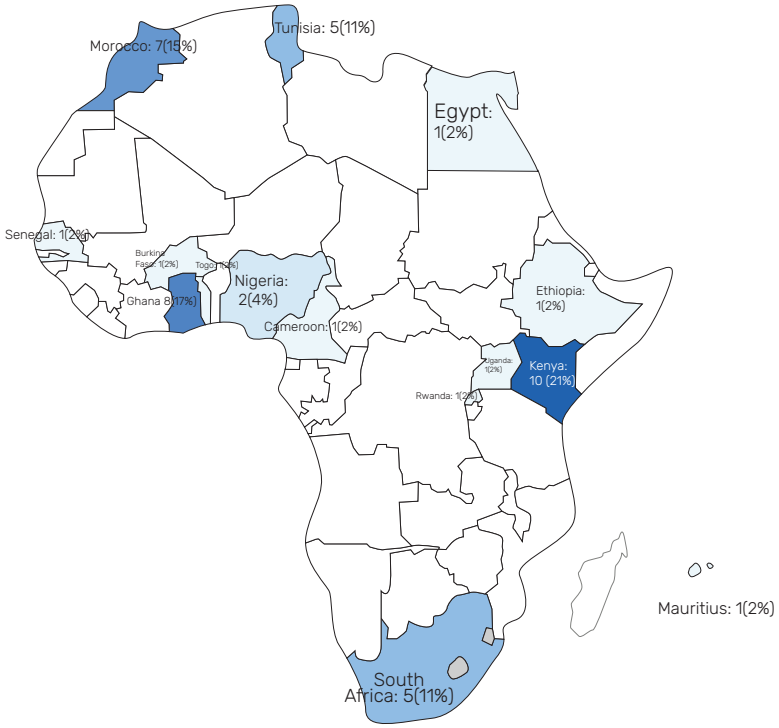


Figure 5: Blockchain Institutions in Africa

CcHUB Blockchain Analysis @2024
Blockchain Institutions
Data Source: Google Maps

Kenya leads with 21% of the institutions involved in blockchain technology. This high percentage indicates a significant interest and investment in blockchain solutions within the country. Kenya has been a leader in financial technology with innovations like M-Pesa and is extending this innovative culture to blockchain. The data reflects a growing adoption of blockchain technology across diverse African countries, each leveraging blockchain to address local challenges such as financial inclusion, supply chain transparency, land registry, and governmental efficiency.

Blockchain is being utilized not only in financial sectors but also in public services, agriculture, healthcare, and education, showcasing its versatility and potential to drive significant improvements in various sectors.

Countries like Kenya and Ghana are emerging as leaders in blockchain adoption, driven by a combination of governmental support, private sector innovation, and a tech-savvy population.

Blockchain Companies

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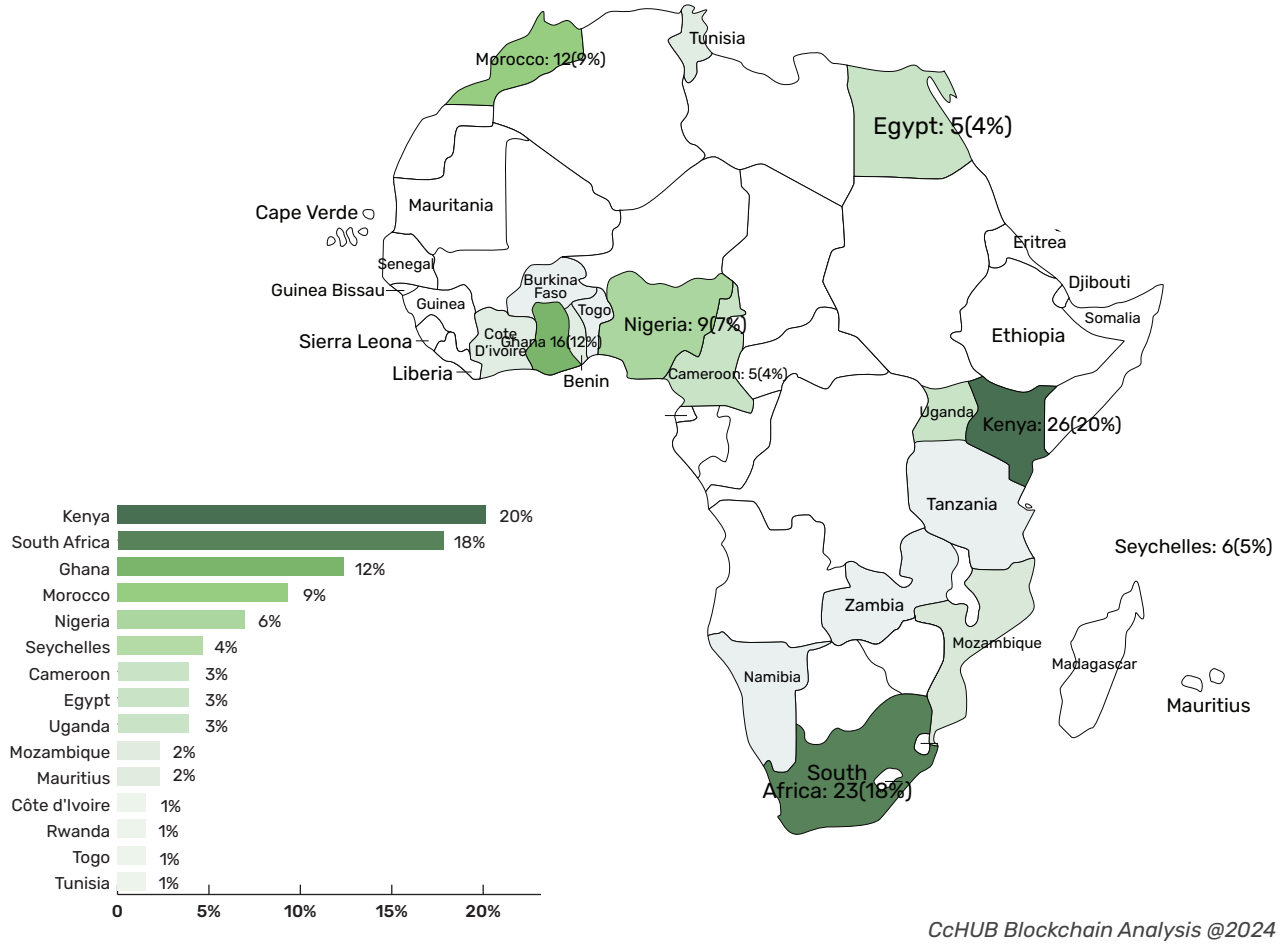


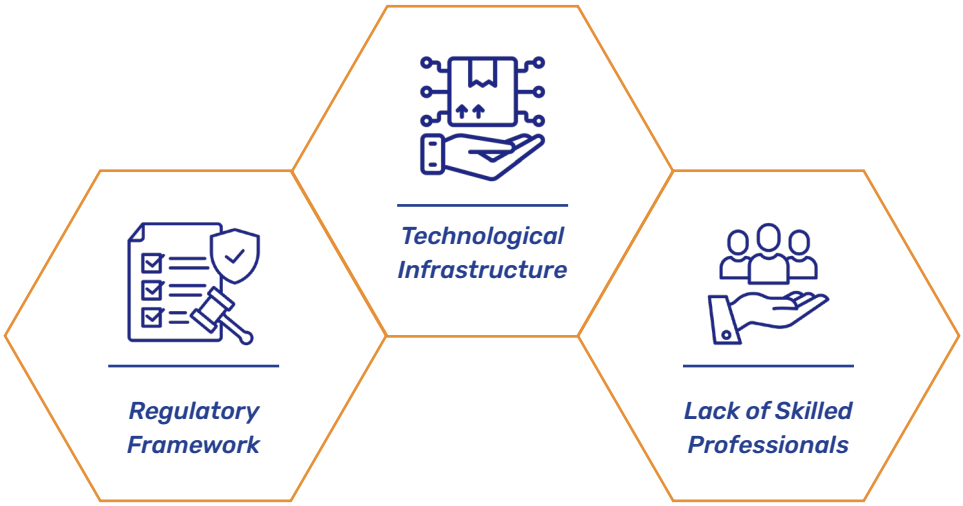
Figure 6: Blockchain Compaines in Africa

CcHUB Blockchain Analysis @2024
Blockchain Companies
Data Source: Google Maps

Challenges and Opportunities

- While there is notable progress, challenges such as regulatory frameworks, technological infrastructure, and access to skilled professionals remain. However, the distribution of blockchain institutions and companies indicate a robust interest and potential for growth and collaboration across the continent.

Some Challenges experienced in the Blockchain sector in Africa:



Conclusion

- The study illustrates the dynamic and evolving landscape of funding and investment in blockchain technology globally, and highlights how different countries are positioning themselves in this innovative field of blockchain. Africa's blockchain ecosystem is on the rise, with countries embracing blockchain for various applications, the technology has the potential to revolutionize sectors like finance, energy, and education in Africa.

  Overall, the analysis provides insights into the current state and future prospects of blockchain technology in these African countries.

End

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