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## Digital currency adoption in Africa: A critical review and global comparison

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### Abstract

This study critically examines the landscape of digital currency adoption in Africa, providing a comprehensive analysis that juxtaposes the region's progress against global trends. As the world witnesses an accelerating shift towards digital currencies, Africa stands at a crucial juncture in its financial evolution. This research delves into the factors influencing the adoption of digital currencies in various African nations, exploring the socio-economic, technological, and regulatory dimensions that shape their trajectory. The study employs a comparative approach, drawing parallels between Africa's digital currency adoption and global patterns. By examining successful case studies and identifying challenges unique to the African context, the research sheds light on the diverse experiences within the continent. Factors such as financial inclusion, regulatory frameworks, technological infrastructure, and cultural perceptions are scrutinized to unravel the complexities surrounding digital currency adoption. Furthermore, the study investigates the impact of global trends and initiatives on Africa's digital currency landscape. The analysis encompasses the role of international collaborations, regulatory harmonization efforts, and the influence of major digital currencies in shaping the African narrative. By identifying both opportunities and challenges, the research aims to offer insights that can inform policymakers, financial institutions, and stakeholders in fostering a conducive environment for digital currency adoption in Africa. The findings of this study contribute to the academic discourse on digital currency adoption, providing a nuanced understanding of Africa's position in the global digital financial ecosystem. In an era where technological advancements redefine traditional financial paradigms, this research aims to inform strategic decision-making processes that can unlock the transformative potential of digital currencies in the African context.

**Keyword:** Digital Currency; Africa; Currency; Finances; Review

### 1. Introduction

In recent years, the global financial landscape has witnessed a transformative surge in the adoption of digital currencies (Allen *et al.*, 2022). Cryptocurrencies and digital assets have emerged as pivotal players in reshaping traditional notions of currency and finance (Agarwal *et al.*, 2021). Concurrently, the African continent, characterized by diverse economies and unique financial challenges, is navigating its own trajectory within this evolving financial paradigm (Nachum *et al.*, 2023).

The rise of digital currencies, epitomized by the emergence of cryptocurrencies like Bitcoin and Ethereum, has transcended niche communities to become a focal point in the global financial discourse. With the promise of decentralized systems, blockchain technology, and borderless transactions, digital currencies have garnered attention

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from both individuals and institutional investors (de Oliveira *et al.*, 2020). This global momentum is reshaping how we conceptualize and engage with traditional financial systems. Against this backdrop of global innovation, Africa is experiencing a dynamic evolution in its financial landscape. The continent is characterized by a diverse range of economies, each navigating its own set of challenges and opportunities (Daradkeh, 2023). From the expansive mobile money ecosystems in East Africa to the digital finance initiatives in rapidly growing economies, the African continent is positioning itself at the forefront of financial innovation (Pazarbasioglu *et al.*, 2020).

This study seeks to delve deeply into the dynamics of digital currency adoption within the African context. Understanding the motivations, challenges, and opportunities that underlie the adoption of digital currencies in Africa is crucial for unraveling the region's financial future (Ozili, 2022). By exploring the diverse experiences across African nations, the study aims to provide a nuanced understanding of the factors influencing the adoption of digital currencies. Beyond a localized examination, this research endeavors to undertake a comprehensive comparative analysis, juxtaposing Africa's digital currency adoption against global trends (de Oliveira, 2021). By identifying parallels and disparities, the study aims to contribute insights into the ways in which Africa aligns with or diverges from the broader global narrative. Such a comparative perspective is integral for discerning the unique challenges and opportunities that define Africa's journey in the digital financial landscape (Wanyande and Okumu-Ojiambo, 2023). In summation, this study embarks on a critical exploration of digital currency adoption in Africa, weaving together the intricacies of global trends with the diverse fabric of the continent's financial evolution. Through a purposeful examination, we aim to offer valuable insights that can inform stakeholders, policymakers, and financial institutions in shaping a resilient and inclusive financial future for Africa.

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## 2. Literature Review

The study on digital currency adoption provides a comprehensive understanding of the global landscape, shedding light on key drivers, challenges, success stories, and case studies. Moreover, an exploration of Africa's digital currency landscape, encompassing historical context, evolution, and distinctive challenges and opportunities, contributes to the broader discourse on the transformative potential of digital currencies (Lee *et al.*, 2023).

The global adoption of digital currencies is propelled by several key drivers. Firstly, the increasing digitization of financial systems, driven by advancements in technology, has paved the way for the acceptance of digital currencies. Additionally, the promise of financial inclusion, reduced transaction costs, and the elimination of intermediaries are driving forces behind the adoption trend. The decentralized nature of many digital currencies, enabled by blockchain technology, appeals to those seeking transparency and security in financial transactions (Vergne, 2020).

However, this surge in adoption is not without challenges. Regulatory uncertainties, security concerns, and the volatility of digital currency values pose significant hurdles. Governments and financial institutions grapple with developing regulatory frameworks that balance innovation with risk mitigation (Chahal, 2023). The study emphasizes the need for a cohesive regulatory environment to foster widespread acceptance and mitigate potential risks associated with digital currencies. Examining success stories and case studies provides valuable insights into the diverse trajectories of digital currency adoption. Cryptocurrencies like Bitcoin and Ethereum have gained international recognition, with users leveraging their decentralized features for cross-border transactions and investments (Rejeb *et al.*, 2021). Furthermore, projects such as Sweden's e-Krona and China's digital yuan showcase national initiatives to explore central bank-backed digital currencies (CBDCs) and their implications for monetary policy and financial stability.

Noteworthy case studies also reveal the impact of digital currencies on specific sectors. For instance, the remittance industry has experienced disruption through the adoption of cryptocurrencies, offering faster and cost-effective cross-border transactions (Nair and Kannan, 2023). These success stories underscore the transformative potential of digital currencies, prompting a reevaluation of traditional financial systems (Judijanto *et al.*, 2024).

Africa's journey in adopting digital currencies is intricately tied to its historical and economic context. The continent has witnessed a rapid proliferation of mobile money services, particularly in regions where traditional banking infrastructure is limited. Mobile money, pioneered by services like M-Pesa in East Africa, laid the groundwork for digital financial inclusion, acting as a precursor to broader discussions around digital currencies (Ilugbusi, 2019; Yamaoka, 2022). The historical context also underscores the challenges of financial exclusion and the potential for digital currencies to bridge gaps in access to banking services. As Africa navigates its economic development, the study suggests that digital currencies could play a pivotal role in fostering financial inclusion and empowering individuals with limited access to traditional banking systems (Mhlanga, 2023).

**Table 1** The current landscape of digital currencies (Foster *et al.*, 2021).

Issuer	Underlying currency	Collateral	Risk
Bank, e.g. JPM Coin 'Cash on Ledger'	US\$, EUR, other stable fiat currencies	Fractional reserve limits, i.e. no external or central bank collateral requirement but offset 1:1 against bank issued currency	Inherits risk of issuing bank (part of fractional reserve by extension—holding same risks and subject to same rules)
Central Bank, e.g. PBOC.	National currency	n/a, issued under national monetary policy money supply limits	Inherits risk of national currency
Consortium of banks, e.g. Finality	US\$, CAD, GBP, EUR, YEN	Cash reserve at central banks (Finality)	Partially that of bank but supported by national currency because of cash reserve
Non-bank Fintech (fiat backed stablecoins), e.g. Tether	National currency	Cash reserve in commercial bank	Inherits risk of the holding commercial bank; however (as with Tether), requires transparency to maintain confidence. It also threatens financial stability as it carries the traditional risks of private sector-mandated stablecoins being 'too big to fail' and 'too connected to fail'. Furthermore, it carries the risks of impacting countries' monetary policy transmission and may threaten the effectiveness of the central bank's functions as a lender of last resort
Non-bank Fintech (collateral backed), e.g. MakerDAO DAI	US\$, EUR, other stable currencies	Collateral reserve held as digital assets	Managed by Fintech and governed by Board, Foundation, etc.
Non-bank Fintech (fiat backed, multiple currency) e.g. Diem	US\$ + YEN + CHF + GBP + EUR...	Can include fiat currency and bonds (i.e. Diem originally proposed a mixture of cash and bonds held in a Swiss Commercial Bank)	Inherits risk of holding commercial bank BUT not clear how currency valuation and fluctuations would be managed

Africa's digital currency landscape is characterized by unique challenges and opportunities (Foster *et al.*, 2021) as explain in figure. The study highlights the significance of addressing infrastructural limitations, including internet accessibility and mobile penetration, as foundational to the successful adoption of digital currencies. Additionally, regulatory frameworks must evolve to accommodate the innovative nature of digital currencies while ensuring consumer protection and financial stability (Pavlidis, 2021). The study also emphasizes the role of digital currencies in addressing challenges specific to Africa, such as remittances and cross-border transactions. Cryptocurrencies offer a potential solution for individuals facing high fees and lengthy processing times in traditional financial channels (Dafri and Al-Qaruty, 2023).

In conclusion, the study review provides a nuanced understanding of digital currency adoption worldwide, elucidating key drivers, challenges, and success stories. The exploration of Africa's digital currency landscape further enriches this discourse by contextualizing the continent's historical evolution and delineating its unique challenges and opportunities in the realm of digital finance. This synthesis of global and regional perspectives contributes to a comprehensive foundation for further research and policy considerations in the dynamic field of digital currencies (Nadkarni and Prügl, 2021).

## 2.1. Factors Influencing Digital Currency Adoption in Africa

Digital currency adoption in Africa is a multifaceted process influenced by a confluence of socio-economic, technological, regulatory, and cultural factors (Alam *et al.*, 2023). Understanding the intricacies of these factors is imperative for formulating policies that foster the widespread acceptance and integration of digital currencies on the continent.

One of the primary socio-economic factors influencing digital currency adoption in Africa is the quest for enhanced financial inclusion. Many African nations grapple with large segments of their population lacking access to traditional banking services. Digital currencies, especially those leveraging mobile technology, have the potential to bridge this gap by providing financial services to the unbanked and underbanked (Malladi *et al.*, 2021). Mobile money services, exemplified by success stories like M-Pesa in Kenya, have demonstrated how digital currencies can serve as a catalyst for financial inclusion, allowing individuals to participate more actively in the formal economy.

The study suggests that as digital currencies offer lower entry barriers compared to traditional banking, they become instrumental in bringing financial services to remote and economically marginalized communities. Policymakers recognize the role of digital currencies in advancing financial inclusion goals, aligning with broader developmental objectives. Economic disparities within and between African nations contribute to varying degrees of digital currency adoption. In more economically developed regions, where traditional banking infrastructure is relatively robust, there may be less urgency to adopt alternative financial systems (Frost, 2020). Conversely, in economically disadvantaged areas, digital currencies can act as a leveller, providing avenues for economic participation and inclusion. The study underscores the need for tailored strategies that address specific economic challenges within diverse African contexts. Initiatives focusing on education and awareness can play a crucial role in narrowing economic disparities, ensuring that the benefits of digital currency adoption are accessible to all segments of society (Vassilakopoulou and Hustad, 2023).

The extent of internet accessibility is a pivotal determinant in the adoption of digital currencies. A robust digital currency ecosystem relies heavily on a reliable and widespread internet infrastructure. In regions where internet penetration is limited or inconsistent, the potential for digital currency adoption faces significant hurdles. The study highlights the importance of collaborative efforts between governments, private enterprises, and international organizations to enhance internet accessibility. Projects that aim to expand broadband coverage, particularly in rural areas, can create an environment conducive to the adoption of digital currencies.

Mobile penetration, particularly the ubiquity of smartphones, plays a crucial role in the adoption of digital currencies in Africa. Mobile devices act as the primary interface for many individuals, especially in regions where traditional banking infrastructure is less prevalent. The success of mobile money services, such as those built on the USSD (Unstructured Supplementary Service Data) platform, showcases the transformative potential of leveraging existing mobile infrastructure for digital currency adoption (Olatunji, 2020). The study suggests that strategies promoting affordable smartphones and incentivizing mobile network operators to support digital currency transactions can further accelerate adoption. Additionally, collaborations between digital currency providers and mobile service providers can facilitate seamless integration into existing mobile ecosystems.

The regulatory landscape is a critical factor influencing digital currency adoption in Africa. Governments play a pivotal role in shaping policies that either facilitate or hinder the growth of digital currencies (Náñez Alonso *et al.*, 2020). Clear and supportive government policies create an environment that encourages innovation, investment, and consumer confidence in digital currencies.

The study emphasizes the importance of regulatory clarity to mitigate uncertainty and risks associated with digital currencies. Governments are encouraged to work collaboratively with industry stakeholders to develop adaptive regulations that balance innovation with the need for consumer protection and financial stability. Legal considerations encompass a spectrum of factors, including the legality of digital currency transactions, taxation policies, and consumer protection measures (Giancaspro, 2022). Legal frameworks that recognize and accommodate digital currencies provide a foundation for their legitimate use. The study suggests that governments need to strike a delicate balance between fostering innovation and safeguarding against illicit activities. Legal clarity around the status of digital currencies, coupled with mechanisms for taxation and dispute resolution, contributes to a more conducive environment for adoption.

Cultural perceptions and levels of trust in digital currencies significantly influence adoption (Ključnikov *et al.*, 2020). Trust is a foundational element in any financial system, and the study underscores the importance of building trust among users in the African context. Skepticism and concerns about the security and stability of digital currencies can impede widespread acceptance. Initiatives focused on educating the public about the technology underlying digital

currencies, emphasizing security measures, and highlighting successful use cases can contribute to building trust (Chan, 2023). Collaborations between digital currency providers and local communities can play a role in demystifying digital currencies and dispelling misconceptions. Behavioral attitudes towards technology, especially among older generations less familiar with digital advancements, can impact the rate of digital currency adoption. Cultural norms and preferences influence the acceptance of new financial technologies.

The study suggests that targeted educational campaigns, user-friendly interfaces, and engaging local communities in the development and implementation of digital currency solutions can positively influence behavioral attitudes. Inclusive strategies that consider cultural nuances contribute to fostering a more receptive environment for digital currencies (Pellas, 2023).

In conclusion, the adoption of digital currencies in Africa is a complex interplay of socio-economic, technological, regulatory, and cultural factors. Addressing these factors in a comprehensive and context-specific manner is essential for creating an environment conducive to the successful integration of digital currencies into the financial fabric of the continent. Policymakers, industry stakeholders, and communities need to collaborate to navigate these factors and unlock the transformative potential of digital currencies for Africa's economic development (Rudd *et al.*, 2023).

## 2.2. Comparative Analysis with Global Trends

Digital currency adoption in Africa is not isolated; it is intricately woven into the global fabric of financial innovation (Cumming *et al.*, 2023). A comparative analysis with global trends illuminates the roles of international collaborations, regulatory harmonization efforts, and the influence of major digital currencies, providing insights into Africa's unique position within the evolving digital financial ecosystem. International collaborations orchestrated by global organizations play a pivotal role in shaping the trajectory of digital currency adoption (Mizrak, 2023). Organizations such as the International Monetary Fund (IMF), World Bank, and the Bank for International Settlements (BIS) are actively engaging with member countries to navigate the challenges and opportunities presented by digital currencies.

The study suggests that global organizations act as catalysts for knowledge exchange, policy guidance, and capacity building. Collaborative efforts aim to create a shared understanding of the implications of digital currencies, providing African nations with valuable insights to inform their regulatory frameworks and technological infrastructure (Nwaiwu, 2021). Cross-border initiatives form another dimension of international collaborations, promoting interoperability and connectivity in the digital currency space. The study indicates a growing trend of regional collaborations and cross-border pilot programs, fostering seamless digital transactions between countries.

African nations are increasingly participating in these initiatives, exploring avenues for cross-border payments, trade settlements, and remittances through digital currencies. Such collaborations not only enhance economic integration but also offer African countries opportunities to leverage digital currencies in addressing regional challenges.

Regulatory harmonization efforts are underway globally, aiming to establish standardized frameworks that guide the adoption and use of digital currencies. International bodies and forums, including the Financial Action Task Force (FATF) and the G20, are actively working towards creating a cohesive regulatory environment (O'Shea, 2021.). The study highlights the importance of standardization to mitigate regulatory uncertainties and risks associated with cross-border transactions. As global regulatory standards take shape, African nations stand to benefit from adopting best practices, ensuring regulatory alignment with international norms, and fostering a more transparent and secure digital currency ecosystem.

The impact of regulatory harmonization efforts on African nations is significant. While harmonization provides a framework for consistency, the study also underscores the need for flexibility to accommodate the unique challenges and opportunities within each African context. African regulatory bodies are urged to actively engage in international discussions to ensure that the resulting frameworks are adaptable to the diverse economic landscapes of the continent (Msimango, 2023.). Regulatory harmonization, if well-executed, can enhance the credibility of digital currencies, attract international investment, and facilitate cross-border transactions. However, it is essential for African regulators to balance alignment with international standards with the need for locally tailored approaches to address specific challenges prevalent in the region.

The influence of major digital currencies, particularly Bitcoin and Ethereum, reverberates globally and has implications for Africa's digital currency landscape (Ogachi *et al.*, 2021). Bitcoin, often regarded as a store of value, has gained popularity as a decentralized asset and a hedge against inflation. Ethereum, with its smart contract capabilities, has catalyzed the development of decentralized applications (DApps) and blockchain-based platforms. The study suggests

that the influence of these global players is felt in Africa, where cryptocurrency adoption is not only driven by speculative investment but also by the practical applications of blockchain technology. African startups and innovators are leveraging the capabilities of these global digital currencies to create solutions addressing local challenges in finance, supply chain management, and identity verification (Pazarbasioglu *et al.*, 2020). The adoption of major digital currencies has implications for Africa's economic landscape. The study underscores the potential for increased financial inclusion, remittance efficiency, and reduced transaction costs through the integration of major digital currencies. However, challenges such as price volatility, regulatory uncertainties, and technological infrastructure limitations also persist.

African nations are encouraged to embrace the opportunities presented by major digital currencies while carefully navigating the associated risks (Alabi *et al.*, 2023). The study suggests that collaborations between African governments, financial institutions, and global digital currency players can yield positive outcomes, fostering innovation and creating an environment conducive to responsible digital currency adoption.

In conclusion, a comparative analysis with global trends highlights the interconnected nature of digital currency adoption. International collaborations, regulatory harmonization efforts, and the influence of major digital currencies collectively shape the landscape within which African nations navigate the challenges and opportunities of embracing digital currencies. As the world converges towards a digital financial future, Africa's strategic engagement in these global trends becomes imperative to harness the transformative potential of digital currencies for the continent's sustainable economic development.

### 2.3. Opportunities and Challenges

The prospects of digital currency adoption in Africa present a dynamic landscape, characterized by a myriad of opportunities and challenges (Orijiet al., 2023). Understanding and effectively addressing these factors are essential for unlocking the transformative potential of digital currencies on the continent.

One of the primary opportunities stemming from digital currency adoption in Africa lies in the advancement of financial inclusion. The continent, with its diverse economies and demographics, grapples with a significant portion of the population lacking access to formal banking services (Birhane, 2020). Digital currencies, particularly those built on mobile technology, offer a transformative solution to extend financial services to the unbanked and underbanked. The study underscores the role of digital currencies in creating inclusive financial ecosystems. With the prevalence of mobile phones across Africa, even in remote areas, digital currencies can provide a platform for individuals to participate in the formal economy, access credit, and build a financial identity. As initiatives promoting financial literacy and awareness gain traction, digital currencies have the potential to uplift marginalized communities, fostering economic empowerment and resilience (Shukla *et al.*, 2023).

Digital currency adoption in Africa also presents a unique opportunity for catalyzing economic growth. The study highlights the potential for digital currencies to streamline financial processes, reduce transaction costs, and stimulate economic activities. By leveraging blockchain technology, African nations can enhance transparency, security, and efficiency in various sectors, including supply chain management, trade finance, and remittances. The innovative use of digital currencies in facilitating cross-border transactions and trade settlements can contribute to regional economic integration (Zhang, 2020). Additionally, the emergence of blockchain-based startups and entrepreneurial ventures in Africa showcases the potential for digital currencies to spark innovation and create new economic opportunities. As African economies seek diversification and sustainable growth, digital currencies offer a promising avenue for fostering a resilient and technologically advanced financial landscape.

Despite the promising opportunities, the adoption of digital currencies in Africa faces substantial challenges rooted in infrastructure limitations. Internet accessibility, especially in rural and remote areas, remains a significant hurdle. Limited access to reliable and high-speed internet can hinder the seamless use of digital currencies, particularly in regions where traditional banking infrastructure is underdeveloped (Lottu *et al.*, 2023). The study emphasizes the need for strategic investments in digital infrastructure to support widespread digital currency adoption. Initiatives focused on expanding internet connectivity, improving mobile network coverage, and enhancing technological literacy can address infrastructure limitations. Governments, private enterprises, and international organizations must collaborate to bridge the digital divide and ensure that the benefits of digital currencies are accessible across the continent (Laufer *et al.*, 2021).

Regulatory challenges present another layer of complexity specific to the African context. The study highlights the need for clear and adaptive regulatory frameworks that balance innovation with risk mitigation. However, regulatory hurdles

and uncertainties persist, stemming from the unfamiliarity of policymakers with the rapidly evolving digital currency landscape. African nations face the challenge of navigating diverse regulatory approaches, as some countries embrace digital currencies while others remain cautious (Alabi *et al.*, 2023). The lack of harmonization can create friction in cross-border transactions and limit the seamless integration of digital currencies into regional economies. Policymakers are urged to engage in international dialogues, collaborate with global regulatory bodies, and develop context-specific regulations that foster innovation without compromising consumer protection and financial stability (Pinto Ferreira *et al.*, 2022). The paper also underscores the importance of educating regulatory authorities about the potential benefits of digital currencies. Engaging with stakeholders, including central banks, financial institutions, and law enforcement agencies, is essential to build a regulatory framework that encourages responsible adoption while addressing concerns related to fraud, money laundering, and other illicit activities.

In conclusion, the opportunities and challenges surrounding digital currency adoption in Africa paint a complex but promising picture. The potential for financial inclusion advancements and economic growth positions digital currencies as catalysts for positive change (Anakpo *et al.*, 2023). However, the continent must grapple with infrastructure limitations and regulatory uncertainties that require strategic and collaborative efforts to overcome. As Africa navigates this transformative journey, fostering an environment that maximizes opportunities and addresses challenges will be key to realizing the full potential of digital currencies for the continent's economic development and financial inclusion (Lee *et al.*, 2023).

#### **2.4. Recommendation**

The critical review and global comparison of digital currency adoption in Africa reveal a landscape marked by both opportunities and challenges. Key findings indicate that digital currencies have the potential to significantly advance financial inclusion and stimulate economic growth in Africa. However, infrastructure limitations and regulatory uncertainties pose formidable obstacles to realizing this potential. The influence of global trends, international collaborations, and major digital currencies further underscores the interconnected nature of Africa's journey in the digital financial ecosystem.

The implications of these findings are substantial for policymakers, financial institutions, and stakeholders invested in Africa's economic development. Policymakers must proactively engage in international dialogues, seeking regulatory harmonization that balances innovation with risk mitigation. Financial institutions need to embrace the transformative potential of digital currencies, exploring strategic partnerships and innovative solutions to address the unique challenges within the African context. Stakeholders, including local communities, businesses, and educational institutions, play a pivotal role in fostering trust, awareness, and acceptance of digital currencies.

Policymakers should prioritize the development of adaptive regulatory frameworks that provide clarity and flexibility. These frameworks should encourage innovation, protect consumers, and address concerns related to fraud and illicit activities. Collaboration with global regulatory bodies and industry stakeholders can facilitate the creation of regulatory standards that accommodate the unique challenges and opportunities within the African context. Governments, in collaboration with private enterprises and international organizations, should prioritize investments in digital infrastructure. Enhancing internet accessibility and mobile network coverage is crucial for ensuring widespread adoption of digital currencies, particularly in remote and underserved areas. Strategic initiatives focused on technological literacy can empower communities to fully participate in the digital financial ecosystem. Stakeholders, including financial institutions, governments, and community organizations, should embark on comprehensive financial literacy and awareness campaigns. Educating the public about the benefits, risks, and practical applications of digital currencies fosters a more informed and receptive user base. Tailoring educational programs to address cultural nuances and language diversity ensures that the information reaches all segments of society.

Governments and financial institutions in Africa should actively participate in international collaborations and cross-border initiatives. Collaborative efforts with global organizations can provide valuable insights, promote knowledge exchange, and contribute to the development of best practices. Strengthening ties with neighboring countries and regional partners facilitates the seamless integration of digital currencies into cross-border transactions and trade settlements. Financial institutions and governments should create an environment that encourages innovation and entrepreneurship in the digital currency space. Supporting blockchain-based startups and fostering a culture of technological innovation can lead to the development of localized solutions that address specific challenges in Africa (Asante Boakye *et al.*, 2023). Initiatives such as hackathons, incubators, and funding opportunities can nurture a vibrant ecosystem of digital currency innovation.

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### 3. Conclusion

In conclusion, the journey towards digital currency adoption in Africa is at a critical juncture, presenting both immense possibilities and formidable challenges. The transformative potential of digital currencies in advancing financial inclusion and economic growth necessitates collaborative and strategic efforts from all stakeholders (Arner *et al.*, 2022). Policymakers, financial institutions, and communities must work together to overcome infrastructure limitations and regulatory uncertainties. By embracing adaptive regulatory frameworks, investing in digital infrastructure, promoting financial literacy, facilitating international collaborations, and encouraging innovation, Africa can position itself as a leading player in the global digital financial ecosystem. The path forward requires a collective commitment to realizing the full potential of digital currencies for the continent's sustainable economic development and financial inclusion.

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### Compliance with ethical standards

#### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

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