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Sentiment and thematic trends in african cryptocurrency literature: a mini review

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Cryptocurrencies are alternative mediums of exchange to traditional fiat currencies, such as the dollar or the euro. A typical cryptocurrency is digital-only, is stored in distributed ledger technology (notably Blockchain), and conducts its transactions in a decentralized network system. While there exists a considerable amount of literature addressing the roles of cryptocurrencies and other decentralized assets in developed economies, there is a lack of effort in discovering the role of these assets in the developing world. To contribute to a holistic understanding of cryptocurrencies and their values/impacts, this review examines the use of cryptocurrencies in Africa, identifying key trends and sentiment over time. Following a systematic process of reviewing the literature, the authors identified 121 relevant papers on the subject. We found that in the early days, cryptocurrencies were primarily used to address specific financial challenges in Africa, such as high remittance costs and a large underbanked population. Later on, cryptocurrencies began to adopt additional roles, such as diversifying investment, and central bank digital currencies and other digital assets emerged as legitimate means of payment and financial services. Furthermore, using VADER (Valence Aware Dictionary and sEntiment Reasoner) sentiment analysis tool, we identified four critical periods in the development of cryptocurrencies in Africa and the associated sentiment regarding this type of asset from the literature. Our findings contribute to a comprehensive understanding of the development and main use of cryptocurrencies in Africa.

KEYWORDS

blockchain, CBDC, cryptocurrency, financial inclusion, FinTech, regulation, remittances, volatility

1 Introduction

The 2009 Global Financial Crisis gave rise to the birth of the first cryptocurrency, namely, Bitcoin. Cryptocurrency is a digital asset that facilitates transactions between counterparties, given that it can be used as a means of exchange. Cryptocurrency holders store their assets in distributed ledger technology, while transactions are recorded in a decentralized network system (Aysan et al., 2021). The value of cryptocurrency is derived from the scale of participants who are motivated to adopt the technology due to myriad socio-economic influences. These factors have spurred the churning out of a large pool of literature within Africa and beyond.

The majority of the academic literature on cryptocurrencies, other decentralized digital assets, and central bank digital currencies (CBDC) focuses on their role in the United States and other developed countries. However, the role of these assets and their importance in the areas of financial inclusion and as a store of value are different in the developing world, where the Central African Republic was one of the first two countries globally to recognize Bitcoin as legal tender (Katterbauer et al., 2022a; Watters, 2023b). This research examines the English language literature in economics and finance, business and management, and social sciences, focusing on cryptocurrencies and their use in Africa to identify trends in topics and sentiment over time.

Findings in the review show that the sentiments observed in some of the relevant scholarship regarding factors driving cryptocurrency investment and use of CBDC within the African continent are not fundamentally due to economic and financial indicators. For example, while Oladapo (2024) links psychological, financial considerations, and demographic elements to Bitcoin investments in Nigeria, Ahmed et al. (2025b) investigate the adoption of eNaira by Nigerian retailers, revealing that usability perceptions and emotional factors greatly mediate the adoption of the asset. Other than these internalities, social elements are also essential to the motivation to participate in the cryptocurrency markets and the provision of technological services. Thus, some social science literature accentuates persuasions from regulation, governance, and social inclusion perspectives in the analysis of cryptocurrencies and their usage. Scholars such as Ebong and George (2021) highlight the way digital financial services enable inclusion in Uganda, while Chitimira and Torerai (2023), Mahadew and Mauree (2024), and Abdelgawad (2024), in their study of the application of anti-money laundering (AML) regulation and Islamic law to cryptocurrency in Africa (see also (Katterbauer et al., 2022c; Katterbauer et al., 2022b)), point out that conflicts exist between regulatory authorities, religious tenets, and financial technology innovation. Nevertheless, a good portion of the literature from the social sciences betrays positive signals towards cryptocurrency operation in the continent, albeit cautioning that social inclusion gains must be weighed against vulnerabilities such as fraud and money laundering (Antwi et al., 2023; Hersi, 2024; Esoimeme, 2018).

The study sets out to answer the question, "What are the topics and sentiment of literature regarding cryptocurrencies in Africa, and have they changed over time? In so doing, the study will show that the literature considered within the time period set by the sentiment analysis proves that consistent positive sentiment towards cryptocurrencies was maintained throughout the period.

2 Methodology

2.1 Literature search strategy and inclusion criteria

The mini review adopted the Scopus index to identify literature on decentralized digital assets and their use in Africa. The Scopus database is commonly used for literature reviews (Nazarovets and Mryglod, 2025; Kusuma et al., 2024; Lionar et al., 2025; Hartanto et al., 2024) due to its comprehensive nature and quality controls. The search required the article to have one word related to cryptocurrency in the title, abstract, or as a key word ("cryptocurrency" OR "cryptocurrencies" OR "crypto currency" OR "crypto currencies" OR "digital currency" OR "digital currencies" OR "virtual money" OR "decentralized currency" OR "decentralised currency" OR "decentralized currencies" OR "decentralised currencies" OR "digital assets" OR "virtual currency" OR "virtual currencies" OR "Bitcoin" OR "Ethereum"). It also required the word Africa, the name of an African country, or the corresponding adjective. The following search string was borrowed from Wang et al. (2025).

TITLE-ABS-KEY ("Africa" OR "Algeria" OR "Angola" OR "Benin" OR "Botswana" OR "Burkina Faso" OR "Burundi" OR "Cabo Verde" OR "Cameroon" OR "Central African" OR "Chad" OR "Comoros" OR "Congo" OR "Djibouti" OR "Egypt" OR "Equatorial Guinea" OR "Eritrea" OR "Eswatini" OR "Ethiopia" OR "Gabon" OR "Gambia" OR "Ghana" OR "Guinea" OR "Guinea-Bissau" OR "Ivory Coast" OR "Kenya" OR "Lesotho" OR "Liberia" OR "Libya" OR "Madagascar" OR "Malawi" OR "Mali" OR "Mauritania" OR "Mauritius" OR "Morocco" OR "Mozambique" OR "Namibia" OR "Niger" OR "Nigeria" OR "Rwanda" OR "Sao Tome and Principe" OR "Senegal" OR "Seychelles" OR "Sierra Leone" OR "Somalia" OR "South Africa" OR "South Sudan" OR "Sudan" OR "Tanzania" OR "Togo" OR "Tunisia" OR "Uganda" OR "Zambia" OR "Zimbabwe" OR "African" OR "Algerian" OR "Angolan" OR "Beninese" OR "Batswana" OR "Burkinabé" OR "Burundian" OR "Cape Verdean" OR "Cameroonian" OR "Central African" OR "Chadian" OR "Comoran" OR "Congolese" OR "Djiboutian" OR "Egyptian" OR "Equatorial Guinean" OR "Eritrean" OR "Swazi" OR "Ethiopian" OR "Gabonese" OR "Gambian" OR "Ghanaian" OR "Guinean" OR "Bissau-Guinean" OR "Ivorian" OR "Kenyan" OR "Basotho" OR "Liberian" OR "Libyan" OR "Malagasy" OR "Malawian" OR "Malian" OR "Mauritanian" OR "Mauritian" OR "Moroccan" OR "Mozambican" OR "Namibian" OR "Nigerien" OR "Nigerian" OR "Rwandan" OR "São Toméan" OR "Senegalese" OR "Seychellois" OR "Sierra Leonean" OR "Somali" OR "South African" OR "South Sudanese" OR "Sudanese" OR "Tanzanian" OR "Togolese" OR "Tunisian" OR "Ugandan" OR "Zambian" OR "Zimbabwean").

The search, conducted on 25 May 2025, was limited to publications in economics and finance, business and management, and social sciences. This returned 202 documents. After excluding conference papers, books, and chapters, there were 135 articles.

Six more were excluded for being non-English (5 in Russian and 1 in Spanish). Of the 129 articles that were examined, eight were excluded for not being about cryptocurrency and therefore being outside the scope (Hutchens, 2012; Kurfi, 2009; Erima and Mosweu, 2022; Arinze et al., 2020; Kumar et al., 2023) or primarily focusing on jurisdictions outside of Africa (Rosales, 2019; Shroff et al., 2025; Abdullah et al., 2023). This left 121 used in the review. As this study is not a meta-analysis but rather examines sentiment trends in Africa over time, we sought to include all literature unless the search returned a false positive and the article did not discuss cryptocurrency or Africa. This inclusive approach is adopted to avoid the risk of bias in selecting articles for inclusion. For example, the first excluded article (Hutchens, 2012) is about a library's digital resources (described as digital assets) and the editor's first name is

FIGURE 1
Weighted word map for articles 2014–2025[2].

Chad (same as the African country). As this article does not discuss anything about cryptocurrency or Africa, it is excluded. The literature was then divided into four periods, each representing 3 years.[1] For each time period, the five most common keywords were identified to assess trends. While only one Scopus-indexed article in the covered disciplines was written regarding cryptocurrency in Africa prior to 2017, thereby limiting the value of the sentiment analysis during this period, the lack of literature itself is still significant in understanding the role of cryptocurrency in Africa over time. Sentiment was calculated for all articles available through the Bond University library using VADER (Valence Aware Dictionary and sEntiment Reasoner), a sentiment analysis tool that is part of the NLTK Python library and commonly used in academic sentiment analysis (Asthana et al., 2024; Youvan, 2024; Biswas and Ghosh, 2022). For the pre-2017 period, the sole article was available for analysis. For the 2017–2019 period, 2 of the 9 articles were unavailable. For the 2020–2022 period, 4 of the 39 articles were unavailable, and for the final period (2023–2025), only 48 of the 72 articles were available. The unavailability of articles during the final period appears to stem from a delay in recently published articles being included in the database. As there is unlikely to be a correlation between the sentiment and whether an article is included (or its inclusion is delayed) in a commercial academic database, excluding the unavailable articles is unlikely to have a material impact on the findings.

Sentiment analysis can be conducted via machine/deep learning models or via lexicon-based models (Kumar et al., 2024). As a lexicon-based model, VADER provides a more reproducible result but lacks the nuance of some machine learning models (He et al., 2025). Lexicons-based approaches are often used on short text, but VADER is also used for academic text and general literature (Vinodini, 2023; Youvan, 2024). The mean sentiment score for the literature from each time period is listed in Table 1 below, with 1 representing entirely positive literature and −1 representing entirely negative literature. The percentage of positive literature is also listed for each time period.

As a lexicon model for general text, VADER operates well across disciplines. While discipline-specific models, such as CyptoBERT (Moradi-Kamali et al., 2025; van der Veen and Bleich, 2025), may provide better accuracy, such models are generally trained for limited topics and literature types (Kulakowski and Frasincar, 2023) and are sensitive to domain and dialect mismatch. VADER performs better when analyzing literature across contexts (Hutto and Gilbert, 2014). The focus of this study is cryptocurrency. However, the literature encompasses a range of topics and asset types (Watters, 2023a), including risks, financial inclusion, banking, and CBDCs, from several academic disciplines. Furthermore, the literature originates from across Africa, and thus the risk of national or regional linguistic differences makes a cryptocurrency-specific model less ideal than a transparent, non-fine-tuned general model when undertaking this comparative analysis. Otherwise, models may incorporate locale-specific biases. While adopting VADER over a fine-tuned domain-specific model supports transparency and limits bias, it is important to note that general lexicon models, including VADER, may yield more extreme results than fine-tuned models (He et al., 2025).

After completing the sentiment by time period, a word cloud (see Figure 1 above) was produced using the available articles across the four time periods. This word cloud illustrates the key themes found in the literature.

3 Discussion

The first-ever literature on cryptocurrency, that is, the Bitcoin white paper, titled *Bitcoin: A Peer-to-Peer Electronic Cash System,* proposed a new financial system independent of intermediaries, wherein transactions with a decentralized digital currency are conducted in a peer-to-peer network community. This is contrary to the intermediate role played by banks operating in the traditional financial system. Thus, early literature in Africa after the creation of Bitcoin by Satoshi Nakamoto in 2009 was centered on remittances and financial inclusion, with the key questions bordering on whether cryptocurrencies could facilitate reduced transaction costs in international remittances for Africans. The debate was necessary given the high transaction fees charged by financial firms such as Western Union and MoneyGram. Other topics included technological infrastructure and barriers, as well as the perception of cryptocurrency volatility, and, later, regulatory challenges, although these areas lacked depth in analysis. These discussions, however, were largely outside the academic sphere in

1 The final time period goes until the search date of 25 May 2025.

2 The design is inspired by Wang et al. WANG, J., TANG, L., ZHANG, J., CHOI, B.-K. and PHILLIPS, C. 2025. Green Human Resource Management System Development in Africa: A Systematic Literature Review. Systems, 13, 526.

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TABLE 1 Article topics and sentiment by period.

Period	Total	Sentiment	Keywords	Citations
2014–2016	1	Mean 0.999 Positive 100%	Bitcoin Cryptocurrency Currency Virtual Currency	Nieman (2015)
2017–2019	9	Mean 0.437 Positive 71%	Mixed Method Taxation Inside Money Private Currency Output Tax	Traceable chain (2019), Vincent and Evans (2019), Wang and De Filippi (2019), Greeff (2019), Chudinovskikh and Sevryugin (2019), Salawu and Moloi (2018), Ram (2018), Nair and Emozozo (2018), Esoimeme (2018)
2020–2022	39	Mean 0.96 Positive 97%	Africa COVID-19 CBDC Kenya Digitization	Mthembu et al. (2022), Mzoughi et al. (2022), Zhao (2022), David (2022), Gopane (2022), Amponsah et al. (2022), Sami and Abdallah (2022), Kumah and Odei-Mensah (2022), Koroma et al. (2022), Terták and Kovács (2022), Kumah et al. (2022), Nkrumah-Boadu et al. (2022), Ndlovu and Chikobvu (2022), Cheng (2022), Parsons (2022), Shahzad et al. (2022), Raifu and Ogbonna (2022), Bziker (2021), Ussher et al. (2021), Chigbu and Nekhwevha (2021), Levulytė and Šapkauskienė (2021), Sami and Abdallah (2021), Gobena (2021), Ebong and George (2021), Kumah and Odei-Mensah (2021), Nadarajah et al. (2021), Alonso et al. (2021), Mqamelo (2021), Ukwueze (2021), Hamukuaya (2021), Omane-Adjepong and Alagidede (2021), Vorwerk and Rexroth (2020), Dzandza (2020), Dahir et al. (2020), Morvant-Roux and Peixoto-Charles (2020), Al-Naif (2020), Mavilia and Pisani (2020), Mazambani and Mutambara (2020), Barinaga (2020)
2023–2025	72	Mean 0.736 Positive 85%	Nigeria eNaira Financial Inclusion Central Banks	Adom-Dankwa et al. (2025), Ahmed et al. (2025a), Makurumidze et al. (2025), Ngong (2025), Thi Hang (2025), Korsah et al. (2025), Saleh et al. (2025), Osakwe et al. (2025), Owusu Amponsah et al. (2025), Belguith et al. (2025), David and Addo (2025), Bonhoure (2025), Ahmed et al. (2025b), Liu (2025), Berthou and Ponsot (2025), Smit and van der Merwe (2025), Aghdam et al. (2024), Joseph et al. (2024), Ndlovu and Chikobvu (2024), Chikobvu and Ndlovu (2024), Umeokwobi et al. (2024), Koziuk et al. (2024), McPherson-Smith (2024), Omotubora (2024), Hersi (2024), Ozili (2024), Alam et al. (2024), Liu et al. (2024), Dowd (2024), Kumah (2024), Abdurrahaman et al. (2024), Chkili (2024), Garba et al. (2024), Gbadebo (2024a), Idowu et al. (2024), Gbadebo (2024b), Sestino et al. (2024), Olaleye et al. (2024), Mahadew and Mauree (2024), Umoru et al. (2024), Qabhobho et al. (2024), Lau et al. (2024), Marin and Dumitrescu (2024), Aggarwal et al. (2024), Oladapo (2024), Shaik et al. (2024), Abdelgawad (2024), Boakye-Adjei et al. (2023), Stringham (2023), Kumar et al. (2023), Chitimira and Torerai (2023), Ehret and Olaniyan (2023), Ndlovu and Chikobvu (2023), Rehman et al. (2023), Gobena (2023), Ozili (2023), Chikobvu and Ndlovu (2023a), Nyakurukwa and Seetharam (2023), Denecker et al. (2023), Zharikov (2023), Ngulube (2023), Jutel (2023), Baş et al. (2023), Aggarwal et al. (2023), Salem et al. (2023), Mohanty and Tangara (2023), Antwi et al. (2023), Budree and Nyathi (2023), Vumazonke and Parsons (2023), Chikobvu and Ndlovu (2023b), Gupta et al. (2023), Mohammed (2023)

Africa, with only one Scopus-indexed academic paper published up to 2016. It was not until 2017 that the literature on cryptocurrencies and blockchain technology in Africa assumed a broader perception (Joseph et al., 2024). These encompass topics such as macroeconomic stability and cryptocurrency coexistence with fiat currencies (Nadarajah et al., 2021), policy and monetary dynamics (Abdelgawad, 2024), investment diversification and risks (Chikobvu and Ndlovu, 2023a; Chikobvu and Ndlovu, 2023b; Chikobvu and Ndlovu, 2024), and cross-border payment and capital flow (Boakye-Adjei et al., 2023). Additional topics, ranging from business and management perspectives to social sciences perspectives, include institutionalization of digital finance (Ehret and Olaniyan, 2023), governance and regulation (McPherson-Smith, 2024), socio-political critiques (Jutel, 2023), and labor and development (Chigbu and Nekhwevha, 2021).

The pre-2017 cryptocurrency literature in Africa primarily takes the form of reports and non-scopus indexed literature and highlighted the use of cryptocurrency as a practical solution to Africa's high remittance costs and financial inclusion deficit, as evidenced by the large number of underbanked populations. Citing research from 2012 to 2015, an Afreximbank policy paper presented the arguments put forward by scholars, who argue that financial inclusion has the potential to reduce economic hardship and mitigate external shocks. The promotion of economic growth and development in Africa has drawn the attention of development institutions and policymakers to the phenomenon (Agbloyor, 2025). Notwithstanding this, the articles further argued that African countries typically fall short of achieving financial inclusion compared to the rest of the world. Thus, another cardinal question that the literature on cryptocurrencies sought to answer during this period was whether technology could enhance financial inclusion in the countries of the continent. Dzeha and others (Agbloyor, 2025) maintained that these studies showed that remittances and financial technology (FinTech) individually stimulate financial inclusion. Nevertheless, the consideration of the interactive effects of both phenomena on financial inclusion has not been sufficiently analyzed (Agbloyor, 2025). The authors opined that the underpinning insight of the interaction is that an increase in FinTech facilitation of transactions promotes an undemanding flow of remittances, which in turn incentivizes households to open bank

accounts (Agbloyor, 2025). Particularly, it can be deduced from the above analysis that the increase in the use of cryptocurrencies to facilitate low-cost remittances has increased financial inclusion in Africa. This positive sentiment is expressed in Table 1, with the data showing 100% in the sentiment analysis from 2014 to 2016 stems, in part, from the limited literature during this period and is also despite notable hindrances in the early adoption of cryptocurrency in Africa, such as digital literacy, limited internet access, and suspicion of fraud.

Evidence from post-2016 empirical literature proves that African countries leverage blockchain networks to allow Bitcoin to be used in financial transactions, owing to local conditions present in the African financial system (Kumah, 2024). These conditions include high inflation, exchange rate volatility, mismanagement by banks, and corruption. For example, in investigating the coexistence of Bitcoin and African fiat currencies and the macroeconomic implications for the period of 2015–2022, Kumah (2024) applied quantile regression (QR) and quantile-in-quantile regression (QQR) to analyze the time-varying asymmetry behavior of Bitcoin and six African fiat currencies. The QR result illustrated that in the medium-term, Ghana, Mauritius, Nigeria, and Tunisia present negative associations but positive relations in the long-term (Kumah, 2024). Although South Africa and Egypt show positive dependencies in the medium-term and long-term, it was observed that the Egyptian Pound (EGP) experienced positive and negative switches during the period (Kumah, 2024). The macroeconomic implication of the findings is that during inflation and currency crises of Cede, Dina, Naira, and Rupee, Bitcoin can be used to hedge the currencies at all possible market conditions, signifying that the cryptocurrency is a feasible alternative currency in the medium-term (Kumah, 2024). The comparative performance against major African currencies during this time likely explains why 71% of the articles showed positive sentiment towards cryptocurrency from 2017 to 2019. This further escalated to 97% positive with a mean positive score of 0.96 for 2020–2022. While this is partially indicative of the performance of major cryptocurrencies compared to national currencies at the time, the sentiment remained strong after 2022, with 85% of articles being positive and a mean positive score of 0.736, despite cryptocurrency entering a bear market.

Despite the benefits of cryptocurrencies noted above, crypto volatility in Africa poses risks to financial system stability if adequate policy and regulatory frameworks are not implemented. Adopting a mixed-methodology approach, Joseph et al. (2024) asserted that there are two strands of cryptocurrency literature from the period of 2018–2021. The first strand argues that there is no significant interconnectedness between traditional financial markets and cryptocurrency markets, backing this view with the portfolio theory. According to this theory, cryptocurrency is used to diversify portfolios across various asset classes or to hedge volatility in the conventional financial system (Joseph et al., 2024). The other strand, consisting of a few studies focused on Africa, found that the correlation between the two markets is moderate but growing (Joseph et al., 2024). For example, Kumah and Odei-Mensah (2021) found no evidence to support a spillover effect of the cryptocurrency market crisis on the traditional financial markets. However, a counterargument from other strands of literature, such as that of Omane–Adjepong and Alagidede (2021), in line with the financial integration theory, found substantial evidence to suggest that financial crises within cryptocurrency markets could spill over into conventional financial markets. Nevertheless, with the employment of the dynamic conditional correlation-generalized autoregressive conditional heteroskedasticity (DCC-GARCH) model, Joseph et al. (2024) found no evidence "of a spillover effect from the African financial markets to the cryptocurrency markets" in their study.

The adoption of cryptocurrency in the traditional financial markets exacerbated the regulatory challenges regarding how value-added tax (VAT), income, and capital gains taxes are to be treated. Between 2017 and 2019, some African cryptocurrency literature on taxation focused on these issues. Using an interpretative mixed method, Ram (2018) observed that for tax purposes, Bitcoin is perceived as distinct from fiat currency because the transactions with the cryptocurrency are seen as barter transactions. The author also posited that the way Bitcoin needs to be regulated should be the same as fiat currency (Ram, 2018). Another study found that negative consequences result from the application of the South African VAT Act No. 89 of 1991, wherein the receipt of Bitcoin as consideration for the supply of goods or services and the exchange of the cryptocurrency for South African rand is subject to a 14% standard rate output tax, which will consequently engender "double taxation." (Greeff, 2019). In all identified topics, the sentiment analysis result, as shown in Table 1, reveals that 71% of the selected African cryptocurrency literature in the sample period expressed positive sentiment.

Thematic studies in the African cryptocurrency literature focused more on the impact of cryptocurrency on the financial system from 2020 to 2022, partly because of the COVID-19 pandemic's effect on market performance and the increased government's inclination towards financial sovereignty. An evaluation of the cryptocurrency-stocks nexus of "three COVID-19 worst-hit African countries," namely, South Africa, Nigeria, and Egypt, revealed that it provided a safe-haven for African stocks (Raifu and Ogbonna, 2022). Conversely, some literature showed evidence of −1.71% and −0.78% negative reaction for "the Nigerian stock market and cryptocurrency market" when the announcement of the first death was made in comparison to the "first reported case of the outbreak" (Mohammed, 2023). The observed negative effect during the pandemic has been tied to the co-movement of the cryptocurrency market and the regulated financial market (Mohammed, 2023). However, in the case of Tunisia, a study showed that throughout the COVID-19 outbreak, the incorporation of Bitcoin in an appropriately diversified benchmark portfolio brought significant diversification benefits to the Tunisian sectoral stock markets (Salem et al., 2023).

It is noteworthy to state that the digitization of financial services in Africa during the sample period paved the way for the adoption of CBDC and other digital currencies. These financial innovations were used to trade and receive money throughout the COVID-19 pandemic by financially disadvantaged people in Africa. An empirical study focused on "Grassroots Economics Community

Inclusion Currency (CIC) model," known as the Sarafu Network, which was conducted on xDAI blockchain in Nairobi, Kenya, showed a connection between the transfer of cryptocurrency tokens worth $30 to beneficiaries and an increase in the participants' CIC expenditure, average trade size, income, among others (Mqamelo, 2021). On these bases, it can be acknowledged that private currency and CBDC foster financial inclusion and economic welfare. Some African literature in the sample period of 2023–2025 articulated this view. While Boakye-Adjei et al. (2023) stated that CBDCs promote widespread access to payments and "other financial services," Ahmed et al.'s (Ahmed et al., 2025b) survey, conducted in the capital territory of Nigeria, showed that emotions significantly influence Nigerian retailers' adoption of the e-Naira (Nigeria's CBDC). Perceived trustworthiness, usefulness, and user-friendliness were all significant factors (Ahmed et al., 2025b). Owing to these factors, the e-Naira maintains low popularity, as expressed in an International Monetary Fund working paper, which reports the average value of e-Naira weekly transactions at N923 million (Ree, 2023; Lee, 2025).

Other literature argues from a socio-cultural perspective, advocating for the reformation of a religiously influenced regulatory framework applicable to cryptocurrencies, such as the influence of *Fatwā* reflected in the Egyptian Central Bank and Banking Sector Law No. 194 of 2020 (Abdelgawad, 2024).

3.1 Implications and future research

By way of comparison, while the literature from 2014 to 2016 revealed existence but a lack of in-depth analysis regarding volatility and its effects on cryptocurrency transactions, evidence from the literature investigated in subsequent eras, as reviewed in this study, emphasized the threat posed by cryptocurrency market volatility. A large body of cryptocurrency literature discusses consumer protection and the establishment of regulatory frameworks, including AML regulations from the 2017–2019, 2020–2022, and 2023–2025 periods. African literature in these times analyzed the necessity for policy and regulatory frameworks to prevent fraud and possible negative effects of volatility on financial stability, resulting from the interactions between cryptocurrency and traditional financial markets. In contrast to these periods, the literature prior to 2017 lacks evidence of extensive study in these critical discussions, as reflected in the absence of literature on the topics. The findings suggest overall optimism. However, this optimism appears to be divided between the benefits of decentralized cryptocurrencies and CBDCs, with some considering decentralization a threat to economic stability.

While the literature across time reflects the benefits of cryptocurrency in Africa, such as the low cost of transactions, access to financial services, stock and fiat currency hedging during financial crisis, the positive sentiments resulting from the analysis in the entire sample period also signal the potential of cryptocurrency adoption in promoting the economic welfare of people living below the poverty line in Africa. Thus, policymakers should strategize on developing policies that engender the integration of cryptocurrency and other digital assets in Africa's financial ecosystem. Nevertheless, there are issues associated with the complexities of cryptocurrencies and their underlying technology, which may pose risks to the economic welfare of the less privileged in Africa. Also, the possibility that the interconnectedness of crypto and traditional financial markets could jeopardize Africa's economic sustainability warrants further research to achieve financial inclusion through cryptocurrency adoption safely.

There is a wide range of issues addressed in other jurisdictions that were not a focus of the African literature, many of which relate to the use of smart contracts and other benefits of blockchain beyond the technology's role as a medium of exchange, such as use in managing supply chains (Kiran and Shishank, 2022; Alsadi et al., 2023), protecting human rights (Al-Saqaf and Seidler, 2017), addressing disinformation (Al-Saqaf, 2019; Picha Edwardsson and Al-Saqaf, 2022), and ensuring product quality. Future research is recommended to see whether these issues are similarly overlooked in other developing jurisdictions.

4 Conclusion

The perspectives across disciplines convey varied understandings, utilising multimodal analyses to examine cryptocurrency adoption and financial inclusion in Africa. In accordance with the recurring topics in the individual sample period, while economists debate cryptocurrency adoption from a macroeconomic perspective, finance scholars highlight the interoperability of cryptocurrency and traditional stock markets, while also addressing systemic risks. Management and business research show the benefits of using cryptocurrencies for payments, institutional adoption of the technology, and trust. The social science literature situates the adoption of the technology within communal, cultural, and even political descriptions. These positive benefits result in an overall positive sentiment in academic literature across all time periods, including during the cryptocurrency bear market. The consistent positive results of these strands, considered in the sentiment analysis, indicate that cryptocurrencies hold potential for advancing financial inclusion in Africa. However, their success is contingent on complementing innovation with an appropriate regulatory framework that takes cognizance of local realities.

Author contributions

IO: Investigation, Writing – review and editing, Writing – original draft, Formal Analysis, Methodology, Conceptualization. CW: Writing – original draft, Conceptualization, Formal Analysis, Writing – review and editing, Methodology. AG: Investigation, Writing – review and editing, Methodology. NV: Writing – review and editing, Writing – original draft.

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