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# Bibliometric Analysis of Stablecoins

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**Abstract:** This study presents a bibliometric analysis of the stablecoin literature indexed in Scopus from 2019 to 2026. Using the PRISMA protocol for literature selection and the Bibliometrix package in R for analysis, a total of 69 articles from 47 journals were examined. The results show an annual growth rate of 21.9%, with a peak of 19 articles published in 2024. The United States dominates research output, while the Journal of Risk and Financial Management is the most productive source. Lyons (2023) is the most cited document with 87 citations. Co-occurrence keyword mapping and thematic analysis identify blockchain, decentralized finance, and cryptocurrency as core research themes. At the same time, monetary policy, digital currencies, and central banks are emerging as frontier topics. Collaboration networks reveal fragmented clusters with limited cross-institutional integration. A significant research gap has been identified, including limited representation of developing countries, restricted regulatory analysis, and a lack of machine learning approaches. This research contributes to a structured knowledge map of stablecoins and provides a strategic agenda for future interdisciplinary research.

**Keywords:** Stablecoin, Bibliometric Analysis, Decentralized Finance, Blockchain, Cryptocurrency

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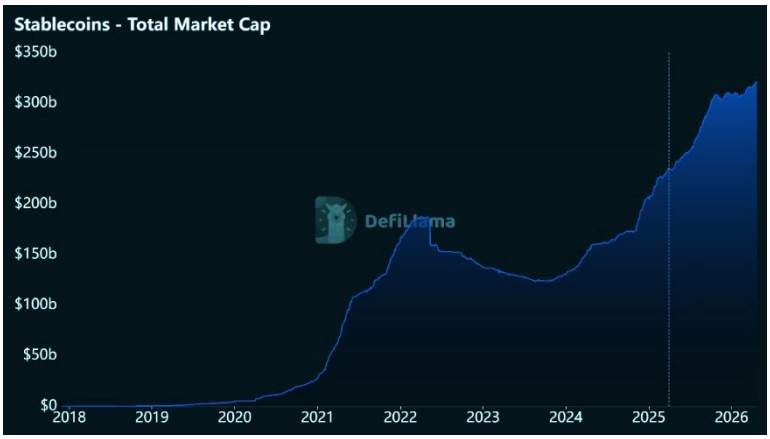
## INTRODUCTION

A stablecoin is a type of cryptocurrency designed to maintain a stable value, usually pegged 1:1 to external reserve assets such as fiat currency (e.g., US dollars), gold, or other cryptocurrencies (Gómez-Puig et al., 2022). In practice, asset-backed stablecoins are proposed as an alternative to transaction settlement, though they still exhibit short-term price fluctuations. The decentralized, peer-to-peer nature of cryptocurrencies makes them a means of payment with low transaction costs, no geographic restrictions, and fast, secure transactions (Aufa et al., 2026; Traceability, 2024). Until now, stablecoins have been rapidly developing. (Dionysopoulos & Urquhart, 2024). Table 1 shows the development of stablecoins from 2018 to 2026.

**Figure 1.** Stablecoin liquidity data in 2018-2026




*Source: https://defillama.com/stablecoins*

Based on Figure 1, the market capitalization value of stablecoins gradually increased from 2018 to 2026 through several phases. During the 2018–2020 period, growth was still limited. Subsequently, the 2020–2022 phase saw a sharp surge to around $180 billion, driven by increased crypto adoption and the evolution of DeFi. However, from 2022 to 2023, the figure declined to $120–130 billion due to a weakening crypto market and tighter regulations. After that, in the 2024–2026 range, the market rebounded and grew rapidly, surpassing $300 billion. This situation indicates that stablecoins are becoming increasingly vital in the digital financial ecosystem and have sustainable growth prospects.

Stablecoins are the best candidates for protecting a cryptocurrency portfolio, as their returns tend to increase when Brent prices fall (Almeida & Gonçalves, 2023). This property also holds during extreme oil price declines, indicating that stablecoins can serve as a haven (Díaz et al., 2023). However, when investors want to minimize their portfolio risk, the five cryptocurrencies, due to their insignificant conditional correlation with Brent, can serve as weak hedges; therefore, the effectiveness of such a portfolio will be low (Akbar et al., 2024; Leong et al., 2025).

Various previous studies have examined stablecoins from many perspectives, including their hedging functions, their role in the digital financial ecosystem, and the systemic risks they pose. These findings provide an important foundation while also revealing research gaps that still require bibliometric approaches like the one applied in this study. Díaz et al., (2023) researched the function of stablecoins in reducing the risk of cryptocurrency value decline. By analyzing market data from several leading stablecoins, the study found that stablecoins can continue to serve as a haven when the prices of other crypto assets are under heavy pressure. These results are significant because they confirm the practical usefulness of stablecoins in managing digital portfolio risks. Kakinuma, (2023) researches whether stablecoins, especially those based on fiat, function as effective hedges by reducing the volatility of cryptocurrency portfolios. However, their success heavily depends on the stability and transparency of the reserve assets backing them.

Furthermore, Murakami & Viswanath-natraj, (2025) regarding the implementation in developing countries such as Argentina and Turkey, USD-pegged stablecoins are used as a safeguard against high inflation and macroeconomic instability, indicating that stablecoins serve as an alternative financial option outside the traditional crypto ecosystem. Ante et al., (2023) conducted a systematic literature review of empirical studies on stablecoins by examining 22 peer-reviewed articles. This research identified three main groups in the stablecoin literature: (1)

stability and volatility in stablecoin design, (2) the relationship between stablecoins and other cryptocurrencies, especially Bitcoin, and (3) the connection between stablecoins and macroeconomic factors outside the crypto sector. Tina & Hassan, (2025) conducted a bibliometric review and analyzed the content of 3,224 articles related to cryptocurrency market efficiency published between 2014 and 2024 in the Scopus database. Using the Biblioshiny tool from the Bibliometrix package in R, this study reveals that the cryptocurrency literature spans multiple fields, including economics, finance, accounting, technology, and engineering.

Based on a review of previous studies, several limitations remain that represent important gaps. First, most existing studies on stablecoins are either thematic or empirical (concerning price-stability mechanisms, hedging functions, or market behavior), but few systematically map the entire scientific landscape. Second, although there are systematic literature reviews, comprehensive bibliometric approaches that combine strict selection protocols such as PRISMA with citation network analysis, scientific collaboration, and thematic evolution are still very rare in stablecoin research. Third, no research has quantitatively and structurally identified future research directions based on thematic patterns and keywords that have developed in the stablecoin literature during the 2019–2026 period. Therefore, this study is designed to fill these gaps by applying bibliometric analysis following the PRISMA protocol and using the bibliometrix package (R) to answer research questions on publication trends, collaboration structures, and future research agendas in an objective and measurable way.

Nevertheless, the bibliometric approach is very crucial for presenting a clear and objective map of the stablecoin research landscape (Pessin et al., 2022). This method helps researchers identify the most influential publications, the most productive countries or institutions, collaborations among researchers, and the development of keywords and trending topics over time (Kumar, 2025).

Therefore, this research aims to fill that gap by conducting a structured bibliometric analysis of stablecoin articles in Scopus. Specifically, this study seeks to answer three research questions: (1) What are the trends in scientific publications on stablecoins worldwide in terms of the number of publications per year, the most productive countries, the journals with the most publications, and the most influential authors and documents? (2) What information or patterns remain undiscovered in stablecoin research trends, particularly related to the structure of scientific collaboration, citation networks, and thematic evolution? (3) What are considered the future research directions in the stablecoin topic based on the thematic map and emerging keywords?

To answer the three research questions objectively and reproducibly, this study uses the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol as a systematic framework for identifying, screening, assessing feasibility, and including literature from the Scopus database. This approach ensures that only truly relevant and high-quality articles are analyzed further (Galletta et al., 2024). After the PRISMA selection process is completed, the selected literature data is then processed using Bibliometrix, an R package for bibliometric analysis and knowledge mapping, which includes descriptive analysis, citation and collaboration network analysis, and thematic analysis. The combination of PRISMA and bibliometrix enables this research to produce a more rigorous, structured, and verifiable synthesis than traditional literature reviews or bibliometric analyses without a clear selection protocol.

By answering these three questions, this research is expected to make a theoretical contribution by providing a comprehensive map of accumulated knowledge and identifying open research gaps. Additionally, this study offers practical contributions to academics, regulators, and

industry practitioners in digital finance, helping them understand the dynamics, key issues, and research and development opportunities within the rapidly growing stablecoin ecosystem. The main conceptual contribution of this study goes beyond mapping publication trends; it reveals a structural transition in the stablecoin literature from a technology-focused domain (blockchain, DeFi, cryptocurrency) to a multidimensional field that integrates monetary policy, regulation, and central bank concerns. This thematic evolution, identified through bibliometric network analysis, provides new insights that have not been previously documented in stablecoin literature. Furthermore, this study explicitly integrates the dimensions of technology, finance, and regulation into stablecoin research within a unified analytical framework, demonstrating that blockchain infrastructure, DeFi mechanisms, and policy responses are structurally interconnected and do not operate as isolated domains. This integrated perspective offers a coherent theoretical foundation for future interdisciplinary research on stablecoins.

## METHOD

This research encompasses five main phases: (1) research design, including determining the topic and keywords; (2) data collection through Scopus; (3) systematic review process using PRISMA, which consists of four steps. The first step is identifying relevant articles searched in the academic database Scopus with structured keywords such as “stablecoin” and “digital stable currency." In the second phase, screening, all search results are filtered based on titles and abstracts according to inclusion criteria: publications from 2019 to 2026, in English, and relevant to the stablecoin topic. In the third phase, feasibility, the filtered literature is comprehensively evaluated to ensure methodological and substantive appropriateness. In the fourth phase, inclusion, the selected literature is classified for subsequent bibliometric analysis, including data analysis and visualization in RStudio, covering descriptive, network, and thematic analyses, followed by the interpretation of the results.

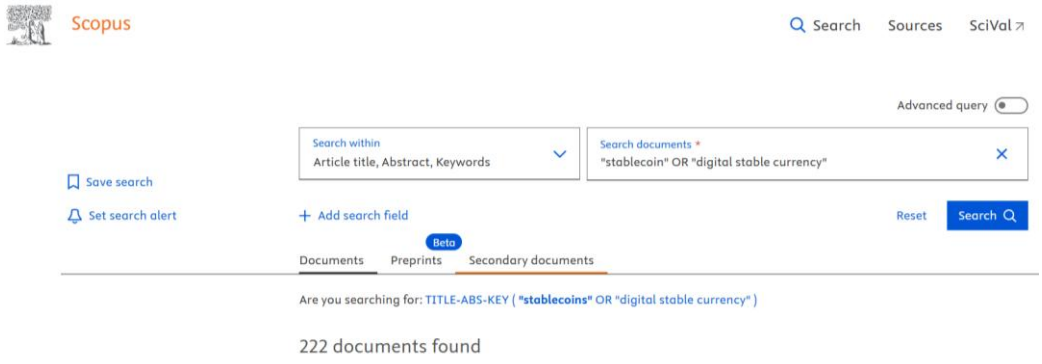



**Figure 2.** Literature search documentation using the keywords 'stablecoin' and 'digital stable currency' in the Scopus database (period 2019-2026, only article documents, in English)

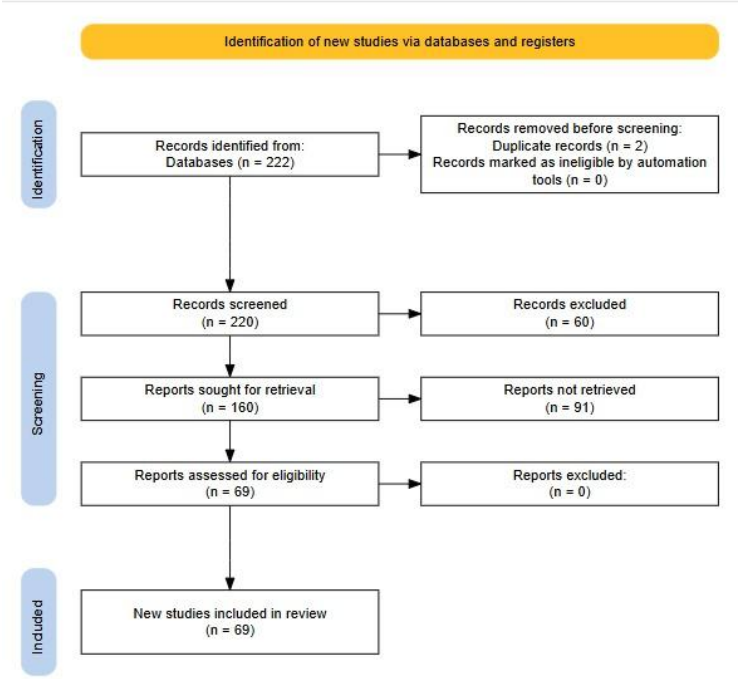



**Figure 3.** Literature selection results

Figure 3 shows the results of the screening process using the PRISMA method, where the author retrieved data from Scopus using the keywords "stablecoin" and "digital stable currency." The search criteria included English language, publication years from 2019 to 2026, and articles only. Based on these criteria, 222 article documents were obtained; after eliminating 2 duplicates, the author used Rayyan to check for additional duplicates. As a result, 220 documents remained. Next, the researcher filtered the literature based on the relevance of the title and abstract. From this process, 60 articles were deemed irrelevant based on the title and abstract criteria, leaving 160. In the next stage, filtering was done based on open access; out of the 160 documents, 91 were not open access, leaving 69 articles. The following stage involved comprehensive screening and the final inclusion criteria, which confirmed that these 69 articles met the criteria.

## RESULTS AND DISCUSSION

### A. History of stablecoin

The world's first stablecoin was launched on July 21, 2014. (Li et al., 2024). BitUSD, the first stablecoin, was introduced on the BitShares blockchain to provide a stable, valuable asset for crypto users. In the same year, Tether (USDT) was created to connect fiat currency with crypto (Kakinuma, 2023). Tether (USDT) has become the most dominant stablecoin pegged to the US dollar and functions as the main currency on crypto exchanges (Anisiuba et al., 2021). So far, stablecoins have experienced rapid growth. Initially, there were only a few dozen stablecoins; now the number has reached 362. (Mahrous et al., 2025).

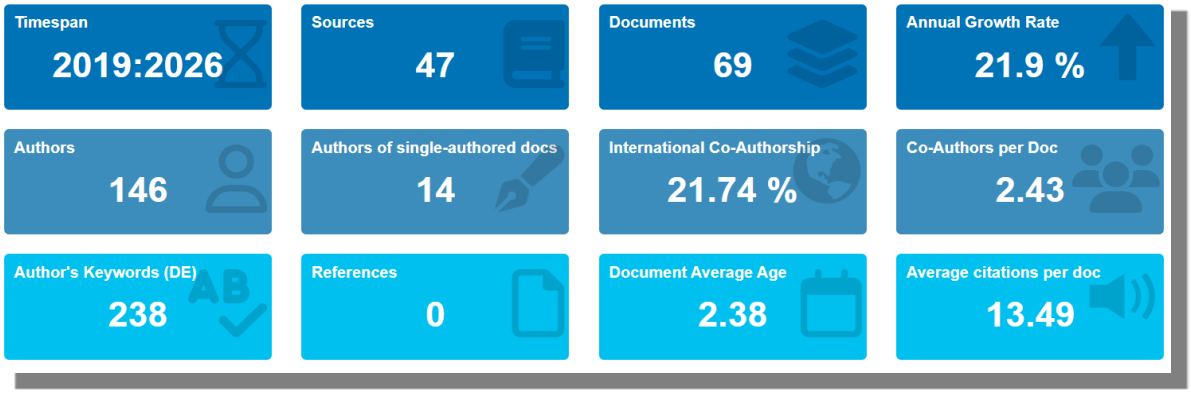
Stablecoins are divided into 4 types: (1) those backed by fiat, (2) those backed by cryptocurrencies, (3) those backed by commodities, and (4) algorithmic (uncollateralized) (Xue, 2025). Fiat-backed stablecoins are cryptocurrencies whose value is pegged 1:1 to conventional currencies (such as USD or EUR) and are backed by cash reserves or cash equivalents. Major examples include USDT (Tether), USDC (USD Coin), FDUSD, and TUSD. These stablecoins provide

price stability for crypto trading and facilitate fast transactions (Mahrous et al., 2025; Siraz et al., 2026). Furthermore, crypto-backed stablecoins are digital assets whose value is pegged to stable assets, such as the US dollar. However, they are supported by other locked cryptocurrencies (e.g., Ethereum and BTC) within a smart contract, such as DAI and FRAX (Mita et al., 2019).

Commodity-backed stablecoins are crypto tokens whose value is linked to real assets, such as gold, silver, or oil, to reduce price volatility. Gold is the most common collateral, for example, PAX Gold (PAXG) and Tether Gold (XAUT), each representing 1 troy ounce of physical gold. In this way, the security of physical assets is combined with the speed of blockchain (Hoque et al., 2024). Algorithmic stablecoins (without collateral) are a type of cryptocurrency designed to maintain a stable value (usually $1) without backing from physical asset reserves like fiat or other cryptocurrencies. Instead, they rely on algorithms, smart contracts, and market incentives to automatically adjust the token supply. Examples include UST (TerraUSD), Ampleforth (AMPL), and FRAX (Frax Finance). This type of stablecoin is decentralized and is often called 'seigniorage-style stablecoin,' which uses market incentives to maintain the price (Fu et al., 2022).

## B. Descriptive Analysis

**Figure 4.** Main Information




Based on Figure 3, the bibliometric analysis of the stablecoin literature in the Scopus database from 2019 to 2026 shows the comprehensive development of knowledge in this field. There are 69 documents from 47 different journal sources, authored by 146 writers, with an average of 2.43 authors per document. The annual growth rate of 21.9% indicates rapid, consistent expansion in stablecoin research during this period. A total of 14 articles were written by single authors, with an international collaboration rate of 21.74%, indicating that stablecoin research is increasingly attracting the attention of the global academic community. The average citations per document are 13.49, with an average document age of 2.38 years, suggesting that although this field is relatively new, the published articles have already gained significant scientific recognition. The total number of keywords used by authors is 238, reflecting diverse perspectives and approaches in stablecoin research. These findings align with the growing academic interest in stable-value-based cryptocurrencies as digital financial instruments becoming increasingly relevant in the modern financial ecosystem.

**Figure 4.** Annual Scientific Production

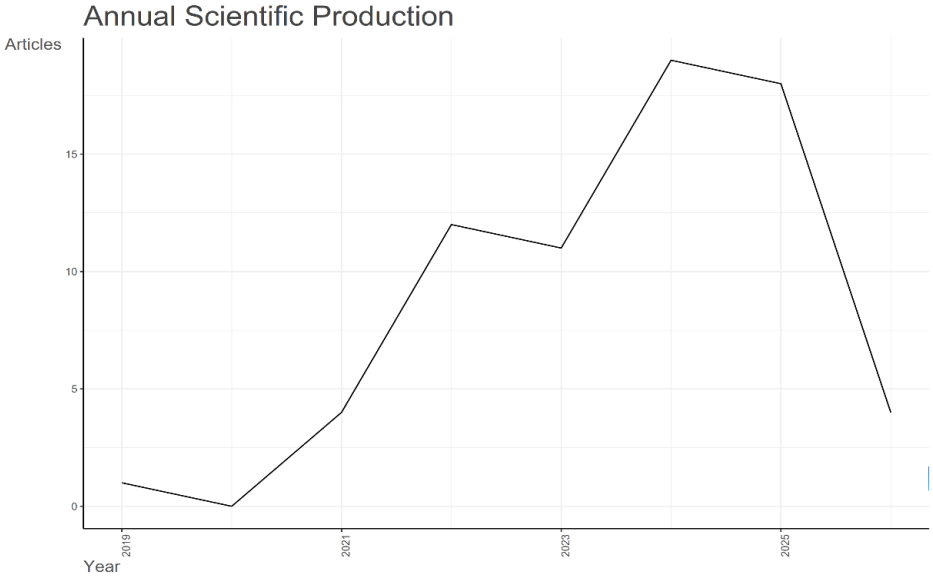



Figure 4 shows the annual trend in scientific production on stablecoins during 2019–2026. In 2019, only one article was published, and none were published in 2020. Growth became noticeable in 2021, with 4 articles, then sharply increased to 12 in 2022. Although it decreased slightly to 11 articles in 2023, the trend continued to rise, peaking in 2024 with 19 articles, before decreasing again in 2025 to 18 articles. The significant surge in 2022 is related to the increasing global attention to the DeFi ecosystem and the collapse of the algorithmic stablecoin TerraUSD (UST) in May 2022, which triggered a wave of new research on risks, regulation, and stability mechanisms of stablecoins. The 2024 production peak indicates the maturity of this field as a well-established subject of scientific study, alongside the increase in the global market capitalization of stablecoins. This growth pattern aligns with the 21.9% annual growth rate observed in the primary data, confirming that stablecoins are among the fastest-growing topics in digital finance research in the Scopus literature.

**Figure 5**. Most Relevant Sources

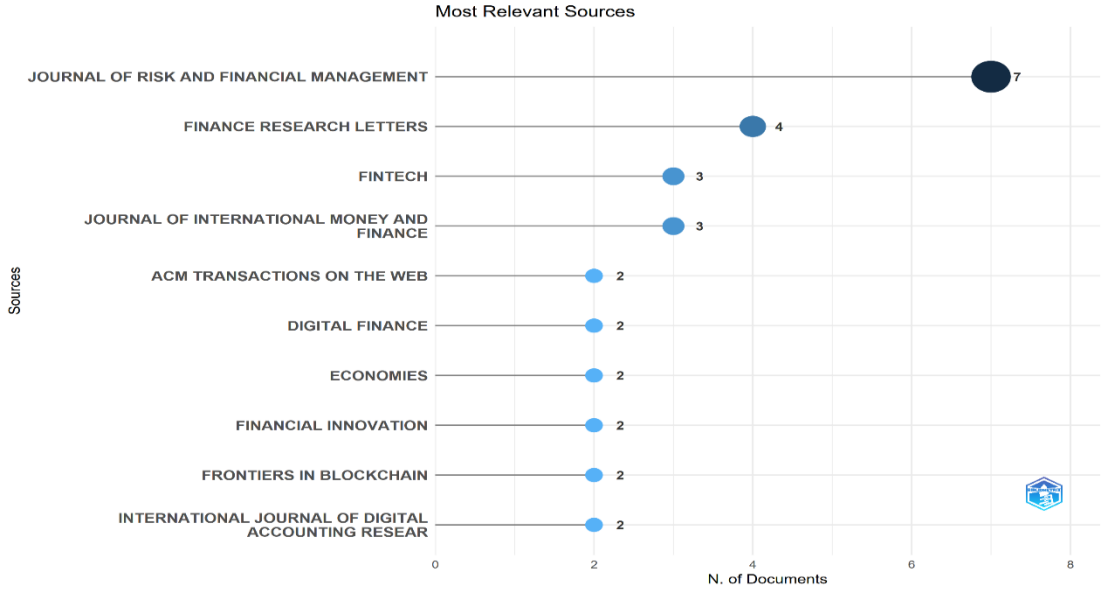


Figure 5 shows the top ten journals that most frequently publish articles about stablecoins. The Journal of Risk and Financial Management leads with 7 articles, followed by Finance Research Letters with 4. The FinTech journal and the Journal of International Money and Finance each published 3 articles. Meanwhile, ACM Transactions on the Web, Digital Finance, Economies, Financial Innovation, Frontiers in Blockchain, and the International Journal of Digital Accounting Research each contributed 2 articles. The dominance of the Journal of Risk and Financial Management confirms that risk management and finance perspectives are the primary frameworks in stablecoin research, particularly regarding volatility, hedging, and asset value stability. The presence of multidisciplinary journals such as ACM Transactions on the Web and Frontiers in Blockchain indicates that research on stablecoins extends beyond finance into technology and computer science. The distribution of sources from 47 different journals affirms that stablecoins are an interdisciplinary topic increasingly recognized by the international academic community.

**Figure 6.** Most Globally Cited Documents

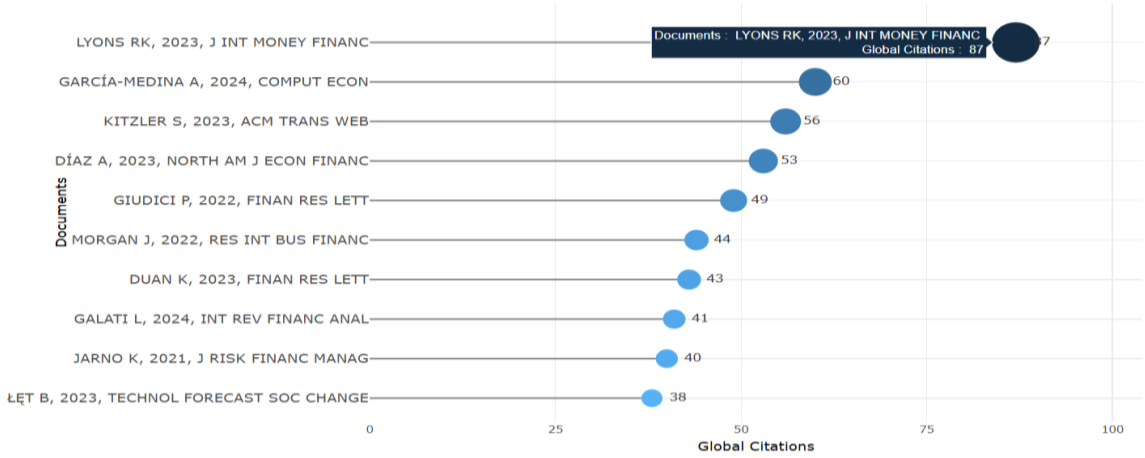



Figure 6 shows the 10 most-cited documents in the stablecoin literature from 2019 to 2026. (Lyons & Viswanath-Natraj, 2023) Published in the Journal of International Money and Finance, it ranks first with 87 citations, far surpassing other documents. In second place. (García-Medina & Aguayo-Moreno, 2024) Computational Economics has received 60 citations. Followed by (Kitzler et al., 2023) from ACM Transactions on the Web with 56 citations. (Díaz et al., 2023) from the North American Journal of Economics and Finance, which is in fourth place with 53 citations, followed by (Giudici et al., 2022) from Finance Research Letters with 49 citations. (Morgan, 2022) Research in International Business and Finance received 44 citations. (Duan & Urquhart, 2023) From Finance Research Letters, 43 citations were obtained. (Galati & Capalbo, 2024) From the International Review of Financial Analysis, there are 41 citations. (Jarno & Kołodziejczyk, 2021) The Journal of Risk and Financial Management received 40 citations. (Łęt et al., 2023) From Technological Forecasting and Social Change, 38 citations were obtained. The high number of citations to the work (Lyons & Viswanath-Natraj, 2023) indicates that research on the mechanisms of stablecoin pricing and information transmission has become a primary reference in this field. The citation pattern, which focused on publications from 2022–2024, also reflects that the knowledge base about stablecoins is currently in an active consolidation phase, with foundational works beginning to take shape.

**Figure 7.** Most Relevant Authors

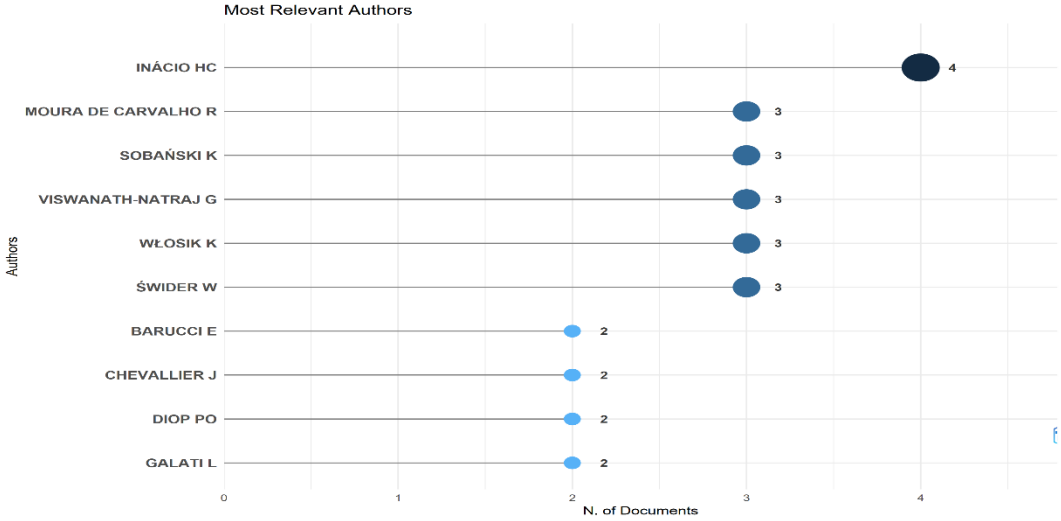



Figure 7 shows the 10 most active authors in the stablecoin literature, ranked by the number of publications. Inácio HC is in first place with 4 articles, making him the most prolific author in this field. Meanwhile, Moura de Carvalho R, Sobański K, Viswanath-Natraj G, Włosik K, and Świder W each wrote three articles. On the other hand, Barucci E, Chevallier J, Diop PO, and Galati L each contributed two articles. This distribution of productivity is quite even, indicating that neither a single nor two groups have dominated research on stablecoins, but that it is instead distributed across various institutions and countries. The presence of Viswanath-Natraj G highlights a research focus on the role of stablecoins as financial instruments in countries with high exchange rate volatility. This pattern also suggests that the stablecoin scientific community is in its early stages of formation, with main research groups emerging but still open to new contributors from various disciplines.

## C. Network Analysis

**Figure 8.** Collaboration Network

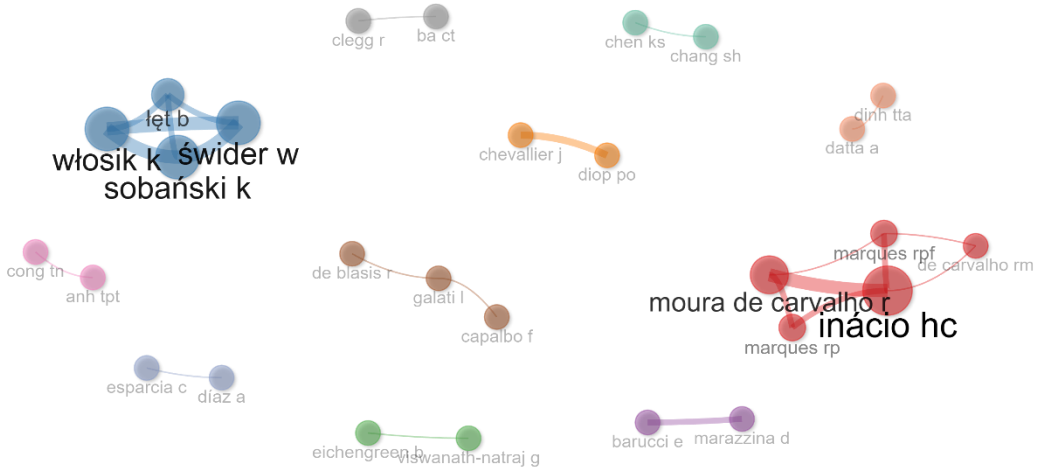



Figure 8 visualizes the international collaboration network in stablecoin research. This network consists of several clusters formed based on patterns of international cooperation. The red cluster, centered on a large node, reflects the most active and widely connected collaboration group. In contrast, the blue cluster on the right forms a relatively large, separate collaboration

group. The smaller green and purple clusters indicate regional collaboration groups with a more limited scope. This network pattern shows that stablecoin research collaboration remains fragmented, with some clusters not directly connected to others. These findings suggest that opportunities remain to build bridges across different research communities, especially to expand the network into countries that are not yet integrated into the main clusters. The United States has the highest collaboration frequency, particularly with Australia and the United Kingdom. At the same time, collaborations between European countries such as the UK-Italy and Germany-France are also identified, albeit less frequently.

**Figure 9.** Co-authorship Network

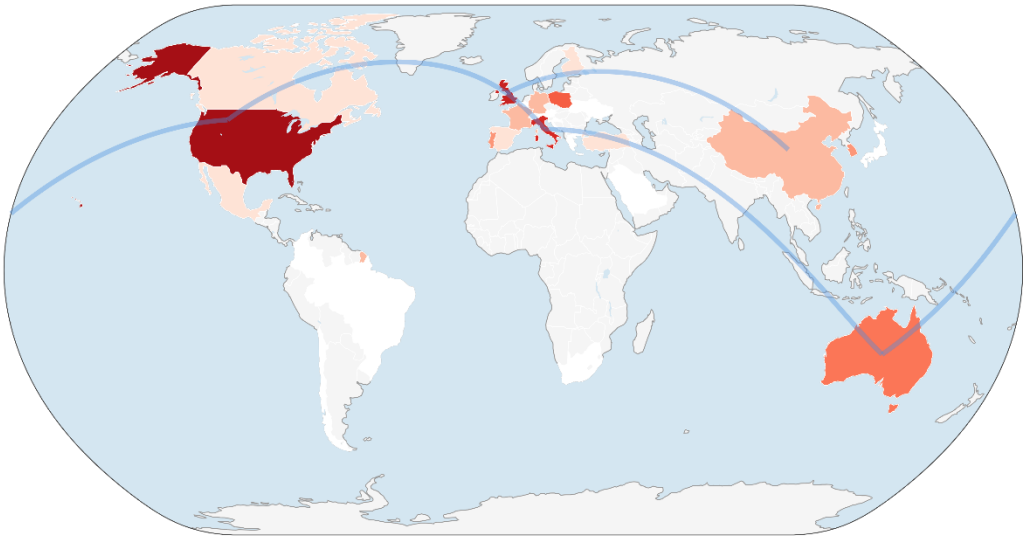


Figure 9 displays the co-authorship network among authors in the stablecoin literature. This network shows several isolated clusters scattered throughout, each representing a group of researchers actively collaborating. The blue cluster in the upper left corner, with four closely connected nodes, indicates a team of researchers who consistently collaborate, while the red cluster on the right is the densest, with larger node sizes reflecting high productivity and centrality.

Most clusters remain isolated, with no connections to other clusters, indicating that the stablecoin research community is still in the early stages of fragmentation and has not yet formed an integrated global collaboration network. This is a common characteristic in emerging research fields, where researcher groups tend to work independently until a larger, interconnected scientific community is established. The implication is that there is ample room for researchers from various institutions to build cross-cluster collaboration bridges to accelerate knowledge accumulation in the stablecoin field.

**Figure 10.** Keyword Co-occurrence Network

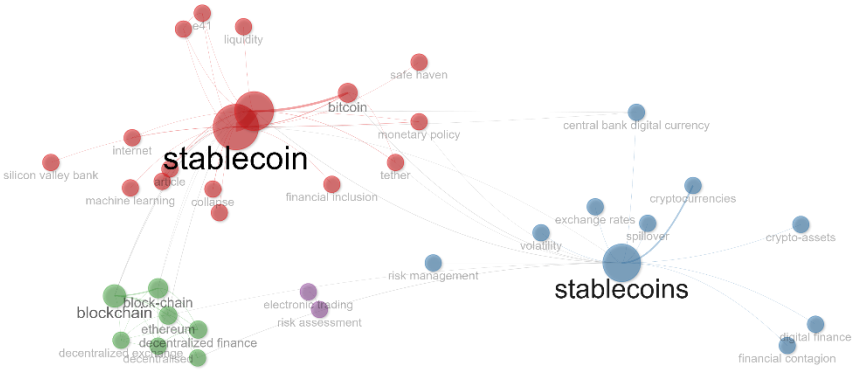



Figure 10 displays a keyword co-occurrence network map that illustrates the conceptual relationships among topics in the stablecoin literature. In the upper right quadrant, keywords such as financial contagion, stablecoins, variance decomposition, and auditing form clusters related to systemic risk and digital financial supervision. In the center of the map, keywords like bitcoin, cryptocurrency, blockchain, Ethereum, and decentralized finance constitute the main thematic core of the research, reflecting the technological context and the broader crypto ecosystem. On the left side, keywords such as decentralized, decentralized exchange, financial markets, and electronic trading form clusters related to decentralization and financial trading. Meanwhile, at the bottom, the appearance of machine learning and collapse indicates a research trend using computational approaches to analyze stablecoin failures. This network pattern shows that stablecoin research is at the intersection of finance, technology, and regulation, with cryptocurrency and blockchain serving as the main conceptual bridges connecting various thematic clusters.

**Figure 11.** Thematic Map

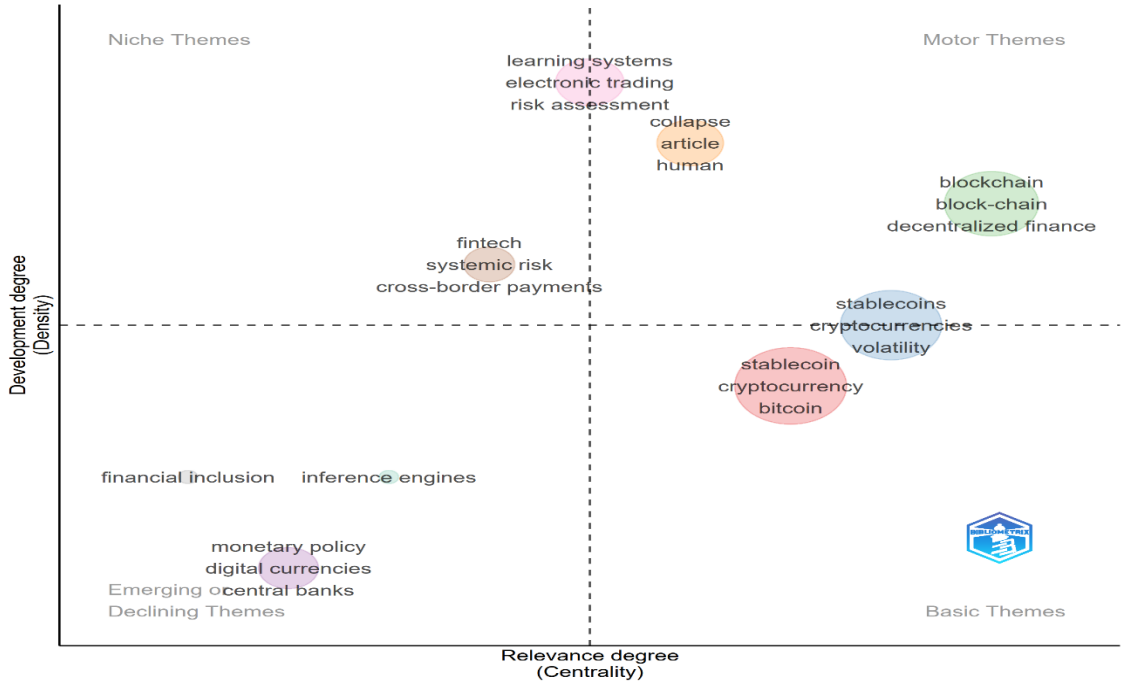


Figure 11 presents a thematic map that classifies stablecoin research topics into four quadrants based on relevance (centrality) and development level (density). The upper right quadrant (Motor Themes) identifies blockchain, blockchain, and decentralized finance as the main motor themes with high relevance and rapid development, indicating that this infrastructure technology is a key pillar of stablecoin research that will continue to dominate future research agendas. The clusters of stablecoins, cryptocurrencies, and volatility are on the border between motor themes and basic themes, indicating their potential to develop into more mature topics. The lower right quadrant (Basic Themes), which includes stablecoin, cryptocurrency, and bitcoin, reflects relevant themes with a low level of development, serving as the conceptual foundation of this entire field. The upper left quadrant (Niche Themes), containing learning systems, electronic trading, and risk assessment, represents specific themes that are not yet widely integrated. Meanwhile, the lower left quadrant (Emerging or Declining Themes) identifies monetary policy, digital currencies, and central banks as emerging topics, suggesting that the dimensions of monetary policy and central bank responses to stablecoins are promising research frontiers for further development.

**Figure 12.** Factorial Map / Conceptual Structure

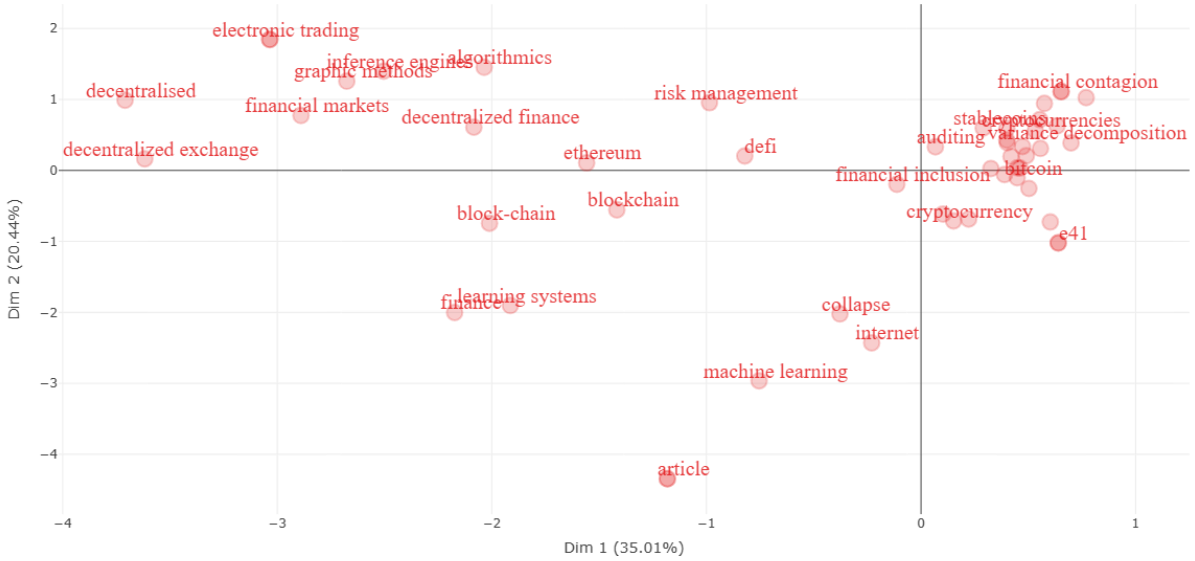



Figure 12 displays a factorial map or conceptual structure of the stablecoin literature generated through correspondence factor analysis with two main dimensions: Dimension 1 explains 35.01% of the variance, and Dimension 2 explains 20.44% of the variance. The distribution of keywords on this map reveals two thematic axes that dominate the conceptual structure of stablecoin research. On the right side of Dimension 1, a cluster of keywords, including bitcoin, cryptocurrency, financial inclusion, stablecoins, and financial contagion, forms a thematic domain focused on the financial applications and systemic risks of stablecoins. Meanwhile, on the left side, keywords such as decentralized, decentralized exchange, electronic trading, and financial markets indicate a thematic domain focused on aspects of decentralization and trading infrastructure. At the bottom of Dimension 2, the appearance of machine learning, collapse, and the internet indicates a research cluster using computational approaches to analyze the dynamics of stablecoin failures. Overall, this factorial mapping confirms that stablecoin research is divided into three main domains: first, the crypto ecosystem and financial risk;

second, decentralization and trading infrastructure; and third, computational and artificial intelligence approaches. Understanding these three domains can serve as a strategic guide for researchers in determining their research position and contribution within the ever-evolving stablecoin academic landscape.

This bibliometric study's main contribution is its systematic exploration of how research themes in stablecoin literature have developed, initially focusing on blockchain infrastructure and DeFi mechanisms, and later shifting towards monetary policy, central bank digital currencies, and regulations. This trend, visualized through thematic maps and factor analysis, offers not only a descriptive overview but also insights into the field's maturation. Network analysis reveals fragmented collaboration, indicative of the nascent stage of stablecoin research, with limited cross-disciplinary engagement. The lack of representation from developing regions such as Southeast Asia, Africa, and Latin America highlights structural gaps reflecting global disparities in knowledge production, which should be prioritized in future studies. Overall, although the field is expanding quickly, research remains centered in Western institutions and has yet to develop the collaborative networks that signify disciplinary maturity.

### D. Theoretical Implications and Directions for Future Research

This bibliometric study yields several theoretical implications for the development of knowledge in the field of digital finance, particularly regarding stablecoins and the decentralized finance (DeFi) ecosystem. The findings not only enrich the understanding of literature development but also provide a more solid conceptual foundation for further research. Theoretically, stablecoins can be understood as hybrid innovations that sit at the intersection of blockchain technology, financial engineering, and monetary policy (Teo et al., 2025). Therefore, the theoretical framework used in this study is multidimensional, encompassing theories of stablecoin mechanisms, DeFi, and an evolving regulatory perspective.

**Figure 13.** Theoretical Framework: Stablecoin as Hybrid Innovation

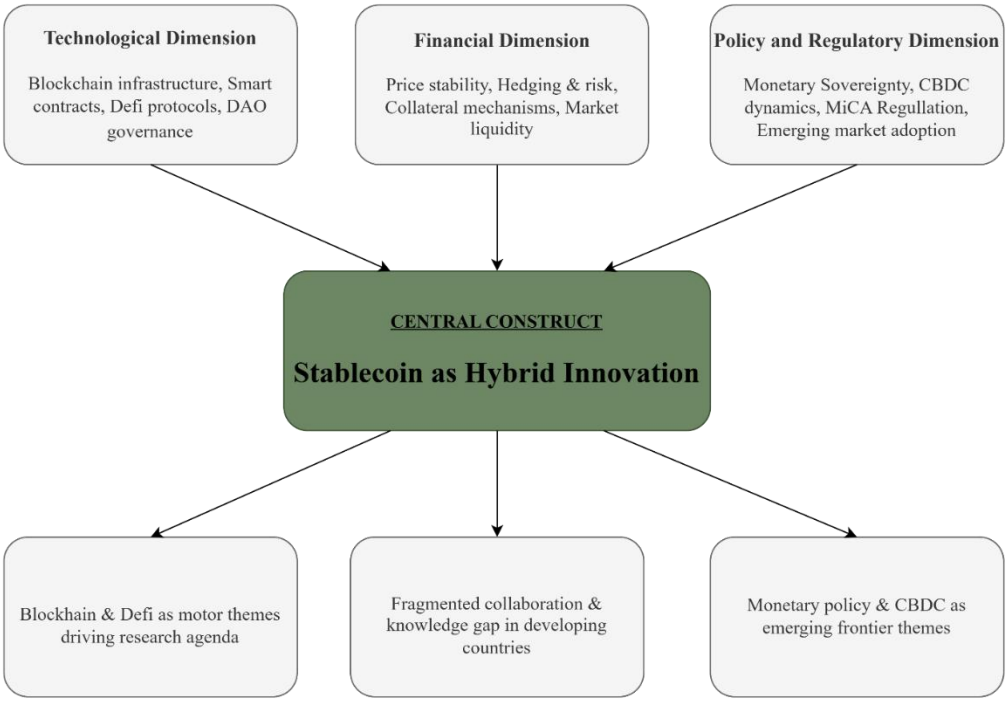


Figure 13 illustrates that the framework combines three key dimensions: blockchain technology, financial engineering (including stability mechanisms and DeFi), and monetary policy/regulation. It brings together three theoretical viewpoints: stability mechanisms, DeFi composability, and regulatory responses. This synthesis highlights the shift from a purely technological focus to a multidisciplinary approach, as observed in this bibliometric study.

From a stability mechanism perspective, the literature reviewed consistently identifies three main stablecoin models, each with distinct theoretical implications. First, fiat-collateralized stablecoins such as Tether (USDT) and USD Coin (USDC) operate on the principle of centralized trust, where stability depends on the issuer's credibility and the adequacy of the reserve assets backing them (Catalini & de Gortari, 2021). This model theoretically replicates the functions of a full-reserve banking system within a digital framework, enabling analysis through the lens of financial intermediation theory and liquidity risk management (Lyons & Viswanath-Natraj, 2023).

Second, crypto-collateralized stablecoins like DAI implement over-collateralization mechanisms and liquidation thresholds as substitutes for institutional trust, which theoretically correspond to contract theory and mechanism design in information economics (García-Medina & Aguayo-Moreno, 2024). Third, algorithmic stablecoins that rely on dynamic supply algorithms and share seigniorage mechanisms have proven to be vulnerable to death spirals, as happened with TerraUSD (UST) in May 2022, which has important theoretical implications that price stability without adequate collateral support cannot be maintained under extreme market pressure (Kitzler et al., 2023).

Within the broader framework of DeFi theory, stablecoins occupy a strategic position as the 'backbone' of the decentralized financial ecosystem (Schär & The, 2020). In theory, DeFi operates on the principle of composability, where different financial protocols can interact and integrate like Lego blocks without requiring third-party approval (Gramlich et al., 2023). In this architecture, stablecoins function as units of account that stabilize transactions across protocols, ranging from decentralized lending platforms and decentralized exchanges (DEXs) to on-chain derivative instruments. The network co-occurrence findings of keywords in this study, which place “Ethereum,” “decentralized finance,” “DeFi,” and “blockchain” as the core clusters, confirm that stablecoins cannot be separated from the blockchain technology infrastructure on which they operate (Díaz et al., 2023).

Furthermore, the thematic map that identifies blockchain and decentralized finance as motor themes indicates that the DeFi theoretical framework will remain a dominant foundation for stablecoin research in the future.

From a regulatory perspective, this study's findings identify monetary policy, digital currencies, and central banks as emerging themes located in the lower left quadrant of the thematic map, indicating that the regulatory and public policy perspective is a relatively new domain that is beginning to receive serious attention but has significant potential for development. Theoretically, the presence of large-capitalization private stablecoins raises fundamental questions about monetary sovereignty and the effectiveness of central bank monetary policy transmission, as argued by Morgan, (2023) In the context of macroprudential implications of stablecoins, regulatory frameworks such as the Markets in Crypto-Assets (MiCA) in the European Union and various stablecoin regulation proposals in the United States and Asia reflect efforts by public authorities to integrate stablecoins into existing legal frameworks without hindering innovation, which theoretically creates tension between risk-based regulatory principles and the inherently decentralized nature of blockchain technology (Galati & Capalbo, 2024).

Based on a comprehensive mapping of the stablecoin literature and the identified theoretical implications, this study identifies several significant research gaps and outlines future research agendas. First, the geographic disparity in knowledge production is the most prominent gap. As shown in the country collaboration map, stablecoin research is highly concentrated in the United States and Western Europe, while Southeast Asia, Africa, and Latin America are almost unrepresented. Ironically, it is precisely in developing countries where the potential impact of stablecoins is greatest, considering the high prevalence of unbanked populations, exchange rate volatility, and large flows of international remittances. Future research should explicitly include the perspective of developing markets, including Indonesia, in examining stablecoin adoption, impacts, and regulatory implications.

Second, although the thematic map identifies monetary policy, digital currencies, and central banks as emerging themes, the depth of study on the interaction between private stablecoins and central bank monetary policy remains very limited. Future research should explore in greater depth how the development of stablecoins affects the effectiveness of monetary policy transmission, especially in countries developing Central Bank Digital Currencies (CBDCs). Cross-jurisdictional comparative studies that map regulatory approaches from restrictive to accommodative will be very valuable to policymakers in designing optimal regulatory frameworks. Third, the application of machine learning and artificial intelligence to stablecoin analysis remains limited, although this has been identified in the conceptual research structure. Given the availability of real-time, publicly accessible blockchain transaction data, approaches such as deep learning, graph neural networks, and sentiment analysis offer significant analytical potential for predicting de-pegging and modeling systemic risks in stablecoins.

Fourth, the governance of decentralized stablecoin protocols has not been sufficiently explored in the reviewed literature. Stablecoins based on Decentralized Autonomous Organizations (DAOs) feature a unique collective decision-making mechanism. However, studies on the effectiveness and vulnerabilities of this governance model to governance attacks and power concentration in voting are still very limited. Fifth, the behavioral finance perspective on trust and user adoption of stablecoins remains under-addressed. Psychological factors such as risk perception, institutional trust, and herding behavior that influence user decisions to adopt or abandon stablecoins need to be empirically studied, especially in the context of cultural differences and digital financial literacy across regions. Sixth, the long-term implications of stablecoins on the stability of the global financial system, particularly in scenarios where one or more stablecoins dominate the international payment system, are a topic that requires in-depth theoretical and empirical research by integrating macroeconomic perspectives, game theory, and network analysis. (Giudici et al., 2022; Łęt et al., 2023).

## CONCLUSIONS

This research surveys the stablecoin literature from 2019 to 2026, following PRISMA guidelines, and performs a bibliometric analysis of 69 articles from Scopus. It addresses three main research questions. Firstly, publication trends indicate a rapid annual growth rate of 21.9%, with a peak of 19 articles published in 2024. The United States leads in publication output, primarily through the Journal of Risk and Financial Management, which is the most prolific source. Inácio HC emerges as the most active author. Lyons (2023) is the most cited work with 87 citations. Collaboration remains dispersed, with transatlantic partnerships still leading. Keyword analysis reveals three clusters: systemic risk and supervision; blockchain, DeFi, and

decentralization; and trade. The thematic map shows blockchain and DeFi as key themes, while monetary policy, digital currencies, and central banks are emerging areas. The factorial map identifies three main research domains: crypto ecosystems and financial risk, decentralization and trade, and computational or AI methods. Six research gaps are identified: geographic disparities (notably in developing countries), interactions between regulation and monetary policy, limited use of machine learning, DAO governance, behavioral finance, and long-term systemic stability. Stablecoins are considered hybrid innovations needing multidimensional analysis. Limitations include only using Scopus data. This study offers a structured, reproducible knowledge map to help researchers, regulators, and practitioners navigate the evolving landscape of stablecoins.

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