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**Mapping the Research Landscape of FinTech and Financial
Inclusion in Emerging Markets**



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Mapping the Research Landscape of FinTech and Financial Inclusion in Emerging Markets



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Abstract

Purpose: Financial technology (FinTech) has rapidly transformed the global financial landscape by introducing innovative digital solutions that expand access to financial services. This transformation is especially significant in emerging markets, where large segments of the population remain excluded from traditional financial systems. This study provides a systematic and bibliometric review of existing literature examining the relationship between FinTech and financial inclusion in emerging economies.

Methodology: Using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) framework, articles were collected from Scopus databases covering the period 2013-2025. After a rigorous screening process, 119 relevant studies were selected for analysis.

Findings: The findings reveal a significant growth in scholarly interest in the FinTech—financial inclusion nexus, especially following the global expansion of digital payment systems and mobile financial services. The literature highlights several mechanisms through which FinTech promotes inclusion, including mobile money platforms, digital lending technologies, and data-driven credit assessment models. However, the review also identifies persistent barriers such as regulatory uncertainty, digital infrastructural gaps, financial literacy limitations, and cybersecurity risks.

Unique Contribution to Theory, Policy and Practice: This study contributes to the literature by mapping the dominant research themes, identifying theoretical perspectives used in existing studies, and highlighting critical research gaps. The findings provide valuable insights for policymakers, financial institutions, and researchers seeking to leverage FinTech innovations to promote inclusive and sustainable financial systems in emerging economies.

Keywords: *FinTech, Financial Inclusion, Emerging Markets, Digital Financial Services, Mobile Money, Financial Innovation*

JEL Codes: *G20, G21, O33*

1. Introduction

The rapid development of financial technology (FinTech) has significantly transformed the provision of financial services worldwide. By leveraging digital platforms, mobile technologies, artificial intelligence, and big data analytics, FinTech firms have introduced innovative financial solutions that improve efficiency, accessibility, and affordability. These innovations have become especially important in emerging markets, where traditional banking infrastructure often fails to reach large segments of the population. Thus, FinTech offers new opportunities to bridge gaps in access, particularly in emerging markets (Banna et al., 2021). FinTech plays a significant role in enabling the accessibility of financial services to various strata of society. It helps in the usage of financial services, thereby contributing to financial inclusion and overall economic growth (Neelam & Bhattacharya, 2022). Nonetheless, FinTech firms capitalised on regulatory constraints imposed on banks, offering flexible loans and innovative repayment solutions that catered to underserved markets (Hamarat & Broby, 2022).

The rapid adoption of smartphones and the internet has further accelerated FinTech's growth, enabling consumers to access financial services online without visiting physical bank branches (Teigland et al., 2017). The shift in consumer behaviour toward digital banking has also forced traditional financial institutions to adapt and integrate FinTech solutions into their operations. Fintech has the potential to bridge the gap between formal financial systems and underserved communities. However, despite its rapid growth and widespread adoption, the actual impact of Fintech on financial inclusion in developing economies remains a contested subject. While some studies highlight its success in expanding access to financial services, others point to persistent barriers such as regulatory hurdles, low digital literacy, and infrastructural deficiencies that limit its reach.

Financial inclusion which comprises the availability and usage of affordable financial services has long been recognized as a critical driver of economic development and poverty reduction. However, despite substantial efforts by governments and financial institutions, millions of individuals in emerging economies remain excluded from formal financial systems. FinTech innovation such as mobile money, peer-to-peer lending, and digital payment platforms have emerged as potential solutions to this challenge by reducing transaction costs and overcoming geographical barriers.

The current state of knowledge on Fintech and financial inclusion presents a mix of optimism and scepticism. On one hand, empirical evidence suggests that digital financial services have significantly improved access to banking, credit, and insurance for previously excluded populations. For instance, mobile money platforms like M-Pesa in Kenya have demonstrated how Fintech can facilitate transactions, savings, and microlending among low-income users (Demirgüç-Kunt et al., 2018). Similarly, alternative credit scoring models enabled by big data and machine learning have allowed small businesses and individuals with limited credit histories to

secure loans (Ozili & Ndah, 2021). On the other hand, studies also reveal disparities in adoption rates, with rural populations, women, and older adults often lagging due to technological, cultural, and regulatory constraints (Arner et al., 2020). Furthermore, the rapid evolution of Fintech has outpaced regulatory frameworks in many emerging economies, leading to concerns about consumer protection, fraud, and systemic risks. These uncertainties highlight the need for a comprehensive synthesis of existing research to assess where Fintech has succeeded, where it has fallen short, and what factors influence its effectiveness in different contexts.

Although existing studies highlight the potential of FinTech to expand financial inclusion, the empirical evidence remains fragmented and sometimes contradictory. Some studies demonstrate significant improvements in financial access through digital platforms, and others emphasize persistent barriers such as regulatory constraints, digital literacy gaps, and infrastructure limitations.

To address these inconsistencies, this study conducts a systematic and bibliometric review of literature examining the relationship between FinTech and financial inclusion in emerging markets. Accordingly, the study is guided by the following research questions:

1. What are the dominant research trends in this domain?
2. Which theories are most commonly applied to explain this relationship?
3. What gaps exist for future research?

The remaining sections of the study are organised as follows. Section 2 explains the methodology and data used for the analysis. Section 3 shows the findings of the bibliometric analysis, and Section 4 proposes gaps for future research obtained thanks to the content analysis. Section 5 reports the conclusions of our study.

2. Methodology

This study employs a systematic literature review combined with a bibliometric analysis to examine the evolving relationship between FinTech and financial inclusion in emerging markets. Bibliometric analysis, originally introduced by Pritchard (1969) to provide a comprehensive assessment academic literature, and thematic development of the FinTech and financial inclusion landscape in ensuring robust findings that are relevant for future research.

To ensure transparency and replicability, the review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework guidelines.

2.1 Data Source

The dataset was obtained from the Scopus database, which is widely recognized as one of the largest and most reliable sources of peer-reviewed academic publications. The major academic publishers used include Elsevier, Springer, Wiley, Taylor and Francis, and Sage.

2.2 Search Strategy

The search strategy was designed to capture publications focusing on both FinTech and financial inclusion. The following search query was applied to article titles, abstract, and keywords: (“financial technology”, OR “FinTech”, OR “e-finance” OR digital finance) AND (“Financial inclusion” “financial access” OR “financial inclusive” OR “financial exclusion” OR “financial access” OR “access to finance” OR “Access to finance”). The search was limited to peer-reviewed journal articles, English language publications, and publication year 2013-2025. Articles published within the last 13 years (2013–2025) were chosen to capture the most recent trends in the field. The timeframe ensures that the analysis reflects the recent advancement in the relationship between fintech and financial inclusion. Moreover, to circumvent any problems with translation, the search was limited to articles published in English.

2.3 Inclusion and Exclusion criteria

To ensure the quality and relevance of the included studies, the study employed various inclusion and exclusion criteria. Firstly, the study focused on primary research studies that focused FinTech and financial inclusion, emerging or developing economies, and empirical or theoretical insights. Studies that focused solely developed economies, financial technology without inclusion, editorials, book reviews and non-academic publications were excluded.

2.4 Screening Process

The initial search yielded 1853 publications. After removing duplicates and conducting title and abstract screening, the number of eligible studies were reduced to 858. A full-text review resulted in 119 articles which were analyzed using bibliometric and content analysis techniques. The full details of the screening process is indicated in figure 1 below.

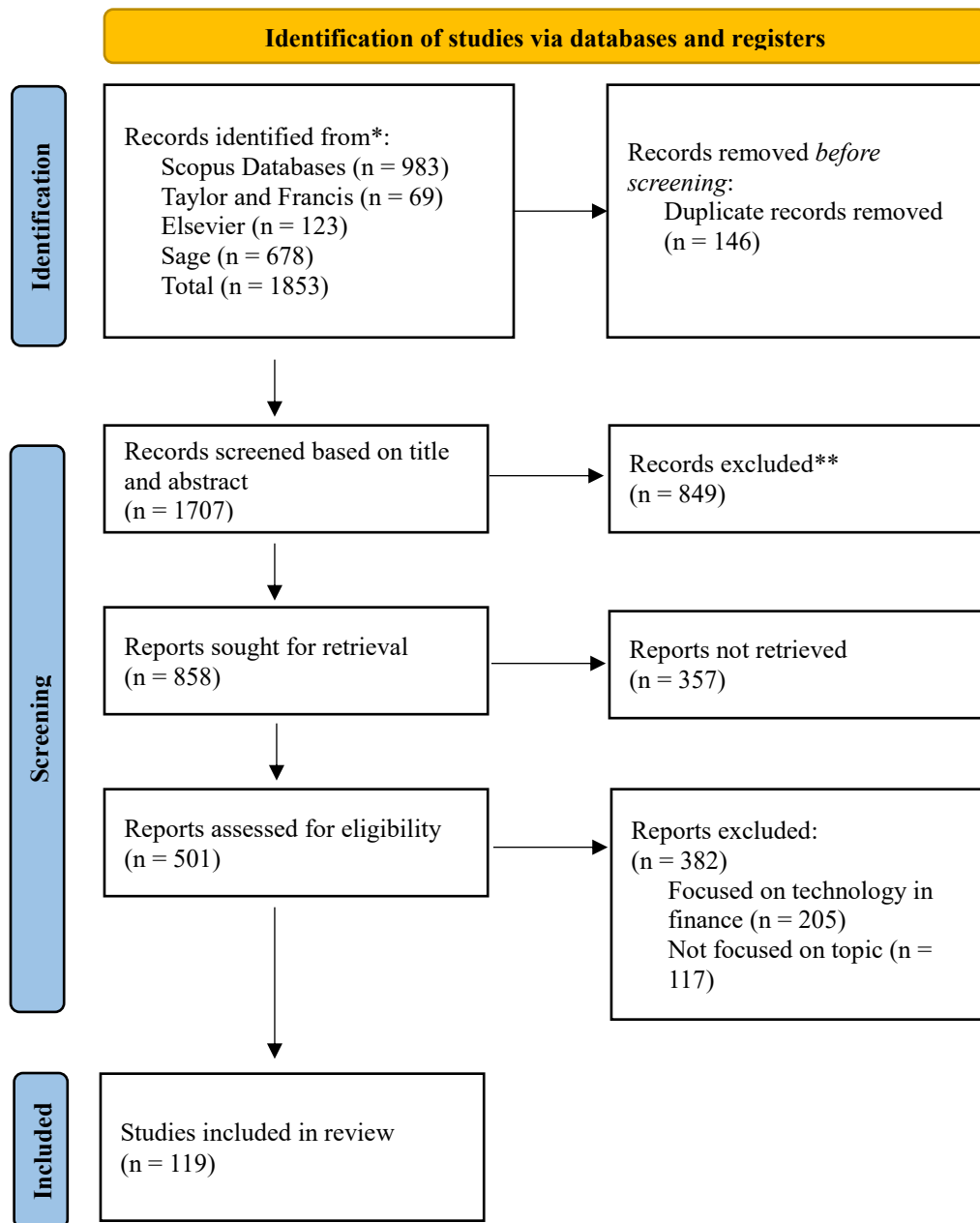


Figure 1: PRISMA Flow Diagram of Included Studies Identification and Selection

The quality of each included study was assessed using the ROB2 tool for assessing the risk of bias of a study. This approach categorises studies as having a 'low risk of bias,' an 'unclear risk of bias,' or a 'high risk of bias.' The risk of Bias is detailed in Figure 2.

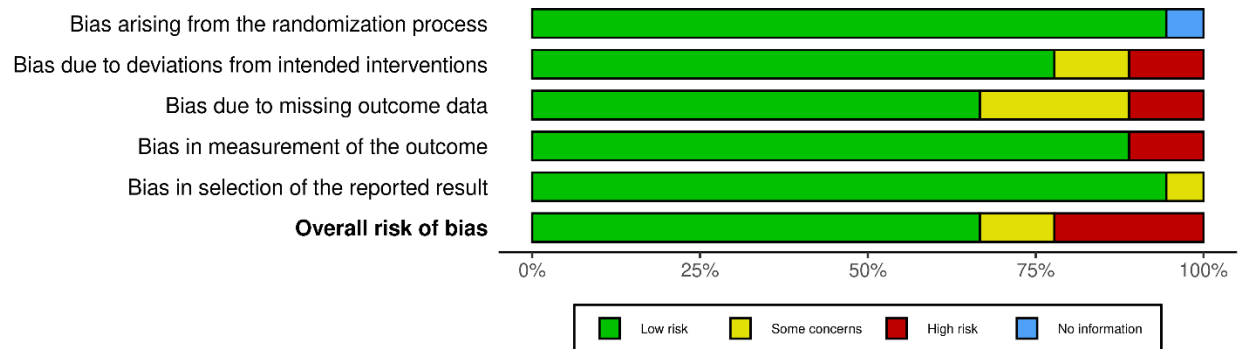


Figure 2: Risk of Bias Summary

Results and Discussion

3.1 Dominant research trends in FinTech and Financial Inclusion

The literature on financial inclusion and FinTech has expanded significantly since 2017, with several articles being published yearly, as shown in Figure 3. Since 2019, the growth has become exponential, with over 10 articles yearly. The most productive year is 2024, with 37 publications. The second quarter of 2025 witnessed 16.

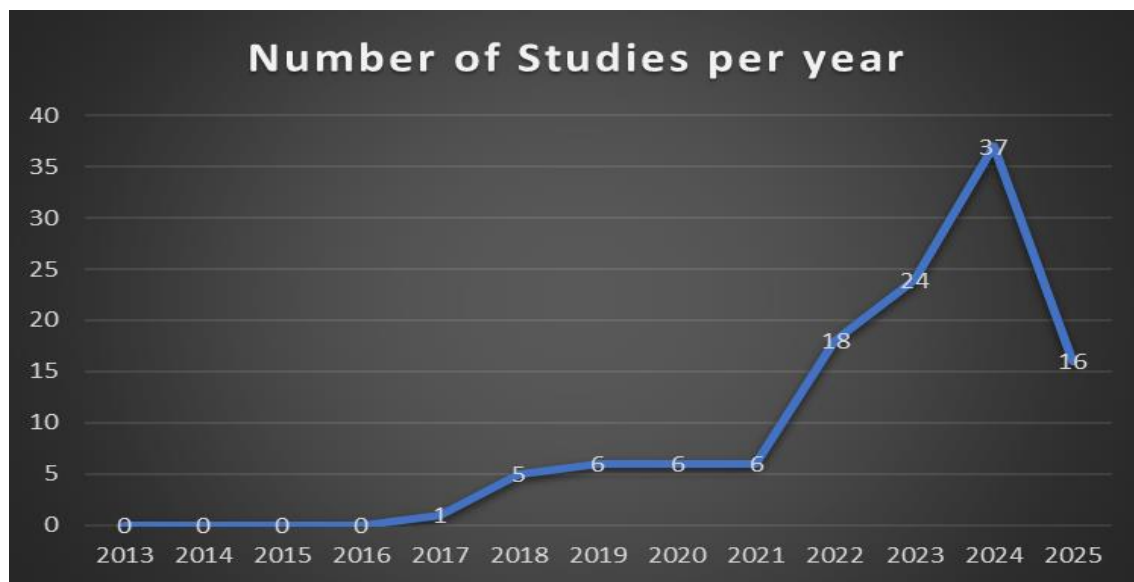


Figure 3: Number of Relevant Publications per Year

The trend depicted in Figure 3, which tracks the number of relevant publications on FinTech and financial inclusion in emerging markets from 2017 to 2025, reveals a clear and accelerating growth in scholarly interest in this field. Beginning with a modest number of publications in 2017 and 2018, the graph shows a steady upward trajectory, with a notable surge from 2019 onward. This initial growth phase likely reflects the early recognition of FinTech's potential to address financial

inclusion challenges in emerging economies. During these years, foundational research laid the groundwork for more extensive studies, as scholars and practitioners began to explore how digital financial services could bridge gaps in access to banking, credit, and insurance for underserved populations.

The exponential rise in publications from 2019 to 2024, culminating in a peak of 37 articles in 2024, underscores the increasing importance of FinTech as a tool for inclusive economic growth. This surge can be attributed to several factors, including the widespread adoption of mobile money platforms, the proliferation of digital lending solutions, and the growing body of empirical evidence demonstrating FinTech's impact on financial inclusion. Additionally, the COVID-19 pandemic may have accelerated research in this area, as digital financial services became even more critical in enabling remote transactions and sustaining economic activity during lockdowns. The diversity of studies during this period ranging from case studies of successful FinTech implementations to analyses of regulatory challenges highlights the multifaceted nature of the relationship between technology and financial access.

The trend's continuation into 2025, with 16 publications recorded in just the second quarter, suggests that FinTech and financial inclusion will remain a vibrant area of research in the coming years. This sustained interest reflects the dynamic evolution of FinTech innovations, as well as the persistent barriers such as digital literacy gaps, infrastructural limitations, and gender disparities that require further investigation. The growing volume of research also points to the need for more longitudinal and comparative studies to assess the long-term effects of FinTech adoption across different regions and demographic groups.

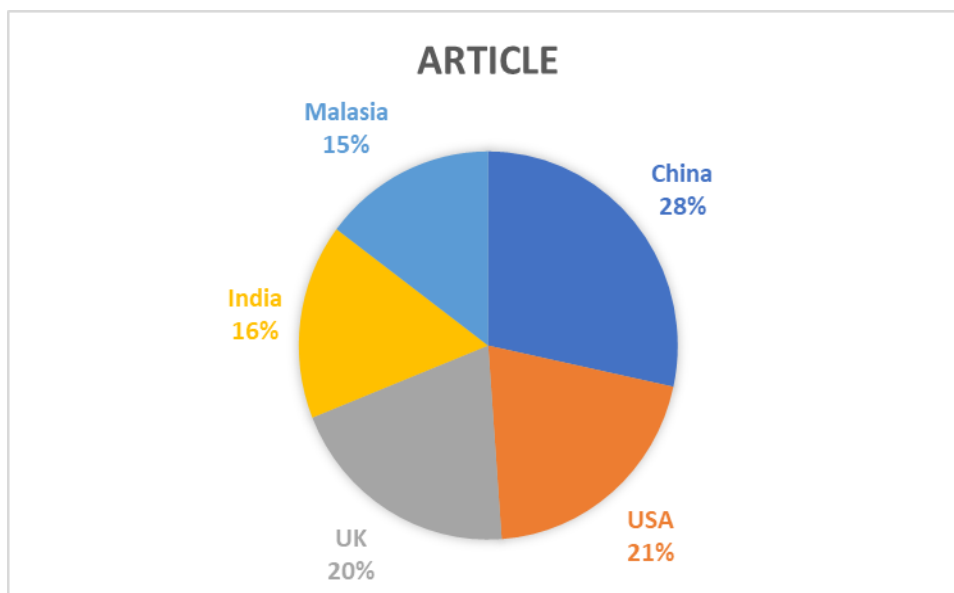


Figure 4: Most Prolific Countries

Figure 4 presents a compelling geographic analysis of research output on FinTech and financial inclusion, revealing distinct regional patterns in scholarly contributions. The visualization highlights China's dominant position as the most prolific contributor, accounting for nearly one-third of all publications in this domain. This leadership reflects China's dual role as both an innovator in FinTech applications and a laboratory for studying digital financial inclusion, driven by its massive mobile payment ecosystems like Alipay and WeChat Pay (Becha et al., 2025).

Following China, the United States and the United Kingdom emerge as significant contributors, though with notably lower output volumes. This pattern suggests that while Western nations maintain a strong academic interest in FinTech's inclusion potential, emerging economies, particularly in Asia, are producing more research due to their first-hand experiences with rapid FinTech adoption and its socioeconomic impacts (Ediagbonya & Tioluwani, 2022). Although not in the top five, Kenya and South Africa are among the top ranks, further underscoring how countries with large unbanked populations are actively contributing to the global knowledge base, offering valuable case studies on mobile money (e.g., M-Pesa in Kenya) and digital banking innovations.

The geographic distribution reveals an important dichotomy: developed nations tend to focus on theoretical and regulatory aspects of FinTech, while researchers from emerging markets predominantly examine practical implementation challenges and inclusion outcomes (Ediagbonya & Tioluwani, 2022). This divergence presents opportunities for greater North-South research collaboration to bridge knowledge gaps. The absence of Latin American countries among the top contributors, despite regions like Brazil's growing FinTech sector, points to potential underrepresentation that future studies could address.

The concentration of research from specific countries correlates strongly with national FinTech adoption rates and government support for digital finance initiatives. China's prominence, for instance, aligns with its "Digital Economy" development strategy, while Kenya's position reflects its global recognition as a mobile money pioneer. This suggests that research productivity may be influenced by both market maturity and policy priorities in financial digitisation.

Table 1: Top Ten Most Relevant Journals and Authors in FinTech and Financial Inclusion

Rank	Journal names	Articles	Publisher	Authors
1	Resources Policy	32	Elsevier	Ozii PK
2	Sustainability (Switzerland)	24	MDPI	Banna H
3	Journal of Risk and Financial Management	16	MDPI	Zhang Y
4	Cogent Economics and Finance	9	Taylor & Francis	Chen X
5	Technological Forecasting and Social Change	8	Elsevier	Li X
6	Digital Policy, Regulation and Governance	7	Emerald Publishing	Liu Y
7	International Journal of Social Economics	7	Emerald Publishing	Setiawan B
8	International Review of Financial Analysis	6	Elsevier	Al-Okaily M
9	Environment And Planning A	5	SAGE	Buckley RP
10	Finance Research Letters	5	Elsevier	Chen L

Table 1 provides a ranked overview of the most influential journals and authors contributing to research on FinTech and financial inclusion in emerging markets. The table highlights key trends in scholarly output, revealing the dominance of certain publishers and the prominence of specific researchers in this rapidly evolving field.

Leading the list is Resources Policy, an Elsevier journal, with 32 articles, followed closely by Sustainability (Switzerland) from MDPI, with 24 publications. The strong presence of these journals underscores the interdisciplinary nature of FinTech research, bridging finance, technology, and sustainable development. Elsevier's prominence with four journals in the top ten reflects its established role in publishing high-impact research on financial innovation. Meanwhile, MDPI's strong showing, particularly with Sustainability and the Journal of Risk and Financial Management, signals growing academic interest in the intersection of FinTech, environmental sustainability, and risk management.

Notable authors such as Ozili (2018) and Banna et al. (2021) appear as leading contributors, suggesting their significant influence in shaping the discourse on FinTech and financial inclusion. Ozili (2018) is frequently cited in top journals, often explores digital finance's impact on inclusion and stability, while Banna et al. (2021) research focuses on sustainable financial systems. The

geographic diversity of authors spanning regions like Asia, Europe, and the Middle East indicates a global academic effort to understand FinTech's role in emerging economies.

The table also reveals a preference for journals that publish empirical and policy-oriented research, such as Technological Forecasting and Social Change and Finance Research Letters. This trend suggests that scholars are not only examining theoretical frameworks but also emphasizing actionable insights for policymakers and financial institutions. The inclusion of journals like Digital Policy, Regulation and Governance further highlights the critical role of regulatory studies in ensuring FinTech's responsible growth.

Table 2: Most cited works

	Year	Author	Title of the Paper	Journal Name	Total Citations	TC per Year	Normalized TC
1	2018	Ozili P. K.	Impact of digital finance on financial inclusion and stability	Borsa Istanbul Review	747	106.71	7.93
2	2017	Gabor and Brooks	The digital revolution in financial inclusion: international development in the fintech era	New Political Economy	425	53.13	3.2
3	2020	Y. Chen and Bellavitis	Blockchain disruption and decentralized finance: The rise of decentralized business models	Journal of Business Venturing Insights	332	66.4	6.74
4	2022	Zhou et al.	The impact of fintech innovation on green growth in China: Mediating effect of green finance	Ecological Economics	284	94.67	12.31
5	2022	Demir et al.	Fintech, financial inclusion and income inequality: a quantile regression approach	European Journal of Finance	252	84	10.92
6	2020	Arner et al.	Sustainability, FinTech and Financial Inclusion	European Business Organization Law Review	250	50	5.07
7	2021	Yang et al.	Nexus between green finance, fintech, and high-quality economic	Resources Policy	237	59.25	7.85

			development: Empirical evidence from China				
8	2020	Mhlanga D	The impact of Artificial Intelligence (AI) on digital financial inclusion	International Journal of Financial Studies	208	41.6	4.22
9	2020	Senyo and Osabutey	Unearthing antecedents to financial inclusion through FinTech innovations	Technovation	189	37.8	3.83
10	2020	Ozili P. K.	Financial inclusion research around the world: A review	Forum for Social Economics	154	38.5	5.1

Source: Data from the Bibilioshiny R Program Author Compilation

Bibliographic Coupling

A bibliographic coupling analysis was performed on highly cited works in FinTech and financial inclusion to pinpoint the main clusters or themes. Prior research indicates that bibliographic coupling methods can identify "hot" research topics and emerging research trends (Jain et al., 2021). This methodology enables the detection of research clusters that are gaining traction, emphasizing the areas currently receiving considerable scholarly interest. By recognizing these trending topics and emerging research avenues, we can steer future inquiries toward the most promising and influential domains, ensuring that subsequent studies align with the latest advancements and gaps in the field (Garcia-Lillo et al., 2020).

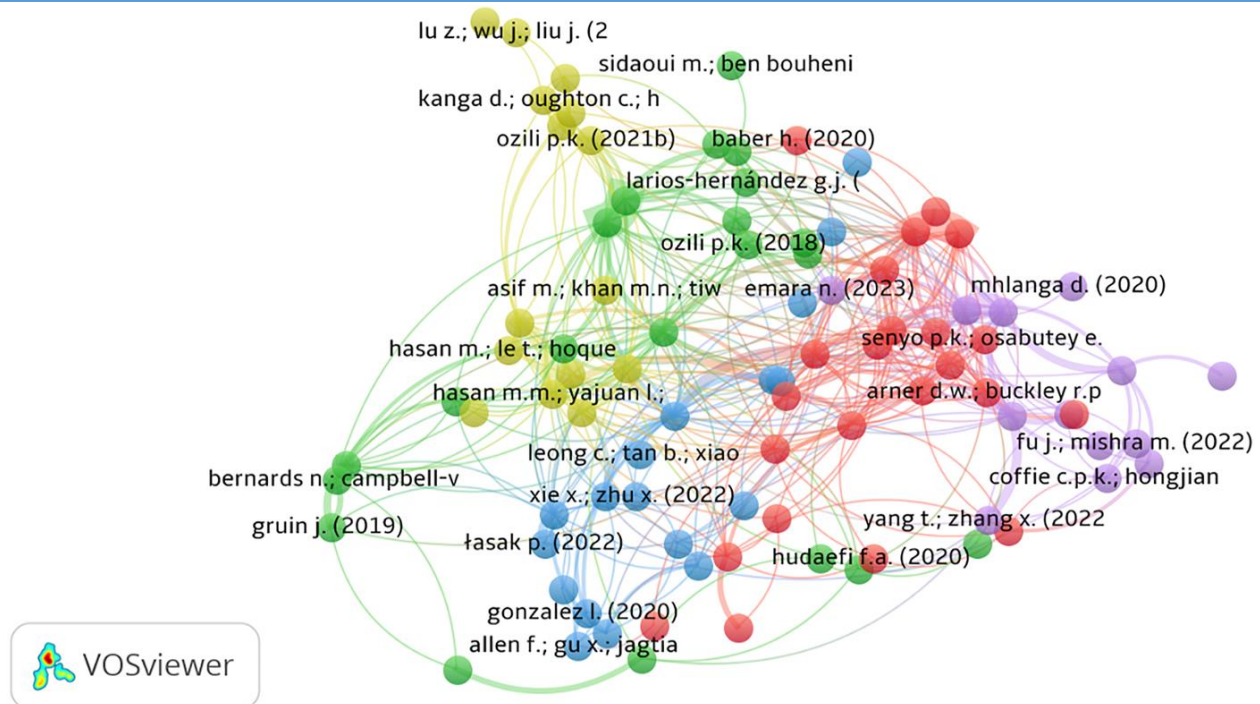


Figure 5: Bibliographic Coupling

Figure 5 displays the findings of the bibliographic coupling analysis. Each node in the diagram symbolizes an author or a group of authors (if they have collaborated on publications), with the size of the node reflecting each author's number of publications or their influence in the field. Larger nodes, like the one representing Ozili (2018), indicate a greater volume of publications or increased influence. The edges that connect the nodes represent the level of bibliographic coupling, with thicker edges denoting stronger connections based on shared citations in their works. For example, the thick edge linking Ozili (2018) and Emara (2022) signifies a high level of shared references, showing a thematic connection or influence between these authors.

This analysis categorized the articles into four primary clusters, as illustrated in Figure 5. Each cluster highlights a unique thematic area that is gaining popularity in the domains of FinTech and financial inclusion. Before exploring the analysis of these clusters, we outline their characteristics in Figure 5, which provides a foundation for understanding the associations and trends among the authors and topics featured in this research.

Cluster 1: yellow. Closing financial gaps for inclusive development. Financial technology (FinTech) is crucial for enhancing access to financial services and supporting sustainable development. Demir et al. (2020) show that FinTech reduces income inequality by increasing financial accessibility, particularly in wealthier nations, aligning with the Agenda for Sustainable Development. Arner et al. (2020) outline four-pillar approach to digital identities, interoperable payment systems, electronic government services, and digital financial markets, emphasizing

FinTech's potential to create inclusive financial systems. In developing countries, Al-Okaily (2023) highlights factors influencing e-loyalty to digital wallets, such as trust and ease of use. Senyo and Osabutey (2020) investigate mobile money adoption, finding that performance and effort expectancy drive user decisions, while perceived risk has less influence. In the UAE, Aloulou et al. (2023) analyse FinTech's role during COVID-19, noting that technology advancements enhance competitiveness. Overall, these studies underscore FinTech's critical role in fostering economic participation, reducing inequality, and promoting sustainable growth, essential for achieving global development goals.

Cluster 2: Green: Technological Progress and Financial Soundness. This cluster explores how FinTech innovations are expanding financial services and promoting stability, particularly in developing countries. Banna et al. (2021) note that while FinTech can lessen banks' risk-taking, it also introduces uncertainties that necessitate regulatory frameworks to balance innovation with financial resilience. Bernards and Campbell-Verduyn (2019) advocate for a nuanced view of how technological advances disrupt existing financial structures. Banna et al. (2022) find that in Sub-Saharan Africa, FinTech enhances microfinance institutions' stability by mitigating risks, especially where traditional banking is lacking. Brandl and Dieterich (2022) show that technology is reshaping payment systems, but reliance on centralized trust may complicate operations, highlighting the need for regulatory scrutiny. Ozili (2018) addresses the dual nature of digital finance, which can enhance access but also presents risks, stressing the importance of context-specific regulatory measures. Overall, this cluster emphasizes the intricate relationship between FinTech, financial access, and systemic stability, advocating for diligent management of its transformative potential to ensure ongoing stability.

Cluster 3: Blue highlights the role of financial technology (FinTech) and information and communication technologies (ICTs) in promoting financial inclusion and sustainability. Allen et al. (2022) emphasize FinTech's broad impact, including cryptocurrencies and central bank digital currencies (CBDCs), with China's e-CNY emerging as a notable digital currency. Leong et al. (2017) explore how digital tools enhance financial services, particularly through microloans for students. Liu et al. (2022) discuss ICTs improving microfinance efficiency via crowdfunding and P2P lending. Ababio et al. (2024) link financial access to renewable energy efforts in developing nations, while Ali and Marisetty (2023) examine FinTech's role in poverty alleviation through crowdfunding and financial education. Overall, this cluster emphasizes the transformative potential of FinTech and ICTs in addressing poverty and enhancing sustainability through innovation and effective regulation.

Cluster 4: Red: Financial Inclusion and Economic Growth in Emerging vs. Developed Markets. This cluster examines the vital role of financial inclusion in fostering economic stability and growth, particularly in emerging markets, compared to developed markets. Increased financial inclusion enhances bank stability, especially for banks dependent on customer deposits, which is

more pronounced in countries with strong institutional frameworks (Ahamed & Mallick, 2017). Emerging markets, often with weaker institutions, can improve financial stability through tailored inclusion policies (Sharif et al., 2022). Such policies benefit marginalized groups, including the impoverished and women, by reducing account fees and ensuring legal protections (Allen et al., 2016).

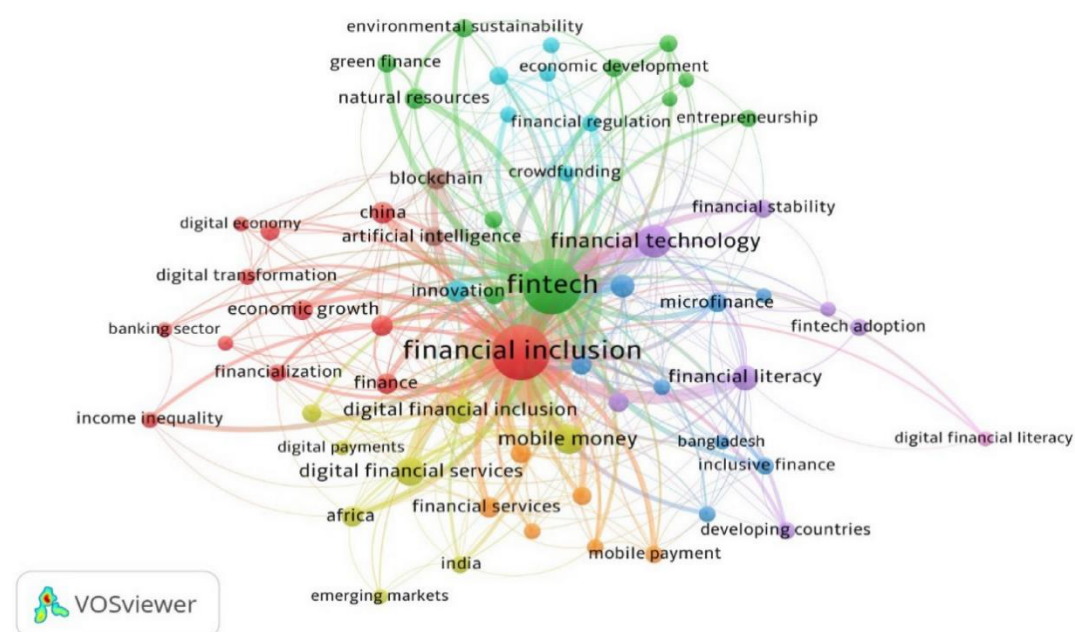
Technology, particularly mobile phones, plays a crucial role in improving financial access in African nations, allowing emerging markets to bypass traditional financial systems (Andrianaivo and Kpodar, 2012). Economic growth is further influenced by institutional changes and wealth distribution, necessitating policies that address initial inequalities for sustainable development (Constantine, 2017). Financial development is key to reducing income inequality, especially in emerging markets where it is more prevalent (Bayar, 2023). Overall, this cluster emphasizes that targeted financial inclusion policies are essential for driving growth and stability, highlighting the differences in needs and challenges between emerging and developed markets.

Cluster 5: Violet: Fintech as a Catalyst for Financial Inclusion in Developing Nations. This collection of articles highlights fintech's crucial role in enhancing financial inclusion in developing countries by addressing challenges like geographic barriers, high costs, and limited financial knowledge. Gabor and Brooks (2017) show how digital ecosystems, supported by fintech and government initiatives, integrate marginalized households into formal finance through behavioral economics. Schuetz and Venkatesh (2020) advocate for blockchain technology to improve financial access in rural India, linking communities to global supply chains. Bernards and Campbell-Verduyn (2019) critique the limited reach of fintech due to inadequate credit scoring systems and users' unstable livelihoods. Gomber et al. (2018) explore fintech's disruptive innovations, emphasizing the challenges traditional institutions face. Lee et al. (2022) provide a historical view of fintech, discussing various business models and the strategic necessity of understanding investments. Ocansey (2025) also explored the dynamic relationship between fintech and financial inclusion. Overall, these articles underscore fintech's potential to transform financial inclusion by offering innovative solutions tailored to local needs, while recognizing the importance of addressing socio-economic inequalities in emerging markets.

Figure 6: World Cloud of Authors' Keywords



Figure 7: Author Keyword Analysis of FinTech and Financial Inclusion Literature



Figures 5 and 6 provide a visual summary of the most commonly used keywords in FinTech and financial inclusion research, offering important insights into the primary themes and conceptual priorities in this area. The prominence of terms such as "financial inclusion," "FinTech," and "digital finance" in the word cloud highlights the main focus of the literature, while associated terms indicate the interdisciplinary characteristics of research in this field.

The key presence of "mobile money" and "digital payments" in the visualization corresponds with the empirical findings mentioned earlier about China's leading role in FinTech research and Kenya's innovative stance in mobile money systems like M-Pesa. These keywords support the geographic analysis from Figure 4, illustrating how practical innovations in emerging markets have become central topics for academic exploration. The strong emphasis on "financial access" and "unbanked populations" further underscores the discipline's focus on addressing exclusion, particularly in developing nations where traditional banking systems are limited (Banna et al., 2021).

Interestingly, the word cloud reveals new sub-themes that go beyond basic access issues. The inclusion of "AI," "blockchain," and "big data" demonstrates a rising academic interest in advanced technologies that are transforming financial services, whereas "regulation" and "policy" underline the essential governance aspects highlighted in Table 1's journal analysis. This technological-regulatory duality reflects the division noted in research outputs at the country level, where developed countries concentrate on theoretical frameworks while emerging economies tackle practical implementation challenges (Ozili, 2020).

The association of "sustainability" and "green finance" with main FinTech terms confirms the interdisciplinary links observed in the journal ranking analysis, particularly the strong presence of Sustainability (Switzerland) among leading publications. This trend indicates that researchers are increasingly investigating FinTech's role in addressing both financial exclusion and environmental issues, a tendency likely to intensify given the climate finance needs of developing countries (Bernards & Campbell-Verduyn, 2019).

Certain notable absences in the word cloud deserve attention. The limited presence of gender-related terms ("women," "gender gap") despite recognized inclusion disparities, along with the absence of keywords related to rural contexts despite the urban-rural digital divide, suggests possible blind spots in the literature. These omissions align with the identified need for further exploration into demographic disparities mentioned in the study's introduction (Bayar, 2023).

The distribution of keywords also reveals methodological preferences in the field. The prominence of "empirical study" and "case study" indicates the prevalence of applied research methods, whereas the relative lack of theoretical framework labels suggests opportunities for more conceptual analysis a finding that is in line with the theoretical gaps highlighted in the study's research questions.

Theoretical Framework

The relationship between financial Technology (FinTech) and financial inclusion can be explained through several theoretical perspectives that highlight how technological innovation influences access to financial services. Among the most relevant frameworks are the Diffusion of Innovation Theory, Technology Acceptance Model, and Institutional Theory.

The Diffusion of Technology Theory explains how new technologies spread within societies and organizations over time. According to this theory, the adoption of innovative technologies depends on factors such as perceived benefits, ease of use, and compatibility with existing systems. In the context of FinTech, innovation such as mobile banking, digital payments, and peer-to-peer lending platforms diffuse across emerging markets as individuals and businesses recognize their potential to improve financial access and reduce transaction costs.

The Technology Acceptance Model (TAM) further explains how individuals adopt new digital technologies. The model suggests that perceived usefulness and perceived ease of use significantly influence user acceptance of technology. FinTech platforms that provide convenient, efficient, and low-cost financial services are therefore more likely to be adopted by previously unbanked populations.

Institutional Theory also provides important insights into the development of FinTech ecosystems. Institutional structures such as regulatory frameworks, government policies, and financial institutions shape the environment in which FinTech innovations emerge and evolve. Supportive regulatory environments and strong digital infrastructure can facilitate FinTech adoption, while weak institutions and restrictive regulations may hinder its development.

Together, these theoretical perspectives provide a foundation for understanding how FinTech innovations can promote financial inclusion by improving accessibility, reducing transaction costs, and overcoming institutional barriers.

3. 3 Key Findings

The study examined the growing body of literature on the relationship between financial technology (FinTech) and financial inclusion in emerging markets through a systematic and bibliometric review of academic publications. The findings reveal a rapidly expanding research landscape, reflecting the increasing importance of digital financial innovations in addressing long-standing barriers to financial access in developing economies. The surge in scholarly interest in recent years is closely aligned with global proliferation of mobile technologies, digital payment systems, and alternative financial service platforms.

One of the key findings of this review is that FinTech innovations play a significant role in expanding financial access for previously underserved populations. Mobile money platforms, digital wallets, and peer-to-peer lending systems have significantly reduced the cost and

geographical barriers associated with traditional banking services. In many emerging economies, mobile money services have enabled individuals in rural or remote areas to access financial products such as payments, savings, and credit without requiring physical bank branches. This development has contributed to improved financial participation among low-income households, small and medium-size enterprises (SMEs), and marginalized groups.

The findings are consistent with previous studies suggesting that digital financial services enhance financial inclusion by lowering transactional costs, improving service efficiency, and increasing the convenience of financial transactions. In particular, mobile money services have emerged as a transformative tool for financial inclusion, especially in regions where traditional banking infrastructure is limited. The widespread adoption of mobile phones has created new opportunities for financial service providers to reach previously excluded populations through digital platforms.

Despite these promising developments, the review also highlights several structural challenges that continue to limit the full potential of FinTech in promoting financial inclusion. One of the most significant challenges is the persistence of digital infrastructure gaps across many emerging economies. Reliable internet connectivity, electricity access, and mobile network coverage remain uneven, particularly in rural and underserved regions. These infrastructural limitations restrict the ability of individuals and businesses to fully benefit from digital financial services.

Another important barrier identified in the literature is the issue of digital and financial literacy. While FinTech platforms may improve accessibility, many potential users lack the knowledge and skills required to effectively utilize digital financial tools. Limited awareness of digital financial services, concerns about security, and unfamiliarity with mobile applications can discourage adoption among certain population groups, especially older adults and individuals with lower levels of education.

Regulatory and institutional challenges also play a critical role in shaping the development of FinTech ecosystems in emerging markets. The rapid pace of technological innovation often outpaces the ability of regulatory frameworks to adapt. As a result, policymakers face the difficult task of balancing innovation with consumer protection and financial stability. Weak regulatory oversight can increase the risk of fraud, data privacy breaches, and cybercrime, which may undermine trust in digital financial services.

Furthermore, the literature emphasizes the importance of collaboration between traditional financial institutions and FinTech firms. Rather than replacing conventional banking systems, many successful FinTech initiatives operate through partnerships that continue technological innovation with established financial infrastructure. Such collaborations can help expand the reach of financial services while ensuring regulatory compliance and risk management.

The findings of the review also reveal important regional variations in FinTech adoption and financial inclusion outcomes. In several African and Southeast Asian countries, mobile money

services have significantly increased financial access among unbanked populations. However, in other regions where regulatory environments are more restrictive or digital infrastructure is less developed, the impact of FinTech on financial inclusion remains more limited. These differences highlight the importance of contextual factors, including regulatory frameworks, technological readiness, and socio-economic conditions.

From policy perspective, the results suggest that governments and regulators play a critical role in facilitating the positive impact of FinTech on financial inclusion. Policies that support digital infrastructure development, promote financial literacy, encourage responsible innovation can significantly enhance the effectiveness of FinTech solutions. Regulatory initiatives such as regulatory sandboxes, open banking frameworks, and digital identity systems may also contribute to a more inclusive and competitive financial ecosystem.

Overall, this study reinforces the view that FinTech represents a powerful tool for expanding financial inclusion in emerging markets. However, technological innovation alone is insufficient to address the complex structural barriers that prevent individuals from accessing formal financial services. Achieving sustainable and inclusive financial development requires coordinated efforts among policymakers, financial institutions, technology providers, and development organizations.

Future research should explore the long-term socio-economic impacts of FinTech adoption in relation to poverty reduction, entrepreneurship development, and economic resilience. Additionally, further studies are needed to examine the emerging technologies such as artificial intelligence, blockchain, and central bank digital currencies, and their potential implications for financial inclusion.

Contributions and Policy Implications

The findings of this study highlight important implications for governments, regulators, and financial institutions seeking to promote financial inclusion through FinTech innovation. Governments should invest in digital infrastructure development, especially in rural and underserved regions. Reliable internet connectivity and mobile network coverage are essential for enabling individuals and businesses to access digital financial services.

Also, policymakers should implement regulatory frameworks that encourage innovation while ensuring financial stability and consumer protection. The regulatory sandboxes can provide a controlled environment for FinTech firms to test new technologies and allow regulators to monitor potential risks.

Further, collaboration between traditional financial institutions and FinTech companies should be encouraged. Strategic partnerships can combine technological innovation with established financial expertise, enabling more exclusive and efficient financial systems.

Finally, policymakers should prioritize inclusive financial policies that specifically target vulnerable populations such as women, small businesses, and rural communities. FinTech solutions designed to meet the needs of these groups can significantly contribute to reducing financial inequality.

Future Research

The systematic review and bibliometric analysis of FinTech and financial inclusion in emerging markets have highlighted several critical gaps in the existing literature that warrant further investigation. Addressing these gaps will deepen the theoretical and empirical understanding of FinTech's role in financial inclusion while providing actionable insights for policymakers, financial institutions, and other stakeholders. Future research should prioritise longitudinal and comparative studies to assess the long-term impact of FinTech adoption across different regions. While current studies often focus on cross-sectional data, tracking the evolution of FinTech's influence over time would offer valuable insights into its sustained effects. Additionally, comparative analyses across diverse emerging markets could reveal how varying socio-economic conditions, regulatory environments, and cultural factors shape FinTech's effectiveness in promoting financial inclusion.

Another significant gap lies in understanding and addressing persistent demographic disparities in FinTech adoption. Despite the expansion of financial access, rural populations, women, older adults, and other marginalized groups continue to face barriers such as limited digital literacy, cultural biases, and infrastructural deficiencies. Future research should explore targeted interventions, including gender-sensitive product design, localized financial education programs, and infrastructure development, to ensure equitable access. Furthermore, the rapid pace of FinTech innovation has outstripped regulatory frameworks in many emerging markets, leading to concerns about consumer protection, fraud, and systemic stability. Research into adaptive regulatory models such as sandbox environments and their effectiveness in fostering innovation while mitigating risks would provide crucial guidance for policymakers.

The role of digital literacy and trust in FinTech adoption also remains underexplored. Many potential users, particularly in underserved communities, hesitate to adopt digital financial services due to a lack of familiarity or skepticism about security and transparency. Future studies should investigate strategies for building trust, such as community-based education initiatives and transparent platform design, to enhance user confidence. At the same time, the integration of advanced technologies like AI, blockchain, and big data into FinTech solutions presents both opportunities and challenges. While these technologies hold promise for improving credit scoring, fraud detection, and financial accessibility, their practical implementation and ethical implications require further empirical examination, especially in low-resource settings.

The broader ecosystem surrounding FinTech including partnerships between FinTech firms, traditional banks, governments, and NGOs also merits deeper exploration. Successful financial inclusion often depends on collaborative efforts, yet the dynamics of these partnerships are not well understood. Research into effective ecosystem models and multi-stakeholder collaborations could uncover best practices for scaling inclusive FinTech solutions. Additionally, while much of the literature focuses on access to financial services, fewer studies examine how FinTech translates into tangible improvements in users' financial well-being, economic resilience, or poverty reduction. Future work should adopt holistic metrics to assess these broader socio-economic impacts.

Theoretical integration is another area requiring attention. The field lacks a cohesive framework that synthesizes insights from economics, sociology, technology studies, and other disciplines to explain FinTech's role in financial inclusion. Developing interdisciplinary models that combine elements from Diffusion of Innovations, Institutional Theory, and the Resource-Based View could provide a more comprehensive understanding. Finally, certain regions such as Latin America and Central Asia remain underrepresented in FinTech research despite growing activity in these markets. Expanding studies to these areas would enhance the generalizability of findings and uncover region-specific insights.

Ethical considerations, including data privacy, algorithmic bias, and exclusionary design, must also be prioritized in future research. As FinTech becomes more pervasive, ensuring that solutions are inclusive and equitable is paramount. By addressing these gaps, scholars can contribute to a more nuanced and actionable understanding of FinTech's potential to drive inclusive and sustainable financial systems in emerging markets. Collaboration across academia, industry, and policymakers will be essential to translate research findings into meaningful real-world impact.

4. Conclusion

This study has systematically examined the evolving landscape of FinTech and financial inclusion in emerging markets through a comprehensive systematic and bibliometric review of existing academic literature. The findings underscore FinTech innovations have significantly transformed financial services landscape by providing new opportunities to expand access to financial products and services for previously underserved populations.

Digital financial solutions such as mobile payments, digital lending platforms, and online banking systems have reduced many of the traditional barriers associated with financial access, including high transaction costs and geographical limitations. As a result, FinTech has emerged as a powerful tool for promoting financial inclusion and supporting economic development in emerging economies.

However, the review has also highlights several persistent challenges that may limit the effectiveness of FinTech solutions. These include digital infrastructure constraints, limited

financial literacy, regulatory uncertainties, and cybersecurity risks. Addressing these challenges requires coordinated efforts among governments, regulators, financial institutions, and technology providers.

The exponential growth in scholarly output since 2019 reflects the increasing recognition of FinTech as a driver of inclusive finance, yet the concentration of studies in certain regions such as China and UK highlights the need for broader geographic representation. The dominance of themes like mobile money, digital payments, and regulatory frameworks in the literature aligns with real-world innovations, but persistent barriers such as low digital literacy, infrastructural limitations, and gender disparities demand further attention. Theoretical frameworks like Diffusion of Innovations and Institutional Theory have provided valuable lenses for understanding adoption patterns, but a more integrated, interdisciplinary approach is needed to capture the full complexity of FinTech's role in financial ecosystems.

In all, the findings suggest that, FinTech has considerable potential to enhance financial inclusion, its success depends on on supportive regulatory frameworks, strong digital infrastructure, inclusive financial policies. Continued research and policy innovation will be essential to ensure that FinTech developments contribute to sustainable and equitable financial systems in emerging markets.

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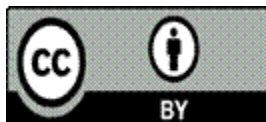
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