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## Bibliometric Analysis of Crowdfunding and Financial Inclusion in Africa

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**Objectives:** This study maps and evaluates research on crowdfunding and financial inclusion in Africa and to identify emerging themes, research gaps, and opportunities for future scholarship and policy development. **Prior Work:** Existing studies highlight the growing role of crowdfunding in expanding access to finance for underserved populations and small businesses. However, comprehensive evidence on the evolution, structure, and knowledge development of crowdfunding and financial inclusion research in Africa remains limited. **Approach:** A bibliometric analysis was conducted using 111 publications indexed in Scopus between 2016 and 2025. The study examined publication trends, citation patterns, institutional and country contributions, keyword co-occurrence, and thematic networks to assess the development of the field. Search terms included “crowdfunding,” “financial inclusion,” and “Africa.” **Results:** The findings show that research on crowdfunding and financial inclusion in Africa is emerging, unevenly developed, and underexplored, with an annual growth rate of 17.46%. Scholarly output is dominated by institutions and researchers from Southeast Asia, particularly Indonesia and India, while African institutions contribute relatively little. South Africa accounts for only a modest share of the literature. Emerging themes include digital finance, financial inclusion, and crowdfunding innovation. **Implications:** African universities, researchers, policymakers, and regulators should strengthen research capacity, foster collaboration, and support transparent and consumer-focused crowdfunding frameworks. **Value:** This study provides the first focused bibliometric overview of crowdfunding and financial inclusion in Africa, offering a robust evidence base and

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identifying future research opportunities in blockchain, decentralized finance, gender dynamics, and cross-country African comparisons.

**Keywords:** Fintech; Digital Financing; Bibliometrix; Digital Platforms; Alternative Finance

**JEL Classification:** G23; G28; L26; O33; O55; C88

## 1. Introduction

Financial inclusion remains a critical challenge in Africa, where the majority of the population and SMEs lack access to formal financial services (Demirgüç-Kunt et al., 2018). Crowdfunding has widely emerged as an alternative innovative financing mechanism that can help entrepreneurs and the marginalized access funds (Belleflamme et al., 2014). Crowdfunding complements the banking and microfinance sectors in Africa, whose levels of credit penetration in the economy and business enterprises remain inadequate (Ismaila, 2023). The four main crowdfunding models are donation-based, reward-based, equity-based, and debt-based (Mollick, 2014). The four main crowdfunding models are donation-based, reward-based, equity-based, and debt-based (Mollick, 2014). Crowdfunding platforms can promote financial inclusion by lowering barriers to entry, leveraging digital technologies, and mobilizing dispersed investors (Nigam Verma, Khan & Mazhar, 2025). Other challenges affecting crowdfunding platforms include regulatory uncertainty, retail investor literacy, and trust in digital platforms (Ziegler et al., 2020). Therefore, bibliometric analysis provides a systematic approach for trend mapping, identifying influential studies, and indicating underdeveloped areas in the research field (Aria & Cuccurullo, 2017). A few bibliometric reviews have focused specifically on crowdfunding and SDGs in Africa (Gálvez-Sánchez et al., 2021). This study provides an evidence-based understanding of how academic discourse on crowdfunding and financial inclusion has evolved and where future research should be focused.

## 2. Background to Study

### 2.1. Global Perspective

Global economic development depends on financial inclusion, yet as of 2026, 1.4 billion adults worldwide, the bulk of whom reside in developing nations, do not have access to banking services (World Bank, 2026; Burnett & Kinder, 2026). Access to digital financial services is growing rapidly, yet issues such as inequality, cybersecurity threats, and regulatory loopholes persist. Due to physical and cultural

hurdles, a sizable portion of the population in South Asia, particularly women, lacks bank accounts. Fintech use is increasing across Latin America, though rural areas remain underserved. High-income nations have almost universal access to financial services despite digital literacy, exclusion, and cyber threats (World Economic Forum, 2024; World Bank, 2026).

## **2.2. Financial Inclusion in Africa**

Although mobile money (like M-Pesa in Kenya) has revolutionized access, Sub-Saharan Africa still has significant rates of exclusion (World Bank, 2023). According to Demirgüç-Kunt et al. (2018), financial inclusion refers to the availability and use of reasonably priced financial services for both individuals and enterprises. Many people in Africa remain excluded despite advances in mobile money and microfinance, particularly in rural areas and among small and medium-sized businesses (SMEs) (Abrahams, 2017). Although government initiatives, such as South Africa's National Development Plan, seek to promote inclusiveness, structural barriers persist. Another way to accelerate financial inclusion for African communities and small- and medium-sized businesses (SMEs) is through crowdfunding.

## **2.3. Crowdfunding as an Alternative Finance Mechanism**

In the low-investment climate of 2008, crowdfunding first appeared in an organized form. Since then, the business has rapidly expanded into a multibillion-dollar enterprise and is expected to exceed \$5 billion that year, funding hundreds of thousands of ventures worldwide. Over the next 25 years, crowdfunding in underdeveloped nations was predicted to grow to \$96 billion annually (World Bank, 2013). The process of soliciting modest sums of money from a large number of individuals, typically via online platforms, is known as crowdfunding (Belleflamme et al., 2014; Mollick, 2014). Donation-based, reward-based, equity, and debt crowdfunding are some of the models. Experts widely acknowledge crowdfunding as a means of promoting innovation and democratizing finance (Ziegler et al., 2020; Ahmed, 2025). However, crowdfunding is still in its infancy in Africa, with few platforms being used and ambiguous laws (Ismaila, 2023).

### 3. Research Problem

Despite the global proliferation of crowdfunding platforms, scholarly discourse has not adequately examined their uptake and impact in Southern Africa (Abraham, 2017; World Bank, 2023). The role crowdfunding plays in promoting financial inclusion in Africa, especially for small businesses and underprivileged people, is not well understood. A comprehensive picture of the intellectual landscape, including the level of research interest and the theme focus, can be obtained through bibliometric analysis.

### 4. Research Objectives

- To analyze publication trends on crowdfunding and financial inclusion in Southern Africa;
- To identify influential authors, institutions, and journals contributing to this field;
- To map thematic clusters and emerging research areas;
- To highlight gaps and propose directions for future research.

### 5. Literature Review

#### 5.1. Crowdfunding and Financial Inclusion

There are four primary crowdfunding models: debt-based, equity-based, reward-based, and donation-based. Reward-based crowdfunding is often used for innovative projects and startups (e.g., Kickstarter), where contributors receive non-monetary rewards in exchange for their pledges, including the product itself. Equity-based crowdfunding is comparable to a public offering, but for startups, it enables anyone to invest in a business and receive shares or equity in exchange for money. Donation-based crowdfunding is where funders donate money to organizations, personal situations, or philanthropic causes without anticipating any tangible or monetary return (e.g., GoFundMe). Debt-based crowdfunding (P2P Lending) is similar to a bank loan, as it allows people to lend money to enterprises that must be paid back with interest over a predetermined period of time (Jenik, Lyman & Nava, 2017; Hyonsu & Lieven, 2017; Havrylchyk, 2018; Mollick, 2014; World Bank, 2013).

Crowdfunding platforms enhance financial inclusion by pooling capital-seeking

players worldwide. Micro, small, and medium enterprises, women entrepreneurs, rural innovators, and the general public are among the players. By connecting these players directly with investors through alternative, online intermediaries, these platforms circumvent conventional banking obstacles (Mbangiswano, Ndlovu & Vuthela, 2025; Agrawal, Catalini & Goldfarb, 2014; Women's World Banking, 2024; World Bank, 2023; Elumelu Foundation, 2025). These channels facilitate financial inclusion in three ways: (i) reducing barriers of entry, for instance, reducing collateral & documentation, democratizing investment, accessing marginalized segments; (ii) utilizing existing digital technologies to reach out, such as, Internet-Based Platforms, integrating blockchain technology to foster trust and integrating mobile money services to facilitate transactions and market penetration; (iii) using social and diaspora networks to mobilize scattered investors through crowd due diligence, which replaces traditional due diligence, enables dispersed diaspora investors to fund projects in their home countries, micro contributions to support social projects or early-stage firms. Therefore, crowdfunding plays a significant role in financial inclusion, as it democratizes access to finance and enables marginalized groups to secure funding regardless of their background. However, the effectiveness of crowdfunding as a tool is hinged on an enabling regulatory regime, robust cybersecurity to safeguard consumers, and increased digital literacy to guarantee that underprivileged people can fully access these tools (Nigam Verma, Khan, & Mazhar, 2025; Ziegler et al., 2020; Jenik, Lyman & Nava, 2017).

## **5.2. Theoretical Framework**

Several theories explain the connection between crowdfunding and financial inclusion. The current study is guided by Institutional theory, financial intermediation theory, and Innovation diffusion theory.

### **5.2.1 Institutional Theory**

Institutional theory helps explain how environmental policies, norms, and pressures influence organizations. Thus, organizations conform to norms, rules, and expectations in their environment to gain legitimacy (DiMaggio & Powell, 1983). This theory will be used to assess how institutional pressures shape the decision to adopt green financing practices, as well as potential drawbacks (e.g., rapid changes in policy compliance and operational constraints). This theory guides the study in explaining how laws and institutional pressures influence the use of crowdfunding

(Scott, 2014). In Africa, weak regulations limit crowdfunding growth and reduce financial inclusion. In addition, Financial Institutions in Africa are adopting crowdfunding initiatives to align with global and local standards, regulations (such as SDG goals and UNDP goals), and societal expectations regarding environmental responsibility.

### **5.2.2. Financial Intermediation Theory**

This theory holds that transaction costs and asymmetric information better explain traditional intermediation but are less satisfactory for explaining the development of financial systems. It implies that increased intermediaries' market dominance has significant ramifications for asset pricing theory. Current asset-pricing theories typically assume that investors directly choose optimal portfolios. Markets may be inefficient if intermediaries make investment decisions on behalf of investors, leading to bubbles and asset prices that deviate from fundamentals. Consequently, CAPM should not be employed, as the high level of intermediation raises the possibility that it may overlook significant aspects of real markets. Therefore, asset pricing and intermediation theories need greater integration, given the significance of intermediaries' activities in financial markets (Allen & Gorton, 1993). This theory presents crowdfunding as an alternative to traditional banks for financial intermediation (Allen & Santomero, 1997). This implies that if alternative intermediaries are used efficiently and effectively in Africa, fewer micro, small, and medium enterprises (MSMEs), women entrepreneurs, rural innovators, and the general public will be financially excluded.

### **5.3.3. Innovation Diffusion Theory**

According to this theory, the adoption of digital platforms is influenced by factors such as infrastructure, literacy, and trust (Rogers, 1962, 2003). Crowdfunding platforms are proliferating across financial institutions, driven by industry leaders, regulators, and early adopters. Adoption rates influence the platform's overall impact and effectiveness in financial inclusion. The more innovative these platforms become, the more African users will support them and increase financial inclusion.

## **5.4. Empirical Evidence**

Previous research on crowdfunding and financial inclusion mainly focused on developed and developing markets, with limited attention to emerging African

nations. Most studies were conducted in Asia, America, Northern America, and Europe (Snyder & Crooks, 2021; Jenik, Lyman & Nava, 2017; Baber, 2021; Buttice & Vismara, 2022; Assadi & Wroldsen, 2023; Lai, 2018; Katseli & Boufounou, 2020; Marakkath & Attuel-mendes, 2015; Tahir, Shahid & Naheed, 2025; Fareed & Viotto, 2025; Boitan, 2016). Few empirical studies have been conducted in Africa, such as in South Africa (Mamaro & Sibindi, 2025; Mamaro & Sibindi, 2022), Morocco (Lamrani Alaoui, El Fakir & Tkiouat, 2024), and Algeria (Babas, 2023). Carè, Fatima, & Agnese (2025) conducted a bibliometric review of 148 articles on crowdfunding and SDGs, covering various United Nations goals, rather than focusing solely on financial inclusion, which is the focus of this study. According to Jenik, Lyman, and Nava (2017), crowdfunding can significantly contribute to financial inclusion by enhancing access to digital credit for unserved and underserved borrowers; creating affordable, community-based insurance products; or facilitating access to digital investments for people with limited or no options to generate financial return. Baber (2021) also found that most European countries have a high proportion of their populations integrated into the formal financial system and can access various financial services provided by these institutions. Halim (2024) examined the role of crowdfunding in digital financial inclusion and developed a standardized measure for comparing financial inclusion levels across economies worldwide, based on a comprehensive analysis of the scholarly literature and empirical data. The study indicates that crowdfunding can support financial inclusion through multiple platforms, including Reward-based Crowdfunding, Community-based Crowdfunding, Segregated Client Model, Notary Model, Guaranteed Return Model, Crowdfunding Asset Securitized Model, Donation-based Crowdfunding, Equity-based Crowdfunding, and Debt-based Crowdfunding. It also shows that Singapore remains the most financially inclusive market. Halem's study identifies a research gap in the bibliometric analysis of crowdfunding's role in promoting financial inclusion in Africa. A related study by Ismaila (2023) notes that crowdfunding has helped SMEs and startups in Africa, but its scale remains smaller than in Asia and Europe. Additionally, research from South Africa indicates that crowdfunding, fintech, and mobile platforms have expanded financial access, but issues such as investor literacy and trust persist (Abrahams, 2017). However, global bibliometric studies on financial inclusion show increasing overlaps between digital finance and alternative funding models, though few focus specifically on Africa (Gálvez-Sánchez et al., 2021). Moreover, there is a lack of bibliometric mapping of research trends in crowdfunding and financial inclusion in Africa, particularly

regarding themes such as gender inclusion, rural adoption, and cross-country comparisons.

### 5.5. Conceptual Framework

The study's conceptual framework is shown in Figure 1.

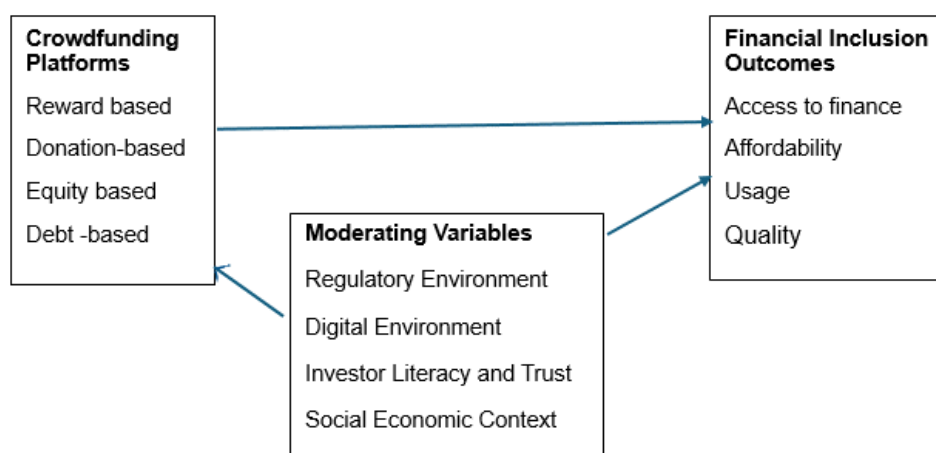


**Figure 1. Conceptual framework**

*Source: Own analysis (2026)*

Figure 1 shows how the various forms of crowdfunding (reward-based, donation-based, equity-based, and debt-based) affect the outcomes of financial inclusion (access to financing, affordability, usage, and quality), with these effects moderated by the digital and regulatory environments, investor trust and literacy, and the social and economic context. This framework suggests that crowdfunding's influence is highly dependent on the surrounding environment and that it is not inherently inclusive. For crowdfunding to result in significant financial inclusion, robust regulation, internet connectivity, investor education, and socioeconomic support are necessary.

### 6. Materials and Methods

Research design is a quantitative bibliometric study that is well known for analyzing large volumes of scholarly literature and revealing trends in research output, collaboration, and the development of the field (Aria & Cuccurullo, 2017). The

synthesis of knowledge in new and emerging areas of development, such as crowdfunding and financial inclusion, is a particular task best performed using bibliometric methods. A bibliometric analysis is a quantitative study of academic publications that examines trends, citations, and collaborations (Ozturk, Kocaman & Kanbach, 2024). It is an essential technique that measures the scientific outputs of different items and examines how the intellectual, social, and conceptual structures of the relevant field have progressed over time. This method tracks research impact using metrics such as citation counts and the h-index (Ahmed et al., 2023; Donthu et al., 2021). Bibliometric reviews employ modern tools that include Scopus, Web of Science, and Bibliometrix (Ozturk, Kocaman & Kanbach, 2024; Mukherjee et al., 2022). According to Kraus et al. (2024), bibliometric analysis enables a systematic and comprehensive understanding of the de facto structure in any field, evolutionary nuances of the field, identifying the research clusters that form the field, capturing emerging trends, and getting a broad perspective on the concepts that are the focus of the field and their relationships. Bibliometric analysis helps identify influential studies and emerging themes within the field of study (Verma & Gustafsson, 2020). This approach has grown alongside the increase in the number and volume of digital databases and big data analytics, as it complements systematic reviews with statistical inference (Ozturk, Kocaman & Kanbach, 2024, citing Linnenluecke et al., 2020). This study employs both thematic and bibliometric analysis to investigate research developments and the evolution of themes in crowdfunding and financial inclusion in African literature. Data were obtained from the Scopus database, one of the largest science databases and known for its extensive coverage and as the second-largest comprehensive citation database (Zhu & Liu, 2020; Prancutė, 2021), making the database ideal for identifying research areas that are inadequately addressed and it has a high level of coverage of peer-reviewed journals and can be used with bibliometric software tools (Donthu et al., 2021). Moral-Muñoz et al. (2020) selected the Scopus database because it can export up to 20,000 items in a single file, which is why it was considered in this study. The keywords and phrases selected for the search criteria are shown in Table 1.

**Table 1. Study keywords and Phrases**

|   |                     |
|---|---------------------|
| 1 | Crowdfunding        |
| 2 | Financial inclusion |
| 3 | Africa              |

*Source: Researcher's Own Analysis (2026)*

The keywords and phrases selected for the search are “crowdfunding,” “financial inclusion,” and “Africa.” These keywords were derived from the topic and research focus area as supported by the theoretical framework. A Boolean approach, as provided by the Scopus search engine, was used to refine the literature search. A Boolean search in bibliometric reviews uses logical operators (ALL, AND, OR, NOT) to refine literature queries. It enhances precision when retrieving relevant publications from databases (Wang, Derakhshan & Zhang, 2021). The initial search result for “All fields” (crowdfunding AND financial inclusion AND Africa) produced 937 documents.

Since crowdfunding and financial inclusion are multidisciplinary topics, the study included all crowdfunding platforms and various subject areas of financial inclusion from the Scopus database. The objective of addressing the role of crowdfunding in promoting financial inclusion in Africa guided the study to use only English, apply a filter to exclude Spanish and Korean, and include all document types except conference proceedings and papers under review in the search results. The researcher applied a language filter to sample articles for alignment, as they only understand English. The search result was adopted in its raw state, without any filters such as accessibility type, period, authors, document type, source title, publication stage, affiliations, funding sponsors, country/territory, or source type. After considering the “Article type, Abstract and Keywords” and excluding “Spanish” and “Korean”, the study was left with 111 articles. To allow future reference and adjustment, the researcher saved the final list of results in the Scopus portal. The study eliminated redundant data in the database. The researcher sampled the titles and abstracts of these articles to ensure alignment with research on crowdfunding and financial inclusion in Africa. They exported the metadata (authors, titles, abstracts, keywords, citations) in BibTeX format for analysis. The data was processed using RStudio Bibliometrix software (Aria & Cuccurullo, 2017). The researcher conducted performance analysis to identify the most prolific countries, subject areas, institutions, production per year, and authors. Then, the researcher generated a science-mapping visual presentation using Biblioshiny (Van Eck & Waltman, 2010). The Bibliometrix analysis focused on document citations, co-citations, and, lastly, co-occurrence analysis. This procedure generates linkages amongst articles centered on common references. Bibliometrix also useful in uncovering the underlying structure of key clusters or themes (Ozturk, Kocaman & Kanbach, 2024; Mukherjee et al., 2022), thereby providing the intellectual foundation for crowdfunding and financial inclusion in Africa. However, other pertinent research may not be listed in

Scopus, especially regional studies. Also, the number of citations can underestimate scholarly impact because of the reduced time available to collect citations in recent pieces.

## 7. Findings

This section presents and discusses descriptive statistics of the study towards the nexus between crowdfunding and financial inclusion in Africa

### 7.1. Data Overview

This section presents the data overview, which includes the period covered by the search, data sources, citations, production growth rate, and document type, as shown in Table 2 overleaf.

**Table 2. Distribution of the main information about the data**

| Description                     | Results   | Description                    | Results |
|---------------------------------|-----------|--------------------------------|---------|
| Timespan                        | 2016:2026 | <b>AUTHORS COLLABORATION</b>   |         |
| Sources (Journals, Books, etc.) | 97        | Single-authored docs           | 29      |
| Documents                       | 111       | Co-Authors per Doc             | 2.9     |
| Annual Growth Rate %            | 17.46     | International co-authorships % | 28.83   |
| Document Average Age            | 3.27      | <b>DOCUMENT TYPES</b>          |         |
| Average citations per doc       | 10.71     | Article                        | 66      |
| References                      | 3001      | Book                           | 9       |
| <b>DOCUMENT CONTENTS</b>        |           | Book chapter                   | 25      |
| Keywords Plus (ID)              | 375       | Conference paper               | 11      |
| Author's Keywords (DE)          | 315       |                                |         |
| <b>AUTHORS</b>                  |           |                                |         |
| Authors                         | 299       |                                |         |
| Authors of single-authored docs | 29        |                                |         |

*Source: Own Analysis from Biblioshiny 5.0*

Table 2 shows that there has been little growth in publications on the nexus between crowdfunding and financial inclusion, with only 111 documents retrieved from the Scopus database search delimited to the period ranging from 2016 to 2025. This volume comprises a relatively modest body of work when juxtaposed with the extensive literature on crowdfunding. For example, Aziz et al. (2023) analyzed 1,156

Scopus-indexed crowdfunding-related publications, revealing a substantial global expansion in crowdfunding research. The comparatively limited number of documents in this study, therefore, indicates that the nexus between crowdfunding and financial inclusion, particularly in the African context, warrants further investigation. These documents came from 97 sources, which encompass journals and books. The annual growth rate of document production of 17.46% suggests that the field or dataset under study is growing rapidly. For comparison, most scientific domains grow at single-digit rates annually. This growth often reflects increasing interest, funding, and collaboration in the area. It may also indicate that the topic is emerging or becoming a “hotspot” in scholarly communication. Compared with global averages (often around 4-8% across many disciplines), 17.46% is significantly above average, highlighting exceptional dynamism. Therefore, a 17.46% annual growth rate (AGR) signals rapid expansion and rising scholarly attention on crowdfunding and financial inclusion in Africa (Bornmann, Haunschild & Mutz, 2021). However, this rate should be considered alongside other bibliometric indicators (for instance, citation impact, h-index trends, collaboration networks) to avoid overestimating growth driven by quantity rather than quality. This AGR reinforced the document's average age of 3.27, indicating that research in this area is relatively recent, with most studies published within the past 3 years, reflecting an emerging, actively developing field. The corpus collectively cited 3001 references, equating to approximately 27 references per document. The datasets shows an average of 10.71 citations per document, indicating that publications in crowdfunding and financial inclusion have attracted substantial scholarly attention. Despite the document's relatively young age, the citation rate suggests strong academic interest and the field's growing relevance. Therefore, it has a significant academic influence in the African context.

The results in Table 2 reveal that 299 authors produced 111 documents under consideration, implying that each author published an average of 2.63 documents. Out of the total of 111 documents produced, 29 documents were single-authored. These findings align with prior bibliometric analyses of collaborative research patterns in both financial inclusion and crowdfunding. For example, Babas (2023) observed an increasing academic focus on crowdfunding's role in advancing financial inclusion, especially through interdisciplinary and collaborative research initiatives. The average of 2.9 co-authors per document indicates a moderate level of collaboration within the crowdfunding and financial inclusion area. Most publications are produced by small research teams, suggesting active but

decentralized scholarly engagement. This pattern aligns with an emerging research area characterized by growing interest, knowledge sharing, and manageable team sizes rather than large-scale collaborative groups. International co authorships account for 28.83% of all publications, indicating a moderate degree of cross border collaboration within the field. The 111 documents consist of 66 peer-reviewed articles, 9 books, 25 book chapters, and 11 conference papers. The papers under review and conference proceedings were excluded because such publications often introduce bias due to their high citation counts. Moreover, proceeding papers are considered as knowledge that is still being developed, and they may duplicate or overlap when converted into articles (Ozturk, Kocaman & Kanbach, 2024). The moderate number of peer-reviewed journal articles indicates an emerging, growing discipline.

## 7.2. Distribution of Documents Production

Figure 2 presents the exponential growth in scholarly output within crowdfunding and financial inclusion in Africa during the period 2016 to 2026.

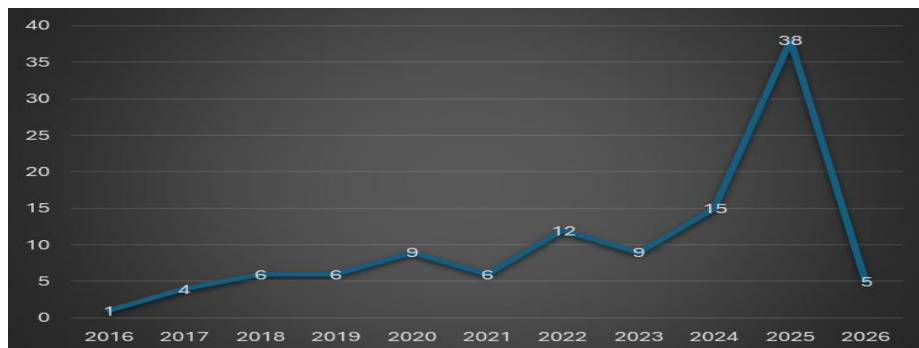


**Figure 2. Annual document production**

*Source: Own Analysis using MS Excel (2026)*

Figure 2 shows a gradual increase in annual production, starting with a single article in 2016. There are notable peaks of 9 and 12 articles in 2020 and 2022, respectively, and declines to 6 and 9 articles in 2021 and 2023, respectively. The output peaks at 25 articles in 2025, then drops to 5 in 2026. From 2016 to 2018, a modest start, with gradual growth from 1 to 6 articles, suggesting that crowdfunding and financial inclusion were still gaining traction. Then, from 2019 to 2021, it plateaued at around 6 articles per year, showing stability but no major expansion. Period 2022 to 2024,

noticeable acceleration, jumping from 12 to 15 articles, indicating increased productivity, possibly due to more contributors, funding, or institutional support. In 2025, a dramatic surge to 38 articles marked the peak of output. This could reflect a breakthrough year, perhaps a special issue, collaborative projects, or heightened interest in crowdfunding and financial inclusion. From 2026 to date: Only 5 articles, which is significantly lower. Since the year is still in progress, this may simply reflect incomplete data rather than a decline. Therefore, the overall trajectory is upward, with clear evidence of growth and expansion in research activities in crowdfunding and financial inclusion. The observed upward trend in publications pertaining to crowdfunding and financial inclusion aligns with empirical evidence documented in existing literature. Gálvez-Sánchez et al. (2021) identified substantial growth in financial inclusion research in recent years, propelled by escalating interest in fintech, digital finance, microfinance, and other innovative financial mechanisms designed to mitigate financial exclusion. They additionally noted that this domain has garnered significant attention from researchers, institutions, and policymakers globally. The 2025 spike stands out as an exceptional year worth further investigation. The surge might be due to new research focusing on crowdfunding and financial inclusion, which gained popularity as a powerful tool for achieving the United Nations Sustainable Development Goals (SDGs), especially in regions like Africa, where traditional finance often excludes small businesses and vulnerable groups. Together, these mechanisms democratize access to capital, foster innovation, and reduce inequality, but they require strong regulation, robust digital infrastructure, and inclusive policies. The increase may also be attributed to conferences, new funding initiatives, and global emphasis on economic inclusivity (Van Niekerk, 2020). The 2026 dip should be interpreted cautiously as it may normalize by year-end.

### **7.3. Most prominent Sources**

The most prominent data sources unveiled by the study on crowdfunding and financial inclusion in Africa are shown in Figure 3.

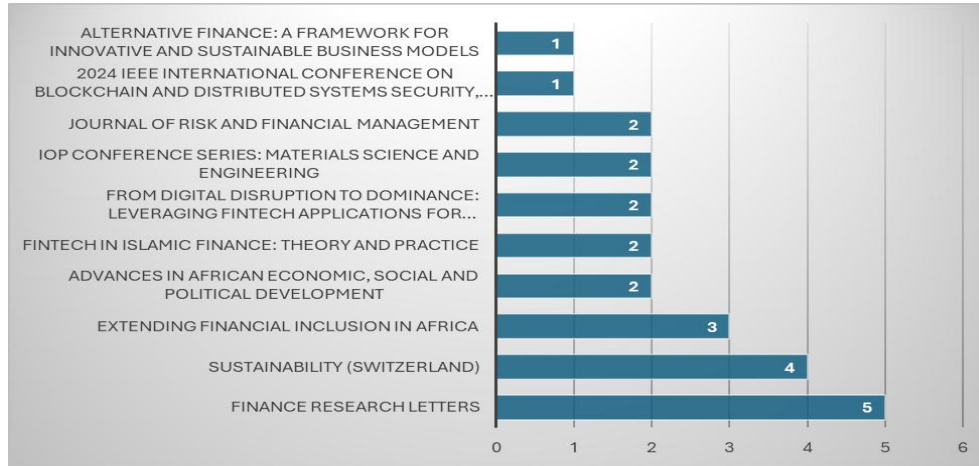


**Figure 3. Most Relevant Sources**

*Source: Own Analysis using MS Excel (2026)*

Figure 3 above indicates that 5 articles come from ‘Finance Research Letters’. This is the leading outlet, showing strong alignment with mainstream finance research. It suggests that crowdfunding and financial inclusion have gained traction in established, peer-reviewed journals. (Gálvez-Sánchez et al., 2021). ‘Sustainability (Switzerland)’ has 4 articles. In comparison, ‘Extending Financial Inclusion in Africa’ has 3 articles, indicating a regional and developmental focus that emphasizes the role of crowdfunding in addressing inequality and improving access to financial services. ‘Advances in African Economic, Social and Political Development’ includes 2 articles that strengthen the African development angle, demonstrating that the research is not only technical but also socioeconomic. ‘Fintech in Islamic Finance: Theory and Practice,’ with 2 articles, indicates niche specialization, connecting crowdfunding with Islamic finance principles. The article ‘Digital Disruption to Dominance: Leveraging Fintech Applications for Sustainable Growth’ includes 2 articles that suggest thematic work on crowdfunding’s transformative potential for growth and sustainability. ‘IOP Conference Series: Materials Science and Engineering’ has 2 articles, while ‘Journal of Risk and Financial Management’, with 2 articles, takes a risk-management perspective, focusing on regulatory and financial stability issues. Finally, ‘2024 IEEE International Conference on Blockchain and Distributed Systems Security’ with a solo article represents cutting-edge, technical contributions in blockchain and security. Therefore, the dominant themes are finance, sustainability, and financial inclusion, with Africa as a recurring regional focus. There is a blend of mainstream journals (Finance Research Letters,

Sustainability) and specialized/niche outlets (Islamic finance, African development, blockchain security), showing both breadth and depth. Overall, the sources reflect a multi-dimensional research landscape: traditional finance, sustainable development, regional inclusion, niche financial systems, and technological disruption.

#### 7.4. Most Productive Authors

The most relevant authors have been considered in the study to show the top contributors towards fintech and financial inclusion in Africa. Figure 4 ranks the top 10 authors from a cohort of 299 researchers. The ranking was based on both full and fractional counts. According to Larivière et al. (2021), a "full count" approach gives each co-author full credit for the publication, while the "fractionalized count" approach divides the credit for the publication equally among all co-authors. The authors' ranking was based on each author's production, as shown in Figure 4.

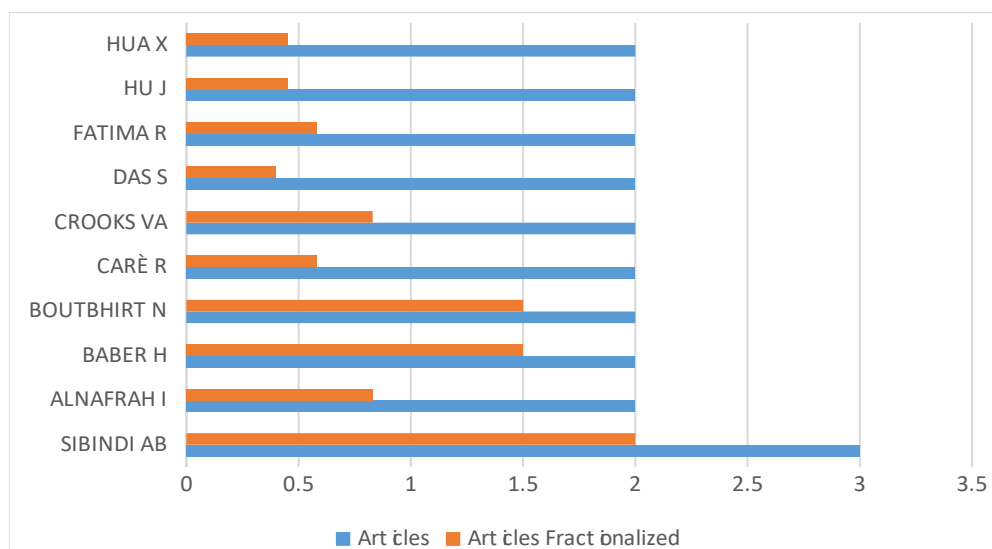


**Figure 4. Most relevant authors by production**

*Source: Own Analysis using MS Excel (2026)*

Figure 4 shows the Sibindi AB leads with 3 articles (fractionalized count 2.00), implying that Sibindi has the highest overall output and a strong share of sole or lead authorship. The author is the most prolific and has a significant individual contribution, suggesting leadership in crowdfunding and financial inclusion. Baber H and Boutbhirt N have 2 articles, each with a fractionalized score of 1.50, indicating

strong involvement, likely as lead or primary authors in at least one paper. Carè R, Das S, Hu J, and Hua X have lower fractionalized scores (0.40–0.58), indicating their contributions are more collaborative and involve smaller shares per paper. Other authors (Alnafrh I, Baber H, Crooks VA, Fatima R) each contributed 2 articles, and their fractionalized counts vary, reflecting whether they were lead or co-authors. The spread of fractionalized values shows a mix of lead authorship vs. supporting roles, which is typical in interdisciplinary or collaborative fields. Overall, the authors' landscape is dominated by one leading contributor (Sibindi AB), supported by a broad base of co-authors who contribute consistently but often in shared roles. There is also a greater discrepancy between full count and fractionalized count, which confirms that the field of crowdfunding and financial inclusion is collaborative in Africa, with a few central figures driving output and many others contributing in partnership.

### 7.5. Most Relevant Institutions

Institutional prominence was indicated by the number of documents each institution produced. The results of the most prominent Institutions in crowdfunding and financial inclusion in Africa are presented in Figure 5.

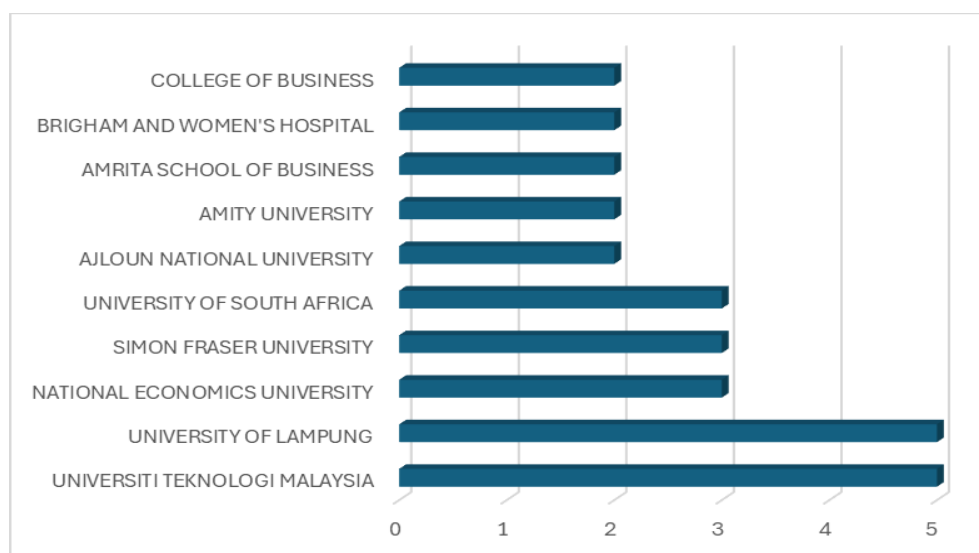


**Figure 5. Most Relevant Institutions**

Source: Own Analysis using MS Excel (2026)

Figure 5 shows that Universiti Teknologi Malaysia and the University of Lampung have 5 articles each, making these two institutions the most prolific contributors, with the University of Lampung accounting for the most publications. Their strong presence suggests they are central hubs and epicenters for the research on crowdfunding and financial inclusion. This finding aligns with prior bibliometric analyses, which consistently demonstrate that research in financial inclusion tends to be concentrated within a limited number of highly productive institutions, rather than being uniformly distributed across various geographical regions. For example, Gálvez-Sánchez et al. (2021) identified Makerere University in Uganda as the leading institution in terms of output within the broader financial inclusion literature, thereby illustrating the significant role of institutional concentration in influencing the trajectory of research development. Similarly, Ekasari (2022) observed that a significant proportion of the most impactful authors in financial inclusion research were associated with Makerere University Business School, further underscoring the concentrated influence of a select group of institutions in shaping academic contributions and collaborative frameworks.

National Economics University, Simon Fraser University, and the University of South Africa each have 3 documents, indicating that these universities form the second tier of contributors and demonstrate consistent engagement and international diversity (Vietnam, Canada, South Africa). Therefore, there is much research on crowdfunding and financial inclusion in Africa, as only 3 of 111 (2.70%) of the total global documents are produced in South Africa. This clearly indicates a research gap for future researchers. This finding corroborates prior bibliometric evidence, which indicates a predominance of financial inclusion research output from countries such as India and other Asian nations, alongside a comparatively lower contribution from African countries (Singh & Bhall, 2025).

Gálvez-Sánchez et al. (2021) identified India as the most prolific country in financial inclusion research; a subsequent bibliometric study similarly concluded that India maintains its position as the leading contributor to this domain. Ajloun National University, Amity University, Amrita School of Business, Brigham and Women's Hospital, and the College of Business each have 2 articles, indicating that these affiliations represent a broad mix of regions and disciplines, contributing moderately while adding to the research's global and interdisciplinary nature. Therefore, the research on crowdfunding and financial inclusion is anchored in Southeast Asia (Malaysia and Indonesia), but with fair international participation from Africa, North America, and other regions. This points to a globally interconnected research

community, where regional leaders drive output while international partners broaden the scope and impact. Moreover, the spread across continents (Asia, Africa, North America) reflects the international scope of crowdfunding and financial inclusion, with contributions from both developing and developed economies. The results underscore the need for African academia to advance this knowledge domain as it seeks to address the SDGs and resolve the access to finance for the majority of the African population.

### 7.6. Most prominent countries in Crowdfunding and Financial inclusion in Africa

The analysis was done based on the number of documents produced by each country for the period under study. According to Whetsell (2023), multi-country publication percentages indicate a propensity for global research partnerships. The results of the most prominent countries in crowdfunding and financial inclusion in Africa are shown in Table 3.

| Country        | Articles | Articles % | Single Country Publication | Multi-Country Publication | Multi-Country Publication % |
|----------------|----------|------------|----------------------------|---------------------------|-----------------------------|
| INDONESIA      | 8        | 7.21       | 6                          | 2                         | 25                          |
| INDIA          | 7        | 6.31       | 6                          | 1                         | 14.29                       |
| UNITED KINGDOM | 6        | 5.41       | 2                          | 4                         | 66.67                       |
| CHINA          | 5        | 4.50       | 3                          | 2                         | 40                          |
| ITALY          | 5        | 4.50       | 3                          | 2                         | 40                          |
| MALAYSIA       | 4        | 3.60       | 1                          | 3                         | 75                          |
| CANADA         | 3        | 2.70       | 3                          | 0                         | 0                           |
| SOUTH AFRICA   | 3        | 2.70       | 3                          | 0                         | 0                           |
| USA            | 3        | 2.70       | 3                          | 0                         | 0                           |
| AUSTRALIA      | 2        | 1.80       | 2                          | 0                         | 0                           |
| FRANCE         | 2        | 1.80       | 1                          | 1                         | 50                          |
| KOREA          | 2        | 1.80       | 1                          | 1                         | 50                          |
| MOROCCO        | 2        | 1.80       | 1                          | 1                         | 50                          |
| NORWAY         | 2        | 1.80       | 1                          | 1                         | 50                          |
| PAKISTAN       | 2        | 1.80       | 1                          | 1                         | 50                          |
| SPAIN          | 2        | 1.80       | 1                          | 1                         | 50                          |

**Table 3. Most prominent countries by document production**

*Source: Own Analysis using MS Excel (2026)*

In terms of the production Levels, Table 3 shows that Indonesia (8 articles, 7.21%) and India (7 articles, 6.31%) are the top producers, showing strong regional leadership in crowdfunding and financial inclusion. The United Kingdom (6 articles, 5.41%) follows closely, notable for its high level of international collaboration, with 4 multi-country publications. China and Italy (5 articles each, 4.50%) represent important contributions from Europe and Asia. This pattern aligns with the observations of Gálvez-Sánchez et al. (2021), who noted a geographical concentration of financial inclusion research in a limited number of highly productive nations, while contributions from numerous developing regions remain sparse. Their findings indicate that countries possessing robust financial technology ecosystems and proactive financial inclusion policies generally exhibit greater research output. Other countries (Malaysia, Canada, South Africa, USA, Australia, France, Korea, Morocco, Norway, Pakistan, Spain) contribute smaller but meaningful shares, reflecting a broad global spread, with Malaysia having the highest multi-country publications among these countries. This finding is supported by Ismaila (2023), who noted that crowdfunding research and practice in Africa remain underdeveloped despite the continent's substantial need for alternative financing mechanisms. The limited number of studies from African countries suggests that crowdfunding and financial inclusion remain emerging research areas, creating opportunities for future scholarly investigation.

In terms of collaboration patterns, Table 3 shows that Indonesia and India have the highest number of single-country publications (6 each), indicating that most of their output is domestically driven. Their multi-country collaboration rates (25% and 14.29%) are relatively low, suggesting strong national research bases but limited international partnerships. United Kingdom: Stands out with 66.67% multi-country publications, showing it is highly collaborative and often involved in international projects. Even though Malaysia is more prominent with 75% of publications being multi-country, most of its research is produced through international collaboration. Gálvez-Sánchez et al. (2021) observed that collaboration among countries, institutions, and researchers has played a significant role in the expansion of financial inclusion research globally facilitates knowledge exchange, resource sharing, and access to diverse research contexts.

China & Italy have balanced profiles with 40% of their work being multi-country, showing moderate collaboration. Canada, South Africa, the USA, and Australia have 0% multi-country publications, meaning their contributions are entirely domestic. This suggests strong local research in crowdfunding and financial inclusion but

limited global integration. Other countries (France, Korea, Morocco, Norway, Pakistan, Spain) have 50% of their publications in multi-country settings, reflecting a healthy balance between domestic and international work. These results underscore the importance of international collaboration as a major ingredient for enhancing research output on crowdfunding and financial inclusion in Africa.

### 7.7. Analysis of Thematic Map

The thematic map was derived from the ‘article title, abstract, and keywords’ co-occurrences that identified three themes: crowdfunding, fintech, and financial inclusion. The keyword occurrence was presented in a two-dimensional plot, with relevance degree (also known as centrality) on the x-axis and development degree (also known as density) on the y-axis. Centrality (x-axis) measures how important or connected a theme is to other themes. High centrality suggests that the theme is important, influential, and well-integrated into the field (Xu & Ma, 2021; Min, 2025). Density measures the internal strength and development of a theme. High density implies that the theme is mature, with a well-developed body of research and strong ties among its publications (Min, 2025; Cobo et al., 2011). Each bubble on the map represents a distinct research theme or topic within the dataset. The position and size of the bubbles are determined by two matrices: centrality (x-axis) and density (y-axis). The small size of the bubble suggests that the themes have not been extensively covered and still have room for further research, especially regarding Africa. The results of the thematic map are shown in Figure 6.

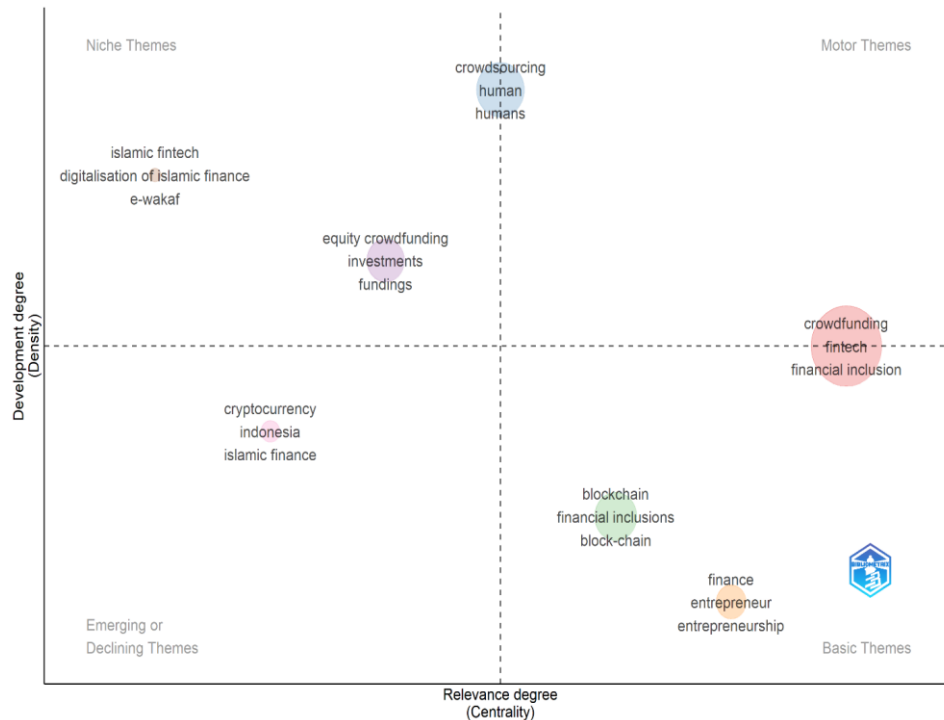


**Figure 6. Thematic map**

*Source: Processed by Biblioshiny 5.0 (2026)*

Figure 6 indicates that the bubble, which contains the themes ‘crowdfunding, fintech, and financial inclusion’, lies on the centrality line (x-axis). The bubble is comparatively larger, motor-themed, and has high centrality and low density. The high centrality of these themes suggests they are closely connected to other topics in the research field. They are important, influential, and widely relevant. In other words, crowdfunding, fintech, and financial inclusion are central to the discourse and act as bridges linking different research areas. Gálvez-Sánchez et al. (2021) similarly reported that research concerning financial inclusion is progressively concentrating on digital finance, financial technology (fintech), and innovation, underscoring the pivotal role these elements play in influencing modern financial infrastructures. Nevertheless, their investigation also revealed a deficiency in theoretical consolidation among numerous nascent themes, suggesting that scholarly inquiry in these domains remains in an developmental stage. Similarly, Singh and Bhall (2025) identified finance, fintech, and financial inclusion as foundational components of the intellectual framework within financial inclusion research.

However, they highlighted substantial opportunities for further conceptual and empirical advancement in these areas. The current study's findings thus reinforce prior empirical observations that crowdfunding and fintech have emerged as critical cornerstones of financial inclusion scholarship, despite their continued relative fragmentation and underdeveloped theoretical grounding.

However, the low density suggests that, despite being central, these themes are not internally well-developed. The body of research around them is still thin, fragmented, or lacks depth. They may not yet have a strong, cohesive theoretical or methodological foundation. Implications for the research area are that crowdfunding and financial inclusion are recognized as crucial, but the scholarship is still in its early stages. This signals a research gap. Because they are central yet underdeveloped, these themes offer fertile ground for future studies on crowdfunding and financial inclusion in Africa. Researchers can build frameworks, conduct empirical studies, and strengthen theoretical bases in the nexus between crowdfunding and financial inclusion. Their high centrality also suggests they intersect with many domains (finance, technology, development studies, and sustainability). This opens opportunities for cross-disciplinary collaboration. The lack of density implies that academic work has not yet caught up with practical importance. Policymakers and practitioners may be driving interest, but researchers have not fully systematized the knowledge. Therefore, crowdfunding and financial inclusion are core but immature themes in the field. They are central to ongoing debates but lack depth, making them prime areas for future exploration. For scholars, this means there is significant room to shape the field, close gaps, and establish foundational research that can guide both academic and practice.

The second bubble that contains 'crowdsourcing, human and humans' themes also lies on the development degree line (y-axis), implying that these themes have high density and low centrality. These themes are well developed, specialized, and established, also called niche areas, but with low connection and isolated from the research field. A low centrality score suggests that the themes are of low importance or have limited interaction with the broader field of crowdfunding and financial inclusion in Africa.

The other bubbles with themes 'Equity crowdfunding, investments and fundings' and 'Islamic fintech, 'Digitalization of Islamic finance' and 'e-wakaf' lie in the upper left quadrant, implying low centrality but high density. These themes are internally strong and well-developed, but not well-connected to other themes. They are

specialized or niche topics. However, the earlier themes are less central than the later ones, and vice versa in terms of density. The themes ‘Equity crowdfunding, investments and fundings’ are more connected to the field than ‘Islamic fintech, ‘Digitalization of Islamic finance, and ‘e-wakaf’ themes. Even though both themes are well established, the ‘Equity crowdfunding, investments and fundings’ themes are less developed compared to the ‘Islamic fintech, ‘Digitalization of Islamic finance’, and ‘e-wakaf’ themes.

The smallest bubbles with themes ‘Cryptocurrency, Indonesia, and Islamic finance’ lie in the lower-left quadrant, with low centrality and low density. These themes are weakly developed and marginal. These themes may be new topics just starting to gain attention or older ones losing relevance. There is a need for more research on these areas to increase their popularity and move them into other quadrants. Finally, the other two bubbles with themes ‘Block chain, financial inclusions, and blockchain’ and ‘finance, entrepreneur, and entrepreneurship’ lie in the lower-right quadrant, indicating high centrality but low density. These are important and widely connected, but underdeveloped. They are fundamental areas that require further research, as they are still evolving and/or fragmented. This observation aligns with the conclusions of Gálvez-Sánchez et al. (2021), who identified digital currency, financial technology innovation, and technology-driven financial inclusion as pivotal future research trajectories. The current study expands upon these findings by demonstrating the emergence of blockchain and entrepreneurship research as central themes within the distinct context of African crowdfunding and financial inclusion. However, the earlier themes have greater density than the later themes, and vice versa. This implies that ‘Block chain, financial inclusions and blockchain’ themes are more developed than the ‘finance, entrepreneur, and entrepreneurship’ themes, with the latter showing greater centrality.

## **7.8. Words Analysis**

This section examines word analysis using the most relevant keywords and a word cloud. The results are shown in Figures 7 and 8.

### **7.8.1. Most Frequent Words**

This section presents the most frequently appearing words in the study. The results are shown in Figure 7.

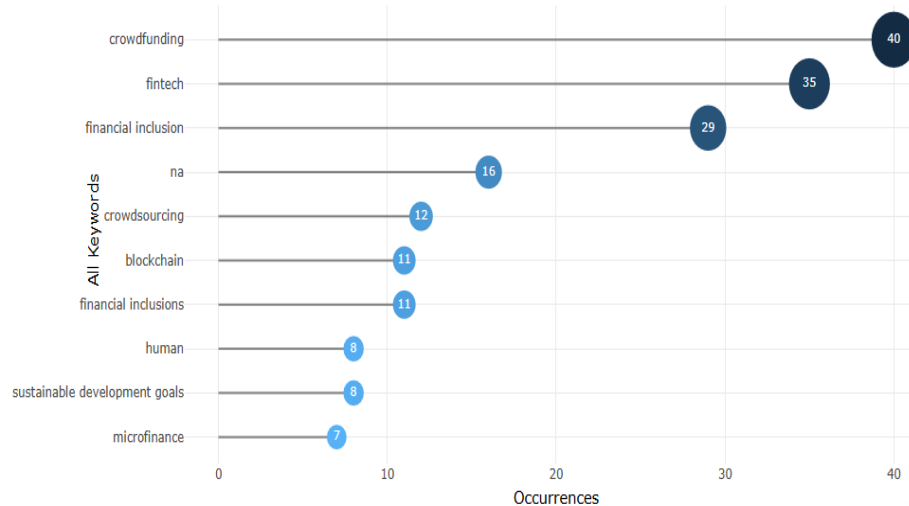


**Figure 7. Most Relevant Words**

Source: Processed by Biblioshiny 5.0 (2026)

Figure 7 shows that the most frequently appearing keywords are ‘crowdfunding’, ‘fintech’, ‘financial inclusion’, ‘na’, ‘crowdsourcing’, ‘blockchain’, ‘financial inclusions’, ‘human’, ‘sustainable development goals (SDGs)’, and ‘microfinance’. ‘Crowdfunding’ has the highest occurrence of 40, suggesting that most scholars are interested in this area, with a research focus on alternative finance. Crowdfunding is the most frequent theme. Fintech has 35 occurrences, indicating that it is also a major determinant of financial inclusion, financial service delivery, and financial innovation ecosystems. Singh and Bhall (2025) note the increasing prominence of fintech-related concepts as central themes within financial inclusion research. This trend reflects a growing academic focus on digital platforms, mobile technologies, and innovative financial services. The word ‘financial inclusion’ occurs 29 times, indicating it is a significant area and essential to modern studies. These themes focus on access to financial services for marginal populations. In a way, these support the SDS goals. These findings aligns with the conclusions of Gálvez-Sánchez et al. (2021), whose research identified financial inclusion, fintech, financial literacy, and microfinance as prominent themes within the international literature on financial inclusion. Their work further emphasized the pivotal role of digital finance and fintech as key drivers for broadening access to financial services and fostering inclusive development.

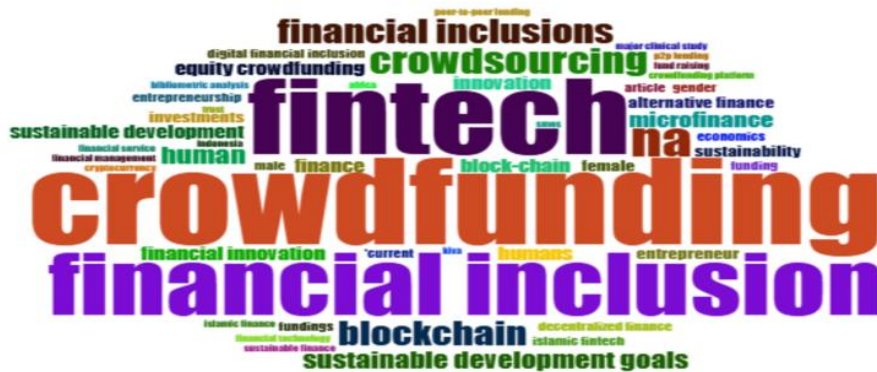
‘na’ values result from data unavailability, incompleteness, and missing values. This needs to be addressed in the analysis through data cleaning. It is a cause of concern

because it has 16 occurrences. ‘Outsourcing’ has 12 occurrences, indicating that it is also linked to crowdfunding but operates on a broader scale, emphasizing collective intelligence, resource pooling, and participatory innovation. Both ‘Blockchain’ and ‘financial inclusion’ have 11 occurrences. This implies that blockchain is an emerging technology that is important and increasingly popular. It concerns research on distributed ledger technology as an enabler of transparency and crowdfunding. The word ‘financial Inclusions’ needs to be further examined because this might be a duplication of the term ‘financial inclusion’. It needs normalization in text mining. ‘human’, ‘SDGs’, and ‘microfinance’ terms have 8, 8, and 7 occurrences, respectively. The text ‘human’ is vague, as it might imply ‘human capital’, ‘human behaviour’, or ‘human-centered approaches’. Further interrogation of this word is necessary through contextual analysis. The word ‘SDGs’ underscores the interconnectedness among financial innovation, crowdfunding, and global development agendas, suggesting the need for interdisciplinary research connecting finance and sustainability. This observation substantiates the conclusions of Gálvez-Sánchez et al. (2021), who posited that contemporary research into financial inclusion increasingly converges with sustainable development objectives and the broader global development framework.

The ‘microfinance’ term implies that links crowdfunding with the eradication of poverty through financial inclusion. It is a good example of a development finance and alternative finance theme. The co-occurrence of “microfinance” and “crowdfunding” as keywords indicates a growing academic perspective that digital finance serves as a complementary mechanism, rather than a substitute, for established financial inclusion initiatives (Singh and Bhall, 2025). Therefore, the results show a strong focus on financial innovation and financial inclusion, with crowdfunding and fintech at the Centre, dominating the motor themes, followed by blockchain and the SDGs, which are rising as interdisciplinary connectors, and finally crowdsourcing and microfinance, which bridge finance with collective participation.

### 9.8.2. Word Cloud Analysis

A word cloud visually presents the frequency of key research words by their size. The larger and more frequent the word on the word cloud, the more it has been discussed and/or emphasized. The results are presented in Figure 8.



### Figure 8. Word Cloud analysis

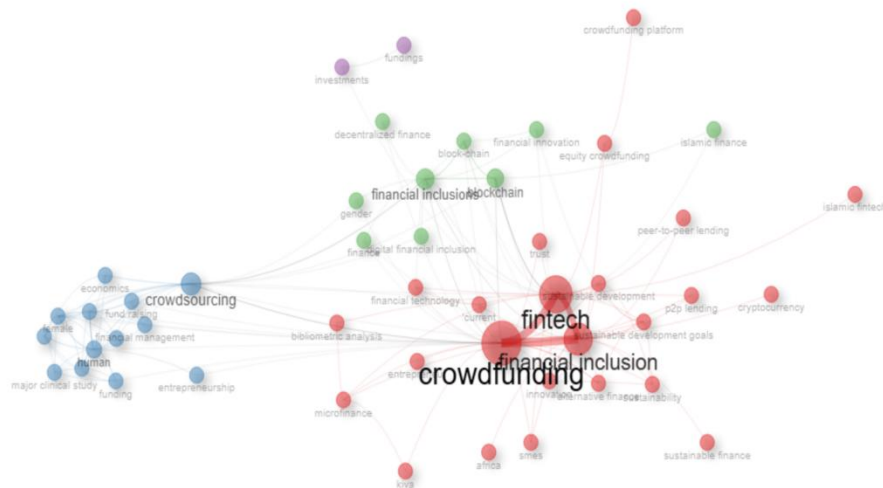
Source: Processed by Biblioshiny 5.0 (2026)

In Figure 8, the prominent words are ‘crowdfunding’, then ‘financial inclusion’, and ‘fintech’, because they are the most frequent and largest in size. In contrast, other small words include ‘crowdsourcing’, ‘financial inclusions’, ‘blockchain’, ‘sustainable development goals’, ‘microfinance’, ‘human’, ‘financial innovation’, ‘equity funding’, etc., and are less frequent. These are the core pillars of the research domain. The term ‘crowdfunding’, with a frequency of 40 (11.8% of the total frequency), indicates it is a leading theme, reflecting a strong scholarly focus on alternative finance and entrepreneurial funding. The term ‘fintech’ (35; 10.32%) is another core theme, indicating the transformation of financial services through technology, digital platforms, and innovation ecosystems. ‘Financial inclusion’ (29; 8.55%) is one of the major themes. It underscores the significance of access to financial services for underserved populations, often linked to development and policy. This result indicates the central role of crowdfunding in financial inclusion. Other notable terms include ‘Blockchain’, which signals the technological backbone often linked to fintech and crowdfunding. ‘Microfinance’ connects traditional financial inclusion strategies with newer digital models. ‘Equity crowdfunding’ highlights a specific mechanism within crowdfunding that is gaining traction. The Sustainable Development Goals (SDGs) align with global development agendas. ‘Crowdsourcing’ is related but broader, encompassing collective participation beyond finance. ‘Investments’ and ‘financial innovation’ emphasize the economic and innovation aspects. Thus, cloud analysis reveals a research ecosystem centered on financial innovation and inclusion, with crowdfunding and fintech as dominant drivers, and that the field is evolving from traditional finance and microfinance

toward a technology-enabled, globally inclusive, and sustainability-oriented paradigm. Given crowdfunding's significant role in financial inclusion, achieving the Sustainable Development Goals for Africa is critical. Financial inclusion enables countries in Africa to achieve the multiple UN SDGs (No Poverty, Zero Hunger, Gender Equality, Decent Work and Economic Growth, and Industry, Innovation and Infrastructure) (Chitimira & Warikandwa, 2023; Yap, Shan Lee & Xin Liew, 2023). Crowdfunding tools are essential in promoting financial inclusion by pooling various capital-seeking players that include micro, small, and medium enterprises, women entrepreneurs, rural innovators, and the general public, across the globe (Nigam Verma, Khan & Mazhar, 2025; Mbangiswano, Ndlovu & Vuthela, 2025; Women's World Banking, 2024). Therefore, crowdfunding plays a significant role in financial inclusion, as it democratizes access to finance and enables marginalized groups to secure funding regardless of their background. However, the effectiveness of crowdfunding as a tool in Africa is hinged on an enabling regulatory regime, robust cybersecurity to safeguard consumers, and increased digital literacy to guarantee that underprivileged people can fully access these tools (Nigam Verma, Khan & Mazhar, 2025; Ziegler et al., 2020; Jenik, Lyman & Nava, 2017).

### **7.9. Analysis of the Word Co-occurrence Network**

This section examines how frequently terms appear together in the same documents and the strength of their relationship. The co-occurrence identifies core themes and their relationships through network analysis metrics (Kumar et al., 2022; Zhou et al., 2021). The interpretation and analysis of the results involve assessing both the network's structure and the meaning of its connections. The results are presented in Figure 9.



### Figure 9. Co-Occurrence Network

Source: Processed by Biblioshiny 5.0 (2026)

Figure 9 shows three distinct thematic clusters (red, blue, green) and the small purple cluster composed of two nodes. The red cluster comprises 24 items (nearly 50% of the thematic clusters) that focus on ‘crowdfunding’, ‘financial technology’, and ‘financial inclusion’. The bigger size of the nodes implies that crowdfunding and fintech are key motor themes and major innovations that enhance financial inclusion. This aligns with Nigam Verma, Khan, & Mazhar (2025) and Ziegler et al. (2020), who argue that employing existing digital technologies to reach out, such as Internet-Based Platforms, integrating blockchain technology to foster trust, and integrating mobile money services to facilitate transactions and market penetration. All the nodes are connected to different clusters, implying that it is an interdisciplinary field. The high betweenness and PageRank scores of ‘crowdfunding’, confirm its significant role in linking various topics that include financial inclusion, ‘financial technology’, ‘SDGs’, ‘sustainable finance, alternative finance’, ‘innovation’, ‘Africa’, ‘crowdfunding’, ‘fintech’, ‘microfinance’, ‘equity crowdfunding’, ‘sustainable development’, ‘entrepreneur’, ‘sustainability’, ‘current’, ‘Islamic fintech’, ‘bibliometric analysis’, ‘crowdfunding platform’, ‘cryptocurrency’, ‘kiva’, ‘p2p lending’, ‘peer-to-peer lending’, ‘smes’ and ‘trust’. Some of the terms are

crowdfunding platforms (for instance, equity crowdfunding and p2p lending, also known as peer-to-peer lending), essential financial inclusion, while others are alternative channels that improve financial inclusion (for instance, financial technology, fintech, Islamic fintech, and microfinance). This stresses the importance of crowdfunding in financial inclusion. If financially excluded, underprivileged, and marginalized societies have access to quality financial services, this enables Africa to achieve 8 of the 15 sustainable development goals, which emphasize eradicating poverty, promoting gender equality, and fostering economic growth. Chitimira & Warikandwa (2023) argued that financial inclusion is a key ingredient for achieving the UN 2030 SDGs, citing M-Pesa. This mobile money service has reduced poverty and enhanced food security in Kenya. The presence of regional terms in Figure 9, such as 'Africa', firmly situates this research study within the African context. This cluster of words indicates a scholarly consensus that crowdfunding is a critical tool for financial inclusion, as it improves access to financial services and is therefore essential for eradicating 'poverty' and 'income inequality' in Africa.

The second cluster identified by the blue nodes has 13 keywords that are composed of 'crowdsourcing', 'fundraising', 'financial management', 'entrepreneurship', 'funding', 'human', 'humans', 'female', 'article', 'major clinical study', 'economics', 'male', 'united states', acting as its primary interconnected but hovering around crowdsourcing. The nodes are smaller than in the first cluster, implying that these 'terms' are less important to the field of study, as they form a participatory innovation cluster that bridges finance with collective action. The terms 'crowdsourcing' and 'fundraising' are closely related: fundraising through crowdsourcing (also known as crowdfunding) is a specific form in which, instead of gathering ideas or skills, the crowd contributes money to support a project, business, or cause (Singh, 2022). Crowdfunding is a fundraising platform engineered by crowdsourcing. This implies that crowdfunding is linked to crowdsourcing, as it is one of its components. It is a form of crowdsourcing in which a group of people contributes funds to a business, a charity, or individuals. However, there is a research gap in the role of humans, in terms of their participation, contribution, collective intelligence, scale and reach, trust and motivation, and feedback loop, in improving crowdsourcing.

The third cluster of terms with 9 green nodes is composed of 'financial inclusions', 'blockchain', 'digital financial inclusions', 'finance', 'gender', 'decentralized finance', 'Islamic finance', and 'financial innovation'. This cluster shows interconnection among these terms. The link between gender and digital financial

inclusion creates a gap for researchers to investigate whether gender influences crowdfunding platforms, in turn, financial inclusion. This cluster has fewer connections, portraying that it is an interdisciplinary academic theme. These are emerging areas in the field that are of key interest to modern-day scholars. This finding aligns with the bibliometric analysis conducted by Gálvez-Sánchez et al. (2021), which identified fintech, digital finance, and financial innovation as pivotal emergent themes propelling the forthcoming advancements in financial inclusion research. The integration of blockchain and decentralized finance within this framework further substantiates empirical evidence indicating that digital technologies constitute a rapidly expanding domain within financial inclusion research. Gálvez-Sánchez et al. (2021) determined that forthcoming research concerning financial inclusion is anticipated to be progressively influenced by advancements in financial technology and digital financial infrastructures, thereby facilitating broader access to financial services for populations that are currently underserved.

The prevalence of gender within third cluster is particularly noteworthy because it indicates increasing scholarly interest in comprehending the mechanisms through which digital finance and crowdfunding can mitigate gender-based impediments to financial inclusion. This observation is corroborated by Ekasari (2022), who identified women's financial inclusion as a nascent research area warranting further exploration within the financial inclusion discourse. Consequently, the interplay among gender, crowdfunding, and digital financial inclusion constitutes a significant research void, particularly within the African milieu where women continue to experience disproportionately elevated rates of financial exclusion. This observation is corroborated by Ekasari (2022), who identified women's financial inclusion as a nascent research area warranting further exploration within the existing financial inclusion literature. Accordingly, the interplay among gender, crowdfunding, and digital financial inclusion constitutes a significant research void, particularly within the African milieu, where women consistently experience disproportionately elevated rates of financial exclusion.

The last small cluster is composed of 2 purple nodes. This network shows the interaction between 'fundings' and 'investments'. This implies that the small excess funds available among several people in Africa can be tapped through the online crowdfunding platforms and invested in productive deficit units. This will alleviate poverty, financially include marginalized communities in Africa, and meet the SDG goals. This finding aligns with existing literature on crowdfunding, which posits it

as an alternative financing mechanism adept at addressing funding deficits experienced by entrepreneurs, small businesses, and financially marginalized populations. Gálvez-Sánchez et al. (2021) underscore the growing recognition of alternative digital finance mechanisms as crucial instruments for fostering financial inclusion and economic engagement among underserved demographics. Furthermore, this observation supports the findings of Singh and Bhall (2025), who concluded that financial inclusion research is increasingly linked to sustainable development, inclusive growth, and poverty reduction objectives.

However, Figure 9 also identifies additional research gaps regarding the role of crowdfunding in investments, which are the fruits of financial inclusion. These investments, made possible by pooling funds from small surplus units, are essential to Africa's economic development. Despite the presence of crowdfunding in Africa, there is a need to evaluate the efficiency, accessibility, and data security implications of these online platforms, as well as the role of fintech in financial inclusion, which this study does not cover.

## 8. Conclusions

This bibliometric analysis of crowdfunding's role in promoting financial inclusion in Africa reveals a field that is both emerging and unevenly developed. The data overview shows that scholarly output remains modest, with only 111 documents retrieved between 2016 and 2025 and a relatively low annual growth rate of 17.46%. Despite this, the average citation rate of 10.71 per document demonstrates strong academic interest and influence, underscoring the growing relevance of crowdfunding as a tool for financial inclusion. Collaboration patterns are moderate, with small research teams and limited international co-authorship, reflecting decentralized but expanding networks. The distribution of document types, dominated by peer-reviewed journal articles, validates the academic legitimacy of this discipline, though its foundations remain relatively recent.

Institutional and country analyses highlight the dominance of Southeast Asian institutions and countries such as Indonesia and India. In contrast, African institutions remain underrepresented, with South Africa contributing only a small fraction of global output. This imbalance underscores a significant research gap and the need for African academia to strengthen its role in shaping discourse on financial inclusion through crowdfunding. Thematic mapping confirms that crowdfunding,

fintech, and financial inclusion are highly central but underdeveloped themes, indicating their importance; nevertheless, fragmented scholarship. Niche areas such as Islamic fintech, equity crowdfunding, and digitalization of Islamic finance are internally strong but poorly integrated, while emerging themes such as blockchain, entrepreneurship, and cryptocurrency remain immature. Word cloud and co-occurrence analyses further reinforce the centrality of crowdfunding, fintech, and financial inclusion, while linking them to broader agendas such as the Sustainable Development Goals (SDGs), microfinance, and gender inclusion. Collectively, these findings confirm that crowdfunding is central to financial inclusion in Africa but remains an evolving and underexplored research domain, offering fertile ground for scholars to shape its trajectory.

## 9. Recommendations

To advance this field, several recommendations can be made. First, African institutions should intensify their engagement by fostering research programs, establishing dedicated centers, and encouraging scholars to publish in high impact journals. This would increase regional visibility and ensure that African perspectives are adequately represented in global debates. Second, greater emphasis should be placed on international collaboration, particularly with countries and institutions that already demonstrate strong partnership networks, such as the United Kingdom and Malaysia. Such collaborations would enhance knowledge transfer, diversify perspectives, and strengthen methodological rigor. Third, policymakers and regulators must provide enabling environments for crowdfunding platforms by ensuring transparency, consumer protection, robust cybersecurity, and improved digital literacy. Aligning crowdfunding initiatives with national financial inclusion strategies and the SDGs would maximize their social impact.

Fourth, scholars should deepen the theoretical and methodological foundations of core themes such as crowdfunding, fintech, and financial inclusion. This requires moving beyond descriptive studies to develop robust frameworks and empirical analyses that can guide both academic and policy discourse. Emerging areas such as blockchain, decentralized finance, and gender dynamics should be systematically investigated to establish their relevance and practical applications in the African context. Finally, interdisciplinary collaboration, bridging finance, technology, development studies, and entrepreneurship, will be essential to advance scholarship and practice. By deepening, integrating, and broadening research, crowdfunding can

become a transformative tool for promoting sustainable financial systems and achieving inclusive development across Africa.

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