

Digital Innovation in Islamic Finance: A Bibliometric Analysis of Global Research Trends (2013-2026)

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ABSTRAK

Islamic finance has grown rapidly over the past two decades, and digital technology is now reshaping how Shariah-compliant institutions operate. Yet research on this intersection has expanded unevenly, with existing reviews typically covering only one technology or instrument at a time. This study presents a bibliometric analysis of 686 Scopus-indexed articles and reviews on digital innovation in Islamic finance published between 2013 and 2026. Using Biblioshiny (bibliometrix in R), the study examines publication trends, influential sources and authors, thematic clusters, intellectual foundations, and country-level collaboration. Results show an annual growth rate of 45.59%, with the Journal of Islamic Accounting and Business Research and Journal of Islamic Marketing as the leading outlets. Thematic mapping identifies fintech, Islamic banking, and blockchain as the field's core themes, while digital instruments for Islamic social finance (zakat, waqf, and crowdfunding) remain comparatively underdeveloped. Indonesia and Malaysia lead global research output and collaboration. The findings offer an integrated map of a fragmented literature and point to digital Islamic social finance as a priority area for future research and policy attention.

INTRODUCTION

Islamic finance has transformed from a niche financial system into one of the fastest-growing segments of the global financial industry. According to the Islamic Financial Services Board (IFSB), the global Islamic Financial Services Industry (IFSI) reached USD 3.88 trillion in total assets in 2024, recording an annual growth of 14.9% (IFSB, 2025). Meanwhile, the ICD–LSEG Islamic Finance Development Report 2025 estimates that global Islamic finance assets amounted to USD 5.98 trillion in 2024, reflecting the industry's sustained expansion and increasing global relevance. This remarkable growth has been accompanied by rapid digital transformation, including the adoption of Islamic fintech, blockchain technology, artificial intelligence, digital banking, and other technology-driven financial innovations that are reshaping the Islamic finance ecosystem. This growth has not happened in isolation. Over the same period, digital technology has reshaped how financial

services are delivered everywhere – like fintech apps, blockchain, artificial intelligence, and digital payment systems have become standard tools across banking and finance. Islamic financial institutions have had to keep up. For many banks and fintech firms operating under Shariah principles, digital adoption is no longer optional; it is what determines whether they can reach new customers, cut costs, and stay competitive (Alshater et al., 2022; Hasan et al., 2020).

What counts as "digital innovation" in this space is actually quite broad. It includes Islamic fintech platforms, blockchain-based instruments, robo-advisory services, central bank digital currencies, and digital banking, but it also stretches into areas that get less attention, such as digital zakat collection and online waqf platforms. Blockchain, for instance, has been studied for how it can make zakat and waqf fund distribution more transparent, while AI is being tested for things like credit risk scoring and fraud detection in Islamic banks (Chong, 2021; Kismawadi et al., 2026). In other words, this is not one single trend. It is several overlapping ones happening at the same time.

The problem is that research on this topic has grown quickly, but not in a very organized way. A few bibliometric or review studies already exist, but each one tends to zoom in on just one slice of the picture. Aysan and Unal (2021), for example, mapped the literature on fintech and blockchain in Islamic finance specifically. Hasan et al. (2020) and Alshater et al. (2022) reviewed the fintech–Islamic finance literature more broadly. Hassan et al. (2021) focused only on Islamic microfinance, and Dawood et al. (2022) looked specifically at business models in Islamic fintech. More recent work has zoomed in even further, looking only at digital zakat or Islamic crowdfunding platforms (Dupi & Adzimatinur, 2025). Each of these studies is useful on its own, but none of them puts the full picture together – fintech, blockchain, AI, digital banking, and digital Islamic social finance are usually studied as separate, unconnected topics rather than as one growing research field.

This is where the gap lies. There is still no comprehensive, data-driven map of digital innovation research in Islamic finance as a whole – one that shows which journals, authors, and papers matter most, which themes are already well developed, and which ones are still emerging. Without that kind of overview, it is easy for new researchers to keep repeating narrow reviews, or to miss connections between areas that are actually related, such as fintech and digital zakat. This gap is especially noticeable around Islamic social finance instruments zakat, waqf, and crowdfunding – which keep showing up in individual studies but have rarely been placed within the bigger digital innovation landscape.

This study aims to fill that gap. Using a bibliometric analysis of 686 articles and reviews indexed in Scopus between 2013 and 2026, this paper maps the research landscape of digital innovation in Islamic finance. Specifically, it looks at (i) how research output has grown over time, (ii) which sources, authors, and documents have been most influential, (iii) how the field's main themes cluster together, (iv) what earlier work this field builds its ideas on, and (v) how research collaboration is distributed across countries. The analysis was carried out entirely using Biblioshiny (bibliometrix in R).

This paper contributes in two ways. Academically, it brings together several narrower reviews (Aysan & Unal, 2021; Alshater et al., 2022; Hassan et al., 2021) into a single, wider map of the field, rather than looking at just one technology or instrument at a time. Practically, it points to research areas – particularly around digital Islamic social finance

that deserve more attention from both researchers and policymakers working on financial inclusion and inclusive economic growth.

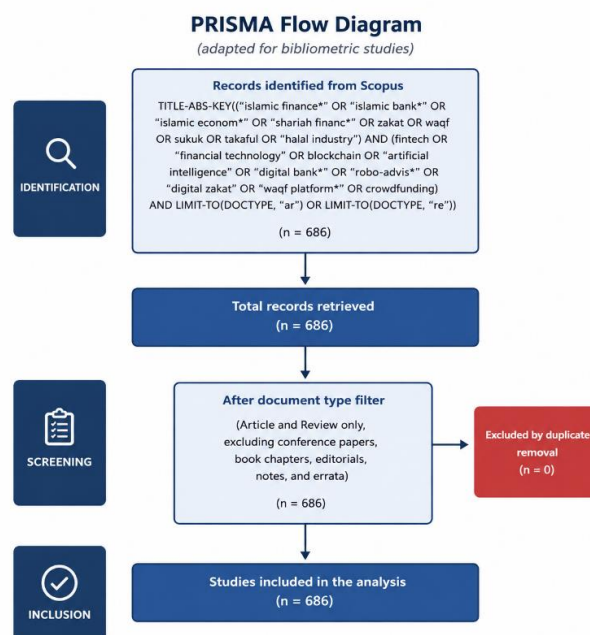
The rest of the paper is organized as follows. Section 2 gives a short background on digital innovation in Islamic finance. Section 3 explains the data and method used. Section 4 presents the results. Section 5 discusses what the findings mean and suggests directions for future research. Section 6 concludes.

METHODOLOGY

3.1 Data Source and Search Strategy

This study used the Scopus database, chosen for its broad coverage of peer-reviewed literature in economics, business, and social sciences. The search was conducted using a Boolean string combining terms related to Islamic finance (e.g., "islamic financ*", "islamic bank*", "islamic econom*", "shariah financ*", zakat, waqf, sukuk, takaful, "halal industry") with terms related to digital innovation (e.g., fintech, "financial technology", blockchain, "artificial intelligence", "central bank digital currency", "digital bank*", "robo-advis*", "digital zakat", "waqf platform*", crowdfunding), applied to the title, abstract, and keyword fields (TITLE-ABS-KEY), consistent with the PRISMA flow diagram in Figure 1. The search was not restricted by publication year. Document type was limited to Article and Review, excluding conference papers, book chapters, editorials, notes, and errata. The search retrieved 686 documents. Because the search strategy was developed using carefully defined Boolean operators, restricted to the TITLE-ABS-KEY fields, and limited to peer-reviewed articles and review papers, the resulting dataset was considered sufficiently relevant for bibliometric analysis. Therefore, no additional manual screening was performed. The full identification and screening process is summarized in the PRISMA flow diagram.

Figure 1 PRISMA flow diagram



3.2 Analytical Tools

Data analysis combined performance analysis and science mapping, following standard bibliometric practice (Donthu et al., 2021). Performance analysis examined publication trends, source impact, and author and document productivity and citation counts. Science mapping examined the conceptual and intellectual structure of the field through keyword co-occurrence analysis, thematic mapping, co-citation analysis, and country collaboration networks. All analyses, including network visualizations, were performed using Biblioshiny, the web-based graphical interface of the bibliometrix R package (Aria & Cuccurullo, 2017).

Performance analysis was conducted to evaluate the scientific productivity and impact of the literature on digital innovation in Islamic finance. Specifically, this analysis identified annual publication trends, the most productive authors, institutions, countries, journals, and the most influential publications based on citation indicators. Such analysis provides an overview of the development and scientific influence of a research field by highlighting its major contributors and publication patterns (Donthu et al., 2021).

Science mapping was employed to reveal the conceptual, intellectual, and social structures of the research field. Keyword co-occurrence analysis was used to identify the main research themes and their interrelationships, whereas co-citation analysis was conducted to examine the intellectual foundations of the field by identifying publications that are frequently cited together (Small, 1973). In addition, country collaboration analysis was performed to visualize international research collaborations, while thematic mapping classified research themes according to their centrality and density, enabling the identification of motor themes, basic themes, niche themes, and emerging or declining themes (Cobo et al., 2011; Aria & Cuccurullo, 2017).

The combination of performance analysis and science mapping provides a comprehensive understanding of the evolution, knowledge structure, collaboration patterns, and emerging research themes within the field of digital innovation in Islamic finance (Donthu et al., 2021).

RESULTS

4.1 General Overview

The final dataset comprised 686 documents (655 articles and 31 reviews) published between 2013 and 2026, drawn from 300 sources. The annual growth rate of publications was 45.59%, indicating a field in a phase of rapid expansion. The dataset involved 1,806 authors, of whom only 84 published single-authored work, with an average of 3.25 co-authors per document and an international co-authorship rate of 34.11%. Documents contained a combined 36,400 references and 1,809 distinct author keywords, and received an average of 13.07 citations per document, with a mean document age of 2.26 years. Table 1 summarizes these indicators.

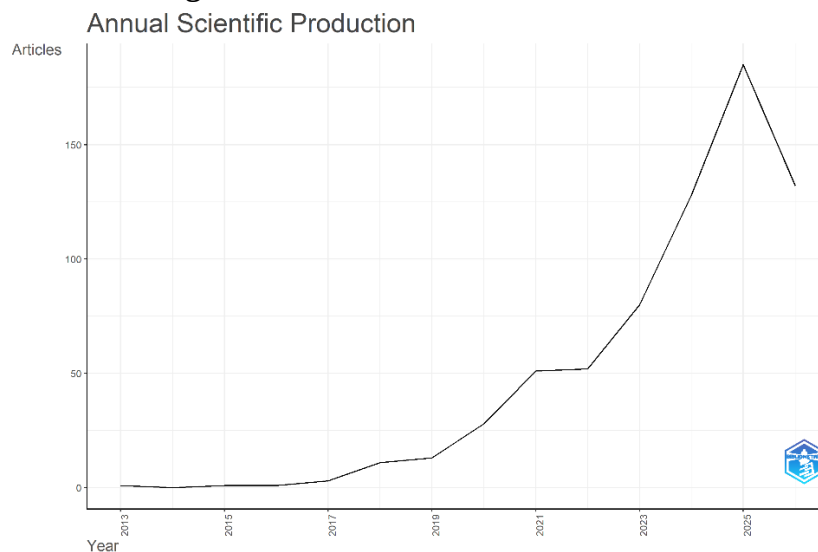
Table 1 Main Information about Data

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2013:2026
Sources (Journals, Books, etc)	300
Documents	686
Annual Growth Rate %	45,59
Document Average Age	2,26
Average citations per doc	13,07
References	36400
DOCUMENT CONTENTS	
Keywords Plus (ID)	387
Author's Keywords (DE)	1809
AUTHORS	
Authors	1806
Authors of single-authored docs	84
AUTHORS COLLABORATION	
Single-authored docs	101
Co-Authors per Doc	3,25
International co-authorships %	34,11
DOCUMENT TYPES	
article	655
review	31

Overall, these descriptive indicators portray digital innovation in Islamic finance as a young but rapidly expanding research field characterized by high levels of scholarly collaboration and increasing scientific visibility.

4.2 Annual Scientific Production

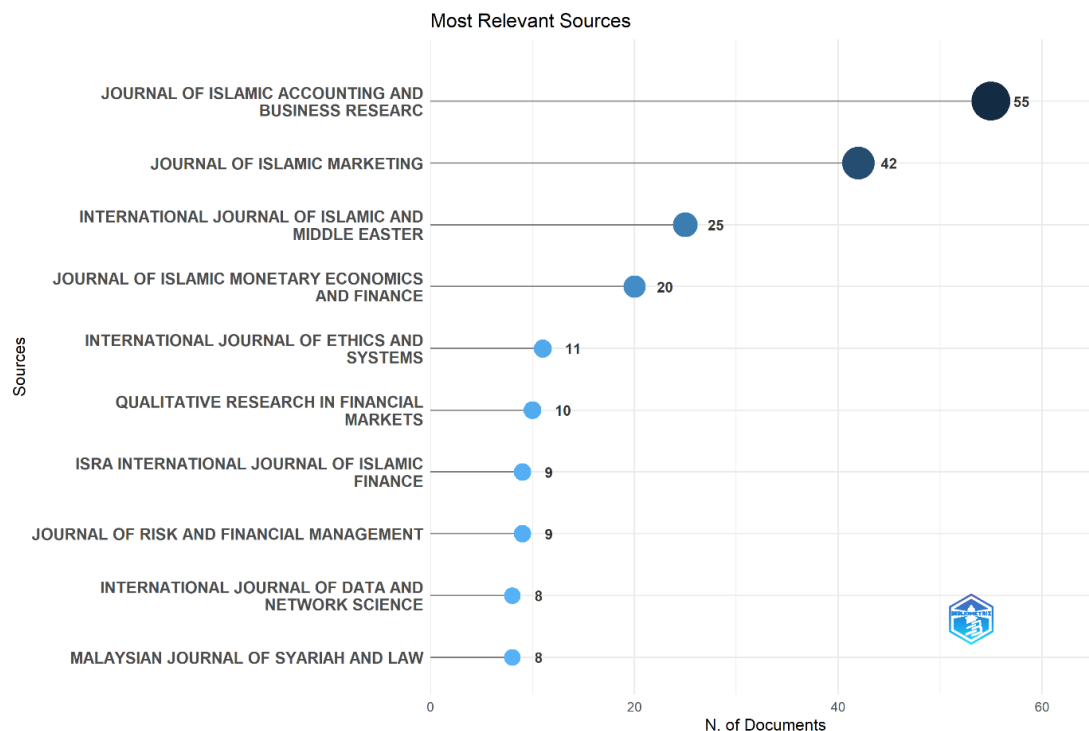
Publication output remained low and sporadic in the earlier years of the study period before accelerating markedly in more recent years, consistent with the high annual growth rate of 45.59% reported above. This trajectory mirrors the broader rise of fintech and digital transformation research across the financial sector and suggests that scholarly interest in digital innovation within Islamic finance is still building momentum rather than plateauing.

Figure 2. Annual Scientific Production

The sharp increase in publication output after 2020 may also reflect the accelerating digital transformation of financial services during and after the COVID-19 pandemic. The pandemic intensified the adoption of digital financial technologies, including mobile banking, digital payments, and fintech solutions, thereby stimulating greater academic attention to technology-enabled Islamic financial services.

4.3 Most Relevant Sources

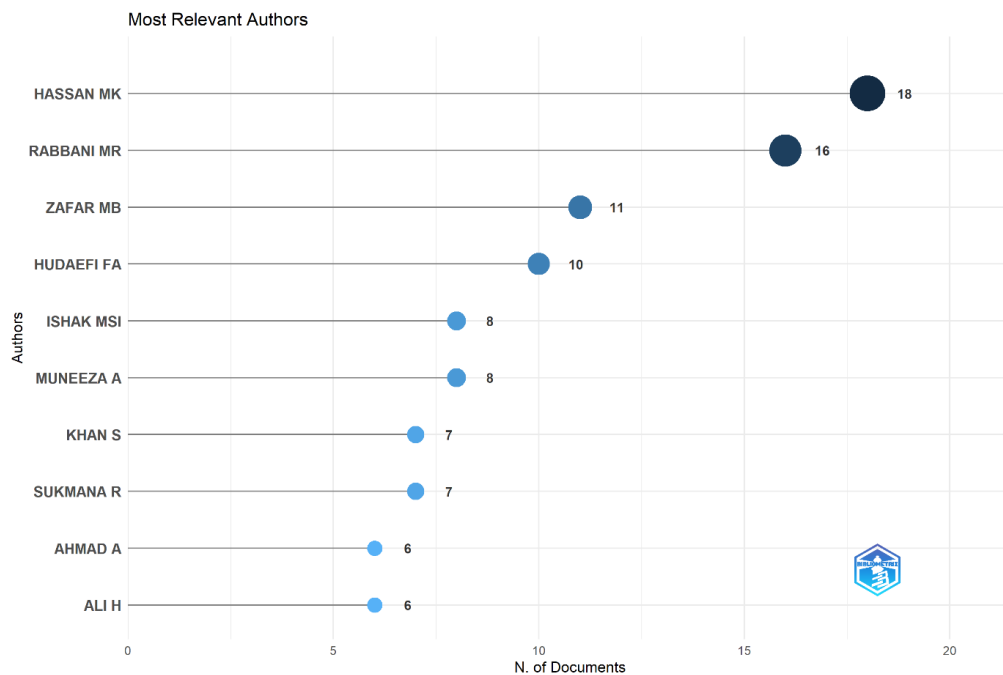
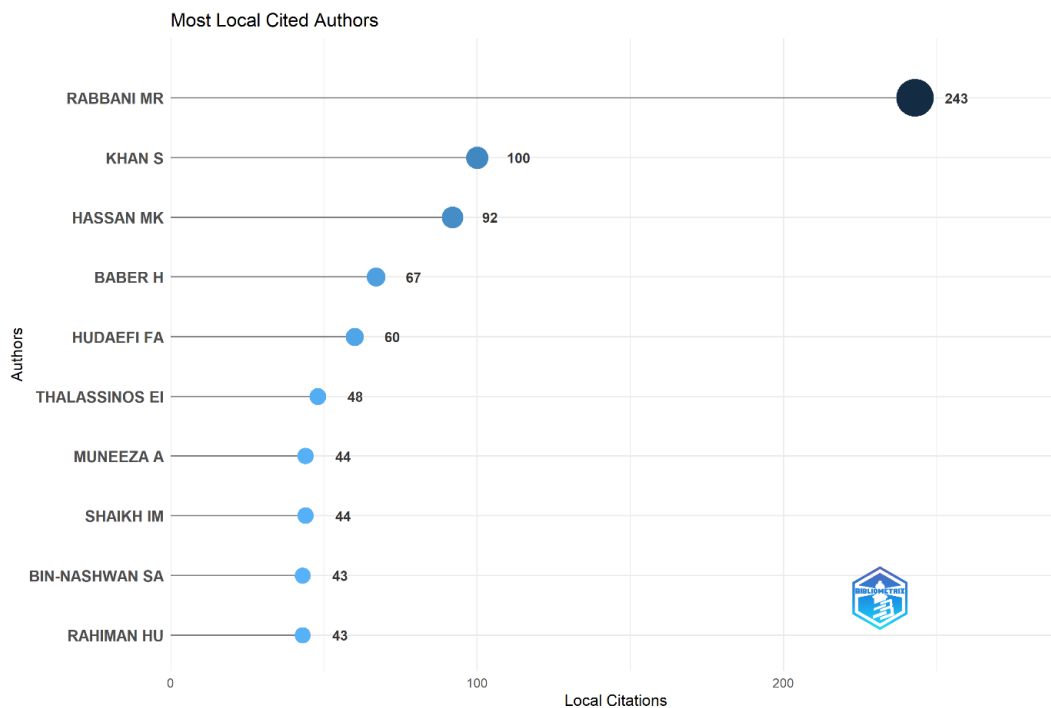
The Journal of Islamic Accounting and Business Research was the most productive outlet, publishing 55 articles (8.0% of the dataset), followed by the Journal of Islamic Marketing (42), the International Journal of Islamic and Middle Eastern Finance and Management (25), and the Journal of Islamic Monetary Economics and Finance (20). Together, the top two journals accounted for roughly 14% of total output, indicating a moderately concentrated publication landscape. Notably, the presence of the Journal of Islamic Marketing among the top sources suggests that a substantial share of this literature approaches digital innovation from a consumer adoption and marketing perspective, rather than a purely technical or regulatory one.

Figure 3 Most Relevant Sources

The concentration of publications within specialized Islamic finance journals further suggests that research on digital innovation remains largely discipline-specific, with relatively limited diffusion into mainstream information systems or financial technology journals. This indicates substantial opportunities for greater interdisciplinary collaboration in future research.

4.4 Author Productivity and Citation Impact

Hassan MK (18 documents) and Rabbani MR (16 documents) were the most productive authors, followed by Zafar MB (11) and Hudaefi FA (10). In terms of citation impact within the dataset, Rabbani MR was by far the most cited author, accumulating 243 local citations – more than double the second-ranked author, Khan S (100 citations), followed by Hassan MK (92). The overlap between Rabbani MR and Hassan MK across both productivity and citation rankings suggests that these two authors occupy a particularly influential position in the field, combining sustained output with strong scholarly impact. Khan S, despite a comparatively modest output of 7 documents, ranked second in local citations, indicating an unusually high citation-to-output ratio.

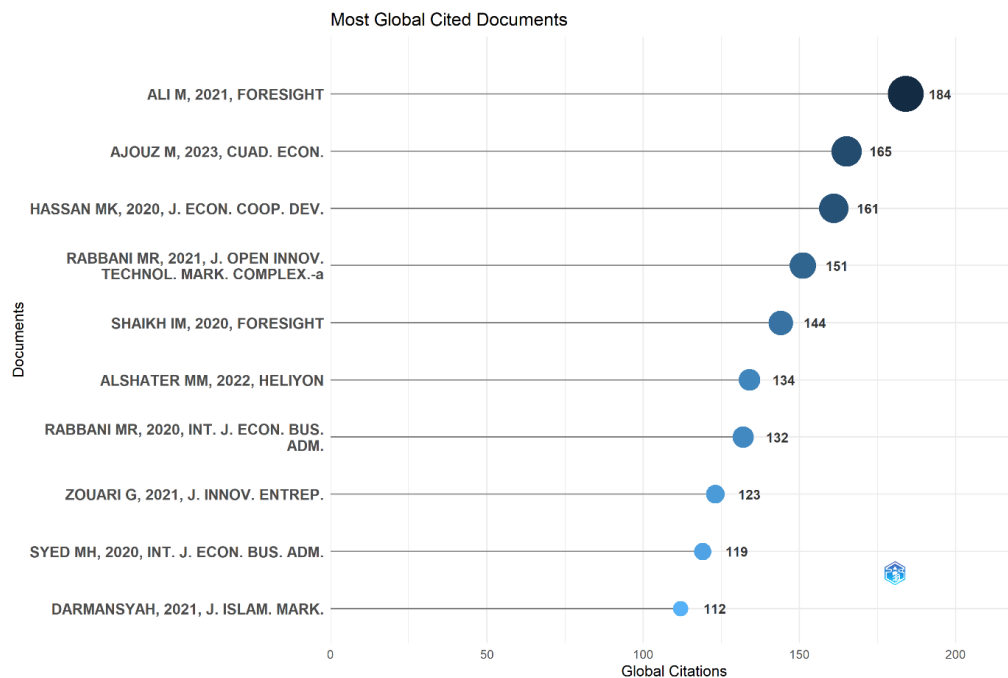
Figure 4 Most Relevant Authors**Figure 5 Most Local Cited Authors**

The findings also indicate that research influence is not solely determined by publication volume. Authors with fewer publications may achieve substantial scholarly impact through highly cited and influential contributions.

4.5 Most Globally Cited Documents

Ali M (2021), published in Foresight, was the most cited document globally (184 citations), followed by Ajouz M (2023) in Cuadernos de Economía (165 citations) and Hassan MK (2020) in the Journal of Economic Cooperation and Development (161 citations). Rabbani MR contributed two of the ten most globally cited documents (151 and 132 citations), reinforcing his position as one of the field's most influential scholars, consistent with the author-level citation analysis above.

Figure 6 Most Global Cited Documents



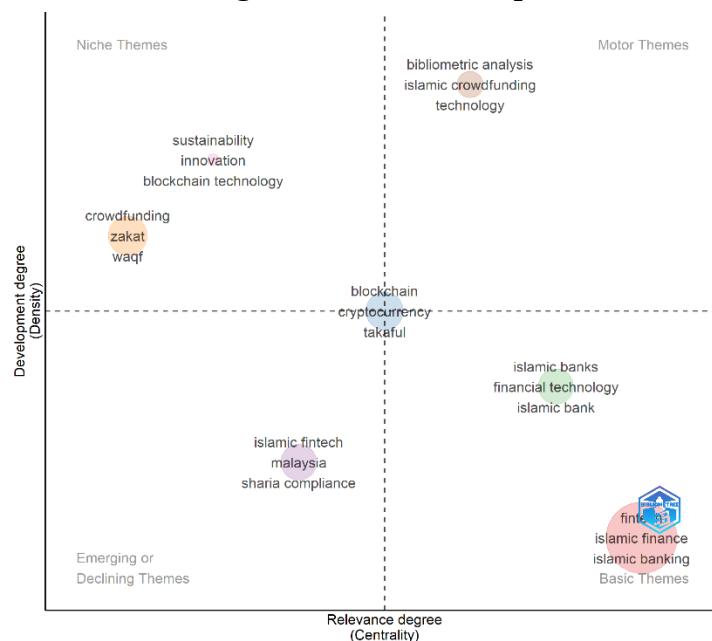
The predominance of recent publications among the most highly cited documents indicates the rapid development of this research field. Rather than relying on long-established foundational studies, digital innovation in Islamic finance is being shaped by contemporary research responding to technological advances and emerging industry challenges.

4.6 Conceptual Structure: Thematic Map and Co-occurrence Network

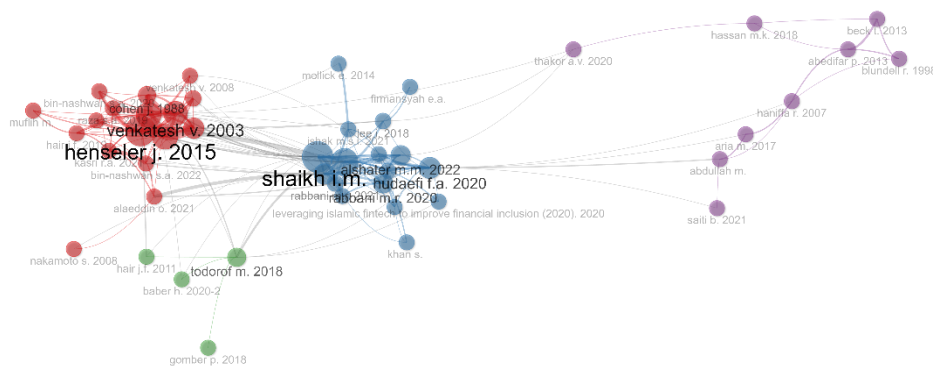
Thematic mapping identified four groups of keywords positioned across the density–centrality plane. The largest and most central cluster fintech, Islamic finance, Islamic banking occupies the Basic Themes quadrant, reflecting its role as the field's conceptual foundation. A closely related cluster (Islamic banks, financial technology) falls in the same quadrant. In the Motor Themes quadrant, a cluster centered on bibliometric analysis, Islamic crowdfunding, and technology reflects a well-developed and currently central sub-theme. Two clusters occupy the Niche Themes quadrant: sustainability, innovation, and blockchain technology; and crowdfunding, zakat, and waqf. Their position well-developed internally but less central to the field overall indicates that Islamic social finance and sustainability-linked digital innovation remain comparatively specialized areas rather than mainstream concerns.

The keyword co-occurrence network corroborates this structure, showing four distinct clusters. The largest (red) cluster centers on Islamic finance, blockchain, Islamic banking, and artificial intelligence, alongside related terms such as sukuk, takaful, smart contract, and shariah compliance. A second (blue) cluster centers on fintech and conventional banking-oriented terms, including customer satisfaction and financial technology. A third (green) cluster is closely associated with the Indonesian context and sharia compliance, alongside covid-19 and blockchain technology, suggesting a concentration of country-specific case studies. A fourth, smaller (purple) cluster comprises Islamic social finance terms zakat, waqf, cash waqf, crowdfunding, and Islamic social finance occupying a more peripheral position in the network, consistent with its Niche Themes classification in the thematic map.

Figure 7 Thematic Map



Taken together, the thematic map and keyword co-occurrence network suggest that digital innovation in Islamic finance has evolved around two dominant streams. The first focuses on financial technologies supporting Islamic banking and fintech development, whereas the second emphasizes Islamic social finance through digital zakat, waqf, and crowdfunding. This dual structure illustrates that technological innovation is advancing both commercial and social dimensions of Islamic finance.

Figure 9 Co-citation Network

4.8 Social Structure: Country Collaboration

Indonesia and Malaysia were the leading contributors to global research output, consistent with their status as major Islamic finance hubs in Southeast Asia. The United States also featured prominently, primarily through international co-authorship rather than domestic output. Collaboration ties were strongest between Southeast Asian countries, Middle Eastern countries, and Western countries such as the United States and the United Kingdom, pointing to a research network that is regionally anchored but globally connected.

The dominance of Indonesia and Malaysia reflects not only their position as leading Islamic finance markets but also their active policy support for digital financial innovation, including Islamic fintech, digital banking, and Islamic social finance platforms. Their strong collaboration with researchers from developed economies suggests increasing international recognition of Southeast Asia as an important hub for Islamic finance research and innovation.

Discussion

Taken together, these results depict a research field that is expanding quickly around a well-established core—fintech, Islamic banking, and blockchain—while still leaving several closely related areas underdeveloped. The dominance of Islamic banking and fintech themes is unsurprising given the size and maturity of the Islamic banking sector relative to newer segments such as Islamic social finance technology. What is more notable is the consistent appearance, across both the thematic map and the co-occurrence network, of zakat, waqf, and Islamic crowdfunding as a distinct but comparatively peripheral cluster. This pattern suggests that digital transformation in Islamic social finance is real and recognized in the literature, but has not yet been studied with the same depth or volume as fintech and banking-focused topics.

This gap is arguably significant for two reasons. First, zakat, waqf, and crowdfunding are among the instruments most directly linked to financial inclusion and poverty alleviation

objectives, which are central to the broader policy agenda around inclusive Islamic economic growth. Second, the intellectual structure analysis shows that much of the field still leans on general technology-adoption theory developed outside Islamic finance, suggesting room for more domain-specific theoretical development around how these particular instruments are digitized, governed, and adopted.

The concentration of research in Indonesia and Malaysia, and the corresponding thematic emphasis on country-specific case studies (as seen in the green cluster of the co-occurrence network), further indicates that findings from this literature may currently be shaped disproportionately by Southeast Asian regulatory and market conditions. This is a reasonable starting point given the size of these markets, but it also means that evidence from other regions – the Gulf Cooperation Council countries, South Asia, and Sub-Saharan Africa remain comparatively limited, despite their own growing Islamic finance sectors. This geographical concentration may also reflect differences in national digital finance policies, regulatory frameworks, and the maturity of Islamic financial institutions, suggesting that regional context remains an important determinant of research priorities.

Future Research Agenda

Based on these findings, three directions for future research appear particularly promising. First, more empirical and theoretical work is needed on the digitization of Islamic social finance instruments specifically for example, how digital zakat platforms affect collection rates and donor trust, or how blockchain-based waqf structures are governed in practice. Second, comparative studies across regions beyond Indonesia and Malaysia would help test whether current findings generalize to other Islamic finance markets. Third, given that much of the field's intellectual foundation still relies on general technology-adoption theory, there is room to develop frameworks that more directly account for Shariah compliance considerations in digital adoption decisions.

CONCLUSION

This study set out to provide an integrated, field-wide bibliometric map of digital innovation research in Islamic finance, addressing a gap left by earlier reviews that each focused on a single technology or instrument. Based on 686 Scopus-indexed documents published between 2013 and 2026, the analysis shows a rapidly growing field (45.59% annual growth) anchored around fintech, Islamic banking, and blockchain, with Indonesia and Malaysia as the leading research hubs and Rabbani MR and Hassan MK as the most productive and influential authors. Digital Islamic social finance (zakat, waqf, and crowdfunding) emerged consistently as a distinct but comparatively underdeveloped thematic cluster, pointing to a clear direction for future research and policy attention.

Overall, the findings demonstrate that digital innovation has become an increasingly important research frontier within Islamic finance, characterized by rapid scientific growth and expanding thematic diversity. By providing a comprehensive bibliometric overview, this

study offers a valuable knowledge base for researchers, practitioners, and policymakers seeking to understand current developments and identify emerging opportunities for future research and industry practice.

This study has limitations. It relies on a single database (Scopus), which may exclude relevant work indexed only in Web of Science or regional databases, and it does not include a manual title-by-title relevance screening beyond the database-level document type filter. Future bibliometric work could extend this analysis by incorporating additional databases and qualitative content analysis of the underdeveloped Islamic social finance cluster identified here.

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