

Evolving Zakat: A Systematic Review of Financial Technology's Impact

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Paper was presented at the 8th International Conference of Zakat (ICONZ)
17 - 19 December 2024, Bandung, Indonesia

ABSTRACT

This study conducts a systematic literature review (SLR) on the intersection of zakat and financial technology (fintech), mapping the evolution of research and identifying key trends in the field. By utilizing bibliometric analysis, the study explores the development of zakat and fintech research over time, highlights major contributions to the literature, and examines the collaborative relationships between researchers and institutions. A total of 133 keywords from 31 relevant articles were analyzed using VOSviewer for co-occurrence and citation analyses. The results show that the integration of zakat and fintech is largely interdisciplinary, with dominant themes in business, finance, computer science, and accounting. Emerging keywords such as financial systems, accountability, and engineering management indicate a growing interest in the operational and ethical dimensions of fintech in zakat management. The citation analysis further reveals influential authors and documents shaping current discussions, though limited connectivity between research groups suggests the need for greater collaboration. This review provides a comprehensive overview of the zakat-fintech literature, offering insights for future research directions, particularly in enhancing collaboration and thematic integration to address the socio-economic challenges in the Islamic financial ecosystem. The study also underscores the potential of fintech in advancing zakat's role in poverty alleviation and financial inclusion, contributing to the broader goals of sustainable development.

Keywords: *Zakat, Financial technology, Fintech, Bibliometric analysis, Islamic finance.*

INTRODUCTION

The significance of zakat, a fundamental pillar of Islam, is increasingly recognized in the context of financial technology (fintech). Zakat serves as a mechanism for wealth redistribution, aimed at alleviating poverty and promoting social welfare among the Muslim community. The integration of fintech into zakat management has revolutionized the way zakat is collected, distributed, and monitored, enhancing transparency and efficiency in the process. Research indicates that the effective management of zakat can significantly

improve the quality of life for beneficiaries, known as *mustahiq*. For instance, studies have shown that zakat management has a direct positive impact on the Human Development Index (HDI), highlighting its role in enhancing the socio-economic conditions of *mustahiq* families (Muttaqin & Nasir, 2024; Riswandi et al., 2024). Furthermore, zakat institutions that adopt digital technologies can increase their productivity and efficiency in collecting and distributing zakat funds, thereby maximizing their impact on poverty alleviation (Putri, 2022; Uula & Maziyyah, 2023). The utilization of fintech not only facilitates the

collection process but also enhances transparency and accountability, which are crucial for maintaining trust among donors, known as *muzakki* (Z. A. Ahmad & Rusdianto, 2018; Aziz & Anim, 2020).

The relationship between zakat and fintech is particularly relevant in the context of the COVID-19 pandemic, which necessitated a shift towards digital solutions for zakat collection and distribution. The pandemic underscored the importance of online platforms in facilitating zakat payments, as traditional methods faced significant disruptions (Agustiniingsih et al., 2021; Hudaefi et al., 2022). Digital fundraising has proven to be more effective in urban settings, allowing zakat institutions to reach a broader audience and increase donations during challenging times (Humaidi et al., 2022). This shift towards digital platforms aligns with the growing trend of younger generations engaging with fintech solutions for charitable giving, as evidenced by studies indicating that millennials are more inclined to utilize digital means for zakat payments (Beik et al., 2023; Kasri & Yuniar, 2021).

The potential of fintech to enhance zakat management extends beyond mere convenience; it also aligns with broader goals of financial inclusion and sustainable development. By facilitating easier access to zakat payment channels, fintech can help mobilize resources for social welfare initiatives, thereby contributing to the achievement of the Sustainable Development Goals (SDGs) (Kılıç & Türkan, 2023). For instance, fintech platforms can streamline the collection and distribution processes of zakat, ensuring that funds reach the intended beneficiaries more effectively (K. Ahmad & Yahaya, 2022; Kılıç & Türkan, 2023). Additionally, the use of blockchain technology in zakat management has been proposed as a means to enhance transparency and traceability,

further reinforcing the integrity of zakat institutions (Nazeri & Nor, 2023).

The integration of fintech into zakat management signifies a substantial advancement in Islamic financial practices. This synergy not only enhances the operational efficiency of zakat institutions but also fosters greater engagement among the Muslim community, particularly among younger generations. As the landscape of financial technology continues to evolve, the potential for further innovations in zakat management remains vast, promising to address socio-economic challenges and promote social justice in an increasingly digital world.

This study conducts a systematic literature review (SLR) to examine the relationship between zakat and fintech, employing bibliometric analysis to map trends in this emerging field. By analyzing existing literature, we aim to identify key developments and patterns in how fintech is reshaping zakat practices. A central research question is the evolution of research on zakat and fintech over time. Tracing the timeline of relevant studies will help reveal shifts in focus and emerging themes, particularly in response to global events like the COVID-19 pandemic, which has accelerated the adoption of digital solutions in zakat management.

We also aim to identify significant contributions to the literature on zakat and fintech. Highlighting foundational studies and influential authors will illuminate how these contributions advance the understanding of zakat management through innovative fintech solutions, showcasing the essential works that pave the way for further exploration. Additionally, this research will examine the relationships among researchers and institutions in the zakat and fintech landscape. Mapping these connections will shed light on collaborative efforts that foster interdisciplinary approaches, facilitating

knowledge sharing and driving forward the integration of fintech into zakat management.

METHODOLOGY

This study employs a Systematic Literature Review (SLR) combined with bibliometric analysis to map existing literature on zakat and fintech. The primary database utilized is OpenAlex, where articles were searched with filters ensuring that the title and abstract contain the word "zakat," alongside the keyword "fintech." No filters were applied for publication year or study type, resulting in a total of 31 articles included in the analysis as of October 14, 2024.

The bibliometric analysis focused on co-occurrence analysis and citation analysis using VOSviewer. The co-occurrence analysis identified the frequency of keyword appearances, highlighting key topics and concepts within the literature. The citation analysis was employed to determine the most influential articles and authors based on citation counts, providing insights into the foundational works that shape the discourse around zakat and fintech.

The results from these analyses were visualized using VOSviewer, creating maps that illustrate the prominent research themes and citation networks in the field. This approach enables a clearer understanding of the trends and significant concepts emerging in zakat and fintech research.

RESULT AND DISCUSSION

General Overview

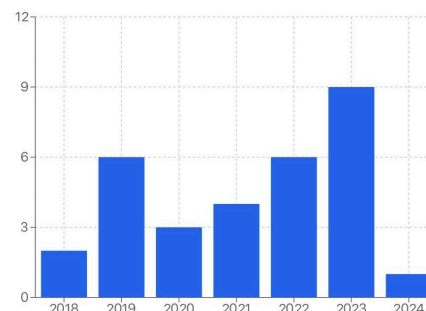


Figure 1. Number of articles published per year. The data, processed by the author, is sourced from OpenAlex.

The research landscape on zakat and fintech has shown significant growth in recent years, reflecting the increasing interest in integrating Islamic finance with modern financial technologies. From 2018 to 2024, a total of 31 publications were identified, with a clear upward trend in the number of articles published annually. The rise from just 2 articles in 2018 to a peak of 9 in 2023 suggests an increasing recognition of the relevance of fintech solutions in zakat management and Islamic finance more broadly. This trend aligns with the global surge in fintech adoption, which is reshaping financial systems worldwide, including in Islamic finance.

Most of the research output consists of journal articles (26), indicating a focus on disseminating findings through peer-reviewed academic platforms. The inclusion of 4 book chapters and 1 preprint highlights a growing diversity in publication formats, though journal articles remain the dominant mode. The fact that 67.7% of these works are open access further suggests a commitment to making research accessible to a broader audience, which is crucial for fostering knowledge sharing and collaboration in the rapidly evolving fintech space.

English dominates the language of publication (25 articles), which reflects the international nature of the research, aiming to reach a global scholarly community. However, the presence of 6 articles in Indonesian demonstrates local engagement and relevance, particularly within the context of Indonesia, which has the world's largest Muslim population and a rapidly growing fintech sector.

Institutional involvement also shows interesting patterns. *Universitas Islam Negeri Raden Intan Lampung* leads the contributions with 5 articles, showcasing its active role in this research area. Other institutions, such as Universitas Gadjah Mada, Sunan Kalijaga State Islamic University Yogyakarta, and Bank Indonesia, each contributing 2 articles, highlight the collaborative nature of research in Islamic finance and fintech. The involvement of Bank Indonesia points to a practical interest from financial regulatory bodies, emphasizing the potential policy implications of this research.

The key contributors to the field include prominent authors such as *Afiful Ichwan*, who has published 3 articles, along with Ali Sakti, Muhamad Hasif Yahaya, Khaliq Ahmad, and Ruslan Abdul Ghofur, each with 2 articles. This shows that while the field is growing, a small group of researchers are leading the conversation, indicating opportunities for further contributions from a broader range of scholars.

Thematically, the research is concentrated around two major topics: "*Islamic Banking and Finance Literature Review*" and "*Social Media Use and Impact on Society*", each addressed in 12 articles. These topics reflect both the theoretical foundations of Islamic finance and the practical implications of fintech in modern financial systems, particularly regarding how social media influences financial

behavior. Additionally, 6 articles focus on "Crowdfunding and Fintech," underscoring the growing relevance of alternative financing models within Islamic finance. The presence of 1 article on "Blockchain and Internet of Things Integration" suggests that while these advanced technologies are beginning to be explored, they are still in the early stages of integration into Islamic finance.

Trend Analysis

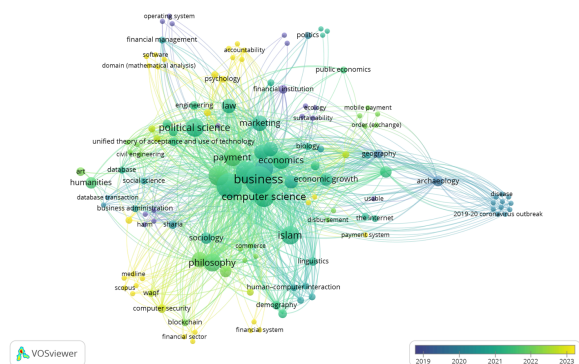


Figure 2. Co-occurrence analysis.

The co-occurrence analysis using VOSviewer, with the full counting method, identified 133 keywords that met the threshold of a minimum of 1 occurrence. Among these, five keywords emerged as the most prominent, each with more than 15 occurrences and a total strength exceeding 200. These top five keywords are *business*, *finance*, *financial services*, *computer science*, and *accounting*.

The dominance of keywords related to business and finance signals a strong emphasis on the economic implications of zakat within the broader fintech framework. This intersection reveals how innovative financial technologies are reshaping traditional practices in zakat management and Islamic finance, creating new opportunities for efficiency and transparency. The inclusion of *computer science* highlights the indispensable role of technology in facilitating fintech

development, illustrating how advancements in algorithms, data analytics, and software engineering are essential for enhancing zakat systems. Additionally, the prominence of *accounting* points to the practical financial applications that are critical for effective zakat management and Islamic financial reporting, reinforcing the need for rigorous accounting standards in these contexts.

Beyond the established keywords, several emerging terms have gained traction since 2023, pointing to fresh and compelling research avenues. Keywords such as *financial sector*, *financial systems*, *payment systems*, *accountability*, *engineering management*, *psychology*, and *knowledge management* are becoming increasingly prominent in recent studies. This evolution indicates a growing interest in the broader implications of fintech within the financial sector, particularly regarding how these technologies can enhance operational effectiveness and ethical accountability in financial practices. The focus on accountability is particularly relevant in the context of zakat distribution and management, where ensuring transparency and trust is paramount for sustaining donor confidence.

The emergence of engineering management and psychology as significant keywords highlights a multidisciplinary approach to investigating the operational and behavioral dimensions of fintech. This suggests a recognition of the importance of not only technical solutions but also human factors in implementing fintech innovations. Understanding user behavior and organizational dynamics is crucial for optimizing zakat processes and fostering greater community engagement. Furthermore, the emphasis on knowledge management underscores the critical role of information systems and data management practices in streamlining zakat operations.

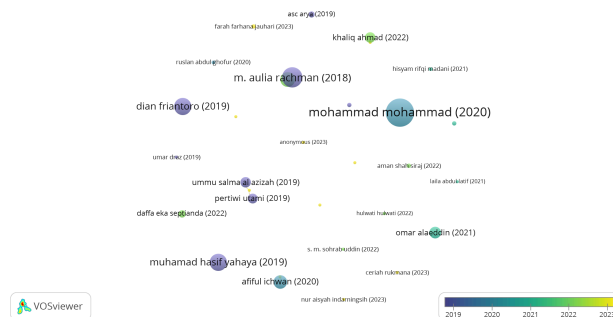


Figure 3. Citation analysis using overlay visualization, focusing on documents.

By optimizing data collection, analysis, and dissemination, fintech solutions can enhance the effectiveness of zakat management, ensuring that funds are allocated efficiently and transparently to those in need. This rich interplay of disciplines points to an evolving research agenda that seeks to integrate technological advancements with ethical and operational considerations, ultimately shaping the future landscape of zakat and fintech.

The citation analysis, utilizing a minimum citation threshold of zero, reveals that *Mohamud Ahmed Mohamed's work (2023)* stands out as a highly relevant source, demonstrating the most connections in the network of citations. This prominence suggests that his research addresses pressing contemporary issues within the zakat and fintech landscape, resonating with ongoing scholarly discourse and highlighting its significance in shaping the direction of future inquiries in this field. The considerable number of links to his work indicates that it serves as a vital resource for researchers seeking to understand the integration of fintech into zakat management, further emphasizing its relevance to practitioners and policymakers alike.

Several other documents in the analysis exhibit robust citation counts, underscoring their foundational importance

in the literature on zakat and fintech. Noteworthy contributions include *Mohammad (2020)* with an impressive 103 citations, *M. Aulia Rachman (2018)* at 55 citations, *Dian Friantoro (2019)* with 40 citations, and *Muhamad Hasif Yahaya (2019)* at 39 citations. The exceptionally high citation count for Mohammad (2020) positions it as a cornerstone reference for subsequent studies, suggesting that it provides critical insights and frameworks that have shaped the ongoing discourse in this area. The impact of such foundational works is vital for establishing a common understanding and guiding future research directions within the zakat and fintech nexus.

Despite the robust contributions from various authors, the analysis also reveals that some of the 31 examined documents remain disconnected from one another, indicating the presence of distinct research threads that have not yet converged into a unified body of knowledge. This disconnection may suggest the existence of niche areas within the broader themes of zakat and fintech, where specific studies focus on particular aspects that have not yet received widespread recognition or citation from their peers. Such niche research may offer valuable insights but could benefit from increased visibility and integration into the larger conversation, ensuring that diverse perspectives are acknowledged and incorporated into the overall understanding of the field.

Interestingly, the analysis identifies the largest interconnected group of documents, including works by *Ummu Salma Al Azizah (2019)*, *Mohamud Ahmed Mohamed (2023)*, and *Pertiwi Utami (2019)*. This connectivity suggests potential collaboration or shared thematic interests that enrich the discourse surrounding zakat and fintech. The presence of interconnected research underscores the importance of

collaborative efforts in fostering a comprehensive understanding of the integration of these two fields. While individual studies undoubtedly contribute valuable insights, a more interconnected approach could yield deeper knowledge and facilitate the development of cohesive strategies for enhancing zakat management through fintech solutions. Ultimately, fostering collaboration among researchers and institutions can help create a more holistic understanding of the challenges and opportunities within the zakat-fintech nexus, paving the way for innovative solutions that benefit both the Muslim community and the broader socio-economic landscape.

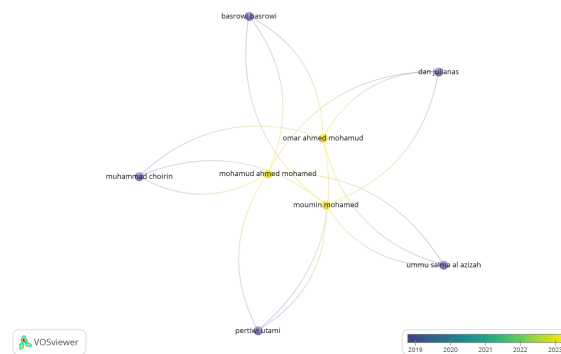


Figure 4. Citation analysis through overlay visualization, focusing on the authors

The citation analysis, which focused on authors with at least one document and zero citations, revealed that 75 authors meet the established criteria. This finding highlights a substantial engagement with the topic of zakat and fintech, suggesting that a diverse range of scholars is contributing to the discourse. However, the observation that many of these authors remain disconnected from one another points to a fragmentation within the research community. The largest cluster of interconnected works consists of only *eight* documents, indicating that while interest in the subject is widespread, collaborative efforts may be lacking. This limited connectivity suggests an opportunity

for increased collaboration among researchers, which could facilitate the sharing of insights and foster a more integrated approach to addressing the challenges and opportunities within the zakat-fintech nexus.

Among the identified authors, *Omar Ahmed Mohamud*, *Mohamud Ahmed Mohamed*, and *Moumin Mohamed* emerge as particularly significant figures in the recent landscape of zakat and fintech research. Their contributions, as highlighted in the overlay visualization, place them at the forefront of contemporary discussions, indicating their potential to shape the direction of future research narratives. By exploring innovative intersections between fintech and zakat management, these authors are likely to provide fresh perspectives that could inform policy development and practical applications in the field. As their work gains visibility and influence, it may serve as a catalyst for more profound discussions on the role of technology in enhancing the effectiveness and reach of zakat, ultimately contributing to the broader goals of social welfare and economic empowerment within Muslim communities. This dynamic underscores the importance of fostering collaborative research endeavors that unite diverse perspectives and expertise, paving the way for comprehensive solutions to the evolving challenges faced in zakat management in the digital age.

Research Implications

The findings of this study carry significant implications for the fields of zakat and fintech. Firstly, the integration of technology in Islamic finance is emerging as a critical focus. The growing trend toward recognizing fintech's potential to revolutionize zakat management highlights opportunities for developing innovative solutions that not only align with Islamic principles but also leverage modern

technological advancements. By embracing fintech tools, organizations can streamline processes, enhance user engagement, and improve overall efficiency in zakat administration, thereby maximizing the impact of charitable contributions.

Moreover, the study underscores the necessity for an interdisciplinary approach in future research. The diverse keyword clusters identified in the analysis suggest a compelling need for collaborative research that bridges the gaps between *computer science*, *finance*, and *Islamic studies*. This collaboration can foster the development of holistic solutions that consider both technological capabilities and the ethical dimensions of zakat management. Such interdisciplinary efforts will be crucial for addressing complex challenges and promoting a more integrated understanding of how fintech can effectively serve Islamic finance.

The findings also highlight the significance of localization and globalization in developing fintech solutions. The presence of both international and localized research, particularly Indonesian-language publications, indicates that fintech applications must be adaptable to various cultural and regulatory environments. Researchers and practitioners should prioritize solutions that maintain global best practices while being sensitive to local contexts. This dual focus can ensure that innovations in zakat management resonate with diverse communities and comply with regional legal frameworks.

Another critical area for future exploration is the emphasis on accountability within zakat and fintech integration. The emergence of keywords related to accountability and transparency underscores a vital research domain that warrants further investigation. By focusing on how fintech can enhance trust and efficiency in zakat collection and

distribution, scholars can contribute to the development of systems that promote ethical practices and foster greater donor confidence. This focus on accountability can ultimately lead to improved engagement and participation in zakat contributions.

Lastly, the involvement of institutions such as Bank Indonesia in zakat and fintech research suggests significant potential for influencing policy and regulatory frameworks. Academic findings can play a pivotal role in shaping guidelines that govern the integration of zakat and fintech, ensuring that these innovations are aligned with both regulatory standards and ethical considerations. By collaborating with policymakers and regulatory bodies, researchers can facilitate the development of frameworks that not only support fintech initiatives but also enhance the overall integrity of zakat management practices. This engagement will be crucial for fostering a sustainable ecosystem where zakat and fintech can thrive together.

Limitations

This systematic literature review, while providing valuable insights, is not without its limitations. One primary concern is the relatively small sample size of 31 articles, which may not encompass the full range of research available in the zakat and fintech domains. This limitation arises partly from the specificity of the topic and its recent emergence, potentially constraining the available literature.

The reliance on a single database, OpenAlex, further restricts the review's comprehensiveness. Relevant articles indexed in other databases may have been excluded, which could lead to an incomplete representation of the research landscape. Additionally, although the inclusion of Indonesian-language articles broadens the perspective, the predominance of English-language publications may result in overlooked contributions from research

published in other languages, particularly Arabic, given the topic's relevance to Islamic finance.

Another significant limitation stems from the rapid evolution of technology in the fintech sector. Earlier publications may not accurately reflect current technological capabilities or regulatory environments, which could impact the relevance of some findings. Furthermore, the sensitivity of the keyword search strategy, which focuses on specific terms such as "zakat" and "fintech," may have excluded pertinent studies that utilize different terminologies or discuss related themes without explicitly mentioning these keywords.

Lastly, the citation analysis may disproportionately favor older publications, as recent articles have had less time to accumulate citations. This could result in an underrepresentation of the impact of newer, potentially groundbreaking research in this area. Collectively, these limitations point to opportunities for future research to expand the scope of analysis by incorporating a wider range of databases and languages, as well as employing diverse methodological approaches. Such endeavors could facilitate a more comprehensive understanding of the zakat-fintech nexus and its implications for Islamic finance.

CONCLUSION

The findings reveal a dynamic and rapidly evolving research landscape, characterized by increasing scholarly interest, interdisciplinary approaches, and a growing recognition of fintech's potential to transform zakat management practices. The research trajectory from 2018 to 2023 demonstrates a clear trend towards integrating modern technological solutions with traditional Islamic financial principles. This integration is not merely a technological upgrade but represents a fundamental shift in how zakat can be

collected, managed, and distributed in the digital age. The emphasis on accountability and transparency, as evidenced by emerging keywords, underscores the potential of fintech to address longstanding challenges in zakat administration.

The geographical and linguistic diversity of the research, particularly the prominence of Indonesian contributions, highlights the global relevance of this topic while also emphasizing the need for localized solutions. This balance between global best practices and local contextual factors is crucial for the successful implementation of fintech solutions in diverse Muslim communities worldwide. Despite the limitations in sample size and database coverage, this review lays a foundation for future research directions. It calls for more extensive interdisciplinary collaboration, broader linguistic inclusion, and a continued focus on developing practical, ethical, and Shariah-compliant fintech solutions for zakat management.

In conclusion, the integration of fintech in zakat systems represents a promising frontier in Islamic finance. As this field continues to evolve, it holds the potential to significantly enhance the efficiency, transparency, and reach of zakat, ultimately contributing to greater financial inclusion and social welfare in Muslim societies. Future research should build upon these findings, addressing the identified limitations and exploring new avenues to harness the full potential of fintech in revolutionizing zakat practices for the digital age.

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