# A BIBLIOMETRIC ANALYSIS OF INNOVATION ACCEPTANCE MODEL IN ISLAMIC FINANCE: TRENDS AND EMERGING AREAS

**M. Fauzan**
Universitas Islam Negeri Syekh Ali Hasan Ahmad Addary Padangsidimpuan
Email: fauzan@uinsyahada.ac.id

***Abstract***
*Although the Innovation Acceptance Model (IAM) has been widely applied across various industries, its application in Islamic finance remains underexplored. This study aims to analyze IAM implementation within Islamic banking and identify key factors influencing technology adoption in this sector. Data were collected from Crossref Search over five years (2019-2024) using the keywords "Innovation Acceptance Model" and "Islamic Finance". The results were analyzed through bibliometric methods using Harzing's Publish or Perish (PoP) and visualized with VOSviewer. Findings highlight a focus on financial inclusion and Islamic fintech, with perceived ease of use and perceived usefulness as primary drivers of adoption. Challenges like digital risk are also identified as potential barriers. This research provides strategic insights for optimizing technology adoption in Islamic finance and contributes to both academic literature and industry practices.*

***Keywords:*** *bibliometric; innovation acceptance model; Islamic finance*

## A. INTRODUCTION

Islamic finance has rapidly evolved over the past few decades, becoming a key pillar in the global financial system (Abdalla et al., 2024; Abdeldayem & Aldulaimi, 2022; Djafri et al., 2021; Watkins, 2020). It not only offers products and services compliant with Shariah principles but also emphasizes ethics, transparency, and fairness in financial transactions (Cortelezzi, 2022; Lee, 2022; Sumitro, 2021). However, with increasing global competition and technological advancements, Islamic financial institutions face challenges in adapting to rapid changes in financial technology (Nicoletti, 2017). This is where the Innovation Acceptance Model (IAM) plays a crucial role (Nicoletti, 2021). The model examines how financial institutions, including Islamic banks, can effectively accept and adopt technological innovations, which is essential in today's digital age.

Although IAM has been widely applied across various industries, its application in Islamic finance remains under-researched. Emerging trends and areas

indicate that technology adoption in Islamic finance is vital (Nicoletti, 2021), but studies on IAM's application in this context are limited. Even searches in academic databases like Scopus reveal a lack of substantial discussions on this issue. This research is essential, as global trends show that digital transformation can bring significant benefits to financial institutions. According to (Bughin et al., 2017), over three-quarters of digital initiatives successfully reduce costs and enhance employee experience. Furthermore, Bain & Company identified that only a small percentage of organizations improve financial performance through digital investments, highlighting the need for more holistic strategies (Sen Ganesh et al., 2018).

Previous studies suggest that successful digital transformation depends heavily on comprehensive strategies and the right implementation of technological innovation (Altarturi et al., 2021; Chowdhury & Uddin, 2021; Pathan et al., 2022; Rabbani et al., 2022; Sarea et al., 2021). According to (McKinsey Digital, 2021), more than two-thirds of organizations focusing on digital transformation reported revenue growth, both from existing streams and new sources. Additionally, Bain & Company found that organizations with holistic digital strategies grow 50% faster than their competitors and are 30% more profitable (Sen Ganesh et al., 2018). In the context of Islamic finance, the adoption of innovative technologies like AI and blockchain is also being explored to create more efficient and secure financial services (Altarturi et al., 2021; Hadi et al., 2021; Mohammed, 2021; Sa'ad et al., 2021; Song, 2019). These findings underscore the importance of studying IAM in Islamic finance to understand how Islamic financial institutions can effectively adopt technological innovations, helping them address challenges in digital transformation.

From a policy perspective, governments in various countries, including Indonesia, have been promoting digital transformation as part of national strategies to enhance financial inclusion and global competitiveness (Utama et al., 2024). These policies reinforce the importance of this research, given the challenges and risks faced by financial institutions during the digital transformation process. Rapid and accurate operational risk analysis and risk management are crucial to minimizing potential negative impacts on financial institutions.

The purpose of this research is to analyze the application of the Innovation Acceptance Model in Islamic finance, particularly in the context of Banking 5.0, and to identify key factors influencing the adoption of technological innovations by Islamic financial institutions. This study also aims to provide strategic recommendations for Islamic financial institutions in managing risks associated with digital transformation and maximizing the benefits derived from technological innovations. Therefore, this research is expected to contribute to the literature on Islamic finance and technological innovation while providing practical insights for industry practitioners.

## B. LITERATURE REVIEW

Digital transformation in banking involves more than just adopting new technologies; it requires a comprehensive overhaul of business models, organizational culture, and customer engagement strategies (Kamble et al., 2019; Kim et al., 2016). (Nicoletti, 2021) emphasizes that without a fundamental redesign of the core business model, integrating innovative solutions might be less efficient and

effective. The transformation encompasses shifts from traditional banking to the use of big data, mobile banking, fintech, and AI-driven processes. These changes are driven by evolving customer expectations, which compel banks to continually innovate in digital channels and customer interactions to stay competitive (Mat Rahim et al., 2018).

The adoption of Digital Banking 5.0 necessitates the deep integration of AI solutions within operational frameworks. These AI tools can automate repetitive tasks, enhancing efficiency, but they also introduce complexity and potential risks (De Saint Laurent, 2018). McKinsey Digital (2024) identifies three major models for digital transformation: Stepwise, Big Bang, and Emergent approaches. Each model has distinct advantages depending on an organization's risk tolerance and strategic objectives. Success in digital transformation depends on an adaptive organizational strategy that embraces innovation, risk-taking, and cross-functional collaboration, supported by clear leadership and accountability throughout the process (McKinsey Digital, 2024).

Despite the substantial benefits, digital transformation also presents significant challenges, particularly in managing operational risks. As organizations become more reliant on digital technologies, they face increased threats from cyberattacks, data breaches, and operational disruptions (Bughin et al., 2017). Managing these risks requires a robust governance framework, including regular risk assessments, effective mitigation strategies, and continuous monitoring (Boneva, 2018). Bain & Company's research indicates that only a small percentage of organizations have successfully used digital investments to enhance financial performance, highlighting the need for a comprehensive and strategic approach to digital transformation (Sen Ganesh et al., 2018).

The Innovation Acceptance Model (IAM) is an extension of the Technology Acceptance Model (TAM) designed to evaluate the acceptance of innovative solutions in the context of Digital Banking 5.0. While TAM focuses on the perceived usefulness (PU) and perceived ease of use (PEOU) of technological solutions (Song, 2019), IAM incorporates additional factors such as behavioral intentions (BI), perceived economic factors (PEF), and perceived trust (PT). IAM also considers digital operational characteristics, non-service quality factors, awareness and knowledge, reputation, attitudes toward innovation, subjective norms, and perceived behavioral control (Nicoletti, 2021). Support for organizations in adopting Digital Banking 5.0 can include both financial and non-financial assistance, such as training and consulting, which contribute to successful implementation.


## C. METHOD

This research employs bibliometric analysis, a quantitative approach used to assess research trends and scholarly contributions within a field. Bibliometrics analyzes publications, citations, and the relationships between various concepts in the scientific literature. The goal of this analysis is to identify major trends, leading authors, and research collaborations within a specific topic. Its benefits include a

comprehensive mapping of the research landscape and the identification of influential topics or authors. In this study, data were obtained from Crossref Search for the five-year period (2019-2024) using Harzing's Publish or Perish (PoP) software. The search was conducted using the title words "Innovation Acceptance Model" and the keyword "Islamic Finance," resulting in 1000 articles with 3217 citations, as well as several metrics such as an h-index of 23 and a g-index of 42.

**Table 1. A Bibiliometric Data of Research**



After the data were collected, bibliometric analysis was conducted using VOSviewer software to generate network visualization, overlay visualization, and density visualization (As-Salafiyah, 2024; Hassan et al., 2022; Supriani & Mubarrok, 2023). Network visualization helps to understand the relationships between concepts and authors collaborating in this research, while overlay visualization shows the changes in research trends over time. Density visualization maps the intensity of relationships within the studied topic. This approach allows the research to identify rapidly developing areas and reveal research patterns in the study of the "Innovation Acceptance Model" in the context of Islamic Finance, providing deeper insights for future research development.

## D. RESULT AND DISCUSSION

### RESULT

The results of this research highlight trends and developments in the study of the "Innovation Acceptance Model" within the context of Islamic Finance over the past five years (2019-2024). Through bibliometric analysis conducted using Harzing's Publish or Perish (PoP) and VOSviewer software, this study identifies key publications, citation patterns, and collaboration networks among authors and related topics. With 1000 articles analyzed and a total of 3217 citations, these results provide

a deep understanding of influential authors, major topics, and the conceptual relationships underpinning research in this field. The visualizations produced, including network, overlay, and density visualizations, reveal how the topic of "Innovation Acceptance Model" in Islamic Finance has evolved, identifying key research focuses and potential areas for further exploration. These findings can serve as a reference for guiding future research and strategic development in the field of Islamic financial innovation. Below are the results of the network visualization:



The network visualization results from the bibliometric analysis concerning the acceptance of technological innovations in Islamic finance. In this network, larger nodes such as "financial inclusion," "Islamic bank," and "Indonesia" indicate the most frequently discussed topics in the research. The connections between nodes, shown by lines, illustrate the relationships between these concepts. For example, "financial inclusion" is strongly linked with various aspects such as "pandemic," "institutional quality," and "Islamic banking sector." This visualization illustrates how the topic of financial inclusion is deeply connected with various factors in Islamic finance.

In another part of the image, nodes like "fintech," "digital risk," and "Islamic fintech" highlight the emergence of financial technology as a growing area in Islamic finance research. This indicates a growing focus on how technology, especially financial technology, is being implemented in Islamic financial products and services. These nodes also show how Islamic financial technology is seen as crucial in relation to stability and risk in the overall Islamic financial system.

Regarding innovation and technology in Islamic finance, the role of technology is pivotal in accelerating the development of Islamic finance by enhancing efficiency and inclusivity. The adoption of financial technology in Sharia-compliant products and

services, such as Islamic fintech, is key to improving financial access for previously underserved populations. However, challenges such as digital risks and regulatory adaptation remain barriers that need to be addressed. This underscores current issues in Islamic finance, including the technological challenges in supporting inclusivity and stability within the Islamic financial system.



The overlay visualization results from the bibliometric analysis focusing on the acceptance of technological innovations in Islamic finance. The colors on the nodes reflect the research timeline, with blue indicating topics discussed earlier in the period and yellow representing more recent research. Nodes such as "financial inclusion," "Islamic bank," and "Indonesia" are dominant and have been discussed since the beginning of the period, whereas topics like "fintech" and "digital risk" have emerged more recently in Islamic finance research.

The topic of "financial inclusion" remains a focus of research throughout the period, with increasing attention to technology aspects like "fintech" and "Islamic fintech" in recent years (represented by yellow). This indicates a shift in research from macroeconomic and financial stability issues to the implementation of Sharia-compliant financial technologies. Additionally, nodes related to digitalization and technology, such as "digital risk" and "Islamic fintech," are receiving growing attention in the latest research.

In the context of innovation and technology in Islamic finance, technology plays a key role in enhancing financial inclusion and making Sharia-compliant products more accessible to the public. The adoption of financial technology, such as Islamic fintech, has helped reduce geographical and administrative barriers to providing Sharia-compliant financial services. However, challenges remain,

particularly related to digital risks and the lack of appropriate regulatory frameworks for these new technologies. Technological innovation has significant potential to support the inclusivity and stability of Islamic finance, but it requires increased attention to risk management and the development of comprehensive regulations.
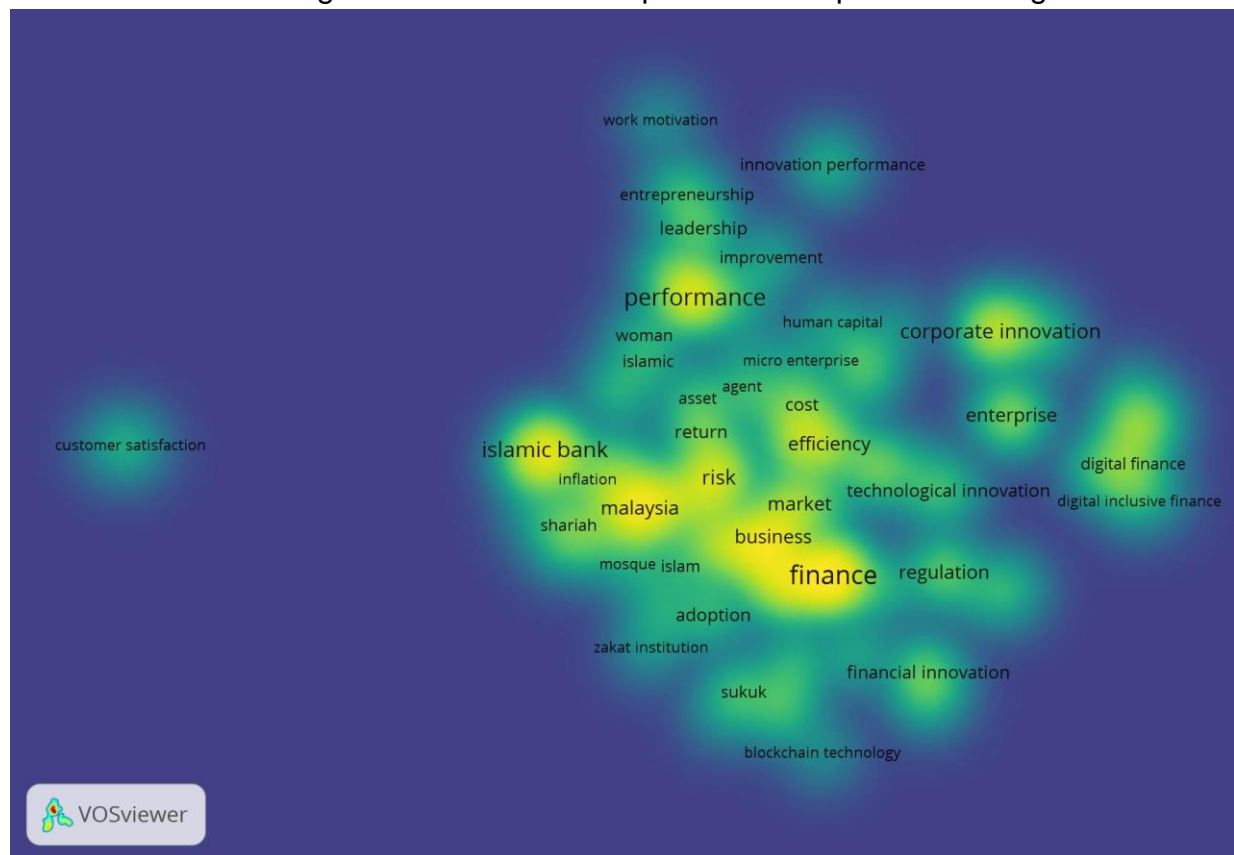


The density visualization results from the bibliometric analysis related to the acceptance of technological innovations in Islamic finance. Brighter and more intense colors, such as those seen around the node "financial inclusion," indicate topics with a higher volume of research or attention. Conversely, areas with more subdued colors represent topics with lower research density. Topics such as "financial inclusion," "Islamic bank," and "Indonesia" clearly emerge as major research focuses, with substantial contributions to the literature.

Topics related to Sharia-compliant financial technology, such as "fintech," "Islamic fintech," and "digital risk," although not as prominent as the central topics, are beginning to show increased attention with a significant density. This suggests that technological innovation, particularly in the context of Islamic finance, has garnered growing interest in recent years. This visualization highlights key areas of focus for researchers while also indicating room for further exploration in newer and more specific topics, such as the adoption of technology in Sharia-compliant financial services.

In relation to innovation and technology in Islamic finance, technology plays a crucial role in expanding access to Sharia-compliant financial services and enhancing financial inclusion. The adoption of Islamic fintech has contributed to the sector's growth by offering more accessible and transparent products. However, challenges remain in digital risk management and regulatory adaptation to

accommodate technological changes. Therefore, current issues in Islamic finance include how technology can support inclusivity while ensuring stability and compliance with Sharia principles.

## DISCUSSION

Current issues in Islamic finance, particularly in the context of innovation and technology, are closely related to the acceptance of new technologies by stakeholders. According to the bibliometric visualization results, the primary focus of research is on "financial inclusion," highlighting the importance of broader financial access through the implementation of technology. The acceptance of technological innovations in Islamic finance is also evident in the emergence of topics such as "fintech," "Islamic fintech," and "digital risk." This reflects a shift from traditional approaches to more innovative ones, with technology playing a crucial role in enhancing financial inclusion across various Muslim communities, especially in regions like Indonesia and Nigeria.

In the context of the Innovation Acceptance Model (IAM) applied to Islamic finance, the key factors influencing technology acceptance are perceived ease of use and perceived usefulness. The adoption of Islamic fintech becomes stronger when users feel that the technology facilitates their access to Sharia-compliant financial services while providing added value in terms of efficiency, transparency, and ease of access. Additionally, topics like "digital risk" indicate challenges that need to be addressed within this innovation acceptance model. Concerns about digital risks and technological vulnerabilities may act as barriers to the adoption of Islamic fintech, making regulation and risk management crucial components of the acceptance model.

The novelty in innovation and technology acceptance within Islamic finance, supporting the Innovation Acceptance Model, lies in the increased awareness and adoption of Sharia-compliant financial technology. Islamic fintech is now not only a tool for enhancing financial inclusion but also a means to strengthen the overall stability of the Islamic financial system. Recent research also indicates that with an adaptive regulatory framework and effective risk management, technology can play a more significant role in supporting the development of Islamic finance. Therefore, issues such as regulation, digital risk, and perceived benefits of technology are key elements in understanding the acceptance of technological innovations in Islamic finance.

## E. CONCLUSION

The research findings indicate that current issues in Islamic finance are closely related to the acceptance of technological innovations, particularly in enhancing financial inclusion. The main emerging topic is "financial inclusion," highlighting the importance of broader financial access through the implementation of technologies such as fintech and Islamic fintech. The Innovation Acceptance Model (IAM) in Islamic finance identifies that perceived ease of use and the benefits of

technology play crucial roles in technology adoption, but challenges such as digital risk and regulation remain barriers. With effective risk management and an adaptive regulatory framework, technology can more effectively support the development and stability of Islamic finance, making it a key element in expanding access to Sharia-compliant financial services.

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