

Islamic Fintech Research Worldwide: A Bibliometric Analysis

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Islamic Fintech continues to grow as innovation in the field of technology accelerates human life. Although relatively new, research on Islamic Fintech continues to grow and has been quite attractive to researchers in recent years. Seeing this phenomenon, it is necessary to anticipate the increasing interest of academics in researching Islamic Fintech. This paper aims to facilitate researchers in finding out the development of Islamic Fintech research, find topics that can be developed, and know the main contributors and sources that shape research in the field of Islamic Fintech. This research analysis is a Bibliometric analysis with Biblioshiny and VOSviewer software, using metadata consisting of 98 Scopus-indexed data published in 10 years, namely 2013-2022. The results of the study found that the potential for developing research on the theme of Islamic Finance is huge, topics that can be developed for further research include "Crowdfunding" and "Crowdsourcing." Meanwhile, Muslimmajority countries dominate Islamic Finance research, including with their authors and affiliations.

Keywords: Islamic Fintech; Bibliometrics; Financial Technology

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INTRODUCTION

Financial Technology gained momentum in the last quarter of the 20th century and has grown rapidly tworldwide (Aysan & Nanaeva, 2022). Islamic Financial Technology, or Islamic Fintech, is a combination of finance and technology with more innovative solutions based on the provisions of Islamic law. Winarsih, (2022) added that Islamic Fintech is a combination of financial and technological innovations to facilitate the transaction and investment process based on Islamic law. The development of the Islamic Fintech Industry in the world began around 2013, dominated by Muslim-majority countries such as Malaysia, Saudi Arabia, and Indonesia (Ali et al., 2019; Dinar Standard, 2022). There are more than 150 Islamic Fintech around the world. Almost half of them are established in Islamic countries and the others in developed countries. Islamic Fintech in the United States, United Kingdom, and Europe are much more professionalized (Demirdögen, 2021).

Islamic Fintech continues to grow as innovation in the field of technology accelerates in everyday human life. The impact of technological development is to make humans want good, fast, easy, and effective services in all sectors of life, including the financial and capital sectors. The results of research from Rasidi et al., (2021) state that Fintech in the form of P2P (Peer To Peer) lending is the answer for unbankable MSME activists. Fintech is able to connect MSME activists who have not previously been touched by banking financial services so that Fintech can increase the capacity of MSMEs to become more prosperous. Fintech also makes it easier for MSMEs to develop their business in an easy way.

Islamic Fintech is different from Fintech in general, although functionally there are similarities. Rasidi et al. (2021) stated that the difference between conventional Fintech and Sharia Fintech is in the contract, where Sharia Fintech follows the rules of Islamic law. Islamic Fintech applies Islamic law to products, services, transactions, and how they are presented to customers. By following Islamic law, Islamic Finance has shown resilience and stability during difficult times such as the pandemic, even after the pandemic took place Islamic finance was able to maintain stable growth with rapidly growing assets (Dawood et al., 2022; Dinar Standard, 2021).

In addition to developing in the industrial sector, Islamic Fintech is also increasingly developing in research. Aysan, (2021) states that the position of Fintech is very important for Islamic Finance from

various dimensions, with all its advantages and disadvantages, so that with more attention to Fintech, and the increasing number of research papers in the literature proves that there is great interest in Islamic fintech research. Especially after 2010, researchers have focused on Islamic Fintech, blockchain and its use in Islamic financial institutions, microfinance and fintech, and many more. Based on this, in anticipation of the increasing interest of academics in researching Islamic Fintech, this paper aims to determine the development of Islamic Fintech research, identify topics, key contributors, and sources that shape research in the field of Islamic Fintech using Bibliometric Analysis with Biblioshiny and VOSviewer software.

The researcher wanted to identify the key areas and dynamics of current Islamic Fintech and suggest future research directions. Therefore, the following three research questions (RQs) will be addressed in this study: RQ1: What are the recent trends in Islamic Fintech publications (year, author, article, journal, and country)? RQ2: What are the common research themes among researchers in this field? RQ3: What is the scope of academic literature on the given topic? Some of these research questions will try to be answered.

RESEARCH METHOD

For the analysis in this study, the authors chose to use metadata from Scopus which was retrieved on June 11, 2023. (Donthu et al., 2021) state that the Scopus database provides a high-quality and reliable basis for bibliometric analysis. The keywords used to find metadata include; "Islamic Finance" including title, abstract, and keywords with a research period limit of 10 years from 2013 to 2022. 89 total documents are processed from the downloaded metadata using the Biblioshiny and VOSviewer applications.

The methodology used in this research is bibliometric analysis. Bibliometric analysis or method is sometimes referred to as scientometrics as part of the research evaluation methodology, and from the various literature that has been produced, it is possible to carry out bibliometric analysis using a separate method (Bar-Ilan, 2008; Ellegaard & Wallin, 2015; Sidiq, 2019). Bibliometric analysis is a popular method for exploring and analyzing large amounts of scientific data. It allows us to uncover the evolutionary nuances of a particular field while shedding light on new fields emerging in that field (Donthu et al., 2021). Several studies using this framework for the example has been done by

Puspita (2023a, 2023b), As-Salafiyah (2023), Kartikawati & Uula (2024), Rusydiana (2023), and Muttaqi (2023). In addition, several other studies with this method can be seen in Maliha (2023), Ridwan & Abdullah (2023), Maulida (2023), Riani (2023), and also Taqi et al., (2021).

This research uses bibliometric analysis with 2 analyses, namely document analysis to find out the

most cited documents, the most used keywords, and the most discussed topics, the next analysis is author analysis to find out the most productive authors, publication impact (H-index), author affiliation, country of publication, and the relationship between 3 plots (sources, authors, and keywords).

Table 1. Overview of The Working Process

Sources	Scopus	Entering the keywords "Islamic Fintech"
		98 documents were extracted
Tools		Bibliometric Analysis
Outcome		Performance analysis
	Scopus	Total publications
		Number of contributing authors
		Number of active years of publications
		Productivity per active year of publication
		Total citation
		Collaboration index
		Number of cited publications
	Biblioshiny	h-index
		Science mapping
	Biblioshiny	Most Cited Document
		Most Used Keyword
		Three field plot
		Foundational themes
		Productive and most cited Author
		Existing or future relationship among topics
	Biblioshiny, VOSviewer	Written content (words)
		Relationships among authors
		Authors and author affiliations
		Network analysis
	Biblioshiny	Degree of centrality
	VOSviewer	Clustering
		Visualization
		Citation analysis

RESULTS AND DISCUSSION

The metadata processed in this study came from Scopus, totaling 98 documents from 59 sources. The development of the number of studies on Islamic Fintech in the past few years shows the growth of research. The keyword used in this study is "Islamic

Financial Technology", and "Islamic Finance" with document types including 49 articles, 10 books, 23 book chapters, 13 conference papers, 2 conference reviews, and 1 review document. The large number of article types in the metadata (50% of the total documents) indicates an indication of regular updates on this topic.

Table 2. Main Information about the Data, Timespan 2013-2022

, 1		
Description	Results	
Document Types		
article	49	
book	10	
book chapter	23	
conference paper	13	
conference review	2	
review	1	
Document Contents		
Keywords Plus (ID)	130	
Author's Keywords (DE)	259	
Authors		
Authors	237	
Authors of single-authored docs	19	
Authors Collaboration		
Single-authored docs	21	
Co-Authors per Doc	2,82	
International co-authorships %	29,29	
	•	

Source: Scopus, elaborated in Biblioshiny

Based on a collection of articles on Islamic Fintech from 2013-2022, the author found the development of the research of Islamic Fintech. The research conducted by Al-Abbadi & Abdullah, (2017) discusses the suggestion of applying Fintech innovations by financial advisors or financial managers in producing complex analyses, thus enriching the client experience. In the following year (Muchlis, 2018; Rusydiana, 2018) explained the weaknesses of Islamic Fintech and the main problems faced in the development of Islamic Fintech. Islamic research began to increase in 2017, topics that were often discussed in that year included; the challenge and prospect of

Islamic Fintech, innovation in the application of fintech such as in zakat collection, cash waqf, crowdfunding and financing (Al Azizah & Choirin, 2019; Firmansyah & Anwar, 2019; Hadi Ryandono, 2019; Piliyanti, 2018). In addition to the development of research on fintech innovation in that year, several books and section books were also published including books by Fintech in Islamic Finance, Theory and Practice (Oseni & Ali, 2019), Fintech in the light of maqāsid al-Sharī'ah (Mohammed & Amri, 2019) Fintech in Islamic finance (Laldin & Furqani, 2019), and Current Trends and Future Impacts of Fintech In Islamic Finance by (Yasini & Yasini, 2019).

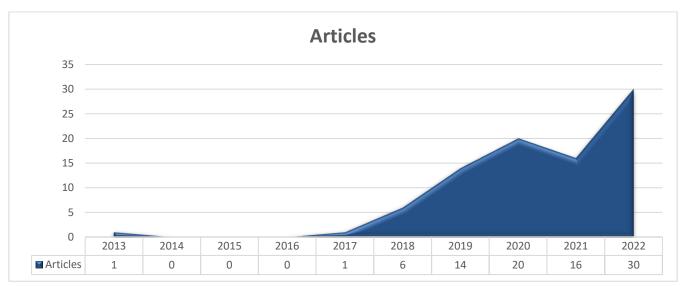


Figure 1. Annual Scientific Production Source: Scopus, elaborated in Excel

The development of studies on Islamic fintech has increased quite rapidly from 2017 to 2022, although in 2021, it experienced a slight decline. This shows the development of the scope of Islamic fintech research and its application to the business sphere. Aysan, (2021) said that research on Islamic Fintech began to trend in 2017-2018, and interest in this area has

continued to increase since then. There were four publications in 2021 (as of early February), and with this ratio, it is highly expected that 2021 will surpass 2020.

Analysis of the Documents Most Cited Documents

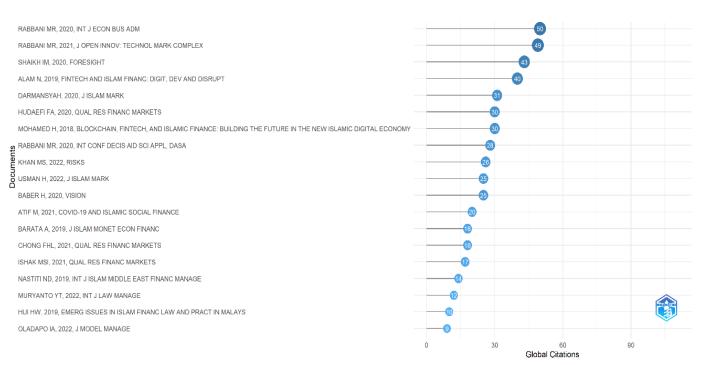


Figure 2. Most Cited Documents Source: Scopus, elaborated in Biblioshiny.

Figure 2 presents a list of the most cited documents on Islamic Fintech; darker colors indicate more citations and lighter colors indicate fewer citations. The most cited article is the study by Mustafa Raza Rabbani, Shahnawaz Khan, Eleftherios I. Thalassinos, "FinTech, Blockchain and Islamic Finance: An Extensive Literature Review" (Rabbani et al., 2020). The article was published in 2020 in the International Journal of Economics and Business Administration resulting in 55 citations. The article divides the classification of Islamic Fintech into 3 broad categories, namely Islamic FinTech opportunities and challenges, Cryptocurrency or Blockchain sharia compliance and law or regulation, and the big challenge of Fintech in the coming years, namely sharia compliant challenges regarding crypto or blockchain currencies.

Research by Mustafa Raza Rabbani, Abu Bashar, Nishad Nawaz, Sitara Karim, and Mahmood Asad Mohd is ranked second. Ali, Habeeb Ur Rahiman and Md. Shabbir Alam with the title "Exploring the Role of Islamic Fintech in Combating the Aftershocks of COVID-19: The Open Social Innovation of the Islamic Financial System" (Rabbani et al., 2021). The article discusses the opportunity for social and open innovation as the COVID-19 pandemic grows and the financial world has turned to open innovation to provide fast, timely, reliable, and sustainable solutions to the world. The findings of this study provide significant implications for governments, policymakers, and other stakeholders in implementing efficient Fintech and innovative Islamic financial services to counter the economic consequences of the COVID-19 pandemic.

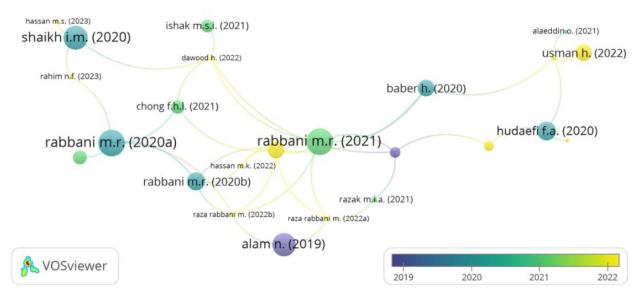


Figure 3. Citations of the Documents Source: Scopus, elaborated in VOSviewer

In the next result, the VOSviewer Map for document citations (Figure 3) groups the 98 most cited documents at least once into 4 clusters. The bubble size represents the number of citations, while the color refers to the document's publication year. As mentioned earlier, the most cited document is the research by (Rabbani et al., (2020) which was published in a year with a fairly high increase in the trend of Islamic finance research from the previous

year. There are also earlier studies, such as research by Hazik Mohamed and Hassnian Ali, titled "Blockchain, Fintech, and Islamic Finance: Building the Future in the New Islamic Digital Economy," (Mohamed & Ali, 2018) published in 2018 with 30 citations.

Most Used Keywords

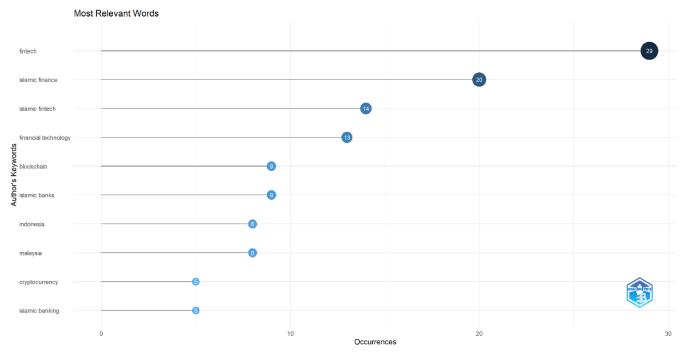


Figure 4. Most Frequently Used Author Keywords Source: Scopus, elaborated in Biblioshiny

The figure 4 shows 10 keywords used in each article repeatedly, ranging from 5 times to 29 times in an article. The most repeated keyword is "Fintech" with 29 occurrences, followed by "Islamic Finance" with 20 occurrences and the third is "Islamic Fintech" with 14 occurrences. Of the ten most frequently occurring keywords, some keywords indicate countries, namely "Indonesia" and "Malaysia". This shows that the two countries are countries that do much research on

Fintech or countries that are widely researched about Fintech that develops in the country. This is reinforced by the results of research by Aysan, (2021) which states that Malaysia and Indonesia are the top countries that contribute most to Islamic Fintech research due to the Muslim majority, thus encouraging the rapid development of the Islamic Fintech industry and research on this topic in that country.

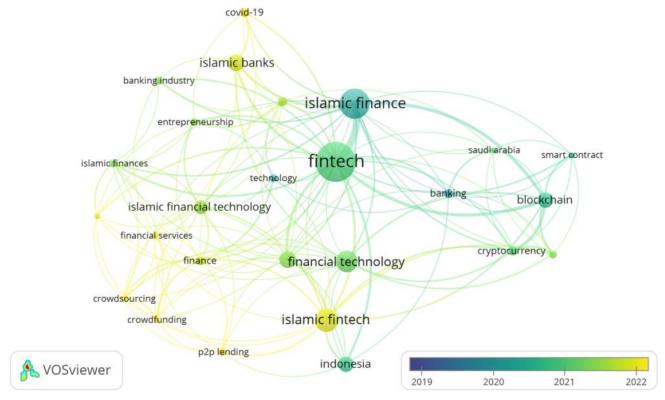


Figure 5. Weighted Occurrences of Words Source: Scopus, elaborated in VOSviewer

From the results of data processing by Vosviewer, we can see the development of keywords based on the year of research. The color above refers to the year of research, the lighter the keywords that appear in the last year of the processed data, namely 2022. The appearance of keywords from dark to light colors with large circle sizes are as follows "Islamic Finance" followed by "Banking", "Blockchain", "Smart contract" and "Saudi Arabia" often appear around 2019-2020. Furthermore, the keywords "Fintech" Technology", "Financial "Indonesia", "Cryptocurrency", "Technology", "Islamic Financial Technology", "Islamic Finances", "Entrepreneurship", "Banking Industry", and "Technology" appeared the most in 2020-2021. While the keywords that appeared a lot in the last year were the words "Islamic Fintech", "Covid-19", "Crowdfunding", "Crowdsourcing",

"Finance", "Financial Services", "P2P Lending" and "Islamic Banks". The emergence of these keywords can indicate the development of increasingly complex and broad research from year to year.

Most Trend Topics Related to Islamic Fintech

Research trends change over time, as do topic trends in Islamic Fintech research. The figure above shows the development of Islamic Fintech-themed topics from 2013 to 2022, showing topics that have long been researched to new topics that are being researched. For example, in 2013, the topic discussed was "Fixed income," which is an old topic so, if a researcher wants to do research in 2023 it is not recommended to use old topics, it is recommended to follow the latest topics namely "Performance", "Crisis", and "Expectation".

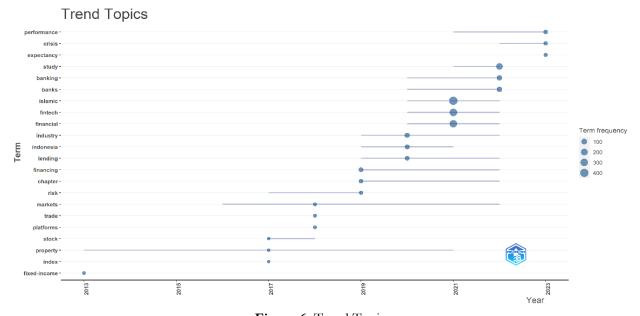


Figure 6. Trend Topics Source: Scopus, elaborated in Biblioshiny

Topic occurrence is also adjusted by the number of times the word appears in the related research theme. The larger the circle indicates, the more the word is used, and the more to the right, the more recently the word is used. And the most used topics in 2013 until now are Financial, Islamic, and Financial topics. Based on the description above, the most recent topics used in research on Islamic Fintech are related to performance, crisis, and expectations.

Thematic Map

Figure 7 presents a thematic map of the conceptual structure of keywords. Biblioshiny defines

different themes by using a keyword network clustering algorithm. Centrality in the map indicates the importance of the theme, while density determines the theme's development level. As a result, the clusters "Commerce", "Finance", and "Islamic Financial Technology" are the basic themes in the map. Digital transformation" is the basic theme that requires further development due to the opportunity to increase its importance. "Finance Sales" is a specialized cluster with minimal importance for the specified topic. "Islamic Finance", "Crowdfunding" and "Crowdsourcing" are motor themes, which can be defined as important and well-explored.

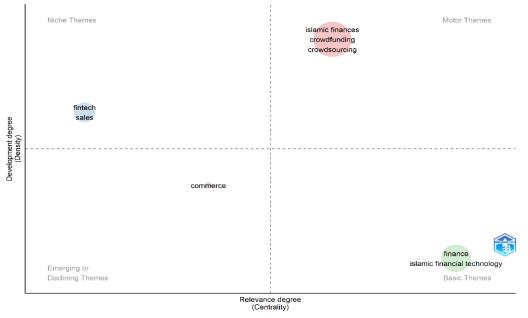


Figure 7. Thematic Map Source: Scopus, elaborated in Biblioshiny.

Analysis of Authors

Table 3.Twelve Most Globally Cited Authors.

Author	Document	Citations
Rabbani, M.R	5	173
Bashar, A	4	103
Khan, S	3	98
Alam, N	3	42
Mohamed, H	1	30
Hassan, M.K	6	26
Kasri, R.A	3	24
Ali, S.N	3	5
Mohamed, H	1	2
Raza Rabbani, M	4	2
Abdeldayem, M.M	2	0
Mohamed, H	1	0

Authors' Production over Time

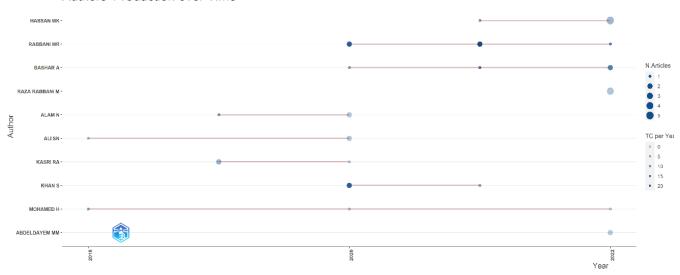


Figure 8. Most Relevant Authors

Source: Scopus, elaborated in Biblioshiny

The table above shows the authors with the most citations and studies on Islamic fintech from 2018-2020. The author with the first rank of productivity is Hassan, M.K who made six articles over three years with a total of 26 citations. At the same time, the first rank of total citations is Rabbani, M.R, who wrote five articles over three years with 173 citations. The author with the longest contribution span is Mohamed H, with continuous publication from 2018 to 2022.

The results of VOSviewer in Figure 9 provide information about the relationship between authors. The larger the circle indicates, the more articles are created by an author. In addition, if the distance is closer and the connecting line is thicker, it shows the stronger the link between authors in the form of coauthoring or citing each other. Based on this, it can be seen that Hassan, M.R has a close relationship with Rabbani, M.R compared to relationships with other authors because their circles are the largest and have thick lines.



Figure 9. Most Globally Cited Authors

Source: Scopus, elaborated in VOSviewer

Authors' H-Index

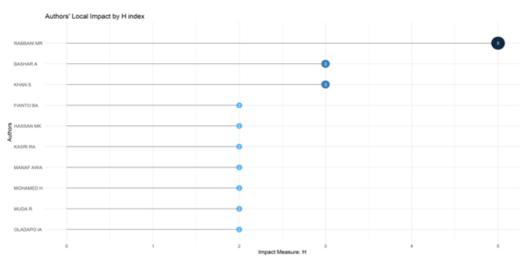


Figure 10. Author Impact

Source: Scopus, elaborated in biblioshiny

Figure 10 presents the h-index as a measure of author impact. The h-index combines author productivity with citation impact and measures overall and balanced author impact. According to the Figure, Rabbani, M.R, Bashar, A, and Khan, S. have the highest h-index of 5. It should be noted that the h-

index in this analysis is limited to the specified topic of Islamic Fintech, and does not represent the overall hindex of the authors mentioned in this study.

Author Affiliation

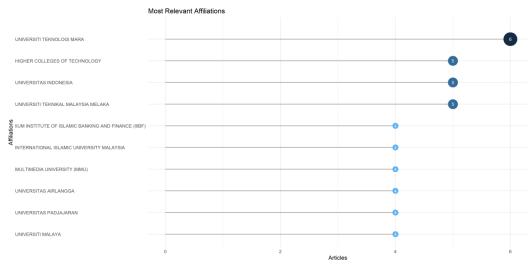


Figure 11. Most Relevant Affiliations

Source: Scopus, elaborated in Biblioshiny

The most productive authors are affiliated with Universiti Teknologi Mara Malaysia with six documents, followed by Higher Colleges of Technology, University of Indonesia, and University Teknikal Malaysia Malacca, five documents each. IIUM Institute of Islamic Banking and Finance, IIIBF, IIUM, Multimedia University, Universitas Airlangga,

Universitas Padjajaran, and Universiti Malaya, four documents each. The places where the authors are affiliated are from the Southeast Asian Region, namely Malaysia and Indonesia.

Country of Publication

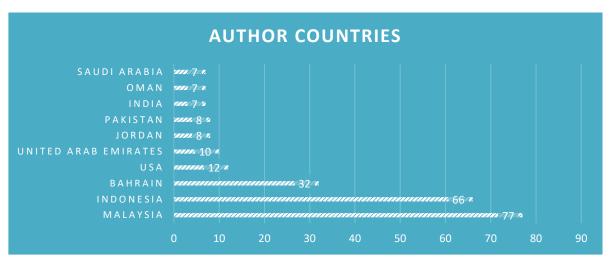


Figure 12. Corresponding Authors' Countries

Source: Scopus, elaborated in Excel

One of the results of the Biblioshiny function is to sort the countries with the highest number of publications of articles on the theme of Islamic Fintech from all over the world. From the graph above, it can be seen that the ten countries with the highest number of publications begin with Malaysia with a total of 77 publications, Indonesia (66 publications), Bahrain (32

publications), the USA (12 publications), UAE (10 publications), Jordan and Pakistan (8 publications), and India, Oman, and Saudi Arabia (7 publications). The countries in the highest order come from Muslimmajority countries, which is 80%.

Three Fields Fold

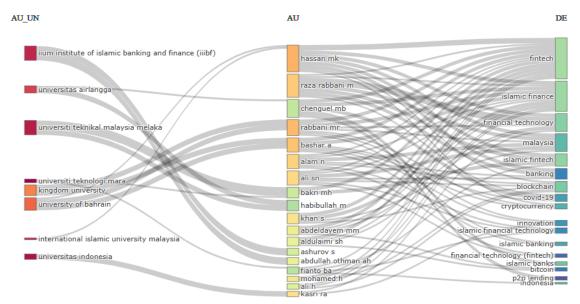


Figure 13. Three-fields Plot

Source: Scopus, elaborated in Biblioshiny

The Three Fields Fold is a summary illustration of the relationship between 3 plots, namely source, author, and keyword, in order from left to right. The three plots are connected with gray lines that explain the attachment of one to another. Existing journals are linked to their corresponding authors, then linked back to keywords. The different sizes of the boxes indicate the magnitude of the linkages between the plots. A. Aysan & Nanaeva, (2022) Said that keywords define the research content, while affiliations define the intellectual roots of the authors.

On the left side of the plot, the keyword "Fintech" has the highest number of connections with the authors, followed by "Islamic Finance" and

"Financial Technology". Authors with the most connections to the main research topic are Hassan MK from the International Islamic University Malaysia and the University of Bahrain, followed by Raza Rabbani M. While Sources with a large number of connections to the main topic are IIUM Institute of Banking and Finance (IIIBF), followed by Melaka Technical University, University of Bahrain, Kingdom University and Airlangga University, University of Indonesia, University Teknologi Mara, and International Islamic University Malaysia.

Research Map

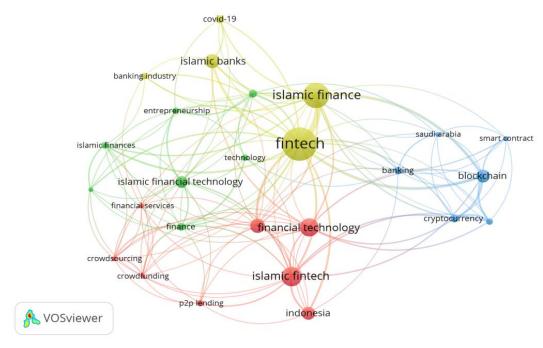


Figure 14. Research Map

Table 4. Clustering based on Keywords

Clusters	Keywords		
Cluster 1 (8 Item)	Crowdfunding, crowdsourcing, financial services, financial technology, Indonesia, Islamic		
	fintech, Malaysia, p2p lending		
Cluster 2 (7 Item)	Entrepreneurship, finance Innovation, Islamic finances, Islamic financial technology,		
	technology, technology products		
Cluster 3 (6 Item)	Banking, bitcoin, blockchain, cryptocurrency, saudi Arabia, smart contract		
Cluster 4 (5 Item)	Banking industry, covid-19, fintech, Islamic banks, Islamic finance		

Cluster 1 : Development of Financial Services in Malaysia and Indonesia

In State of the Global Islamic Economy Report, (2022) was stated that Malaysia was ranked first. Since the start of GIEI, in 2022 Malaysia won first place in the fields of Islamic Finance, Halal Food, and Media and Recreation, and second place in Modest Fashion. Malaysia's Islamic financial sector continues to show growth, with an increase in Islamic financial assets of 9% and a growth in the value of Islamic funds of 20%. Meanwhile, in 2022 Indonesia will rank third in the Top 15 Ranking Countries by achieving third place in Modest Fashion, fifth place in Pharmaceuticals and Cosmetics, and seventh place in Islamic Finance.

The development of financial technology innovation in Malaysia is closely related to payments and wallets which have been provided to facilitate daily transactions in Malaysia. According to BNM (Bank Negara Malaysia), the number of non-bank electronic money issuers providing payment solutions via mobile applications has grown from 5 providers in 2016 to 35 providers in 2018 (Diniyya et al., 2021).

Indonesia has a dynamic start-up environment with an increasing number of new startups in recent years. It is estimated that there are more than 250 fintech startups in Indonesia. However, according to the OJK, (2023), until October 2023, there will only be 101 fintech lending companies registered in Indonesia. with a small number of sharia companies, namely 7 sharia-based fintech companies.

Electronic money applications are now becoming popular to facilitate payments for various activities such as shopping, entertainment and transportation payments. The introduction of QRIS in 2020 will play a major role in changing Indonesia towards a cashless society. OVO is one of the leading payment companies in Indonesia which is the first unicorn startup from the fintech industry. OVO also has various services such as investment. Other unicorns such as Gojek which offers various daily services ranging from transportation, food delivery, buying electric train tickets, delivery of goods, paying bills have also introduced their own e-wallets.

Cluster 2 : Fintech is a Form of Financial Innovation in Islamic Finance

Financial Technology (FinTech) is the use of modern innovative technology in the field of finance. It is basically the use of innovative and disruptive technology to provide financial services. Fintech as a concept reached its peak in the late 2010s (Haddad & Hornuf, 2019). Indicating that Fin-Tech companies will grow faster in an environment where digital technology is available and smartphone penetration is high. The empirical results of this research show that the profitability of traditional banks is higher when they collaborate with FinTech companies and when banks adopt their own financial technologies in their business models (Karsh & Abufara, 2020).

According to Arner et al., (2016) fintech development is divided into 3 phases. First phase The first is defined from 1866 to 1967 and focuses on building the infrastructure of economic globalization. The second refers to the period from 1967 until the outbreak of the international financial crisis and is characterized by the transition to digital technologies. Characteristic of this period was the emergence of ATMs (Automated Teller Machines), the third era of FinTech, which was a response to distrust in the performance of the traditional banking system. This period was characterized by the introduction of cryptocurrencies and the widespread smartphones, which made it possible to carry out several financial services.

Islamic FinTech is based on the ethos and value of Sharia and it has the ability to lead the finance world across the globe. The global financial crisis has not affected the financial performance of the Islamic banks because of the nature of the Islamic finance, it has emerged as an alternative to the conventional finance. (Rabbani et al., 2020).

Cluster 3: Smart Contract: Blockchain, Bitcoin, and Cryptocurrency

Blockchain technology, bitcoin and cryptocurrencies have gained a lot of attention and attracted the interest of various stakeholders around the world. Blockchain technology has several obvious advantages due to the nature and structure of the underlying technology. Blockchain is a collection of linked blocks on a peer to peer network where blocks are linked using cryptographic hash codes so that there is no single point of failure. Even if some nodes fail in a peer to peer network, other nodes will continue working thereby making the blockchain more reliable to operate and maintain. The second important feature of blockchain is the digital technology that allows it to be applied in a variety of applications. Another important feature of blockchain is transparency, blockchain transactions can be tracked and visible to all blockchain users (Rabbani et al., 2020).

Blockchain is the method used by cryptocurrencies and smart contracts to implement secure transactions, whether public or anonymous, because digital currencies are applications that work on a blockchain network, which functions like an accounting ledger, and the tax treatment of blockchain applications varies from one to another. country to country, because there are countries that are subject to

tax due to this application and other countries are temporarily excluded (Al-Sayed & Ismail, 2022).

Cryptocurrency is the electronic cash which can be used in place of the fiat money as a medium of exchange. It uses blockchain technology which provides basis for secure, trackable and immutable financial transactions. Cryptocurrencies blockchain technology to achieve decentralization, transparency, and immutability. Feature. The most important thing about cryptocurrency is that it is not controlled by any central authority, the decentralized of blockchain makes nature cryptocurrency theoretically immune to government control and interference (Rosic, 2020).

Cluster 4: The Impact of Covid-19 On The Banking Industry and The Development of Islamic Fintech

COVID-19 is further driving the growth of fintech peer-to-peer lending. Hajr et al., (2023) showed a relative increase of 29.2 and 32.8 percent in daily download rates of fintech applications during the peak of the pandemic. Peer-to-peer lending fintech has become one of the most viable credit alternatives available during the pandemic, making it easier to get a loan without meeting the loan service provider in person. Sapulette et al., (2021) in their research found that fintech tends to have a negative impact on bank stock returns. The severity of the negative impact is smaller for large banks. Furthermore, analysis of changes in the relationship between fintech and banks before and during the pandemic shows that, if estimated only using data from the COVID-19 pandemic period, fintech tends to have a more positive impact on large banks, while its impact on medium and large banks small is much more negative.

Discussion

Based on the results of bibliometric analysis on the topic of Islamic Fintech based on 98 documents identified in the Scopus database and published from 2013 to February 2022. The main finding of this analysis is that research on the topic of Islamic Fintech is relatively new but with strong potential for further development by researchers with broader and deeper topics because Islamic Fintech is closely related to constantly evolving technology. This statement can be explained by some research evidence, as will be discussed in the following paragraphs.

First, it can be seen from the growth in the number of studies that experienced a significant increase from 2017 to 2022 with two peaks in 2020 and

2022. This increase coincides with the COVID-19 period in 2020 and post-COVID-19 in 2022. This is in line with the many studies that connect Islamic Fintech with COVID-19 in 2020 such as research conducted by Mohammad Haider Syed, Shahnawaz Khan, Mustafa Raza Rabbani, Yannis E. Thalassinos with the title "An Artificial Intelligence and NLP based Islamic FinTech Model Combining Zakat and Qardh-Al-Hasan for Countering the Adverse Impact of COVID 19 on SMEs and Individuals" published in 2020. The research stated that Islamic finance should be combined with technology to increase its reach and achieve broader goals. It is also emphasized that Qardh-Hasan and Zakat should be used with technology to achieve Islamic goals, especially in helping Muslims who have difficulty facing the COVID-19 pandemic (Syed et al., 2020).

Meanwhile, several studies in the post-COVID-19 period discussing topics regarding performance, crisis, and expectancy can be seen in Figure 6. One of these studies is a study conducted by Wan Hasanah Megat Ajib, entitled "Application of Fintech for a Modern Islamic Financial Industry: Challenges and Practical Solutions" published in 2022. The study found that several studies propose an Islamic Fintech Model for post-Covid19 which is divided into three stages, short-term, medium-term, and long-term recovery by applying Fintech to Islamic contracts such as artificial intelligence in zakat, crowdfunding in sadaqah, Qardh hasan in P2P Lending, and others (Ajib, 2022).

Second, new keywords that have emerged in recent years with the theme of Islamic Fintech indicate the innovations that have occurred in the Islamic Fintech industry, as shown in Figure 5. It is stated that the latest and popular keywords that appear in 2022 "Performance", "Adoption, "Acceptance", "Covid", "Crisis", "Millennial", "Sukuk", "Fintech Service", "Effort Expectation", "Awareness", "Digital Asset", and "Fintech Startup". If grouped, these keywords are identical to the renewal and evaluation of an innovation related to Islamic Fintech. In contrast, the keywords that appeared in early 2018 are identical to the words of interest, convenience, and benefits offered by Islamic fintech for the future. This explanation aligns with the thematic map generated in Figure 7, where "Crowdfunding" and "Crowdsourcing" are motorized themes, which can be defined as important and well-explored themes.

Third, there is a relationship between the number of publications by certain countries with the

growth of Islamic Fintech in the region. The result shows that the countries with the highest number of publications on Islamic Fintech are Muslim-majority countries. In fact, the fastest development of the Islamic Fintech Industry occurs in these countries. As a special example that may not happen by other countries, Malaysia is ranked 1st with the most Islamic Fintech publications worldwide and 1st of the Top 20 Countries by GIFT Index Scores 2022. GIFT Index is a category that shows the current conduciveness of a country for Islamic Fintech specifically assessed based on five categories: talent; Regulation; Infrastructure; Islamic Fintech Market & Ecosystem; and Capital (Dinar Standard, 2022).

CONCLUSION

Islamic Fintech is a fairly new theme in Islamic economics and finance in this era, which is indicated by the number of publications that have just increased in the past 5 years starting from 2017 to the highest number of publications in 2022. This study uses bibliometrics analysis to analyze 98 Scopus-indexed documents on the theme of Islamic fintech. The author with the highest number of documents and citations is Mustafa Raza Rabbani. Sources that have published the most journals are "FinTech, Blockchain, and Islamic Finance: An Extensive Literature Review" (Rabbani et al., 2020) with 55 citations. Meanwhile, the three countries with the highest number of publications are Malaysia, Indonesia, and Bahrain.

In this research, there are two analyses, namely, document analysis and analysis of the author. The potential to develop research on the theme of Islamic Fintech is very large; topics that can be developed include "Crowdfunding" and "Crowdsourcing" which are motorized themes, which can be defined as important and well-explored themes. Keywords that are being widely used in Islamic fintech research include Fintech, Islamic Fintech, Islamic Finance, and Islamic Financial Technology. This study provides several contributions, including for future researchers, the research results can be used as a reference in identifying influential authors, articles, journals, and countries. Researchers will find it easier to find references that have a significant impact.

The weakness of this research is the limited metadata used, especially in terms of the number and source of datasets that only come from Scopus, future research can use more metadata and come from more than 1 dataset. In addition, the analysis carried out is limited to document and author analysis, further

research can add analysis to be more complete such as analysis of sources and others.

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