Research Trend On Financial Technology Adoption Over the Years: A Bibliometric Analysis

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Abstrak

Perkembangan pesat industri fintech di berbagai negara menekankan pentingnya memahami faktor-faktor yang memengaruhi niat individu atau kelompok untuk mengadopsi teknologi keuangan. Penelitian ini menggunakan analisis bibliometrik dengan menggunakan aplikasi VOSviewer pada data yang diambil dari database Scopus, untuk mengeksplorasi penelitian terkait adopsi fintech yang telah dilakukan oleh peneliti sebelumnya. Sebanyak 478 dokumen ditemukan dari dataset sejak artikel pertama kali diterbitkan hingga Juni 2023. Hasil penelitian menunjukkan bahwa tema-tema pengembangan menunjukkan variasi yang sangat luas, seperti jenis fintech (Islamic Fintech, Financial Technology (FinTech), Crowdfunding, Electronic Money, Mobile Money, Mobile Payment, Block-chain), variabel dominan yang digunakan (Intention to Use, Perceived Risk, Perceived Usefulness, Trust), serta model teori adopsi (TAM Technology Acceptance Model, UTAUT). Studi ini memberikan gambaran yang lebih luas tentang perkembangan penelitian adopsi fintech yang dapat bermanfaat bagi akademisi, peneliti, dan industri untuk melakukan penelitian lebih lanjut di bidang ini.

Kata kunci: Adopsi Fintech; Analisis Bibliometrik; VOS viewer

Abstract

The rapid development of the fintech industry globally underscores the importance of understanding the factors influencing individuals' or groups' intentions to adopt financial technology. This study employs a bibliometric analysis, utilizing the VOSviewer app on data extracted from the Scopus database, to explore existing research on fintech adoption. A total of 478 documents published from the inception of the field until June 2023 were included in the analysis. The results reveal diverse themes, encompassing various fintech types (Islamic Fintech, Financial Technology (FinTech), Crowdfunding, Electronic Money, Mobile Money, Mobile Payment, Block-chain), dominant variables (Intention to Use, Perceived Risk, Perceived Usefulness, Trust), and adoption theory models (TAM Technology Acceptance Model, UTAUT). This comprehensive overview provides insights into the evolving landscape of fintech adoption research, serving as a valuable resource for academics, researchers, and industry professionals, encouraging further exploration in this dynamic field.

Keyword: Fintech Adoption; Bibliometric Analysis; VOS viewer

INTRODUCTION

The current development of the industrial revolution 4.0 has changed the course of human life, including in financial terms, which is related to the adoption of digital transactions, or what is often known as Financial Technology (FinTech) (Sofyan, Sofyan, & Mansyur, 2022). It was further explained that Financial Technology is a technology with a Blockchain system, big data, as well as investment consulting with artificial intelligence methods that are currently widely used in the financial world (Riyanti, Kurniawati, Fawwaz, Sitorus, & Margaretha, 2022). The National Digital Research Center (NDRC) explains that the term fintech refers to a technological innovation and digitalization related to financial services (Adji, Muhammad, Akrabi, & Noerlina, 2023).

The use of fintech is very helpful to the public in carrying out financial transactions at this time, one of the most felt benefits is efficiency and also effectiveness in transactions. This benefit is also felt by most financial institutions around the world that adopt this fintech system, this is reflected in the many enormous influences on the profitability of existing financial institutions (Sudirman & Disemadi, 2022), increased company operational efficiency (Chen, 2020), service innovation (Zhao, Tsai, & Wang, 2019), increased accessibility (Loo, 2019), and to increase consumer security and privacy (Hwang, Park, & Shin, 2021). These benefits are inseparable from the goal of fintech itself, which is to develop various solutions using technology to make services easier to access, faster, cheaper than traditional service delivery models (Hirawati & Harsono, 2023).

Accoording to Financial Stability Board, (2017), Fintech activities in financial services are classified into five categories, as follows : First; Payment, clearing, and settlement; These activities are primarily associated with mobile payment, e-wallet, and digital currencies. Second; Deposit, lending and capital raising; These activities include the transaction in Crowdfunding, P2P Lending as a medium to obtain financing. Third; Insurance. Fourth; Investment management; This dimension includes e-trading platforms allowing consumers to invest directly via computers or mobile phone in all types of assets such as stocks, crypto etc. Fifth; Market Support; FinTech technology also provides simpler or more efficient processes, such as e-aggregators, big data, digital ID verification, data storage, and processing (cloud computing)

The development of information and communication technology in the financial sector is inseparable from the various problems that exist. Globally, fintech adoption has reached 25% among MSMEs, while among general consumers it has reached 64%. This is due to increased awareness, at least for money transfer transactions, non-cash payments and access to funding (Ernst & Young, 2019). Meanwhile, for developing countries such as Indonesia, fintech adoption is still relatively low, below 9%, very low when compared to neighboring countries such as Singapore, which reaches 23%, especially compared to other developed countries such as China, which has reached 70% (Fachrurrozie, Wahyudin, Nurkhin, & Mukhibad, 2021). Ernst & Young, (2019) found that the combination of low values of innovation, entrepreneurship, and economic development led to low adoption of fintech. On the other hand, fundamental factors such as internet networks, smartphone use that are not optimally utilized, and technology services that still tend to be expensive and difficult to reach in various regions as well as low public knowledge about fintech are obstacles to fintech adoption (AFTECH, 2021). This is what makes the difference in the adoption of fintech in various countries in the world, especially in developing countries.

Along with the development of the fintech industry in various countries, research related to fintech adoption is needed to provide an understanding of the factors that influence the intention of a person or group to adopt a financial technology. This study aims to explore studies on fintech adoption that have been conducted by previous researchers. Bibliometric analysis is used to visualize the development of research on fintech adoption intentions for articles, journals, authors, institutions, and countries.

Several attempts to study fintech using bibliometric analysis have been carried out, such as research from Alshater, Saba, Supriani, & Rabbani, (2022) trying to examine fintech in Islamic finance literature. By using bibliometric analysis and content analysis, researchers try to reveal trends in Islamic fintech research in the Scopus database. The results of his research found that fintech has the potential for cointegration in Islamic finance, especially for small and medium businesses that do not have a bank account. Fintech integration with Islamic finance will also help the government realize the SDGs.

Research by Munodei & Sibindi, (2023) which attempts to describe the relationship between fintech and the provision of social services. The results of the study found that ideas in fintech research in social protection indicated emerging research themes such as: (1) fintech adoption in the provision of

social protection services; (2) blockchain technology research on social protection, (3) fintech in the provision of health services combined with health insurance; and (4) fintech as a cushion against the impact of climate change. Other research from Ellili, (2023) which discusses fintech adoption during COVID-19 using a bibliometric approach shows interesting results. The significant themes published by researchers during the pandemic were banking, the COVID-19 pandemic, blockchain, artificial intelligence, e-commerce, banking stability and insurance.

Furthermore, based on the search results on the Scopus database, researchers found that there had been no research that discussed fintech adoption in bibliometric studies over the years. Therefore this research will be a significant contribution in mapping the development of research regarding the current adoption of financial technology. Through bibliometric analysis, the summary of the results of the analysis will become a basis for consideration in determining the direction of future research.

METHODOLOGY

This study is based on a bibliometric review. A bibliometric review is a computer-assisted scientific review methodology that can identify core research or authors, and their relationships, by covering all publications related to a particular topic or field (Adamek & Solarz, 2023). Bibliometric analysis provides rich and interactive information on the topic under study thereby providing a better understanding of the general academic landscape surrounding the field of study (Ahmi, 2021).

A bibliometric study collects all the articles on a particular issue and classifies them according to their aspects such as year, keyword, journal, author, country and many more. To be more consistent, studies are often limited to a specific period and database. Visualization techniques such as tables, word clouds, graphs of co-occurrence and co-existence, and various other matrices help better understand studies (van Eck & Waltman, 2014).

The data in this study were taken from the Scopus database by searching documents with the keyword fintech adoption. The Scopus database was chosen as the primary data source in this study because it is an extensive scientific journal database. It contains high-quality articles that have undergone rigorous selection and review processes (ELSEVIER, 2020). The Scopus database is also known to collaborate with libraries from various universities worldwide that are affiliated with the database (Baas, Schotten, Plume, Côté, & Karimi, 2020).

The data were extracted using a filter process through searching for keywords in the form of Fintech and Adoption on titles, abstracts, and keywords (TITLE-ABS-KEY). The required metadata is divided into five categories: Citation information, Bibliographical Information, Abstract & Keywords, Funding Details, and Other Information. After the search process is carried out, some raw data is downloaded in .csv and .ris formats for bibliometric analysis.

In June 9, 2023 search results showed that 478 documents contained fintech and adoption TITLE-ABS-KEY content. The data that has been collected is then analyzed with the VOSviewer application to see co-authorship, and co-citation analysis to identify general keywords and ideas that develop over time, along with future trends (Sahabuddin et al., 2023).
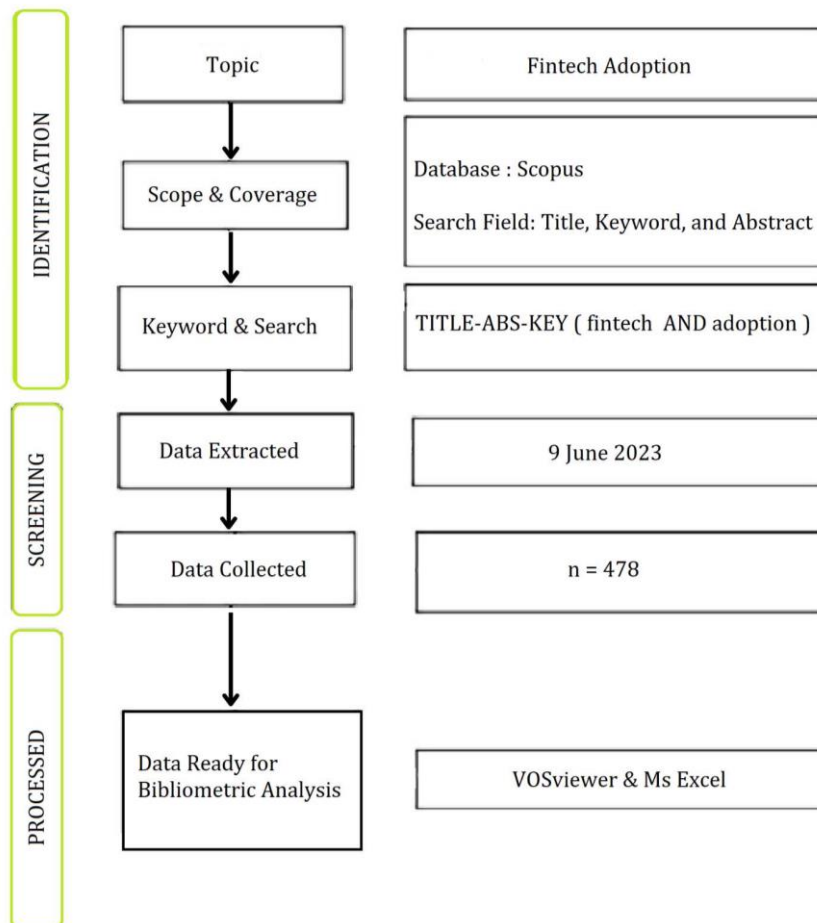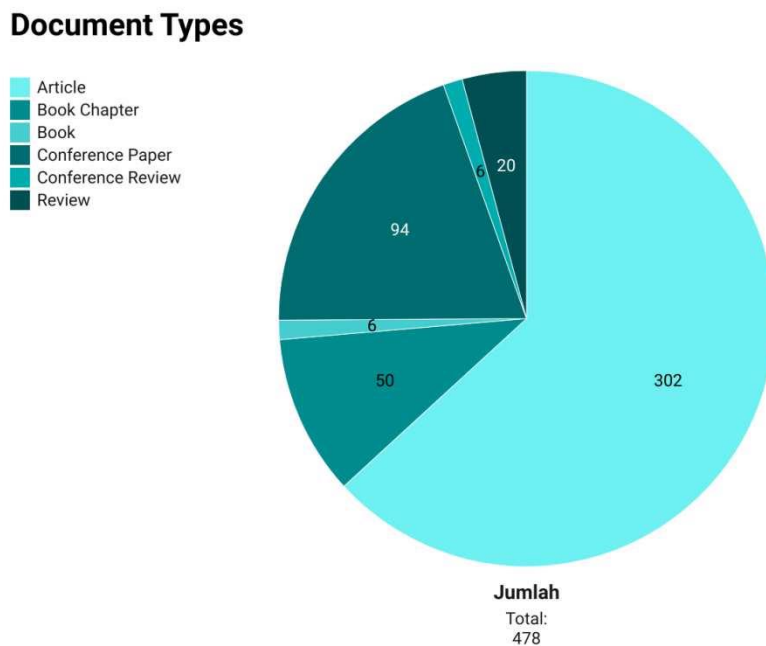

RESULTS AND DISCUSSION

Overview of Research Sample

On June 9, 2023, there were 478 document results in the search for the TITLE-ABS-KEY (fintech and adoption) keyword in the Scopus database, including documents of the type of Journal Articles, Books, Conference Proceedings, Book Series and Reviews. Publications discussing fintech adoption in the Scopus database are shown in Figure 1, while Figure 2 describes the areas of study in Fintech adoption.

Figure 1. Document Types

Document Types

- Article
- Book Chapter
- Book
- Conference Paper
- Conference Review
- Review

20

94

6

6

50

302

Jumlah
Total:
478

Source: Scopus Database • Created with Datawrapper

The search results show that the majority of published documents in the Scopus database are in the category of Article documents with 302 documents (63,18%), followed by Conference papers with 94 documents (19,67%), and Book Chapters with 50 documents (10,46%). Meanwhile, 20 documents (4,18%) were the results of review publications, and the last were publications of the type of book and conference review, each with 6 documents (2,52%).

The study area is a part of science based on scientific disciplines that is studied systemically. Information related to the study area provides an overview of what areas of FinTech research have been conducted. From an analysis of the Scopus Database, research on Fintech Adoption is divided into twenty-two Subject Areas, but researchers will only describe the top ten

subject areas. It was found that the field of Business, Management, and Accounting is the field of study with the most publications with 227 documents. The field of study of Computer Science and Economics, Econometrics, and Finance ranks second and third with 178 and 169 documents. In detail, the study area for FinTech adoption can be seen in Figure 2

Figure 2. Subject Area of the Study

Subject Area

Source: Scopus Database · Created with Datawrapper
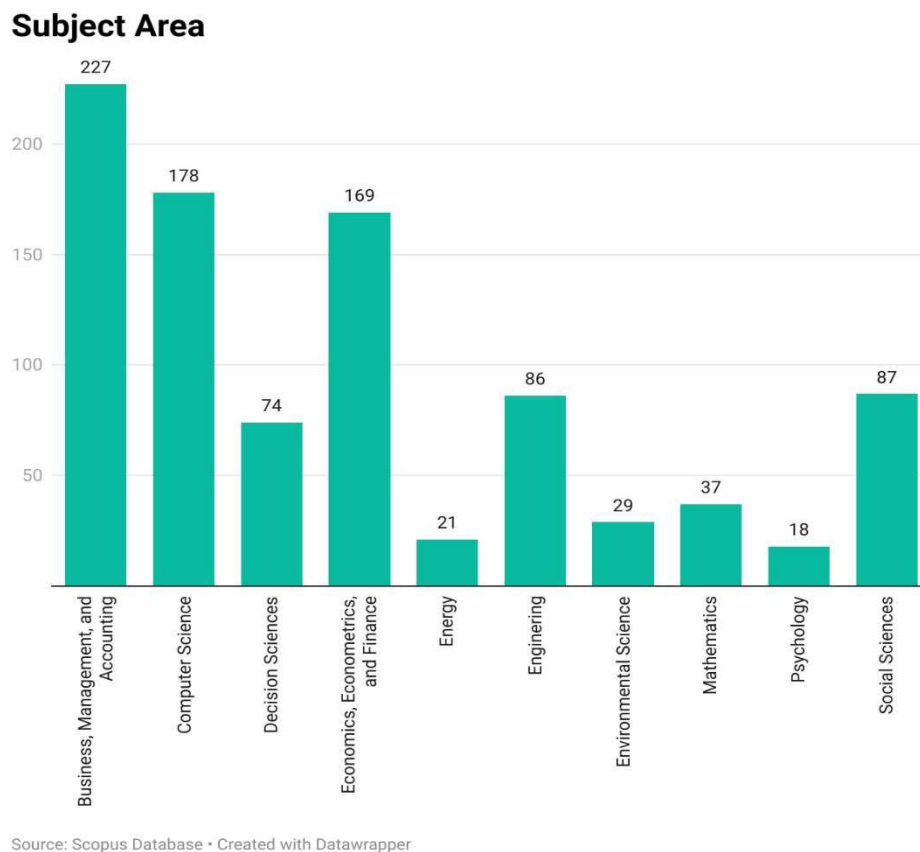
Research related to Fintech Adoption in the Scopus database first appeared in 2016 which found 5 documents. This initial research on fintech adoption discusses the adoption of mobile payment services in Korea, the adoption of Biometric technology in the Canadian banking industry, and the motivation of Chinese consumers in adopting FinTech payment services. Research on Fintech adoption has increased every year until it reaches a peak in 2022 with a total of 150 documents. Meanwhile, throughout 2023, as of June 9, 2023 researchers found that 85 documents had been published in the Scopus Database.

Figure 3. Publication Over the Years

Publication Over the Years
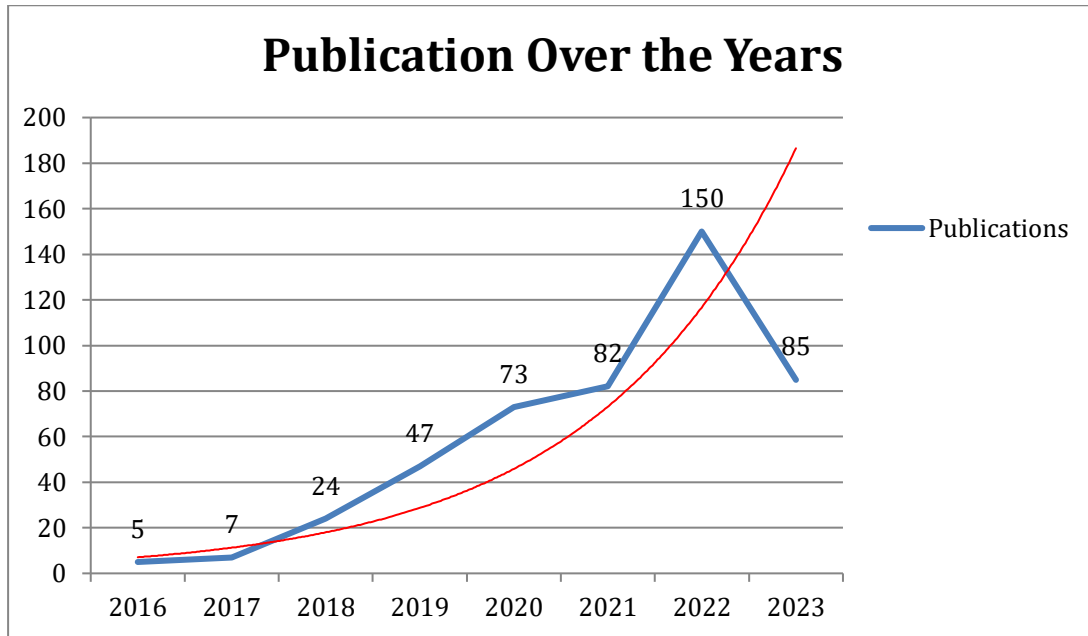
Source: Ms Excel 2010

Figure 3 shows the publication output over the years. Moreover, the researcher added a trendline analysis which is marked with a red line. This exponential trendline analysis can provide information in the form of publication projections that may be achieved by the end of the year if the publication trend continues to be positive so that by the end of 2023, there will be 187 documents published in one year.

Figure 4. Number of Publication by Country

Distribution of Publications by Country

Total Publication

18   62

Countries	Total Publication
India	62
Malaysia	51
China	48
United Kingdom	45
Indonesia	42
United States of America	41
Bahrain	19
Pakistan	19
Spain	19
South Africa	18

Source: Scopus Database • Created with Datawrapper
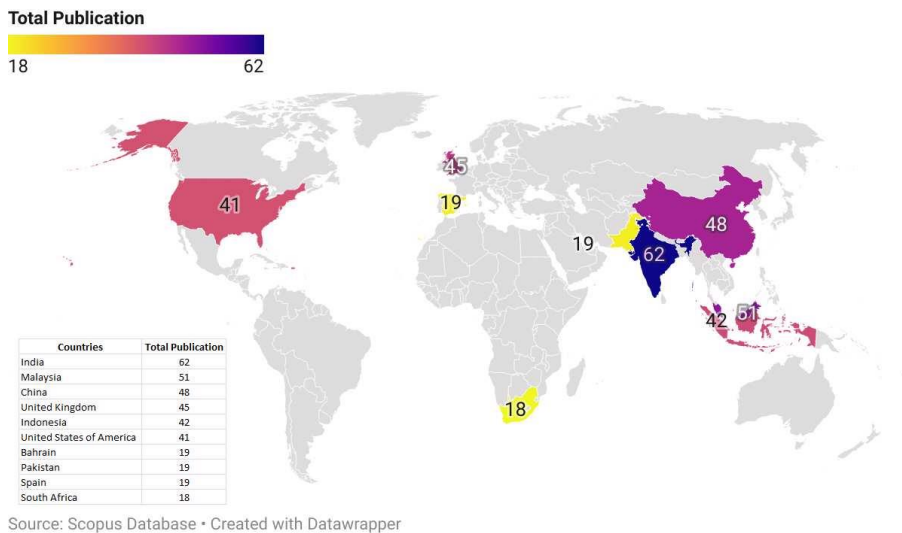
An explanation of the distribution of publications by country will provide an idea of which countries specifically have research on fintech adoption. Figure 4 above shows that the 10 countries are countries with the most research publications on Fintech adoption in the Scopus database. In order, India leads with 62 documents, followed by Malaysia 51, China 48, United Kingdom 45, Indonesia 42, and United States of America 41. Meanwhile, Bahrain, Pakistan, Spain, and South Africa have relatively the same number of publications with 19 publication.

Table 1. Article Published by Afiliation

No	Afiliation	Number of Document
1	Amity University, UAE	14
2	Bina Nusantara University, Indonesia	14
3	University of Bahrain, Bahrain	11
4	Universiti Utara Malaysia, Malaysia	10
5	Multimedia University, Malaysia	7
6	University of Zululand, South Africa	6
7	Universiti Teknologi MARA, Malaysia	5
8	Ahlia University, Bahrain	5
9	Peking University, China	5
10	UCSI University, Malaysia	5

Source: Scopus Database

Based on campus affiliation, it was found that authors with affiliations from Amity University, UAE and Bina Nusantara University, from Indonesia, were research affiliations with the most publications of 14 documents. Furthermore, the University of Bahrain, University Utara Malaysia,

Multimedia University and University of Zululand ranked 3rd, 4th, 5th and 6th with 11th, 10th, 7th, 6th publications respectively. Meanwhile, authors affiliated with Universiti Teknologi MARA, Ahlia University, Peking University, and UCSI University each published 5 articles in the Scopus database.

Interestingly, the highest number of authors based on campus affiliation is not in line when compared to the number of publications based on Country/Territory. In publications by Country, authors from India ranked first with 62 documents, while based on University affiliations researchers from the UAE and Indonesia had the most published documents, 14 documents each.

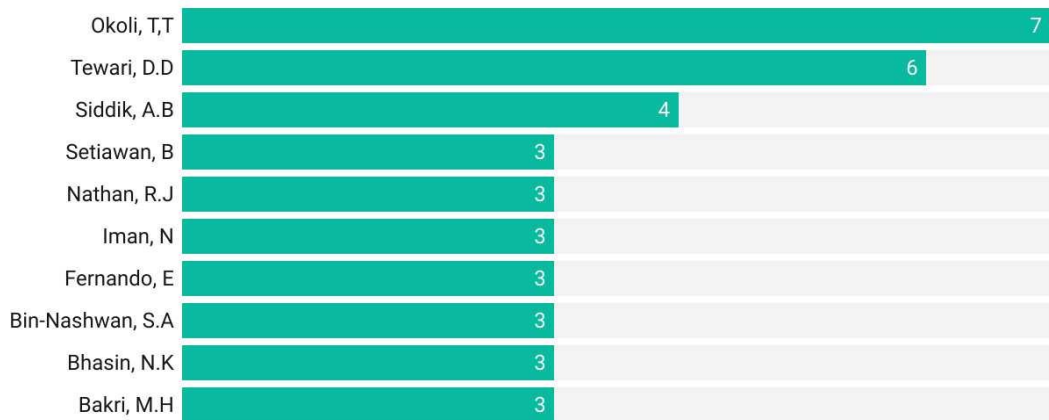**Most Prolific Writers and Most Influential Articles**

Indicators of measuring the productivity of a writer can be seen from how much scientific writing is published. On the other hand, the most influential articles are measured based on how often these articles become references in writing other scientific articles.

In terms of the most productive authors, Figure 5 shows the 10 most productive authors writing articles with the Fintech Adoption study that researchers found in the Scopus database. In general, Okoli, T.T, Tewari, D.D, and Siddik, A.B are the three authors with the most articles, namely 7, 6, and 4 articles respectively. Meanwhile Setiawan, B, Nathan, R.J, Faith, N, Fernando, E, Bin-Nashwan, S.A, Bhasin, N.K, Bakri, M.H have published 3 articles each.

Meanwhile, Table 2 shows that the articles written by Belanche, Casaló, & Flavián, (2019) is the article with the most references to research related to Fintech Adoption with a total of 186 referrals. Chang et al., (2020), Milian, Spinola, & Carvalho, (2019), Hu, Ding, Li, Chen, & Yang, (2019) each is an article with quite a large number of citations, namely 176, 166, and 145 respectively. sequentially. While other articles included in the top ten categories of articles with the most citations have a fairly similar range, ranging from 88 – 114 citations.

Figure 5. Most Productive Author

Author Name

Okoli, T,T	7
Tewari, D.D	6
Siddik, A.B	4
Setiawan, B	3
Nathan, R.J	3
Iman, N	3
Fernando, E	3
Bin-Nashwan, S.A	3
Bhasin, N.K	3
Bakri, M.H	3

Source: Scopus Database · Created with Datawrapper

Table 2. Articles with the highest number of citations

Author(s)	Title	Citations
Belanche, Casaló, & Flavián, (2019)	Artificial Intelligence in FinTech: understanding robo-advisors adoption among customers	186
Chang et al., (2020)	How Blockchain can impact financial services – The overview, challenges and recommendations from expert interviewees	176
Milian, Spinola, & Carvalho, (2019)	Fintechs: A literature review and research agenda	166
Hu, Ding, Li, Chen, & Yang, (2019)	Adoption intention of fintech services for bank users: An empirical examination with an extended technology acceptance model	145
Yonghee, Jeongil, Young-Ju, & Jiyoung, (2016)	The adoption of mobile payment services for "fintech"	114
Albayati, Kim, & Rho, (2020)	Accepting financial transactions using blockchain technology and cryptocurrency: A customer perspective approach	111
Marsal-Llacuna, (2018)	Future living framework: Is blockchain the next enabling network?	109
Akpan, Udoh, & Adebisi, (2022)	Small business awareness and adoption of state-of-the-art technologies in emerging and developing markets, and lessons from the COVID-19 pandemic	95
Jünger & Mietzner, (2020)	Banking goes digital: The adoption of FinTech services by German households	93
Stewart & Jürjens, (2018)	Data security and consumer trust in FinTech innovation in Germany	88

Source: Scopus Database

Bibliometric Analysis
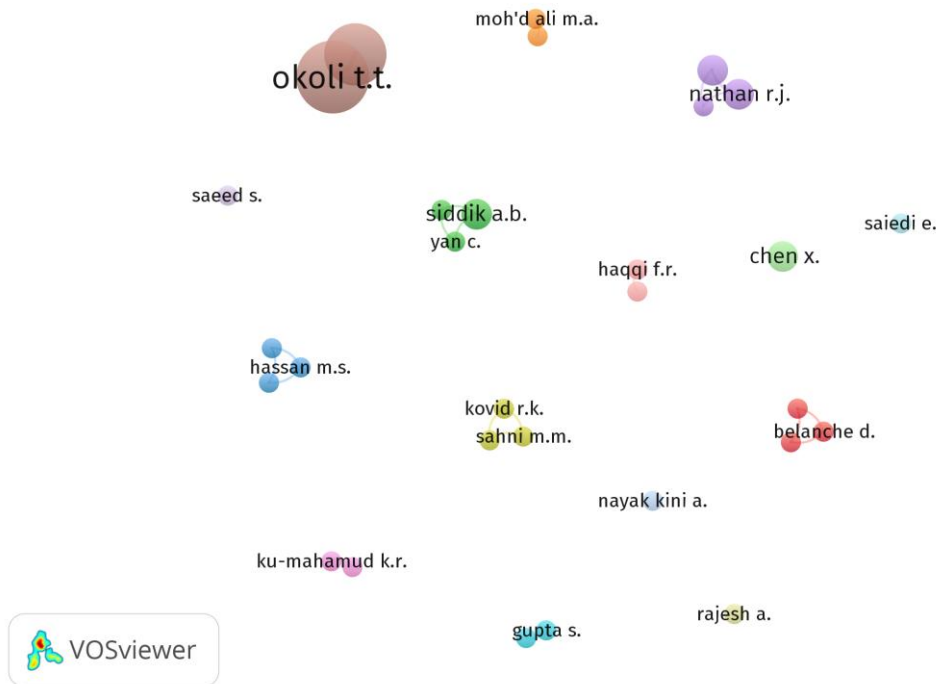
Figure 6. Author network visualization

Figure 6 shows the research group in researching Fintech Adoption based. There are five dominant writing groups based on Total Link Strength: (1) Okoli T.T, Tewari D.D. (2) Nathan R.J, Setiawan B, Nugraha D.P (3) Belanche D, Flavian C, Casalo.V (4) Hassan M.S, Islam M.A, Sobhani F.A (5) Dong Q, Siddiq A.B, Yan C (6) Kovid R.K, Sahni M.M, Singh S.

Meanwhile, Figure 7 shows how the top keywords appear in the sample. The greater the visualization of a label, the more commonly these words are found in the sample. Processed results from 2307 keywords, found as many as 54 keywords that form five clusters. The grouping of words in Figure 7 is a description of words that often appear abstractly in a collection of articles on the theme of fintech adoption that form a network map of connecting words. The resulting grouping considers the relationship between words to one another to produce red, blue, and green, yellow and purple clusters.

Figure 7. Keyword Network Visualization

VOSviewer
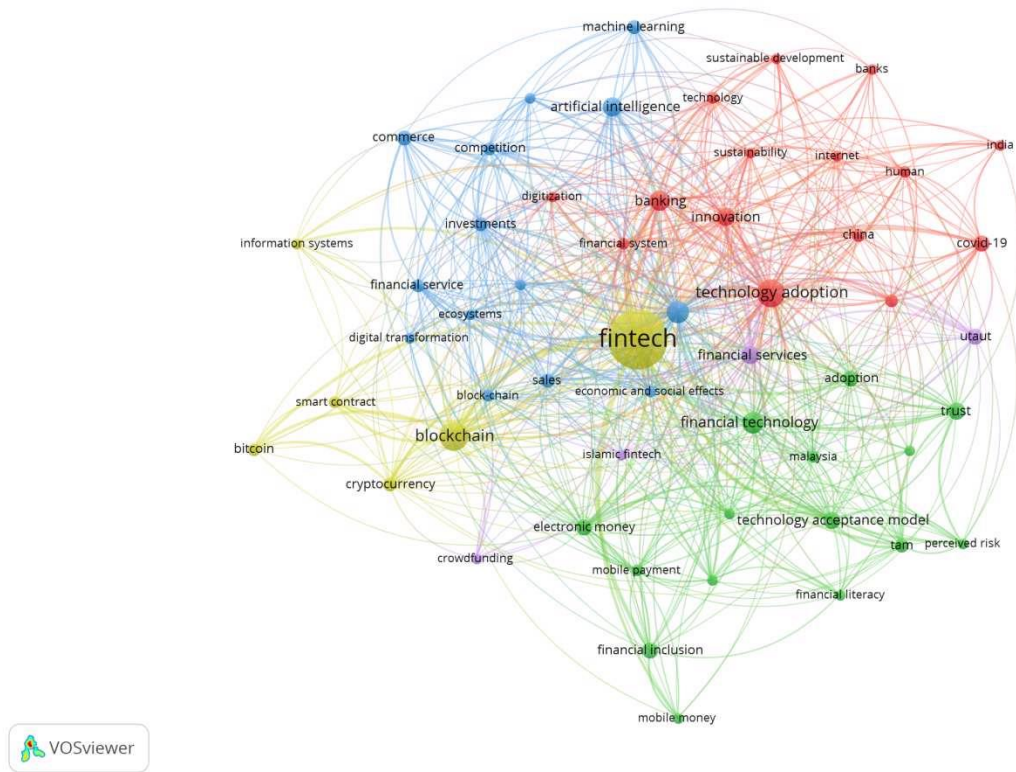
Table 3 is below to facilitate the interpretation of the relationship map between words in the bibliometric analysis.

Table 3. Cluster of Keyword

	Keyword	Occurrences	Total Link Strength
Cluster 1 **"Red"**	Banking	31	116
	Banks	9	24
	China	14	43
	Covid-19	21	56
	Digitization	9	35
	Financial System	12	49
	Fintech Adoption	14	31
	Human	12	43
	India	9	21
	Innovation	25	87
	Internet	9	28
	Sustainability	10	46
	Sustainable Development	10	32
	Technology	12	37
	Technology Adoption	59	217

	Adoption	21	51
	Electronic Money	19	83
	Financial Inclusion	21	44
	Financial Literacy	10	25
	Financial Technology	34	72
Cluster 2	Financial Technology (FinTech)	10	14
	Intention to Use	10	37
"Green"	Malaysia	12	43
	Mobile Money	9	23
	Mobile Payment	11	31
	Perceived Risk	9	29
	Perceived Usefulness	9	40
	TAM	16	50
	Technology Acceptance Model	24	70
	Trust	24	62
	Artificial Intelligence	29	76
	Block-Chain	11	41
	Commerce	18	57
	Competition	14	48
	Decision Making	10	37
Cluster 3	Digital Transformation	9	25
	Economic and Social Effects	10	44
"Blue"	Ecosystems	10	37
	Electronic Commerce	9	46
	Finance	37	147
	Financial Service	14	57
	Investments	15	63
	Machine Learning	15	38
	Sales	15	62
	Bitcoin	14	36
Cluster 4	Blockchain	63	162
	Cryptocurrency	16	60
"Yellow"	Fintech	262	518
	Information Systems	9	24
	Smart Contract	12	35
Cluster 5			

"Purple"	Crowdfunding	10	24
	Financial Services	27	94
	Islamic Fintech	10	28
	UTAUT	20	46

Source: VOSviewer

DISCUSSION

This research was conducted using bibliometric analysis by collecting data from the Scopus Database to find out research trends on fintech adoption from various studies around the world. Research on fintech adoption is important because the level of inclusion and adoption of fintech is still low in various countries, especially developing countries (Ernst & Young, 2019). Thus, understanding research trends in the field of fintech adoption will provide an overview of what research can be developed in the future.

Based on co-occurrence analysis using Vosviewer, out of 2307 keywords, 54 items were found to form 5 clusters. Cluster 1 "Red" discussed innovation and technology adoption in the banking industry, one of which was during the Covid-19 pandemic. Several crucial keywords such as "Banking," "Banks," "Fintech Adoption" indicate researchers' interest in understanding the role and impact of financial technology adoption, especially in the banking sector. Therefore, cluster 1 analysis shows that research in this cluster focuses on main aspects such as fintech adoption in the banking sector, digital transformation, innovation, the impact of the Covid-19 pandemic, and sustainability considerations.

Analysis of the relationship between keywords in Cluster 2 "Green" reflects the complexity of factors that influence the adoption of Financial Technology (FinTech). The decision to adopt financial technology is influenced by factors such as user intention (Intention to Use), financial inclusion (Financial Inclusion), financial literacy (Financial Literacy), perceived risk (Perceived Risk), trust (Trust), and perceived benefits (Perceived Usefulness). The close relationship between adoption and intention to use indicates that the user's intention to use technology is key in the adoption process. In addition, Financial Inclusion and FinTech have a reciprocal relationship, indicating that the adoption of financial technology can increase financial inclusion by expanding access and services. Overall, these clusters demonstrate researchers' focus on the dynamics that guide FinTech adoption, opening the door to a deeper understanding of the

complexity of the interactions between key factors in the use of financial technology in various contexts

Cluster 3 "Blue" encompasses a series of keywords that reflect the research focus in the financial technology (FinTech) domain. "Finance" takes center stage as the primary focus, indicating the intensity of research surrounding the integration of technology with the financial sector. "Artificial Intelligence" and "Machine Learning" underscore the significance of artificial intelligence and machine learning in financial innovation, mirroring the growing trend towards intelligent development in financial technology. "Block-Chain" emerges as a pivotal keyword, signifying the potential use of blockchain technology in finance. "Commerce," "Competition," "Financial Services," "Investments," and "Sales" mirror the diversity of research aspects, highlighting the intricate nature of FinTech in commerce, competition, financial services, investments, and sales. "Digital Transformation" signals a paradigm shift towards digital transformation in the financial industry. "Economic and Social Effects" and "Decision Making" indicate a keen interest in economic and social impacts, as well as the influence of artificial intelligence in financial decision-making. "Ecosystems" underscores the understanding of integrated ecosystem frameworks in the development and implementation of FinTech solutions. "Electronic Commerce" highlights the role of electronic commerce in financial transformation. Thus, this cluster represents a rich and complex FinTech research landscape, emphasizing the crucial role of integrating modern technologies in the evolution of the financial sector.

Cluster 4, labeled "Yellow," encompasses several key keywords that center around the financial technology domain, with a particular emphasis on blockchain, cryptocurrency, and fintech. "Bitcoin" and "Blockchain" signify research interests in blockchain technology, underscoring its central role in financial innovation. "Cryptocurrency" and "Fintech" emerge as substantial focal points, indicative of a keen interest in digital currencies and the broader spectrum of financial technology. "Information Systems" showcases acknowledgment of the pivotal role played by information systems in managing and integrating data related to financial technology. The inclusion of "Smart Contract" denotes a specific focus on automated contract execution using blockchain technology. In essence, this cluster vividly illustrates the diverse facets of research within the financial technology domain, emphasizing the paramount importance of blockchain, cryptocurrencies, and

fintech as primary research areas, while also recognizing the significance of information systems and smart contracts.

Lastly Cluster 5 "Purple" encompasses keywords related to crowdfunding, financial services, Islamic fintech, and UTAUT (Unified Theory of Acceptance and Use of Technology). "Crowdfunding" indicates a keen interest in collective financing, reflecting research on funding models that involve contributions from numerous individuals. "Financial Services" highlights a focus on various aspects of the financial industry. "Islamic Fintech" reveals an interest in financial innovation aligning with the principles of Islamic Sharia. "UTAUT" signifies the adoption of blended theoretical models to comprehend technology acceptance and use, emphasizing a comprehensive approach in assessing fintech adoption. In summary, this analysis illustrates the breadth of research topics, encompassing collective financing, financial services, Islamic fintech innovation, and theoretical frameworks for understanding technology adoption within a financial context.

Recommendations for future research

Figure 8. Network Visualization

From Figure 8, we can observe the Overlay Visualization by year. The darker the color of an item, it means that the research has been carried out for a long time. Conversely, the brighter the color of the visualization, the item or research theme is relatively new to the research. So that research themes related to UTAUT, Financial Inclusion, Technology Acceptance Model, Sustainable Development on Fintech can be the theme of the study being carried out. We have also summarized recommendations for future research in Table 4

Table 4. Recent studies Suggestions on Fintech adoption in the Scopus database.

Authors	Title	Suggestions for Future Research
Werth, Rodríguez, Albert, Michael, & Jan, (2023)	What determines FinTech success?—A taxonomy-based analysis of FinTech success factors	1. Alternative future taxonomies could emerge from an empirical-to-conceptual approach to gain different perspectives, for example by conducting expert interviews or focus groups with

		practitioners in the financial ecosystem. 2. A comparison of both taxonomies contributes to identifying existent research-to-practice gaps.
Mahmud, Joarder, & Muheymin-us-sakib, (2023)	Adoption Factors of FinTech: Evidence from an Emerging Economy Country-Wide Representative Sample	1. Future research can replicate the methodology used in populations and samples of other developing countries, such as Thailand, Vietnam, Nigeria, Kenya and others. 2. Future research may also delve deeper into effective ways to address customer concerns and perceived obstacles and assess the impact of such intervention on fintech adoption intention
Sabir et al., (2023)	Consumer Acceptance and Adoption of AI Robo-Advisors in Fintech Industry	1. This study can be applied to developed countries with the use of the latest technology available in these countries, such as Singapore, South Korea and Japan. 2. Because this study is a cross-sectional study, it is advisable to try to apply it to longitudinal-

		based studies and experimental-based studies.
Adamek & Solarz, (2023)	Adoption factors in digital lending services offered by FinTech lenders	1. Future research, expanding the cognitive perspective, can be addressed to separate groups of respondents, uniform in terms of selected features, e.g., characterized by belonging to a specific generation, level of financial education, gender, digital skills, etc. 2. Explorasi variabel maupun model teori lain
Yi et al., (2023)	The Adoption of Robo-Advisory among Millennials in the 21st Century: Trust, Usability and Knowledge Perception	1. Examine the organisations offering robo-advisory and their perspective concerning consumer adoption, and how they could better fulfil the consumers' desires to receive a quicker adoption. 2. Respondents may have varying understandings in terms of completeness and accuracy. A possible direction for future study is to offer a brief description of the robot advisor along with visual aids or interactive examples to define and

		examine how the robot advisor operates. This will ensure that all respondents have the same level of thorough understanding of the robo-advisor prior to answering the survey.
Yan, Bakkar, Nazma, & Qianli, (2023)	Factors influencing the adoption intention of using mobile financial service during the COVID - 19 pandemic : the role of FinTech	1. Demographic factors of users (e.g., age, gender and experience) could be included in future studies to investigate the moderating impact of user characteristics on the developed framework. 2. Other constructs such as user innovativeness, environmental factors, and technological knowledge, as well as the impact of government laws on fintech adoption, could be adopted for future research

CONCLUSION

This study conducted a bibliometric analysis in the field of FinTech Adoption to identify research developments over the past few years,

countries that published the most related research, articles with the most citations, the most productive authors, and directions for developing research on FinTech adoption in the future. Research trends in Financial Technology (FinTech) adoption over several years reveal a number of key findings. Firstly, there has been a significant increase in the number of papers published over time, indicating a growing interest in the context of FinTech adoption. The research objective of analyzing this trend was successfully achieved by mapping research topics and identifying the main groups in the FinTech adoption research stream. The practical implications of these findings underscore the importance of further understanding the integration of FinTech into various sectors, especially outside the traditional financial industry. It should be acknowledged that the limitations of this research include the inability of the analysis tools to map the research methodology used by the researchers, as well as the thematic analysis, which enables the identification, analysis, and understanding of thematic patterns or topics in bibliometric data.

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