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From Global Financial Crisis to post-COVID: Mapping the transition in sukuk research

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ABSTRAK

Introduction

The financial sector has experienced substantial changes throughout history, and sukuk has gained widespread recognition as a reliable funding option.

Objectives

This study explores the evolution and impact of Sukuk financing from the Global Financial Crisis to the post-COVID era, emphasizing its importance within Islamic finance and its broader economic implications.

Method

Using a bibliometric analysis approach, data were extracted from the Scopus database, focusing on 287 English-language research articles containing "Sukuk" in their titles. Advanced bibliometric tools such as R's Biblioshiny package and Microsoft Excel facilitated a quantitative assessment of publication trends, authorship, and thematic developments in Sukuk research.

Results

The findings highlight a significant expansion in Sukuk-related research, with diversification in themes such as sustainability, governance, and innovation in Islamic finance. Key contributors and influential works were identified, showing a shift towards addressing contemporary financial challenges through Islamic principles. While the study acknowledges limitations in scope due to its bibliometric approach, it suggests that future research could incorporate more qualitative analyses to deepen the understanding of emerging trends.

Implications

The insights from this study provide valuable guidance for practitioners, policymakers, and investors in Islamic finance, underlining the role of Sukuk in promoting sustainable economic growth and financial stability. Additionally, the findings demonstrate

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COPYRIGHT © 2024 Hassnian Ali & Ahmad Jafar. Licensee Universitas Islam Indonesia, Yogyakarta, Indonesia. the potential of Sukuk to contribute to ethical and socially responsible investment, aligning financial practices with broader societal values.

Originality/Novelty

This study adds to academic discourse by offering a comprehensive overview of Sukuk literature's evolution and serves as a foundational resource for further investigation and practical application in the field of Islamic finance.

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INTRODUCTION

The financial sector has experienced substantial changes throughout time, characterised by major events such as the Global Financial Crisis (GFC) and the COVID-19 pandemic (Naeem et al., 2023; Naifar, 2023). Sukuk is a financial instrument that operates under the rules of Shariah law and is similar to a bond in the Western financial system. It is used to navigate the current volatile economic conditions (Nasir et al., 2023a; Sulistiani & Tjahjadi, 2023).

Sukuk has gained widespread recognition as a reliable funding option for corporate entities and financial institutions. It caters to various needs such as general funding, capital adequacy, and project financing, as well as meeting sovereign entities' budgetary and fiscal requirements. Additionally, it is used for liquidity management. According to the IIFM Report 2023, the total amount of global issuance of Sukuk, including long-term and short-term financing, amounted to USD 182.715 billion. This confirms the significant importance of Sukuk as a primary financing vehicle (IIFM, 2023).

During the period from 2007 to 2023, academic research on Sukuk has explored various topics, including its ability to withstand financial crises and adaptability (N. Alam et al., 2013; Rusgianto & Ahmad, 2013; Sherif & Erkol, 2017), as well as its significance in promoting sustainable and ethical finance in the aftermath of COVID-19 (A. Alam et al., 2023; Keshminder et al., 2022; Rahman et al., 2023). Academics have examined the role of Sukuk in promoting financial stability, its inventive designs that adhere to Shariah rules, and its attractiveness to a wider range of investors who are interested in ethical investing opportunities. The debate also covers the difficulties and possibilities in Sukuk markets, emphasising changes in regulations, the extent of market activity, and the integration of technological advances in Sukuk origination and selling (Busari & Aminu, 2021; Khudari & Saad, 2019).

The significance of this study rests in its capacity to present a comprehensive overview of Sukuk research, providing valuable insights on the growth and stability of Sukuk markets in the face of global financial difficulties. This method not only enhances the scholarly discussion on Islamic finance but also provides practical consequences for policymakers, financial professionals, and researchers by identifying areas that need more investigation and comprehension.

This study employs a bibliometric review approach to examine the Sukuk literature quantitatively. This method enables a subjective study of the contributions made by authors, institutions, and nations, highlighting the collaborative aspect of this research field. Furthermore, by specifically examining publications written in the English language, the study guarantees a focused evaluation of internationally acknowledged research.

The study not only enhances existing qualitative and thematic evaluations by providing a quantitative analysis of Sukuk research but also establishes a foundation for future research possibilities. It brings attention to areas of research that have not been thoroughly studied and new developments, thereby providing valuable information for future investigations in the field of Islamic finance.

The study is organised to lead the reader through the complexities of Sukuk research. After this introduction, the paper provides a comprehensive overview of previous research, explaining the methodology used and showing the results. Subsequently, it analyses the consequences of these discoveries, providing an evaluation of the progression of Sukuk literature and pinpointing significant patterns and obstacles. Ultimately, the article ends by proposing prospective areas for future investigation, emphasising the ever-changing character of Sukuk in the worldwide financial environment and its capacity to promote ethical and sustainable financial methods.

LITERATURE REVIEW

Several studies have made significant contributions to Sukuk literature, each offering a unique perspective on its structural, ethical, and market-related components. Issoufou and Oseni (2015) undertook an initial evaluation of the use of third-party guarantees in Islamic capital markets, namely in Sukuk transactions. The methodology is based on a comparative analysis of jurisprudence, ranging from classical to contemporary Islamic legal thought. The study reveals a gap between theoretical principles and the actual implementation of third-party guarantees in Sukuk architecture. Nasir et al. (2023b) undertook a thorough examination of the Sukuk structures, showing the differences and similarities with conventional bonds. The study combined qualitative and quantitative methodologies, as well as segmented bibliometric analysis, to investigate the core components of Sukuk. Use of "Biblioshiny" from the R-package "bibliometrix 3.0" is particularly noteworthy. The key finding of this study is Malaysia's significant influence on Sukuk publishing and its pivotal role in author correspondence.

Alam et al. (2023) focus on green Sukuk as a strategy of addressing the global climate calamity. This study aims to track the patterns of green Sukuk publication and organize the findings related to its advancement and appraisal. The study looks at 15 papers and uses a combination of descriptive and synthesis analysis to look into various areas of green Sukuk, such as development models, opportunities, difficulties,



and assessments. The post-pandemic market underscores the challenges that green Sukuk face, as well as the importance of both government and investor commitment to renewable energy. The study emphasizes the significance of good management of green Sukuk in order to improve its feasibility and investor appeal. Uluyol (2023) provides a thorough examination of Sukuk, examining its specific qualities in comparison to conventional bonds, empirical studies, issuing alternatives, Shariah and legal issues, and pricing. The study also reveals, there is a considerable concentration on empirical investigations in the Sukuk literature, with very little exploration of basic research. The lack of study in this area highlights the need for new fundamental studies on Sukuk.

Unlike prior studies, this study takes a comprehensive bibliometric approach, investigating the entire collection of Sukuk literature recorded in the Scopus database. The study's comprehensive coverage, which includes research publications with the word "Sukuk" in their titles, defines its uniqueness. Unlike previous studies that focused on specific Sukuk structures or aspects, this study provides a panoramic view of the Sukuk field, identifying key trends, patterns, and gaps in the literature. By limiting the focus to English language papers, the study ensures a concentrated assessment of the most reliable studies. Based on bibliometric analysis, the utilized approach allows for a quantitative assessment of the Sukuk literature, offering useful information on the authors, institutions, and nations with the biggest influence in this area. This approach not only complements the existing qualitative and thematic studies but also paves the way for future research directions by highlighting under-researched areas and emerging trends in Sukuk literature.

METHOD

Data Collection

The initial phase of this study involved a systematic data collection process utilizing the Scopus database, a widely recognized source for academic research. The query term 'Sukuk' was specifically targeted within article titles to ensure direct relevance to the subject matter. This process yielded a diverse set of 381 publications, encompassing various document types such as articles, book chapters, conference papers, reviews, and others (Table 1).

Table 1

Database	Scopus	
Query	'Sukuk'	
Search in	Article Title	
Doc type	Results	
Article	294	
Book chapter	48	
Conference paper	23	
Review	8	

Query and Sources Selection Criteria

Book	3
Short survey	1
Note	1
Editorial	1
Total no of publications	381
After limitation to 'ENG'	287

Source: Scopus. Authors' analysis.

Only English-language publications were included, resulting in a dataset of 287 publications. This step was critical to ensure the accessibility and broad applicability of the research findings. The dataset was further narrowed to focus exclusively on research articles. This decision was rooted in the need for scholarly rigor, as research articles are typically subject to peer-review and thus represent validated and reliable insights. The refined dataset of 287 English-language research articles serves as the foundation for the bibliometric analysis.

Analysis

R Biblioshiny an extension of the 'bibliometrix' R package, was utilized for its advanced bibliometric analysis capabilities. It enabled the extraction of quantitative insights from the dataset, such as publication trends over time, most prolific authors, institutions, countries, and the analysis of keyword occurrences. The biblioshiny interface facilitated an interactive exploration of the data, allowing for a dynamic and in-depth analysis of the academic discourse on Sukuk.

Microsoft Excel was employed for further data manipulation and visualization purposes. It proved instrumental in organizing and presenting the data in a more accessible format. Pivot tables, charts, and graphs were created to illustrate key findings, such as the distribution of publications by year, the geographical spread of research, and thematic concentrations within the Sukuk literature. Excel's capabilities in handling large datasets and its user-friendly interface made it an ideal tool for supplementary data analysis and visualization.

RESULTS AND DISCUSSION

Bibliometic Analysis Results

Table 2 presents the characteristics of a dataset spanning from 2007 to 2023. It details 287 documents from 131 sources, showing a significant annual growth rate of 23.69%. The dataset includes a broad range of topics, with 68 Keywords Plus (ID). Authorship patterns reveal 572 different authors, with 51 contributing to single-authored documents, and an average of 2.67 co-authors per document. Particularly, 35.19% of the documents feature international co-authorships. All documents are categorized as 'Articles', indicating the nature of the research output in this field.

Table 2

Descriptive Statistics

Description	Results
Main Information About Data	
Timespan	2007:2023
Sources (Journals, Books, etc.)	131
Documents	287
Annual Growth Rate %	23.69
Document Average Age	4.16
Average citations per doc	9.875
References	11162
Document Contents	
Keywords Plus (ID)	68
Author's Keywords (DE)	775
Authors	
Authors	572
Authors of single-authored docs	51
Authors Collaboration	
Single-authored docs	59
Co-Authors per Doc	2.67
International co-authorships %	35.19
Document Types	
Article	287

Source: Scopus. Authors' analysis.

Figure 1 presents the trend in the number of publications per year. The data shows a generally increasing trajectory in scientific output over this period. Starting with only 4 publications in 2014, there is a notable jump to 20 in 2015. The following years continue this upward trend, albeit with some fluctuations. For instance, 2016 sees a slight decrease to 19 publications, but this is followed by consistent annual increases: 24 in 2017, 29 in 2018, 31 in 2019, 32 in 2020, 36 in 2021, and peaking at 41 in 2022. Interestingly, there is a slight dip in 2023, with 30 publications. This figure effectively illustrates the dynamic nature of scientific research output in this field over the decade.

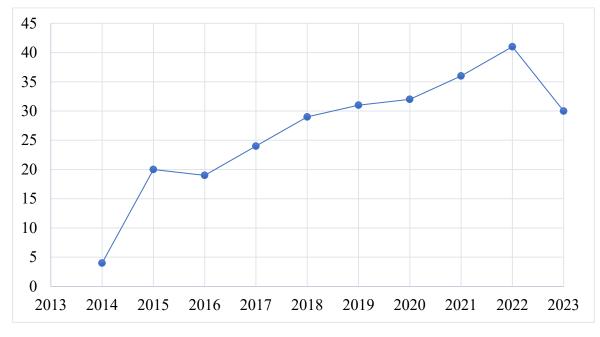


Figure 1

Annual Scientific Production

Source: Scopus. Authors' analysis.

Table 3 provides information about the impact and performance of different authors in a particular field. The authors are evaluated based on several factors such as their impact element, h-index, g-index, m-index, total citations (TC), number of publications (NP), and the year they started publishing (PY_start). Naifar N. has an impact element of 6, an h-index of 10, a g-index of 0.545, 197 total citations, and has published 10 papers since 2013. Similarly, Saiti B. has an impact element of 6, an h-index of 0.75, 98 total citations, and has published 6 papers since 2016. These metrics help assess the influence and productivity of each author in their respective field. The higher the values for impact element, h-index, g-index, total citations, and number of publications, the more significant their contributions are considered.

Table 3

Authors' Impact

Element	h_index	g_index	m_index	тс	NP	PY_start
Naifar N	6	10	0.545	197	10	2013
Saiti B	6	6	0.75	98	6	2016
Smaoui H	6	7	0.857	147	7	2017
Hammoudeh S	5	6	0.556	248	6	2015
Hassan Mk	5	7	0.556	161	7	2015
Arundina T	4	7	0.444	59	7	2015
Balli F	4	5	1	46	5	2020
Bhuiyan Ra	4	4	0.667	80	4	2018
Weill L	4	4	0.364	233	4	2013

Element	h_index	g_index	m_index	тс	NP	PY_start
Abdullah Ms	3	3	0.6	21	3	2019

Source: Scopus. Authors' analysis.

Table 4 provides an enumeration of the top ten most global cited studies. The study "Sukuk vs. conventional bonds: A stock market perspective," stands out with a total of 137 citations, indicating a significant impact, as evidenced by its annual citation rate of 12.45. This is followed by various studies that explore different aspects of sukuk, such as its co-movement with shariah stocks, innovations in structuring, and its interactions with global financial markets. Each paper is quantified in terms of total citations and normalized citation rates, reflecting its impact within the academic field. This table not only highlights the key papers in the field but also provides insights into the evolving trends and areas of interest in Islamic finance research.

Table 4

Top Ten Most Global Cited Documents

Paper	Total Citations	TC per Year	Normalized TC
Sukuk vs. conventional bonds: A stock market			
perspective	137	12.45	5.93
Innovation in the structuring of Islamic sukuk			
securities	99	6.19	1.66
Co-movement between sharia stocks and sukuk			
in the GCC markets: A time-frequency analysis	78	8.67	3.64
Issues in Islamic banking and finance: Islamic			
banks, Shari'ah-compliant investment and sukuk	69	7.67	3.22
Does bitcoin co-move and share risk with Sukuk			
and world and regional Islamic stock markets?			
Evidence using a time-frequency approach	63	15.75	8.54
A bibliometric review of sukuk literature	59	59.00	16.39
Global factors driving structural changes in the			
co-movement between sharia stocks and sukuk			
in the Gulf Cooperation Council countries	57	6.33	2.66
A synthesis of theoretical and empirical research			
on sukuk	54	6.00	2.52
Risks of Sukuk structures: Implications for			
resource mobilization	51	3.00	1.00
Why do issuers issue Sukuk or conventional			
bond? Evidence from Malaysian listed firms using			
partial adjustment models	49	5.44	2.28

Source: Scopus. Authors' analysis.

Table 5 spectacles the results of affiliation of top ten authors, majority of the publications were in the International Islamic University Malaysia (24) shadowed by Economics, Business and Management.19 Authors from INCEIF University, the origin of Sukuk research is rooted in the area of Finance, Economics, and Business while few are related to religion yet in the area of Islamic Finance. 14 Authors from Al-Imam Muhammad Ibn Saud Islamic University, 13 Authors from Universiti Teknologi MARA, 12

Authors from Universitas Airlangga, 11 Authors from Universitas Indonesia, 10 Authors from International Islamic University Malaysia, Institute of Islamic Banking and Finance, 9 Authors from Universiti Sains Malaysia & Universiti Sains Islam Malaysia and 8 Authors from University of Sfax.

Table 5

Affiliations of Top Ten Authors

Affiliation	No.
International Islamic University Malaysia	24
INCEIF University	19
Al-Imam Muhammad Ibn Saud Islamic University	14
Universiti Teknologi MARA	13
Universitas Airlangga	12
Universitas Indonesia	11
International Islamic University Malaysia, Institute of Islamic Banking and Finance	10
Universiti Sains Malaysia	9
Universiti Sains Islam Malaysia	9
University of Sfax	8

Source: Scopus. Authors' analysis.

Table 6 provides information on the top ten most productive authors in the world in a specific area of research. It shows the number of publications each author has produced. Naifar, N. has the highest number of publications with a total of 10. Following Naifar, T. Arundina has 9 publications, M. K. Hassan has 7, S. Hammoudeh has 6, and B. Saiti has 5. Naifar, N. is a finance faculty member at Al Imam Muhammad Ibn Saud Islamic University. In addition to Naifar, other well-known researchers in this field include Ahmad, N., Aloui, C., Azmat, S., Balli, F., Billah, M., and Muneeza, A.

Table 6

Top Ten Productive Authors

Authors	No.
Naifar, N.	10
Arundina, T.	7
Hassan, M.K.	7
Smaoui, H.	7
Hammoudeh, S.	6
Saiti, B.	6
Ahmad, N.	5
Balli, F.	5
Billah, M.	5
Muneeza, A.	5

Source: Scopus. Authors' analysis.

Table 7 provides information on the top ten most productive countries in terms of their research output. The number of publications from each country is listed. Malaysia ranks first with 105 publications, followed by Indonesia with 51, Saudi Arabia with 41, the United States with 25, and the United Kingdom with 22. Pakistan and Turkey both have 17 publications, while Tunisia has 16 and the United Arab Emirates has 14. France rounds out the top ten with 13 publications. These numbers indicate the level of research activity and productivity in each country.

Table 7

Top Ten Productive Countries

Country	No.
Malaysia	105
Indonesia	51
Saudi Arabia	41
United States	25
United Kingdom	22
Pakistan	17
Turkey	17
Tunisia	16
United Arab Emirates	14
France	13

Source: Scopus. Authors' analysis.

Table 8 provides information on the top ten sponsoring countries. These countries are supporting various initiatives or organizations, related to Sukuk research. The Ministry of Higher Education from Malaysia has sponsored 10 studies. Al-Imam Muhammad Ibn Saud Islamic University in Saudi Arabia has provided sponsorship to 7 publications. Saudi Basic Industries Corporation, also based in Saudi Arabia, has sponsored 5, Universiti Teknologi MARA with 3, Imam Mohammed Ibn Saud Islamic University 2 and remaining all with the number. These sponsoring countries and organizations play a fundamental role in providing financial support and resources to promote Sukuk research.

Table 8

Top Ten Sponsoring Countries

Country	No.
Ministry of Higher Education, Malaysia	10
Al-Imam Muhammad Ibn Saud Islamic University	7
Saudi Basic Industries Corporation	5
Universiti Teknologi MARA	3
Imam Mohammed Ibn Saud Islamic University	2
Japan Society for the Promotion of Science	2
Kementerian Keuangan Republik Indonesia	2
Ministry of Education	2
Science Foundation Ireland	2
Universitas Airlangga	2

Source: Scopus. Authors' analysis.

Table 9 spectacles that the Journal of Islamic Accounting and Business Research." It has an h-index of 10, which means it is quite popular among researchers. Its g-index is 13, indicating that its articles have been cited quite a bit. The m-index is 0.714, suggesting that its articles have a good average influence. In total, all its articles have been cited 220 times, and it has published 27 articles since it started in 2010. So, this table helps researchers and academics understand how influential these journals are in the academic world. Journals with higher h, g, and m-indices, more total citations, and more publications are generally seen as more important in their field. The year they started publishing gives an idea of how established they are. Researchers often use this kind of data to decide where to publish their own work or to assess the impact of a particular journal in their area of study.

Table 9

Source Impact

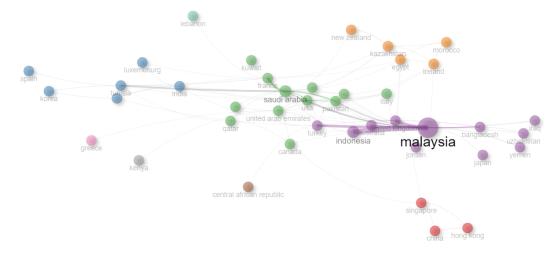
Source	h_index	g_index	m_index	тс	NP	PY_start
Journal of Islamic Accounting and						
Business Research	10	13	0.714	220	27	2010
Pacific Basin Finance Journal	10	12	1.111	376	12	2015
International Journal of Islamic and						
Middle Eastern Finance and						
Management	7	12	0.438	154	17	2008
Research in International Business						
and Finance	7	7	0.875	194	7	2016
Borsa Istanbul Review	5	10	0.556	130	10	2015
Qualitative Research in Financial						
Markets	5	6	0.417	59	6	2012
Emerging Markets Finance and Trade	4	5	0.571	93	5	2017
Review of Financial Economics	4	5	0.5	113	5	2016
Applied Economics	3	4	0.75	33	4	2020
International Journal of Applied						
Business and Economic Research	3	4	0.375	24	4	2016

Source: Scopus. Authors' analysis.

Figure 2 presents an intriguing depiction of the international collaboration network, categorizing countries into different tiers based on the extent of their collaboration. The primary collaborators, marked in purple, include a diverse set of countries such as Malaysia, Indonesia, Australia, and the UK, indicating a robust network of cooperation. The second main tier, shown in green, features countries like the USA, France, and Italy, also suggesting a significant collaboration level. Notably, the collaborators, denoted in dark blue, include nations like India, Luxembourg, and Tunisia, which might be engaged in emerging or specialized partnerships. This multilayered network reflects the complexity of global collaborations for research on Sukuk. The presence of countries like Japan and Bangladesh in multiple categories further highlights the dynamic nature of these collaboration, where a country can simultaneously be a key player in one sphere while playing a supporting role in another. This detailed mapping provides valuable insights into the current state of global cooperation on Sukuk research.

Figure 2

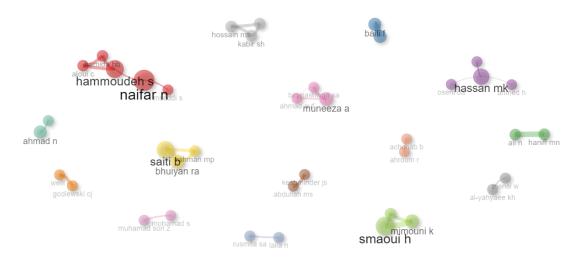
Collaboration Network between Countries



Source: Scopus. Authors' analysis.

The collaboration network depicted in Figure 3 showcases the key partnerships among authors in Sukuk research. The prominent red connections reveal a robust collaboration between Naifer N and Hammoudeh S and Hamida HB, suggesting a central and influential research partnership. Subsequent levels of collaboration, indicated by purple, yellow, and green connections, demonstrate additional layers of cooperative efforts involving authors such as Saiti B, Samaoui H, Ahmed H, Aloui C, Oseni UA, and Bhuiyan RA. Each color represents a distinct level of collaboration, contributing to the overall richness and diversity of Sukuk-related research endeavors.

Figure 3



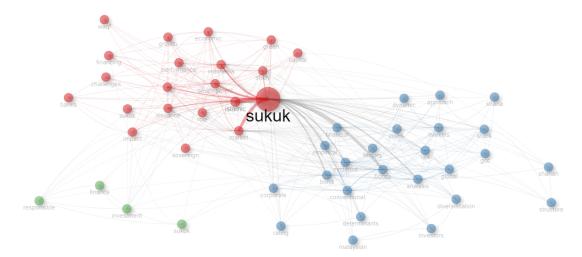
Collaboration Network between Authors

Source: Scopus. Authors' analysis.

Figure 4 presents a cooccurrence network of authors' keywords. The keywords are color-coded to highlight the main collaborations among them. The red connections denote the primary collaboration, with Sukuk, financial, and finance forming a cohesive cluster. Dark blue represents the second main collaboration, featuring keywords such as empirical, financial, factors and etc. The third main collaboration, in green, encompasses terms like finance, responsible, investment, and sukuk. This visualization offers a snapshot of the themes and topics within Sukuk research, showcasing the prevalent associations among keywords.

Figure 4

Cooccurrence Network of Authors' Keywords

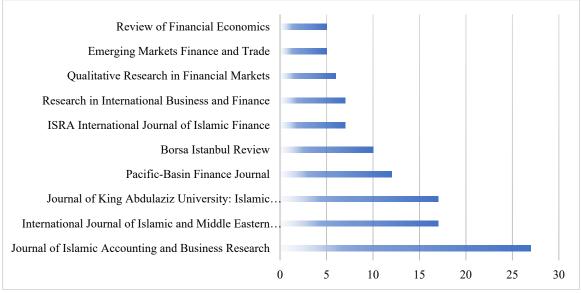


Source: Scopus. Authors' analysis.

Figure 5 illustrates the most influential journals. "Journal of Islamic Accounting and Business Research" leads with 27 publications, indicating its central role. Journals like "International Journal of Islamic and Middle Eastern Finance and Management" and "Journal of King Abdulaziz University: Islamic Economics" follow closely. The inclusion of global perspectives, such as the "Pacific-Basin Finance Journal," and regional insights from "Borsa Istanbul Review," highlights the interdisciplinary and regional nature of Sukuk research. "ISRA International Journal of Islamic Finance" emphasizes the role of research institutions.

Figure 5

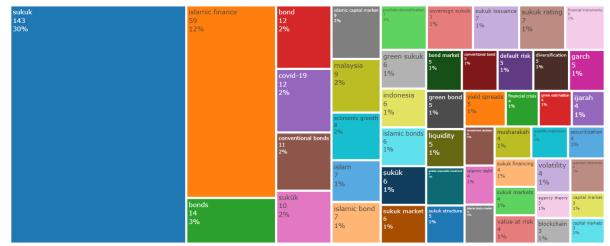
Most Relevant Sources



Source: Scopus. Authors' analysis.

As shown in figure 6, a tree map presents the prominence of "sukuk" (30%) in the literature, emphasizing its central role. "Islamic finance" (12%) follows, indicating a broader context. Notably, contemporary factors like "COVID-19" (2%) and regional considerations with "Malaysia" (2%) and "Indonesia" (1%) are discernible. The map highlights the exploration of topics like "green Sukuk" and "Islamic bonds" (each 1%). This tree map aids in quickly grasping key thematic concentrations in Sukuk literature.

Figure 6



A Tree Map

Source: Scopus. Authors' analysis.

Word Cloud Map, shown in figure 7 illustrates the focal points in Sukuk literature. Dominated by "sukuk," it indicates a significant emphasis on Islamic finance, with a notable comparison to "conventional bonds." The prominence of "green Sukuk" and "socially responsible" reflects a growing interest in sustainable and responsible investment. The presence of terms like "empirical evidence" emphasizes a commitment to data-driven research. Contemporary concerns, such as "pandemic," "economic growth," and "capital markets," highlight awareness of external factors. "Sovereign sukuk" and "corporate governance" signify an exploration of governance structures, while terms like "infrastructure development" and "financial performance" underline the considerations in Sukuk literature, capturing both economic development and responsible investment practices.

Figure 7

Word Cloud Map



Source: Scopus. Authors' analysis.

Transition Path of Sukuk Literature

During and Post Global Financial Crisis (2007-2012)

The Global Financial Crisis (GFC) was a watershed moment for Islamic finance, particularly sukuk. During this time, research, as evidenced by studies such as (Almaskati, 2023; Asmuni & Tan, 2021; Sukmaningrum et al., 2021), was primarily focused on examining sukuk's ability to withstand and manage risks in the context of global economic instability. This study looked at the challenges that sukuk (Islamic bonds) faced during the crisis and stressed their ability to act as a calming force in chaotic financial markets. The studies compared sukuk to traditional financial instruments, arguing that sukuk are more resilient in ensuring financial stability. Furthermore, they investigated distress resolution mechanisms within the framework of Shariah law, providing vital insights into how Islamic finance of sukuk in the financial sphere, emphasizing its potential to expand and stabilize even during periods of global economic turbulence.

Pre and During the COVID-19 Epidemic (2010-2020)

There was a noticeable change in sukuk literature during the COVID-19 outbreak and the preceding years. This transformation entailed the integration of Islamic finance with global financial institutions, as well as a greater emphasis on its ethical components. As indicated by studies undertaken during this time period (Alnagar et al., 2021; Bin-Nashwan et al., 2022; Naifar et al., 2022), explored the theoretical foundations and practical applications of sukuk in the global financial context. These studies underlined sukuk's compatibility with traditional financial systems, emphasizing its ability to diversify and stabilize investment portfolios. Furthermore, the literature stressed the ethical concepts that underpin sukuk, presenting it as a morally good and socially responsible investment option. The COVID-19 pandemic provided unique challenges, prompting researchers (Khan et al., 2022; Umar et al., 2023) to perform study on the immediate impact of the global health crisis on sukuk markets. These studies investigated the impact of the pandemic's economic disruptions on the performance of sukuk, cementing its reputation as a stable and adaptable financial instrument.

Recovery and Post COVID Period (2021-2022)

Following the COVID-19 outbreak, there has been an increased emphasis in sukuk literature on how it supports to economic recovery and long-term growth. Studies from this period, (Endri et al., 2022; Naz & Gulzar, 2022; Salhani & Mouselli, 2022; Trianto & Masrizal, 2021), have been pivotal in illustrating sukuk's evolving function in the global economy. This body of literature has been critical in proving how sukuk can enhance economic stability and aid in the rebuilding process. The approach has been praised for its capacity to align financial practices with broader socioeconomic aims, particularly in supporting sustainable development projects. The period also saw a surge in research, such as study (Hasan et al., 2022), advocating for sukuk as a key tool in financing sustainable projects in a post-pandemic world, highlighting its role in bridging the gap between financial returns and ethical, socially responsible investing.

This comprehensive bibliometric analysis of sukuk literature illustrates the dynamic nature of sukuk in the international financial landscape. From showcasing resilience during financial crises to advocating for ethical and sustainable practices, sukuk has emerged as more than just an Islamic financial instrument. It has become a vital component in the global finance arena, demonstrating significant growth potential and adaptability to various economic environments.

Main Drivers of Sukuk Market Development

Multiple factors exert a significant influence on the growth of Sukuk markets. The influence of macroeconomic indicators is a crucial aspect, as evidenced in studies like Aman et al. (Aman et al., 2021) and Smaoui and Khawaja (Smaoui & Khawaja, 2017), which analyze the factors that contribute to the expansion of the Sukuk market. These studies emphasize the need of stable and favorable economic conditions for the growth of the Sukuk market. Furthermore, the correlation between the Sukuk market and the operations of Islamic banks is highly significant. Gherbi (Gherbi, 2021)

examined the impact of the Sukuk market's growth on banks' performance. The study proposes that there exists a symbiotic correlation between the growth of Sukuk markets and the holistic prosperity of Islamic financial institutions. Furthermore, Sukuk is widely recognized as a crucial tool for promoting infrastructure development and economic growth. Studies such as Issoufou (Issoufou, 2018), Yıldırım et al. (Yıldırım et al., 2020), and Smaoui et al. (Smaoui et al., 2021) highlight the ability of Sukuk to finance significant infrastructure projects and its role in promoting economic growth.

Challenges Faced by Sukuk Market

The Sukuk market faces specific barriers that could hinder its expansion and efficiency. The issuing of Sukuk, as stated in (Awwad et al., 2023), has special challenges, including regulatory, legal, and market-related obstacles. These problems present barriers to entry into the sector and impede its expansion. Furthermore, Solé (Solé, 2008) and Al-Suwailem (Al-Suwailem, 2015) analyze the broader challenges associated with developing corporate Sukuk markets, emphasizing the necessity for streamlined processes and well-defined regulatory frameworks. The influence of macroeconomic factors and policy uncertainties on the growth of the Sukuk market is a significant challenge, as explored in studies such as Al-Raeai et al. (Al-Raeai et al., 2019), Hanefah et al. (Hanefah et al., 2013), and Lai et al. (Lai et al., 2017). These studies highlight the significance of establishing stable and supportive policy frameworks to facilitate the growth of Sukuk markets.

Developments and Impacts of Sukuk

The Sukuk markets have achieved considerable advancements, exerting a huge impact on sustainable development and green finance. The importance of Sukuk in promoting sustainable and eco-friendly development is being recognized, as demonstrated by studies such as Keshminder et al. (Keshminder et al., 2022), Liu and Lai (Liu & Lai, 2021), and Kachkar and Alfares (Kachkar & Alfares, 2022) that particularly analyze green Sukuk and its influence on sustainable development efforts. The study analyzes the capacity of socially responsible investment (SRI) Sukuk to advance sustainable development, as explored in (Hasan et al., 2022; Santoso, 2020; Zain & Muhamad Sori, 2020). The salient features of Sukuk markets are the country-specific advancements, which are shaped by unique economic conditions and governmental frameworks. Studies such as (Laila & Anshori, 2021; Rahman et al., 2022) provide vital insights into the development of Sukuk in certain countries, such as Bangladesh and Indonesia. The relationship between sovereign bond and Sukuk markets, as examined in (Ben Jedidia Khoutem, 2014; Mitsaliyandito & Arundina, 2018), highlights the broader implications for economic growth and the evolving nature of Islamic finance.

The Sukuk market is a vital and dynamic component of the global financial landscape. The entity's growth is driven by a complex interaction of economic, financial, and infrastructural factors. However, it faces substantial challenges that require logical and reliable answers. Notwithstanding the challenges encountered, the positive progress and impacts of Sukuk, namely in the areas of sustainable and green finance, are remarkable and indicate a sustainable future for this financial instrument.



CONCLUSION

The paper provides a comprehensive bibliometric analysis of Sukuk literature. It delves into the evolution of this literature, particularly in response to global economic challenges such as the Global Financial Crisis and the COVID-19 pandemic. The analysis highlights the transition in Sukuk research, showcasing the resilience of Sukuk during financial crises and its increasing focus on ethical and sustainable practices. The paper also identifies the main drivers of Sukuk market development, including the influence of macroeconomic indicators and the correlation with the operations of Islamic banks. The challenges facing the Sukuk market are also discussed, including regulatory, legal, and market-related obstacles. Additionally, the paper sheds light on Sukuk's impact on sustainable development and green finance, emphasizing its role in financing infrastructure projects and its potential for socially responsible investing. In terms of research implications, this study provides valuable insights for policymakers, financial practitioners, and academics. It underscores the need for improved regulatory frameworks to enhance the efficiency and accessibility of Sukuk markets. Furthermore, the study's findings can guide future research on the integration of Islamic finance principles into mainstream finance, particularly in the context of sustainable and ethical investing.

Limitation of the Study

However, the study does have limitations, including its focus on specific regions and Sukuk structures, which may not be representative of the global Sukuk market. The reliance on secondary data sources also limits the ability to capture real-time market dynamics and investor behavior. Future research could address these limitations by incorporating a broader range of Sukuk markets, conducting primary research, and exploring the impact of technological advancements on the Sukuk issuance and trading process.

Recommendations for Future Research

Future research in the field of Sukuk could focus on the following areas:

- Further exploration of Sukuk's role in global financial stability, particularly in times of economic downturn.
- Examination of the legal and regulatory frameworks governing Sukuk markets and their impact on market efficiency and growth.
- Analysis of the integration of Sukuk in global financial markets and its interaction with conventional financial instruments.
- Investigation of Sukuk's potential in financing sustainable and eco-friendly projects, particularly in the context of green finance.
- Comparative studies of Sukuk structures across different regions and their impact on economic development.
- Empirical research on the performance and risk management of Sukuk in diverse economic conditions.

• Exploration of the technological advancements in Sukuk issuance and trading, including the use of blockchain and digital Sukuk.

Author Contributions

Conceptualization	H.A. & A.J.	Resources	H.A. & A.J.
Data curation	H.A. & A.J.	Software	H.A. & A.J.
Formal analysis	H.A. & A.J.	Supervision	H.A. & A.J.
Funding acquisition	H.A. & A.J.	Validation	H.A. & A.J.
Investigation	H.A. & A.J.	Visualization	H.A. & A.J.
Methodology	H.A. & A.J.	Writing – original draft	H.A. & A.J.
Project administration	H.A. & A.J.	Writing – review & editing	H.A. & A.J.

All authors have read and agreed to the published version of the manuscript.

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Informed Consent Statement

Informed consent was not required for this study.

Data Availability Statement

The data presented in this study are available from the corresponding author upon reasonable request.

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Conflicts of Interest

The authors declare no conflicts of interest.

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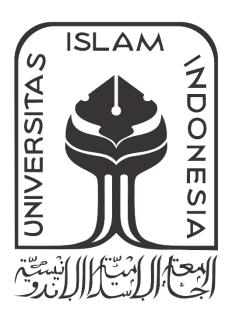
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