Trends in Scientific Research Publications in Scopus from The Islamic Perspective

Trend dalam Penerbitan Penyelidikan Saintifik dalam Scopus dari Perspektif Islam

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Abstract: This study explores the trends in scientific research publications related to Islam or that employ Islamic methodologies in the Scopus online database. The choice of the Scopus database is supported by its status as a peer-reviewed and one of the most widely subscribed and utilised scientific research databases by numerous research institutions globally, including some top Islamic research and academic institutions. Employing a bibliometric analysis as the central methodological approach, this research examines the available resources within the Scopus repository to extract key insights into the evolving landscape of related Islamic scientific research publications. The study uncovers notable trends and patterns in publishing research related to Islam. Factors such as the growth rate of publications over time, the geographic distribution of research centres, the emergence of influential authors and institutions, and the thematic evolution within the field are analysed. Quantitative measures were used to understand the impact and influence of Islamic scientific research in the global scholarly landscape. The significance of this research lies in its capacity to inform academics, policymakers, and institutions about the changing dynamics within Islamic scientific research. These trends can aid in allocating resources, fostering collaboration, and identifying areas of emerging importance within the context of Islamic research. Additionally, this study contributes to the broader understanding of the intersection between religion, science, and scholarly communication in the contemporary world.

Keywords: Islamic Scientific Research, Islamic Methodologies, Bibliometric Analysis, Scopus Database.

Abstrak: Kajian ini meneroka trend dalam penerbitan penyelidikan saintifik yang berkaitan dengan Islam atau yang menggunakan metodologi Islam dalam pangkalan data dalam talian Scopus. Pemilihan pangkalan data Scopus disokong oleh statusnya sebagai pangkalan data penyelidikan saintifik semakan ahli bidang dan salah satu yang paling banyak dilanggani dan digunakan oleh banyak institusi penyelidikan di seluruh dunia, termasuk beberapa institusi penyelidikan dan akademik Islam terkemuka. Menggunakan analisis bibliometrik sebagai pendekatan metodologi utama, kajian ini meneliti sumber yang tersedia dalam repositori Scopus untuk mendapatkan wawasan utama tentang landskap penerbitan penyelidikan saintifik Islam yang sedang berkembang. Kajian ini mendedahkan trend dan corak yang ketara dalam penerbitan penyelidikan berkaitan Islam. Faktor-faktor seperti kadar pertumbuhan penerbitan dari masa ke masa, taburan geografi pusat penyelidikan, kemunculan pengarang dan institusi yang

berpengaruh, dan evolusi tematik dalam bidang ini dianalisis. Ukuran kuantitatif digunakan untuk memahami impak dan pengaruh penyelidikan saintifik Islam dalam landskap ilmiah global. Kepentingan kajian ini terletak pada kemampuannya untuk memaklumkan ahli akademik, pembuat dasar, dan institusi tentang perubahan dinamik dalam penyelidikan saintifik Islam. Trend ini boleh membantu dalam peruntukan sumber, memupuk kerjasama, dan mengenal pasti bidang yang semakin penting dalam konteks penyelidikan Islam. Selain itu, kajian ini menyumbang kepada pemahaman yang lebih luas tentang persimpangan antara agama, sains, dan komunikasi ilmiah dalam dunia kontemporari.

Kata Kunci: Penyelidikan Saintifik Islam, Metodologi Islam, Analisis Bibliometrik, Pangkalan Data Scopus.

Introduction

In the ever-evolving landscape of global challenges, scientific research stands as a beacon of innovation and problem-solving, addressing issues that transcend disciplinary boundaries. Rau et al., (2018) emphasise the vital role of interdisciplinary sustainability research in navigating the complexities of our interconnected world. This form of research, characterised by its inclusivity and innovative approaches, necessitates a dynamic engagement with diverse community practices to yield enduring impacts. Arnout (2020) highlights the urgency for strategic investment in scientific research, particularly during critical moments such as the unprecedented challenges posed by the COVID-19 pandemic. The call for increased commitment to research is further confirmed by Sudhakar (2019), who advocates for inclusive collaboration with indigenous communities to tackle global issues like climate change and biodiversity loss. Amidst these dynamics, the intersection of Islamic principles with contemporary research methodologies emerges as a unique pathway toward advancing human society. With its fundamental emphasis on universal solutions, Islam offers a profound framework for addressing the multifaceted challenges that define our global and multicultural era (Bassar et al., 2021).

The Scopus database was chosen as a focal point for this investigation, as a widely subscribed and used research database by numerous research and academic institutions. It is a comprehensive and high-quality bibliometric data source that has been utilised in various studies to observe trends in scientific and academic research (Baas et al., 2020). However, it complements other research databases like Web of Science, Dimensions, Google Scholar; and others, making it a valuable tool for research. As a result, Sarwar and Hassan (2015) studied and analysed the scientific research landscape of the Islamic World in science and technology areas from 2000 to 2011, using the Scopus database as the primary data source. The study finds that Turkey and Iran are the leading countries in the Islamic World in publication output, followed by Malaysia, Egypt, and Pakistan. The Islamic World has increased its publication output in all science and technology subject areas, especially in veterinary, chemical engineering, chemistry, and dentistry. However, the impact of the Islamic World's research is low compared to other developed nations, as indicated by the low citation volume and the low share of publications in the top 25% of the world. However, the study has only covered some selected countries from the Islamic World with the highest publication count during 2000–2011, which may not represent the whole picture of the Islamic World's scientific productivity covered in the current study. The study has only focussed on publications in science and technology research areas; thus, the current study has covered all the relevant scientific research areas to solve humanity's challenges. Furthermore, the Scopus online database has also been used by several researchers to identify research gaps in Islamic microfinance, suggesting future research areas (Qadri et al., 2022).

In the pursuit of knowledge, Islamic scientific research stands as a testament to the harmonious integration of faith and empirical inquiry. They were rooted in a rich tradition that embraces both spiritual wisdom and intellectual curiosity (Faruqi, 2006). Islamic scientific or research methodologies offer a unique approach to understanding the complexities of the natural world. Within this paradigm, the interconnection of Islamic principles with rigorous research methodologies becomes a means for solving human universal challenges. Leghaei (2015) briefly introduces the research methods in Islamic sciences, where he also covers some examples of different research methods used by Muslim scholars in various fields of Islamic sciences, such as philosophy, history, mysticism, jurisprudence, and theology. The study aims to help

readers understand the logic and the process of conducting research in Islamic sciences.

Figure 1. Research methods in Islamic sciences (Leghaei, 2015)

RESEARCH METHODS IN ISLAMIC SCIENCES
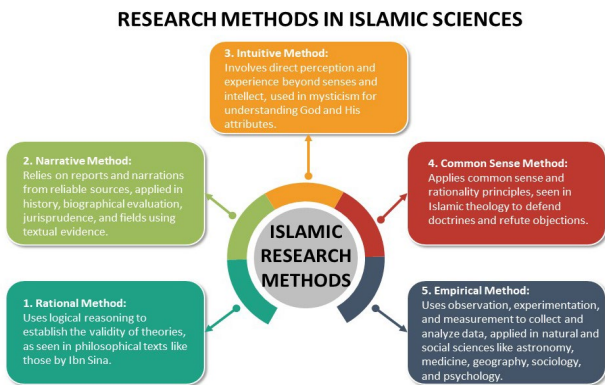
According to the author, among the common research methods in Islamic sciences is the rational method, which uses logical reasoning and arguments to establish the validity of a proposition or a theory. This method is often used in philosophical texts, such as those of Ibn Sina (died 428 AH). The narrative method relies on transmitting and analysing reports and narrations from reliable sources. This method is used in history, the science of al-Rejaal (biographical evaluation of narrators), jurisprudence, and other fields that deal with textual evidence. The intuitive method involves the direct perception and experience of reality beyond the senses and the intellect. This method is used in mysticism, or the science of al-Irfan, which aims to attain the knowledge of God and His attributes. The common-sense method applies the general principles and rules of common sense and rationality to various issues and problems. This method is used in the science of *al-Kalaam*, or Islamic theology, which defends the doctrines of Islam and refutes the objections of its opponents, and lastly, the empirical method, which employs observation, experimentation, and measurement to collect and analyse data. This method is used in the natural and social sciences, such as astronomy, medicine, geography, sociology, and psychology.

According to the *Maqasid* methodology, which is a systematic approach to Islamic scholarship that aims to discover the higher objectives of Islam and apply them to contemporary issues and challenges by Auda (2022) presents a complex and holistic understanding of the Quran and Sunnah and the interconnectedness of their elements, such as objectives, concepts, values, laws, commands, and proofs as illustrated in Figure 2. The *Maqasid* methodology also consists of five steps: purpose, cycles of reflection, critical studies of literature and reality, framework, and formative theories and principles illustrated in Figure 3. This methodology aims

to generate theories and principles that guide independent reasoning and judgment in various disciplines and phenomena and to achieve the welfare of humanity and the planet. The *Maqasid* methodology is an original and comprehensive contribution to the field of *Maqasid* studies, and it offers a new paradigm for Islamic scholarship and action.

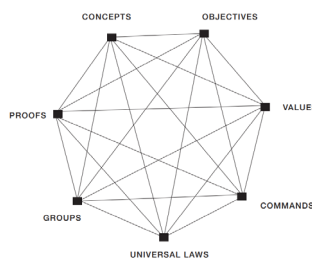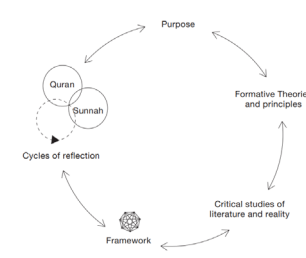**Figure 2.** The seven elements of the Maqasid framework

Figure 3. Five steps of the Maqasid methodology

The five steps of the *Maqasid* methodology, as briefly described by the author, are as follows: Purpose: This refers to the first step, where the researcher sets their intent and defines the objective of their inquiry, inspired by the higher objectives of Islam, followed by the cycles of Reflection: The core step where the researcher engages in a continuous and iterative process of reflecting upon the Quran and Sunnah, guided by the purpose, to discover the elements of the Islamic worldview and the framework for perception and analysis. Then, the critical studies of literature and reality: This is the step where the researcher critically examines the existing literature and the lived reality related to their inquiry, using the framework derived from the Cycles of Reflection, and compares the different perspectives and frameworks. Implementing the Framework: This is the step where the researcher constructs a composite framework that captures the elements of the Islamic worldview that pertain to their inquiry, such as concepts, objectives, values, commands, universal laws, groups, and proofs. The framework is derived from the Cycles of Reflection and refined by the critical studies of literature and reality. Lastly, the formative theories and principles: The researcher develops theories and principles that guide the outcome of their inquiry, such as rulings, judgements, policies, plans, designs, etc. The theories and principles are based on the framework and the critical studies of literature and reality and aim to achieve the purpose of the inquiry.

Bibliometric analysis is a methodological approach that mostly applies quantitative analysis to scientific and academic publications and offers a powerful tool to explore the dynamics of Islamic scientific research publications. By analysing patterns, trends, and networks within the scientific literature, bibliometric analysis

provides insights into the most influential research themes and topics, authors and institutions contributing, and geographic distribution in a specific field of study (Aria & Cuccurullo, 2017). This paper aims to identify and analyse the trends within Islamic scientific research publications housed in the Scopus online database. Through bibliometric analysis, the study aims to uncover patterns in publication volume, thematic evolution, geographic distribution, influential contributors, and collaborative networks. By exploring these dimensions, the study contributes insights into the dynamic landscape of Islamic scientific research and methodology. Specifically, the research seeks to answer the following research questions.

1. How has the volume of Islamic scientific research publications in the Scopus database changed over a specific period?

2. What are the primary research themes and topics within Islamic scientific research publications in the Scopus database?

3. Who are the most influential authors and institutions contributing to Islamic scientific research in the Scopus database, and what are their areas of expertise?

4. How does the geographic distribution of Islamic scientific research publications vary across regions and countries in the Scopus database?

Understanding the trends in Islamic scientific research holds a vital benefit for researchers, institutions, and policymakers. Insights gathered from this study can inform resource allocation, foster collaboration, and facilitate a deeper appreciation for the evolving role of Islamic scholarship in the contemporary scientific landscape. Moreover, this research contributes to the broader discourse on integrating religious perspectives into scientific inquiry. The remaining parts of the paper are structured to explore trends in Islamic scientific research publications. Following this introduction, the subsequent sections detail the methodology employed for the bibliometric analysis, present key findings, and discuss the implications of identified trends. The paper concludes with reflections on the broader implications for future research within the context of Islamic scientific exploration.

Research Methodology

Data Collection and Selection Criteria

The primary dataset for this study was sourced from the Scopus online database, a comprehensive and robust information source encompassing scholarly literature across various disciplines (Burnham, 2006). The database was queried for all publications related to Muslim and Islamic research methodology, using a single query of the combined phrase "islam* OR muslim*" where the terms appeared in the articles' titles, abstracts, or keywords from the entire repository. The combined keywords were chosen to retrieve all related research publications related to Muslims or that employ any Islamic methodology. This also includes research produced within the Muslim regions and includes any of these terms within the publications' titles, abstracts, or keywords. The search also encompasses all document types, such as journal articles, conference papers, books, and book chapters ever indexed in the database. Both final published articles and articles in the press were included, covering all journals currently indexed in the database. The search also encompassed authors' affiliations, funding sponsors, countries/territories, source types, and languages. The Scopus search result interface is provided in Figure 4 below.

Figure 4. Scopus search results interface
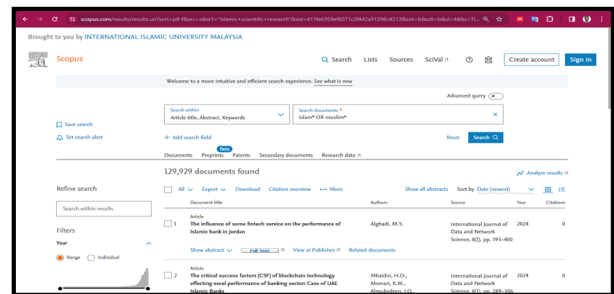
Bibliometric Analysis

Bibliometric analysis mostly uses a quantitative approach to study a collection of literature. It involves the statistical analysis of books, articles, and other related publications; with the aim of understanding the patterns, connections, and trends within a specific field or subject (Donthu et al., 2021). Bibliometric methods are predominantly used to analyse the impact of a field, the impact of a set of researchers, or the impact of a particular paper by examining aspects such as citation counts, authorship, and publication outlets (Roldan-Valadez et al., 2019). In the context of scientific research publications related to Muslims or that employ Islamic methodologies, bibliometric analysis can provide valuable insights into the global landscape of influential authors, emerging trends and research collaboration.

However, bibliometric analysis is not without its challenges and limitations. In many instances, it requires careful consideration of the data sources, methods, and metrics used, as biases and disparities may affect the results. For instance, the applicable dataset used in this

study was only retrieved from the Scopus database. Likewise, several other scientific databases may be out there with different results. Despite these challenges, bibliometric analysis remains a powerful tool for understanding the scientific landscape, guiding research policy, and informing decisions related to promotions, tenure, and funding (Ahmed et al., 2023). Its application to Islamic scientific research publications underscores the growth rate of publications over time, the geographic distribution of research centres, the emergence of influential authors and institutions, and the thematic evolution within the field.

Analysis and Results Visualisation

How the Volume of Islamic Scientific Research Publications in Scopus Database Changed Over Time

The study's first objective aims to identify how the volume of Islamic scientific research publications in the Scopus database changed over a specific period. From the total 129,929 document results retrieved, figure 5 below provides a chronological overview of the volume of Islamic scientific research publications in the Scopus database from 1921 to 2024. The data reveals a significant upward trajectory in the number of documents over the years, illustrating Islamic scientific research's growing projection and dissemination. Notably, recent years, such as 2023 and 2022, demonstrate a substantial rise in publication numbers, reaching 8195 and 9733 documents, respectively. This upward trend underscores Islamic scientific research schoolers' expanding influence and contribution globally.

Figure 5. The volume of Islamic Scientific Research Publications in the Scopus Database Changed Over Time
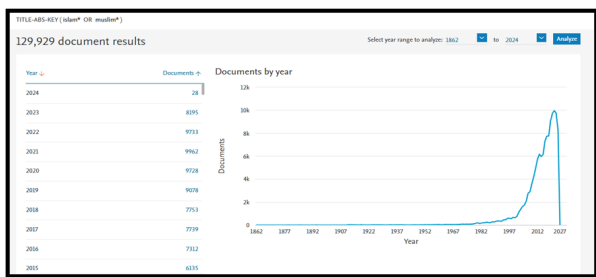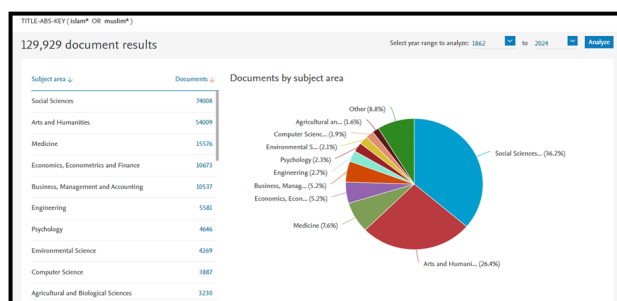

Primary Research Themes and Topics Within Islamic Scientific Research Publications in the Scopus Database

The study's second objective seeks to identify the primary research themes and topics within the Islamic scientific research publications in the Scopus database.

The data extracted from the Scopus repository, comprising a total of 129,929 documents, provides valuable insights into the distribution of these publications across various subject areas. Figure 6 reveals a diverse landscape of research themes, with Islamic scientific research spanning multiple subject areas. The largest proportion is within the Social Sciences category, accounting for 74,008 documents. This underscores the significant role of Islamic perspectives in shaping social scientific discourse. Arts and Humanities emerge as another prominent domain, hosting 54,009 documents, emphasising Islamic research's cultural and intellectual dimensions.

Figure 6. Distribution of the research documents by subject areas in Scopus Database

*Identification of Primary Research Themes and Topics*

To unveil the primary research themes and topics within the identified subject areas, the RStudio biblioshiny software was deployed for publications spanning from 2022 to 2024. The analysis focused on extracting the first 30 most frequently used author keywords, offering a comprehensive insight into prevailing trends within the thematic landscape. The results of this analysis are captured in Table 1, providing a detailed breakdown of key terms along with their respective frequencies, in conjunction with Figure 7, which presents a visually compelling word cloud, capturing the relative prominence of each term. The size of each term corresponds to its frequency, providing an immediate visual cue to the most frequent themes.

Table 1. Themes and Topics Analysis Table

S/N	Terms	Frequency	S/N	Terms	Frequency
1	Islam	1408	16	India	167
2	Islamic Finance	1011	17	Identity	153
3	Religion	763	18	Malaysia	150
4	COVID-19 Pandemic	588	19	Culture	136
5	Muslims	574	20	Social Media	123

6	Terrorism	326	21	Sufism	120
7	Muslim Women	296	22	Halal	119
8	Indonesia	276	23	Nationalism	118
9	Pakistan	258	24	Christianity	116
10	Islamophobia	250	25	Spirituality	107
11	Iran	238	26	Jihad	97
12	Islamic Law	219	27	Saudi Arabia	94
13	Gender	217	28	Secularism	94
14	Islamic Education	185	29	Bangladesh	91
15	Turkey	168	30	Islamic State	90

Figure 7. Themes and Topics Analysis Word Cloud
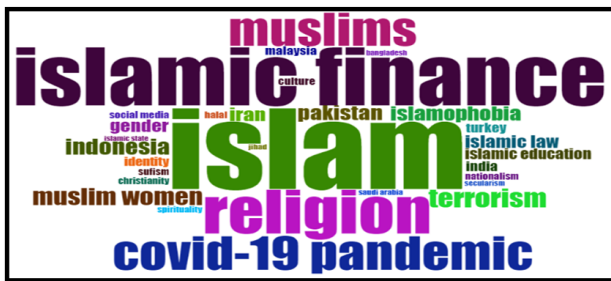
Most Influential Authors and Institutions Contributing to Islamic Scientific Research in the Scopus Database, and Their Areas of Expertise

According to the third objective of this study, the examination of influential authors and institutions within the Scopus database highlights key contributors shaping the landscape of Islamic scientific research. Notably, Professor M. Kabir Hassan, a distinguished figure at the University of New Orleans, stands out with expertise spanning banking, finance, Islamic finance, economic development, and monetary economics. Followed by Ziad Memish, a senior consultant in infectious diseases and Professor at Alfaisal University, Riyadh, emerges as a significant figure in global health research, particularly in areas of infectious diseases and Muslim health disparities. Aasim Padela, a Professor of Emergency Medicine, delves into crucial areas such as Muslim health disparities, Islamic Bioethics, and the promotion of Diversity and Inclusion in medical research. Maykel Verkuyten, a Professor in Interdisciplinary Social Science, brings depth to the discourse with research focusing on ethnic identity, cultural diversity, and the interrelationships of identities. Additionally, Professor R.

Hassan, affiliated with the IIUM Institute of Islamic Banking and Finance, contributes significantly to the Islamic Banking and Finance field.

In addition, the International Islamic University Malaysia leads the chart of influential institutions with 2042 publications, establishing itself as a key hub for diverse research endeavours. Universiti Kebangsaan Malaysia follows closely with 1426 documents, contributing significantly to the academic discourse surrounding Islamic scientific research. Universiti Malaya, with 1243 documents, and Universiti Teknologi MARA, with 921 documents, further solidify the Malaysian academic landscape's substantial influence in this field. Internationally, the University of Oxford and the University of Cambridge, with 1018 and 658 documents, respectively, stand out as prominent global contributors, demonstrating the widespread impact of Islamic scientific research. Islamic Azad University and Universiti Sains Malaysia also make notable contributions with 734 and 672 documents, respectively, emphasising the diversified institutional engagement in advancing knowledge at the intersection of Islamic principles and scientific inquiry.

Figure 8. Most Influential Authors Contributing
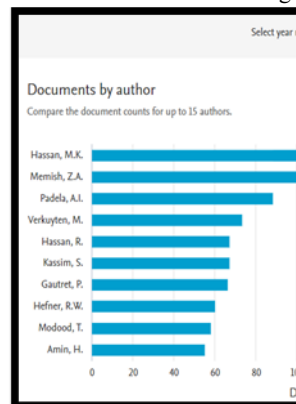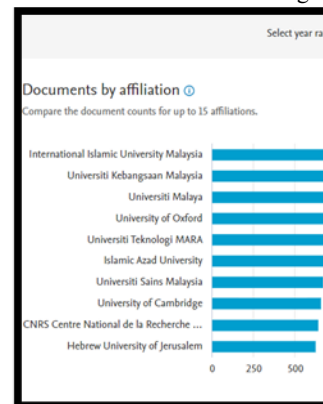
Figure 9. Most Influential Institutions Contributing


The Geographic Distribution of Islamic Scientific Research Publications Varies Across Different Regions and Countries in The Scopus Database

Exploring the fourth objective, the geographic distribution of Islamic scientific research publications within the Scopus database reveals distinctive patterns across regions and countries. The United States leads the field with a substantial 24,858 documents, affirming its vital role in advancing knowledge at the intersection of Islamic principles and scientific inquiry. The United Kingdom closely follows with 13,737 documents, underscoring its active engagement in the global scholarly dialogue. With 9,494 documents, Malaysia

| 9 | Pakistan | United Kingdom | 75 |
| 10 | Malaysia | Saudi Arabia | 70 |

Figure 11. World Collaboration Network

emerges as a notable hub for Islamic scientific research, while Indonesia, Pakistan, and Iran demonstrate active involvement, contributing significantly to the evolving scholarly landscape. Turkey, Australia, Germany, and India also contribute substantially, reflecting a global distribution of Islamic scientific research.

Figure 10. Geographic Distribution
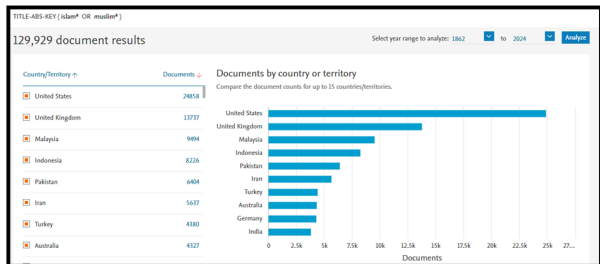
Finally, analysing the collaborative landscape within Islamic scientific research, the World Collaboration Network presents intriguing patterns of cooperation across different regions. Indonesia and Malaysia showcase a robust collaborative partnership with 249 instances within the years 2022 to 2024, underscoring the regional synergy in advancing Islamic scientific inquiry. The collaboration between the USA and the United Kingdom follows closely with 133 instances, demonstrating the international collaboration between these influential contributors. Pakistan emerges as a key collaborator, engaging significantly with Malaysia, China, and Saudi Arabia. The collaborations between the USA and Pakistan, Saudi Arabia and Egypt, Indonesia and Australia indicate diverse global connections. Noteworthy is the collaborative engagement between Malaysia and the United Arab Emirates, showcasing cross-regional cooperation. These collaborative trends unveil the interconnected nature of Islamic scientific research, emphasising the importance of global partnerships in fostering knowledge exchange and the advancement of research agendas.

Table 2. World Collaboration Network

S/N	From	To	Frequency
1	Indonesia	Malaysia	249
2	USA	United Kingdom	133
3	Pakistan	Malaysia	128
4	Pakistan	China	115
5	Pakistan	Saudi Arabia	112
6	USA	Pakistan	92
7	Saudi Arabia	Egypt	81
8	Indonesia	Australia	80

Figure 11. World Collaboration Network
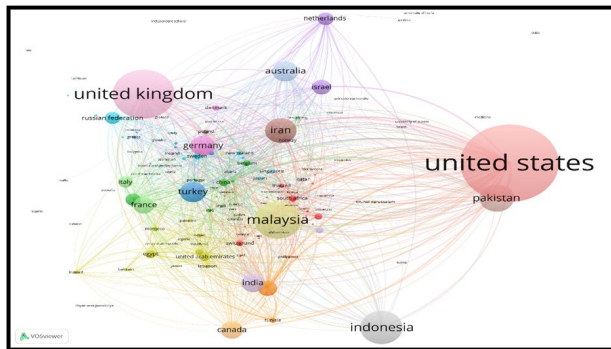
1. Conclusion

In conclusion, this study comprehensively explores trends and dynamics within Islamic scientific research publications indexed in the Scopus database. A precise understanding of the field has emerged through systematically exploring key objectives, including identifying trends, primary themes, influential authors and institutions, and an insightful look into the geographic distribution and collaborative networks. The data-driven insights revealed the prominence of specific themes such as Islamic finance, diverse social science research, and the significant contributions of influential authors and institutions. The geographic distribution showcased the global impact of Islamic scientific research, with notable contributions from the United States, the United Kingdom, Malaysia, and others. The collaborative network analysis underscored the interconnected nature of research efforts, emphasising the importance of international partnerships in advancing knowledge within the field. As Islamic scientific research continues to evolve, this study serves as a valuable foundation for researchers, policymakers, and institutions seeking to engage with and contribute to the vibrant and dynamic discourse within the Scopus index journals. The findings deepen the understanding of the current state of Islamic scientific research and provide a roadmap for future exploration and collaboration in this dynamic and interdisciplinary field.

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Presentation

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