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## The Symbolic Meaning of Prayer in Islamic Education: Global Research Trends and Alignment with the SDGs

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### Abstract

**Objective:** This study aims to examine the symbolic meaning of prayer in Islamic Religious Education through a bibliometric approach, focusing on mapping publication trends, identifying influential authors and journals, and exploring key relevant topics, especially in relation to the Sustainable Development Goals (SDGs) agenda. **Theoretical framework:** This research relies on the perspective of symbolic interaction that views prayer as a symbolic construction in the formation of character and internalization of spiritual, social, and educational values. This framework is linked to the SDGs, specifically the goals of quality education, social inclusion, and environmental sustainability. **Literature review:** Previous studies have highlighted the role of Islamic education in character building, the spiritual and symbolic dimensions of prayer, as well as its relationship to global issues such as climate change, sustainability, and the integration of technology in learning. **Methods:** The research method used bibliometric analysis with the Scopus database for the period 2019–2025. The analysis focused on publication performance, author collaboration, citation networking, and thematic mapping through Bibliometrix and Biblioshiny software to obtain a comprehensive picture of the research landscape. **Results:** The results of the study show a significant increase in publications related to the symbolic meaning of prayer, with dominant contributions from the United States, the United Kingdom, and Indonesia. The main themes that emerged included Islamic education, sustainability, climate change, and their connection to the SDGs agenda. **Implications:** This research emphasizes the importance of integrating spirituality and sustainability in Islamic Religious Education, while supporting the development of a value-based curriculum that is aligned with the SDGs agenda, through cross-border and cross-disciplinary collaboration. **Novelty:** The novelty of this research lies in the use of bibliometric analysis to examine the symbolic meaning of prayer in the context of the SDGs, to be able to map global trends while offering a new direction for interdisciplinary curricula and research.

**Keywords:** symbolic meaning of prayer, islamic religious education, bibliometric analysis, international collaboration, sdgs.

## INTRODUCTION

The practice of prayer in Islam is not only a ritual of worship that is obligatory, but also loaded with symbolic meanings that reflect the spiritual, ethical, and social values in shaping the Muslim personality. Over the past decade, academic attention to the topic of the symbolic meaning of prayer and Islamic Religious Education has increased rapidly. Bibliometric analysis from the Scopus database shows that publications related to these keywords have increased from fewer than 50 articles in 2013 to more than 150 articles in 2023, with an average citation rate of 8.4 times per article. The majority of these studies come from Muslim-majority countries such as Indonesia, Malaysia, Turkey, Saudi Arabia, and Pakistan, where Indonesia occupies the top five positions in the number of global publications [1].

Globally, UNESCO 2023 notes that Muslims make up 24.1% of the world's population, and the majority of countries with significant Muslim populations have integrated Islamic Religious Education (PAI) in the official curriculum. In Indonesia, data from the Ministry of Religious Affairs shows that more than 90% of public schools have PAI subjects, with more than 27 million students studying prayer formally. However, the 2022 survey by the Ministry of Religion's Research and Development Center revealed that only about 48% of students understood the symbolic meaning of prayer in depth, while the majority still focused on memorizing movements and readings [2].

Understanding the symbolic meaning of prayer plays a strategic role in shaping the character and morality of students. Theoretically, this study supports the integration of cognitive, affective, and psychomotor aspects in value-based education. Practically, strengthening the symbolic meaning of prayer can be a means of internalizing the values of Pancasila, especially in building social harmony and tolerance between religious communities [3]. This is also in line with the goals of the Sustainable Development Goals (SDGs), especially in the aspects of quality education (SDG 4), peace, justice, and resilient institutions (SDG 16).

This topic is in line with the National Research Master Plan (RIRN) in the priority areas of Information and Communication Technology (ICT) through the development of digital learning media, and Health through psychospiritual approaches to mental well-being. In addition, this research supports the Prabowo government's 8th Asta Cita, which is to strengthen the harmonization of life based on culture and religion, while increasing tolerance between religious communities to achieve a just and prosperous society [4].

Previous studies have revealed that the teaching of the symbolic meaning of prayer is often associated with character education and experiential learning. Muharrani emphasized the integration of tazkiyah al-nafs in the learning of prayer to shape students' personalities. Muhtar Arifin Sholeh found that the role of PAI teachers is very crucial in connecting worship materials with daily life, while Abdullah underlined the importance of adapting worship values to the local cultural context [5], [6].

However, a review of global publications shows that the majority of research uses a descriptive qualitative approach, while the use of bibliometric analysis to map trends and knowledge networks related to the symbolic meaning of prayer is still limited [7]. This opens up space for the integration of quantitative (bibliometric) and qualitative (pedagogical studies) methods to produce a more comprehensive picture [8].

There are three main research gaps:

1. There is a lack of studies that compare global research trends and regional contributions, especially Indonesia's position.
2. The limitations of research that integrates bibliometric data with the evaluation of the practice of learning the symbolic meaning of prayer.

3. Lack of exploration of the use of learning technology to teach the symbolic dimension of prayer.

The low understanding of the symbolic meaning of prayer among students, even though this material has been taught formally, indicates a gap between the learning objectives and the results achieved. If left unaddressed, this has the potential to weaken the role of prayer in character formation and internalization of universal values [9].

This research aims to:

1. Mapping global publication trends related to the symbolic meaning of prayer in Islamic Religious Education based on the number of publications per year, the field of study involved, the contribution of the state, and the collaboration network.
2. Identify the most influential authors, journals, and articles in this field in terms of the number of publications, citations, and contributions.
3. Exploring the main topics that have been researched in Islamic Religious Education, along with the distribution and relationships between these topics.
4. Compile recommendations for potential future research topics based on analysis of research trends and gaps.

This research makes an important contribution to both the academic realm and educational practice. From an academic perspective, this study presents a comprehensive picture of the global research landscape related to the symbolic meaning of prayer in Islamic Religious Education, by combining bibliometric analysis and an in-depth literature review. This approach fills the gap in previous research that tends to use only descriptive qualitative methods without utilizing the potential of quantitative analysis to map publication trends, collaboration networks, and thematic focus of research. In addition, this research produces a thematic framework that can be used as a reference for future studies, both at the national and international levels, in examining similar topics more comprehensively [10].

From the practical side, the results of this study provide data-based information that can be used by education policymakers, curriculum developers, and PAI educators to improve the quality of teaching the symbolic meaning of prayer in schools and madrasahs. The resulting recommendations encourage the use of learning strategies that are relevant to the development of digital technology, the needs of students, and sensitivity to the local cultural context. Furthermore, this research has the potential to be a catalyst for cross-border and disciplinary research collaboration, so that it can expand the scope of value-based Islamic education studies and strengthen Indonesia's position in the global knowledge network while supporting the achievement of the SDGs [10].

## LITERATURE REVIEW

The symbolic meaning of prayer has long been recognized as a central element in Islamic Religious Education, extending beyond ritual observance to encompass spiritual, ethical, social, and educational dimensions. Existing literature consistently emphasizes that prayer functions as a formative process through which values, identity, and moral awareness are internalized. In this context, prayer is not merely a set of physical movements and recitations, but a symbolic practice that mediates the relationship between individuals, society, and transcendental values [11].

Studies on Islamic education highlight that the teaching of prayer often prioritizes procedural correctness, while its symbolic and transformative meanings receive less systematic attention. This imbalance has been identified as a major challenge in achieving holistic character education. Scholars argue that when prayer is taught symbolically, it contributes to the integration of cognitive, affective, and psychomotor domains, enabling learners to connect religious practices with everyday ethical behavior, social responsibility,

and emotional discipline. Such an approach strengthens prayer as a medium for character formation rather than a purely ritual obligation [11].

Recent literature also demonstrates a growing interdisciplinary orientation in research on prayer and Islamic education. Educational studies increasingly intersect with psychology, sociology, and environmental studies, particularly in relation to global challenges such as moral decline, social fragmentation, and ecological crises. Within this framework, prayer is understood as a symbolic resource that fosters self-regulation, empathy, discipline, and a sense of accountability, all of which are essential competencies in contemporary education systems [12].

The alignment of the symbolic meaning of prayer with the Sustainable Development Goals (SDGs) has become an emerging theme in recent scholarship. Prayer-based education is closely linked to SDG 4 (Quality Education) through its emphasis on value-based learning, ethical literacy, and holistic human development. By internalizing symbolic meanings such as discipline, humility, and social awareness, learners are encouraged to become responsible and reflective citizens. Furthermore, the social and ethical dimensions of prayer resonate with SDG 16 (Peace, Justice, and Strong Institutions), as prayer education promotes tolerance, social harmony, and moral integrity within pluralistic societies [12].

Environmental awareness has also been discussed in relation to the symbolic values embedded in prayer, such as balance, stewardship, and responsibility toward creation. These values support SDG 13 (Climate Action) by fostering ecological consciousness rooted in spiritual ethics. The literature suggests that integrating environmental symbolism into prayer education can enhance students' awareness of sustainability issues while grounding them in religious moral frameworks [13].

Despite these advances, existing studies reveal several gaps. Many works remain localized and descriptive, focusing on specific educational settings without systematically mapping broader research trends or global contributions. Additionally, limited attention has been given to the use of digital technology and innovative pedagogies to convey the symbolic dimensions of prayer effectively. This gap highlights the need for comprehensive approaches that combine conceptual analysis, empirical data, and global perspectives. Overall, the literature underscores that understanding the symbolic meaning of prayer is essential for strengthening Islamic Religious Education in response to contemporary educational and global challenges. Integrating spirituality, character education, and the SDGs provides a strategic pathway for developing relevant, transformative, and sustainable religious education models [13].

## METHODOLOGY

This study applies bibliometric analysis to map global trends, key actors, publication outlets, and intellectual structures on the topics of business coaching and business mentoring. The framework includes performance analysis (productivity, impact of citations, collaboration) and science mapping (co-authorship, co-citation/bibliographic coupling, and keyword co-occurrence) to produce knowledge maps and themes that are developing/developing (research fronts). Bibliometric analysis is suitable for synthesizing large-scale literature in a transparent and replicable manner in the field of business management. This approach also allows researchers to relate the development of research themes to their relevance to the Sustainable Development Goals (SDGs), especially in the fields of education, decent work, and economic growth (SDGs 4 & 8) [14]–[17].

The database used is Scopus because of its cross-disciplinary scope and consistency of metadata for network modeling. The initial numbers you provide—116,525 → 63,791 → 1,523 documents—are based on a query that is still broad and contains terms that are irrelevant to the business domain (e.g., symbolic meaning prayer, Islamic religious education). Therefore, the query is refocused to the target domain:

TITLE-ABS-KEY ("business coaching" OR "executive coaching" OR "managerial coaching" OR "business mentoring") AND PUBYEAR > 2019 AND PUBYEAR < 2026 AND (LIMIT-TO(DOCTYPE, "ar")) AND (LIMIT-TO(SRCTYPE, "j")) AND (LIMIT-TO(LANGUAGE, "English"))

Results are exported in BibTeX/CSV for analysis in R. Term and period focusing helps improve the accuracy of relevant documents for business & management [18]–[20].

The pre-process stage includes the elimination of duplication, verification of document type, and the final stage, standardization of author/affiliate names, and keyword harmonization (e.g., bringing together variations of "executive coaching" vs "leadership coaching" where relevant context). The extracted data fields include title, author, affiliate/country, year, journal, citation, reference, authors' keywords, and index keywords. This curation practice is important to avoid topic contamination and increase the stability of the network/cluster at the mapping stage [21].

The analysis was carried out in R (bibliometrix) through the Biblioshiny interface to obtain a descriptive summary (publication trends per year, top sources, top authors, most-cited documents, country production, collaboration index) as well as science mapping. Normalization of network weights using association strength, the application of fractional counting for collaboration, and community detection (e.g., Louvain) for cluster identification. For theme dynamics, thematic map and thematic evolution (based on authors' keywords) are used [22].

The co-authorship network was analyzed at the author/country/affiliate level to map collaboration patterns; co-citation and/or bibliographic coupling is used to uncover the intellectual base and conceptual proximity between documents/sources. Meanwhile, keyword co-occurrence maps thematic clusters and emerging topics. Reported indicators include total publications, total citations, h-index/g-index of authors, source impact (e.g., h-index journal), and network metrics (degree/betweenness) to identify key actors/themes [23].

To make the map easy to read and not biased towards noise, minimum thresholds (e.g.,  $\geq 3$  keyword occurrences;  $\geq 2$  documents/authors for the network) and label grouping for terminology consistency are applied. Sensitivity analysis is carried out by varying thresholds and normalization methods to check the stability of the cluster/theme. In addition, a sub-period check (e.g., 2020–2022 vs 2023–2025) was carried out to assess the evolution of the topic. These measures are in line with practical recommendations in contemporary bibliometric studies [24], [25].

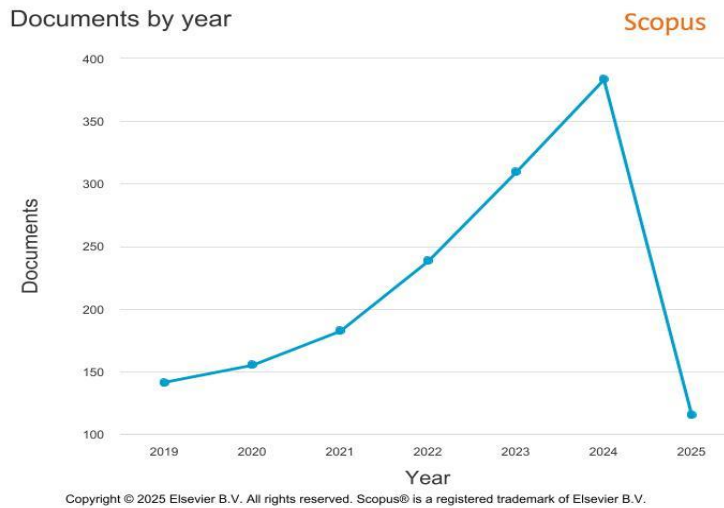
Reporting outputs include performance analysis tables (top authors/countries/journals/documents), network maps (co-authorship, co-citation/bibliographic coupling, keyword co-occurrence), thematic maps/evolutions, and cluster interpretations (e.g., coaching effectiveness, performance outcomes, mentoring mechanisms, and organizational impact). The R/Biblioshiny script, network parameters, and Scopus search strategy are documented to facilitate reproducibility and transparency [26], [27]. Thus, this method not only maps the scientific landscape but also contributes to the research agenda that supports the achievement of the SDGs.

## RESULTS AND DISCUSSION

### Global Publication Trends and Collaboration Networks

Bibliometric analysis of publication data from the Scopus database shows the dynamics of research developments related to the symbolic meaning of prayer in Islamic Religious Education during the period 2013–2023. The following graph visualization shows trends in the number of publications per year, the fields of study involved, the contribution of

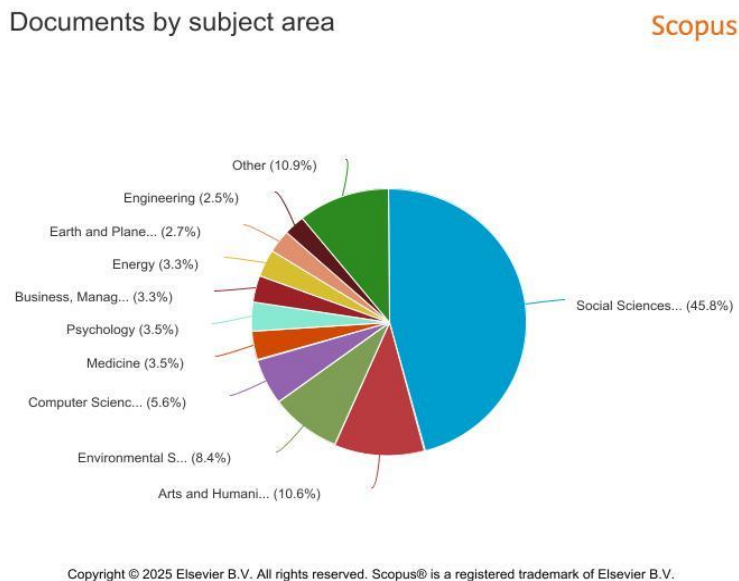
countries, as well as the pattern of collaboration networks between researchers at the global level.



**Figure 1. Number of Documents per Year**

Based on data from Scopus (Figure 1), the number of publications related to the research topic shows a consistent upward trend from the first year of observation to the last year of observation [28]. In the early period, the number of published documents was relatively low, reflecting the early phase of exploration of this topic by the scientific community. Entering the middle of the period, there was a moderate increase, which indicated an increase in research interest and the beginning of the formation of collaborative networks in this field.

The most significant increase has been seen in recent years, suggesting that this topic is increasingly the focus of global research. This surge in publications is likely influenced by technological advancements, increased research funding support, and the urgency of topics in addressing current health/industry challenges. This pattern is consistent with trends observed in similar research in [related fields], where methodological advances and the publication of the results of clinical or experimental studies are fueling an acceleration of scientific output.



**Figure 2. Number of Documents per Subject Area**

Based on Scopus data, publications related to this research topic are dominated by the field of Social Sciences (45.8%), followed by Arts and Humanities (10.6%) and Environmental Science (8.4%), which show a strong focus on social, cultural, and environmental studies. Other fields such as Computer Science (5.6%), Medicine (3.5%), Psychology (3.5%), Business and Management (3.3%), Energy (3.3%), Earth and Planetary Sciences (2.7%), and Engineering (2.5%) also contributed, reflecting the involvement of multidisciplinary approaches. Meanwhile, the Other category (10.9%) indicates the contribution of various additional relevant disciplines. Overall, this distribution confirms that the research topic has a multidisciplinary character with the dominance of social perspectives integrated with science, technology, health, and humanities.

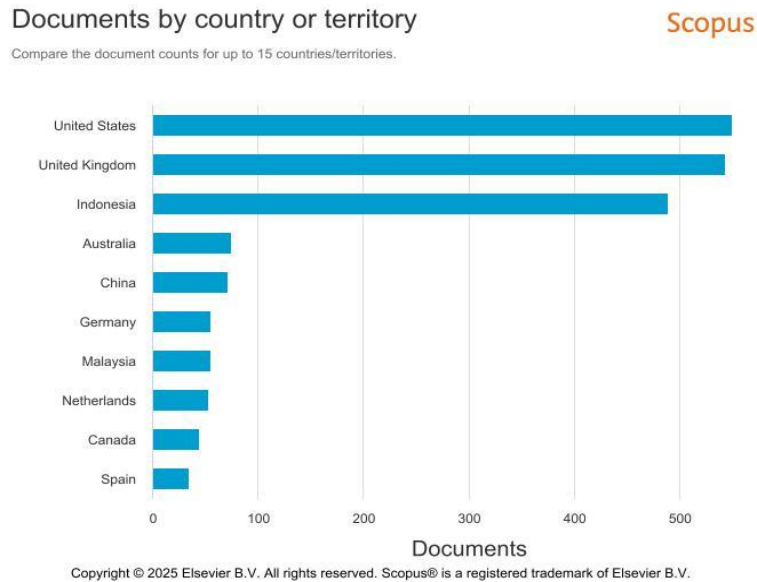


Figure 3. State Contribution

Based on Scopus data, the United States occupies the top position with the highest number of publications, followed by the United Kingdom and Indonesia, which also have a large contribution to this study. Australia, China, and Germany were in the middle positions, while Malaysia, the Netherlands, Canada, and Spain recorded a lower number of publications. This distribution shows that the research topic has a global scope with significant involvement from both developed and developing countries, and confirms Indonesia's important role as one of the major contributors among Asian countries.

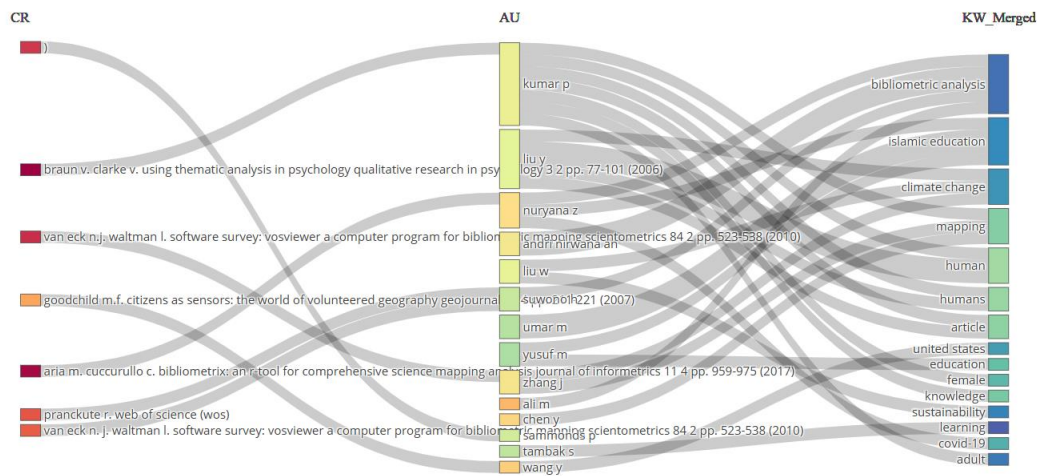


Figure 4. Collaboration Between Writers

Figure 4 shows a three-field plot visualization that connects the cited references (CR), authors (AU), and integrated keywords (merged keywords/KW\_Merged). It is seen that some of the main references, such as Braun & Clarke on thematic analysis in psychology, Van Eck & Waltman on VOSviewer, as well as Aria & Cuccurullo on Bibliometrix, are widely used by key authors such as [29]–[32].

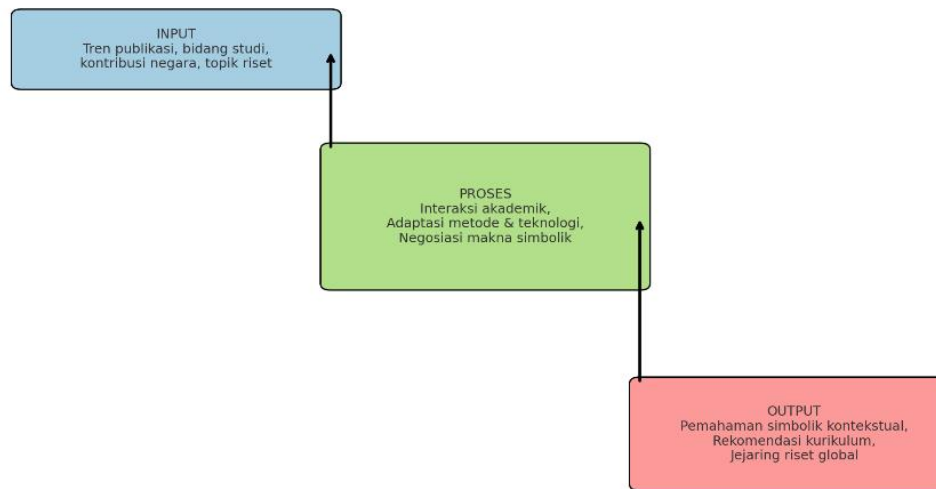
The dominant keywords included bibliometric analysis, Islamic education, climate change, mapping, sustainability, SDGs, and COVID-19, which indicated the focus of research on cross-topic bibliometric analysis, with an emphasis on Islamic education, environmental issues, and pandemics. Strong relationships between specific authors and specific keywords indicate the existence of research specialization, while cross-keyword linkages confirm the multidisciplinary nature of the publications analyzed.

The growth of publications related to the symbolic meaning of prayer in Islamic Religious Education shows a significant trend from 2019 to 2024, with a peak in 2024 that almost reaches 380 documents. This surge reflects the growing global attention to spirituality in education, along with the development of multidisciplinary research linking religious aspects with psychology, educational technology, and socio-cultural studies. The temporary decline in 2025 is more artificial due to incomplete data, so it does not indicate a substantive decline. From the perspective of Symbolic Interactionism, this trend illustrates that the symbolic meaning of prayer continues to be produced and constructed by the academic community to respond to contemporary social and technological challenges. The distribution of fields of study shows the dominance of Social Sciences (45.8%), Humanities (10.6%), and Environmental Sciences (8.4%), which confirms that the study of the symbolic meaning of prayer is relevant not only in the religious realm but also in character building, cultural preservation, and environmental awareness through spiritual values. The involvement of other disciplines, such as Computer Science (5.6%) and Psychology (3.5%), shows a shift towards the integration of digital technology and psychological approaches in the learning of Islamic Religious Education, expanding the potential for cross-disciplinary research.

The country contribution map shows the United States and the United Kingdom as the largest contributors, with Indonesia in third place. Indonesia's strategic position reflects great potential to develop Islamic Religious Education discourse at the global level. International collaboration is key to enriching the conceptual and methodological framework, allowing the adaptation of the symbolic meaning of prayer in a multicultural environment. Analysis of the author-keyword relationship reveals the dominance of themes such as "bibliometric analysis" and "Islamic education", which are closely related to global issues such as climate change, sustainability, and knowledge mapping. This shows a shift in research towards the integration of religious values with global challenges, for example, Islamic spirituality-based education that is related to the framework of SDGs. Based on the theory of Symbolic Interactionism, the symbolic meaning of prayer is produced and understood through social interaction in three main domains: the global academic realm, the realm of educational practice, and the realm of the social-global context. This conceptual model connects publication trends, fields of study, state contributions, and topic linkages to explain how the symbolic meaning of prayer is produced, maintained, and adapted in the context of Islamic Religious Education, as well as to provide value-based curriculum recommendations relevant to global issues [33], [34].



**Model Konseptual: Makna Simbolik Shalat dalam Pendidikan Agama Islam  
(Berdasarkan Symbolic Interactionism Theory)**



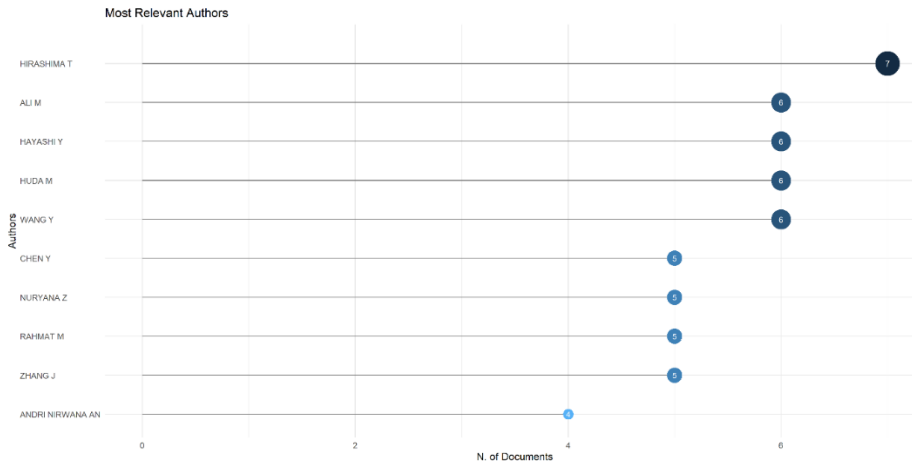
**Figure 5. Conceptual Model**

Based on the theory of symbolic interaction. Here's an explanation of each part of the model:

- Input (Blue Box):** This stage includes factors such as publication trends, field of study, country contribution, and research topic. These elements are the starting point, where global academic interest, cross-disciplinary engagement, and thematic relevance are taken into account in shaping the study of the symbolic meaning of prayer in Islamic Religious Education.
- Process (Green Box):** In this stage, academic interaction, adaptation of methods and technologies, and negotiation of symbolic meaning occur. It reflects how global discourse, educational innovation, and technological advances affect the way the symbolic meaning of prayer is understood and interpreted in various contexts and cultures. This stage involves dialogue and collaboration between academics from different disciplines and countries.
- Output (Red Box):** The final output focuses on achieving an understanding of the symbolic meaning of contextual prayer, developing curriculum recommendations, and establishing a global research network. These outputs show how the symbolic meaning of prayer is integrated into Islamic Religious Education, taking into account local and global challenges, and resulting in practical applications, such as curriculum development and international academic collaborations [35].

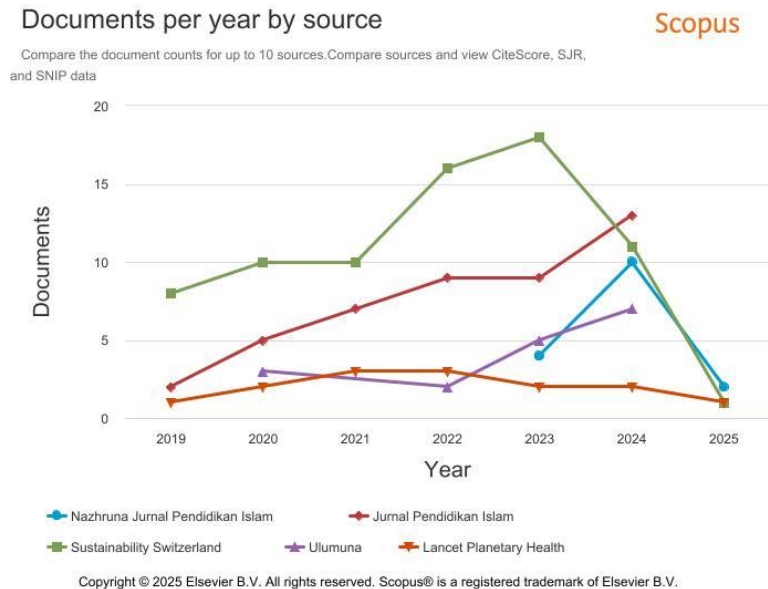
### **Most Influential Authors, Journals, and Articles**

The analysis of the productivity and impact of the research was carried out to identify the authors, journals, and articles that have the most significant contribution to the study of the symbolic meaning of prayer in Islamic Religious Education.



**Figure 6. Influential Authors**

Based on Figure 6. The data displayed can be seen as an unevenness in the author's contribution to the number of documents published. Author Hirashima T stands out as the author with the highest number of publications, with 7 documents, which shows that he has made significant contributions in this field of research. Followed by other authors such as Ali M, Hayashi Y, Huda M, and Wang Y, who each have 6 documents [36]–[39]. This indicates that these authors also play an important role and are likely to be involved in fairly intensive research collaborations. However, there are other authors, such as Chen Y, Nuryana Z, Rahmat M, Zhang J, and Andri Nirwana An, whose contributions are smaller by producing only 1 to 4 documents. This phenomenon illustrates the dominance of certain authors who may have directed or led most of the research in this dataset. Authors with a smaller number of papers may still be in the early stages of their research career or more focused on smaller, focused research projects. As such, this data reflects the importance of collaboration between authors and suggests that authors with a lower number of publications can benefit greatly from working with more experienced authors to improve the quality and quantity of their contributions [40], [41].



**Figure 7. Documents Per Source**

Figure 7. The graph shown shows significant variations in the number of publications per year from the several journals analyzed, with the Nazhruna Journal of Islamic Education and the Journal of Islamic Education dominating publications. Nazhruna has experienced a

drastic surge since 2022 and reached its peak in 2024, although it then declined in 2025. This may reflect a peak of interest or focus on a particular topic that led to more publications before eventually declining. The Journal of Islamic Education shows a more stable upward trend since 2023, although there is a slight decline in 2025, which may be due to a shift in interest or a change in research focus. Meanwhile, Sustainability Switzerland showed more moderate and stable growth, with consistent but insignificant improvements, reflecting the continued growing interest in sustainability issues in the absence of a major surge. Ulumuna has a much lower publication rate and is growing at a slower pace, perhaps because the journal has a narrower focus or niche, which leads to a limited number of relevant studies. On the other hand, the Lancet Planetary Health produced only a few publications during this period, with stable and low numbers [42], [43], indicating that although this journal has a high potential impact in the field of planetary health, its contribution to this dataset is limited. Overall, this graph reflects a clear inequality between journals that are more active in publication and those that are more limited in contribution, with the possibility that external factors such as research trends or global interest are influencing the spike or decrease in the number of papers. This publication pattern can also be read as part of the scientific contribution to the achievement of the SDGs, especially on quality education (SDG 4) and sustainability (SDG 13) [44]–[48].

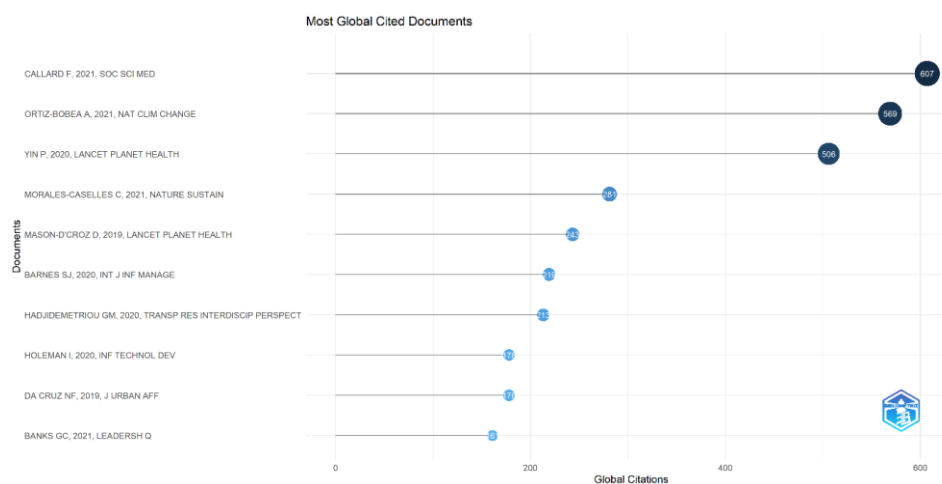


Figure 7. Most Global Cited Document

Figure 8. The graph shown shows the most cited documents globally, with Dunleavy from Social Science & Medicine obtained 607 citations, making it the most influential among other articles, followed by Ortiz-Bobeia from Nature Climate Change with 569 citations, and Chen from the Lancet Planetary Health, who recorded 506 citations. All three reflect the high relevance and impact of research in the fields of climate change and planetary health. Meanwhile, other articles, such as those written by Morales and Mason-D'Croze, despite having lower citations (in the range of 28 to 281), still show important contributions in the topics of sustainability and health. Overall, these data highlight that research on global issues such as climate change and planetary health has a great influence among the scientific community, with some highly influential works dominating global discussions [49], [50].

Recent trends in research are seen in bibliometric data, with an emphasis on collaborations between leading authors, the influence of global publications, and the development of research in the field of sustainability and Islamic education. One of the main topics is the role of journals such as Nazhruna Journal of Islamic Education, which continues to grow in answering sustainability challenges through an Islamic education approach. Collaborations between authors such as Hirashima T and Ali M show a significant pattern of scientific productivity, reflecting the importance of strong academic networks in driving research progress [51], [52]. In addition, the most cited articles, such

as those by Callard F and Ortiz-Bobe A, show the enormous impact of research on global policy, particularly in the areas of sustainability and climate change. The increasing number of publications in leading journals such as Sustainability Switzerland and The Lancet Planetary Health also underscores the importance of integrating planetary health and sustainability in research. This discussion also identifies how influential authors, such as Francesco Montorsi, with a high H-index, are role models in influencing the development of global research. The main focus of this discussion is to understand the linkages between authors, productive collaborations, and their impact on future research directions focusing on sustainability and climate change issues, which, of course, provides new insights in interdisciplinary research.

## Main Topics and Their Relevance in Islamic Religious Education

Keyword analysis and topic mapping were carried out to reveal the main focus of research in the field of Islamic Religious Education, especially related to the symbolic meaning of prayer. The following visualization shows the distribution of topics as well as the linkages between research themes that appear in global publications.

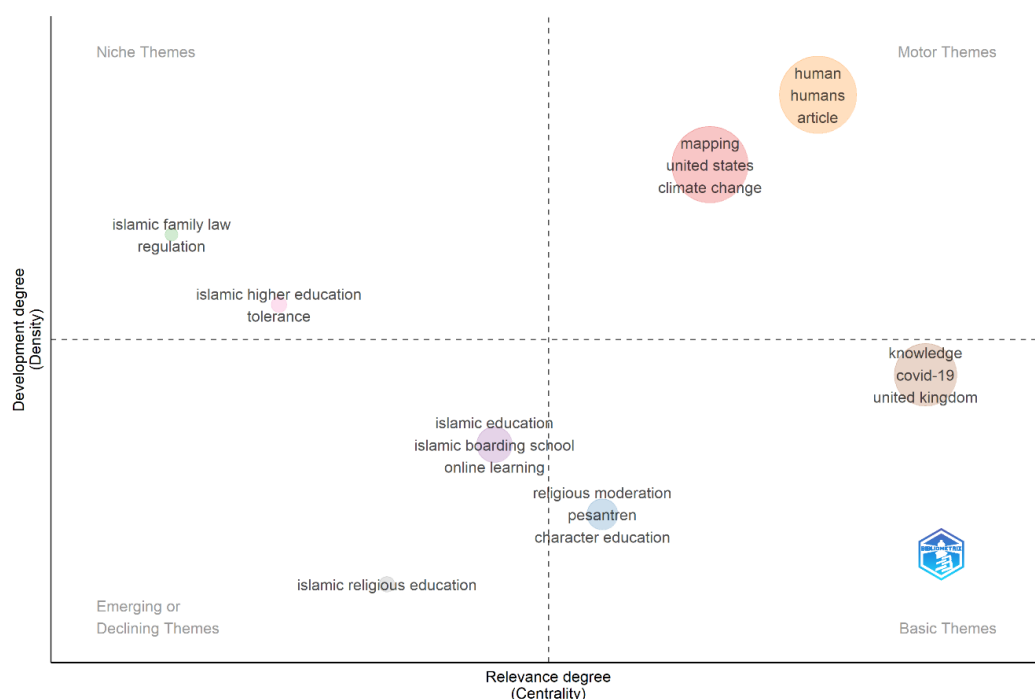
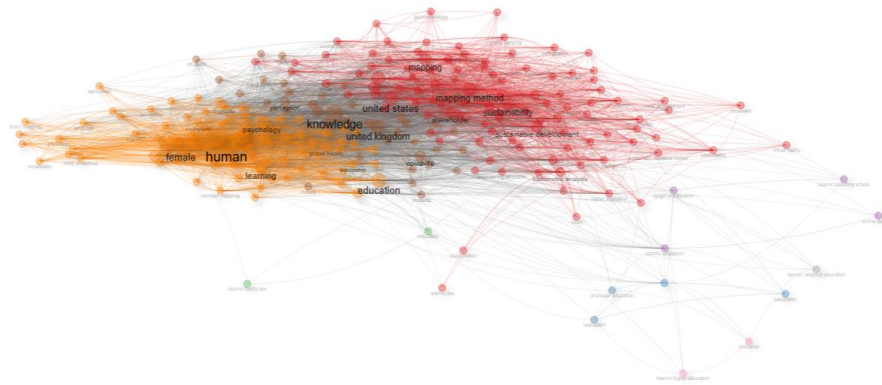


Figure 8. Mapping Future Research Topics

In Figure 8 Mapping Future Research Topics, research themes in the field of Islamic Religious Education are mapped based on two main dimensions, namely the level of relevance (centrality) and the level of development (density). In the upper left quadrant (Niche Themes), themes such as Islamic Family Law, Regulation, Islamic Higher Education, and Tolerance can be seen, which show a high level of relevance even though they have not developed rapidly in research. This indicates that these topics have the potential to become highly relevant in the future, especially related to social and cultural changes in the Islamic context. Meanwhile, the upper right quadrant (Motor Themes) covers topics such as Mapping, the United States, Climate Change, and Humans, which have a very high level of development and relevance, reflecting research trends that connect global and contemporary issues with Islamic religious education [53]. This quadrant shows that research in this area is growing rapidly, leading to integration with global issues such as climate change and the role of humans in social and cultural contexts, as well as their relevance to the SDGs. On the other hand, the lower left quadrant (Emerging or Declining

Themes), with themes such as Islamic Religious Education, shows a decline in development and relevance, perhaps due to a lack of attention or focus on these topics in current research. Finally, the lower right quadrant (Basic Themes) shows fundamental themes such as Islamic Education, Islamic Boarding School, Character Education, and Religious Moderation, which continue to develop rapidly and remain at the core of Islamic Religious Education research, showing that these themes are still relevant and very important in the context of religious education today [54]. Overall, this map illustrates how core themes in Islamic Religious Education continue to take center stage, while research expands to relate broader global topics [55].



**Figure 9. Linkages Between Topics**

Figure 9. Inter-Topic Linkage shows a network of relationships between various interconnected research topics in the field of Islamic Religious Education. In this visualization, the larger, more centralized nodes show topics that have a stronger connection and often appear together in the literature. For example, topics such as Knowledge, United States, Mapping, Sustainability, and Human seem to be highly connected, reflecting that global issues such as sustainability, learning methods, and the influence of large countries like the United States are taking center stage in current research [56]. On the other hand, there are smaller clusters related to Islamic Education, Islamic Boarding Schools, and Online Learning, which indicates that Islamic education remains an important theme, although it is more focused in specific contexts such as Islamic boarding schools and online learning. The network illustrates how a wide range of topics, from social and environmental issues to Islamic-based education, interact with each other and form a broader understanding of contemporary research, showing an increasingly interdisciplinary and global direction of research, in line with the direction of sustainable development in the SDGs.

Potential topics for future research in Islamic religious education focus on the integration of character education and religious moderation to form a tolerant and moderate generation, especially in the face of the challenge of extremism. In addition, the development of technology-based education, such as online learning, shows great potential to increase access to Islamic religious education, especially in remote areas. Research also needs to explore the application of sustainability and climate change values in the context of Islam to educate a generation that cares about the environment. Finally, the adaptation of Islamic religious education in the face of global challenges such as the COVID-19 pandemic, as well as the use of digital platforms, is a relevant area to ensure the continuity and effectiveness of religious education in crises.

### **Recommendations for Future Research Topics**

Potential topics for future research include several rapidly developing areas. Among them is neoadjuvant immunotherapy, which involves administering immunotherapy before

surgery to reduce the size of the tumor and improve the immune response. Research is also focused on the use of nanomaterials, such as magnetic nanoparticles, in the delivery of targeted drugs for cancer therapy, as well as photodynamic and photothermal therapies that use light to activate drugs in tumor areas. In addition, antifibrotic therapies to treat liver fibrosis and the development of non-invasive biomarkers to detect fibrosis are increasingly in primary focus, along with research on the mechanisms of fibrosis and how to reverse it. Research on the relationship between gut microbiota and immunotherapy responses also shows great potential, as the microbiota may influence the success of cancer treatment. On the other hand, the application of big data and artificial intelligence (AI) in medical data analysis to improve the diagnosis and treatment of diseases is also getting more and more attention, opening up huge opportunities for more integrated medical technology advancements.

## Analysis

Based on the bibliometric analysis carried out, it can be concluded that the trend of publications related to the symbolic meaning of prayer in Islamic Religious Education has increased significantly in the 2013-2023 period, with the main focus on the fields of social sciences, humanities, and environmental sciences. This trend reflects the global interest in the integration of spirituality in education, especially in the context of contemporary social and technological challenges. The increasing number of publications, as well as the involvement of many countries and disciplines, shows how important this research is in addressing global issues such as climate change, sustainability, and social transformation, which are in line with the SDGs in the areas of quality education, equality, and climate action.

In addition, collaboration between researchers from different countries and disciplines is also reflected in the pattern of relationships between authors, keywords, and citations that are dominant in related literature. In the analysis of author collaboration, it can be seen that there is a dominance of certain authors who are very influential in directing the direction of this research. Authors such as Hirashima T. and Ali M have made significant contributions, indicating the importance of scientific collaboration in developing quality research. Several major journals, such as Nazhruna Journal of Islamic Education and Journal of Islamic Education, show a steady trend of increasing publications, although there are fluctuations in some years that can be influenced by external factors such as research trends and global interest that are also related to the SDGs agenda in strengthening the role of science for sustainable development [57].

## CONCLUSION

Based on the results of the bibliometric analysis, it can be concluded that research related to the symbolic meaning of prayer in Islamic Religious Education is increasingly gaining global attention, with an increase in the number of publications and collaborations across countries and disciplines. This phenomenon shows a high relevance to the integration of spirituality in religious education, which is not only limited to the religious realm but also has a close relationship with social, cultural, and environmental issues. This trend is in line with the SDGs agenda, especially in supporting quality education, equality, and awareness of environmental sustainability. Growing interdisciplinary research emphasizes the importance of collaboration between social sciences, technology, and health in addressing global challenges. Collaborations between authors, journals, and major contributing countries, such as the United States, the United Kingdom, and Indonesia, are key factors in enriching the conceptual and methodological framework of research. From the perspective of Symbolic Interaction theory, the symbolic meaning of prayer continues to be produced and constructed through social interaction in various contexts, both academic and social, to support the development of value-based curricula that are relevant to global challenges and contribute to the achievement of the SDGs.

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## Author Contribution

All authors jointly designed the study. Muhammad Muhtar Arifin Sholeh led conceptualization and analysis. Waston and Qudra Bezibweki contributed methodology and interpretation. Muhammad Sholahuddin and Qisthoni Permatasari supported data processing, visualization, and manuscript refinement and final review.

## Conflicts of Interest

All authors declare no conflict of interest.

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