A Bibliometric Study

Tasawwuf Literature in The Context of Islamic Education: A Bibliometric Study

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Abstract: *Tasawwuf* or Islamic mysticism holds a significant place in Islamic scholarship and spirituality. Its literature has contributed profoundly to the development of Islamic thought, ethics, and education. However, despite the undeniable influence of *Tasawwuf* literature on Islamic education, a comprehensive bibliometric analysis of this body of work remains lacking. To address this gap, it is crucial to explore and quantify the scholarly output, dissemination, and impact of *Tasawwuf* -related research within the context of Islamic education. In this bibliometric study utilizes a systematic approach to analyze a vast corpus of academic literature. We begin by collecting relevant research articles papers from reputable academic databases and repositories. Subsequently, we employ bibliometric techniques, including citation analysis, co-authorship networks, and keyword mapping, to assess the trends, patterns, and connections within *Tasawwuf* literature in the context of Islamic education. The findings of this study are expected to reveal the most influential works, prolific authors, and leading academic institutions in the field of *Tasawwuf* literature within Islamic education. Additionally, the analysis will identify emerging research themes and gaps in the existing literature. Insights into the evolution of *Tasawwuf* scholarship and its intersections with Islamic education will be provided. Conclusion, this bibliometric study will offer valuable insights into the scholarly contributions of *Tasawwuf* literature to the field of Islamic education. By mapping the intellectual network and identifying influential works and authors, it will facilitate future research directions and promote a greater understanding of the historical and contemporary significance of *Tasawwuf* within Islamic education.

Keywords: Sufism; *Tasawwuf; akhlak*; *tazkiah al-nafs*; teaching Islamic; Islamic education

Introduction

Tasawwuf, or Sufism, holds a profound influence on the spiritual and ethical dimensions of Islamic education. Conducting a bibliometric study on *Tasawwuf* literature can yield valuable insights into its evolving trends, predominant themes, and intellectual framework, fostering a deeper comprehension of its impact on Islamic education (Ahmed et al., 2023; Ahmad et al., 2022). Bibliometric analyses have emerged as indispensable tools for delineating intellectual landscapes across various disciplines, including Islamic banking efficiency literature (Ikra et al., 2021), Islamic accounting (Wahyudi et al., 2022), Islamic finance (Alshater et al., 2020), Islamic education (Evendi, 2022; Ozalp & Daqiq, 2016), and gamification in education (Martí-Parreño et al., 2016). These analyses aid in identifying research trends, significant contributors, and collaborative patterns, enriching scholarly discourse and informing policy decisions (Rahman et al., 2020; Sholihin et al., 2021).

Tasawwuf, deeply rooted in the Islamic spiritual tradition, is acknowledged as an essential aspect of Islamic life in Malaysia (Hamid, 2020). The influence of Sufism is exemplified through scholarly contributions, such as those of Sheikh Muhammad Said al-Linggi who has promoted Islamic teachings in

accordance with the Prophet Muhammad's law (Datu Gulam, 2021). The emergence of contemporary Sufism in Malaysia and Southeast Asia signifies its evolving impact on Islamic thought and practice in the region (Syahrul & Hidayat, 2021). Additionally, *Tasawwuf* is associated with psychotherapy, where Sufi methods are utilized for treating mental illness, emphasizing its empirical and prophetic-based foundations (Pangesti, 2019).

The academic conceptualization of Islamic education within diverse historical and contemporary Islamic cultural, intellectual, political, theological, and spiritual traditions shapes the foundation of Islamic educational studies (Sahin, 2018). The evolution and orientation of Islamic education in Malaysia reflect its shared origin with *pondok*, highlighting the historical interconnectedness of Islamic educational practices in these regions (Mas'ud et al., 2019). The development of teaching and learning methods in *Hadith* and the integration of Islamic values in elementary schools demonstrate ongoing efforts to enhance pedagogical approaches and moral dimensions of Islamic education (Ithnin et al., 2018).

Challenges faced by Islamic education encompass the integration of Islamic and Western liberal secular values, the prevention of violence against children in schools, and the development of a spirituality-based Islamic education framework for young Muslim generations (Şahin, 2018; Sholihah & Nurhayati, 2022; Chanifah et al., 2021). The ethical principles of voluntary participation, anonymity, and confidentiality in the context of spiritual well-being and moral distress among Iranian nurses offer unique perspectives on the ethical dimensions of Islamic education (Soleimani et al., 2016).

Innovative approaches to Islamic education, such as the millennialization based on neuroscience and the holistic-integrative approach of the Muhammadiyah education system in Indonesia, present alternative paradigms for addressing contemporary educational needs (Suyadi & Widodo, 2019; Hamami & Nuryana, 2022). Empirical studies on the internalization of Islamic values in developing students' actual morals and the model of Islamic education curriculum development to improve students' creative thinking offer practical insights into the implementation and impact of Islamic educational frameworks (Tambak et al., 2021; Hasanah et al., 2018).

The advancement of Islamic education requires a multifaceted approach that addresses historical, contemporary, and future-oriented perspectives, challenges, and opportunities. By critically examining critical issues, innovative approaches, and empirical studies, this introduction underscores the dynamic nature of Islamic education and its potential for further development and enhancement to nurture the intellectual, moral, and spiritual growth of individuals within Muslim communities.

Methodology

A comprehensive bibliometric investigation offers an extensive survey of scholarly endeavors within a domain that has garnered a substantial corpus of published works. The present study aims to leverage bibliometric analysis techniques, employing the Scopus data analysis platform, VOSviewer software (version 1.6.19), and the Multidimensional Scaling (MDS) method. This approach is geared towards furnishing a comprehensive review of the extant literature and an in-depth scrutiny of prevailing research trends within the realm of art in health. Examining bibliometric indicators can facilitate an enhanced comprehension of research patterns. The statistical data will prove to be an invaluable resource for scholars and researchers, enabling them to assess the global landscape and discern patterns pertaining in *Tasawwuf* and Islamic education (Appio et al., 2014). The bibliometric analysis review adheres to the PRISMA guidelines, an acronym that stands for Preferred Reporting Items for Systematic Reviews and Meta-Analyses. It is customary practice to evaluate the quality and reliability of a review based on the presentation of relevant and appropriate facts, in accordance with established publication standards. The PRISMA guidelines delineate four distinct approaches for the identification and acquisition of data within the context of a bibliometric analysis review (Page et al., 2021)

1. Data Source and Search Strategy (Identification)

Bibliometrics refers to the amalgamation, organization, and examination of bibliographic data extracted from scientific publications (Verbeek, Debackere, Luwel, & Zimmermann, 2002). It encompasses not only basic descriptive statistics, such as publication outlets, publication years, and primary author classifications (Wu & Wu, 2017), but also sophisticated techniques like document co-citation analysis. A thorough literature review,

bibliography compilation, and dependable results necessitate an iterative process involving the selection of appropriate keywords, literature searches, and rigorous analysis (Fahimnia, Sarkis, & Davarzani, 2015).

In the realm of social sciences and humanities, renowned for their extensive citation and bibliographic records, this study utilizes Clarivate Analytics' WoS Core Collection to ensure thorough retrieval (Aghaei Chadegani et al., 2013; Olijnyk, 2015). The examination of bibliometrics in this research encompasses the gathering, arrangement, and examination of bibliographic data drawn from scientific publications (Verbeek et al., 2002). This encompasses fundamental descriptive statistics, such as journal publications, publication years, and primary author classifications, alongside more sophisticated methods like document co-citation analysis. To achieve a robust literature review, inclusive bibliography, and dependable results, an iterative process involving the judicious selection of keywords, thorough literature searches, and meticulous analysis is imperative (Fahimnia et al., 2015).

This study focuses on top-tier publications to provide insights into the theoretical evolution of the research domain and relies on the Scopus database from Thomas ISI for data collection (Di Stefano, Peteraf, & Verona, 2010; Tan, Zhan, Ji, Ye, & Chang, 2014). High-quality publications, rigorously peer-reviewed and published in reputable academic journals, were considered, while books and conference proceedings were excluded (Liu, Lu, Ho, & Younis, 2015). Analysis is based on Elsevier's Scopus database, offering extensive coverage from 2019 to December 2023 based on Table 1.

Table 1. The Search Strings

Database Search string operators	Search string	No. Articles
Scopus	TITLE-ABS-KEY ((sufism OR *Tasawwuf* OR *akhlak* OR "*tazkiah al-nafs*") OR ("teaching Islamic" OR "Islamic education")) AND PUBYEAR > 2018 AND PUBYEAR < 2024 AND (LIMIT-TO (SUBJAREA , "ARTS") OR LIMIT-TO (SUBJAREA , "SOCI")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "Arabic") OR LIMIT-TO (LANGUAGE , "Malay") OR LIMIT-TO (LANGUAGE , "Indonesian"))	1443

Source: Scopus (2023)

Table 1 shows the search string used in the Scopus database to retrieve relevant articles on the topic of "Sufism or *Tasawwuf*, akhlak, tazkiah al-nafs, teaching Islamic or Islamic education". The search string includes operators that specify search limits such as publication year between 2019 and 2023, subject areas of Arts or Social Sciences, document type of articles, and languages of English, Arabic, Malay, or Indonesian. This search, performed on December 24, 2023, yielded a total of 1443 articles related to the specified topic. This table provides an overview of the search strategy employed to collect relevant research materials from the Scopus database. It allows researchers to identify and access recent articles pertaining to their research topic.

To undertake an extensive examination of the pertinent data housed within the scholarly publication database, Scopus was specifically targeted. During the data extraction phase, researchers diligently acquired data from this database. The data from Scopus was obtained in the CSV file format. The dataset encompassed various components, such as article titles, author names and affiliations, abstracts, keywords, journal titles, references, and other relevant information. The amassed data was scrutinized through the Scopus search interface. Subsequent to the database refinement process, a total of 1443 articles were retrieved from Scopus. The bibliometrix tool, precisely biblioshiny, was employed to effectively visualize and assess the patterns associated with research trends within the domain of selection in *Tasawwuf* and Islamic education. The aim of this article is to analyze the prevailing *Tasawwuf* and Islamic education between 2019 until 2023 and present the research findings pertaining to these identified patterns.
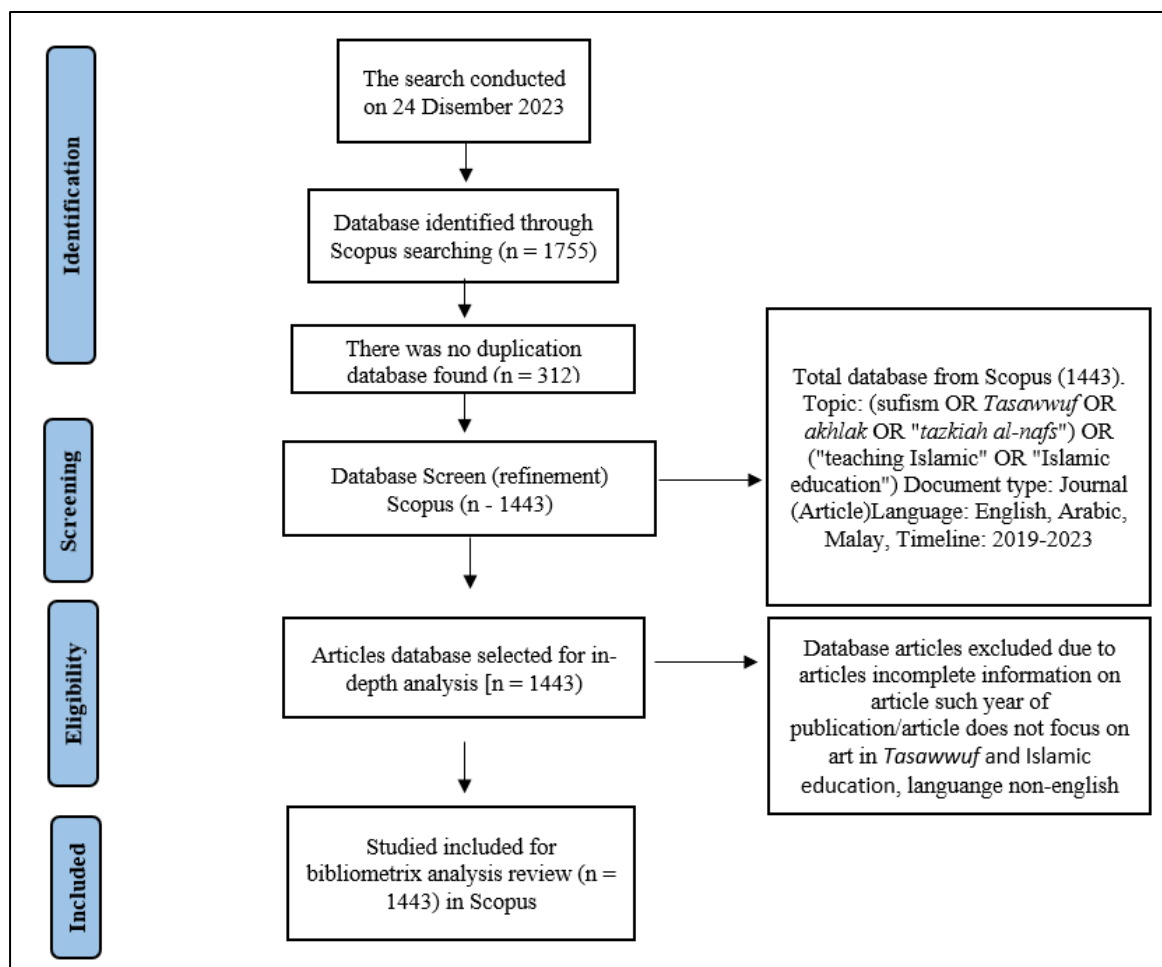
Figure 1. Flowchart for study selection in *Tasawwuf* and Islamic education
Source: Scopus (2023)

2. Eligibility Criteria (Screening Process)

The researchers conducted an in-depth analysis of 1443 scholarly papers retrieved from the Scopus database. At this critical juncture, a meticulous evaluation of all the relevant literature was imperative, meticulously scrutinizing the titles, abstracts, and core content of the publications. This rigorous examination aimed to ensure adherence to the inclusion criteria, suitability for incorporation into the current study, and alignment with the overarching research objectives. Considering the scope of the research focused on in *Tasawwuf* and Islamic education, a total of 1443 publications meeting the requisite criteria necessitated comprehensive examination. The selection process was confined to academic articles published within the timeframe spanning 2019 to 2023. Moreover, while no restrictions were placed on the eligible categories of articles for consideration, the publications were required to be written in English, Arabic, Malay, or Indonesian languages.

Table 2. The selection criterion is searching

Criterion	Inclusion	Exclusion
Language	English, Arabic, Malay, Indonesian	Non-English
Timeline	2019 – 2023	< 2019
Literature type	Journal (Article)	Conference, Book, Review
Publication Stage	Final	In Press

Source: Scopus (2023)

3. Data Analysis

The Scopus database provided datasets containing publication details, including publication year, title, authors, journal, citations, and keywords, spanning from 2019 to December 2023. These datasets underwent analysis and visual mapping using VOSviewer software version 1.6.19, employing VOS clustering and mapping techniques. VOSviewer offers an alternative approach to the Multidimensional Scaling (MDS) method (Van Eck & Waltman, 2014). Both VOSviewer and MDS aim to position items in a low-dimensional space to accurately reflect their relatedness and similarity, ensuring that the visual representation closely corresponds to the degree of relatedness or similarity between two items (Appio et al., 2014).

Unlike MDS, which focuses on calculating similarity measures like Jaccard indexes and cosine similarity, VOSviewer implements a more suitable technique for normalizing co-occurrence frequencies (Van Eck & Waltman, 2007). VOSviewer presents an alternative to MDS, originally proposed by Van Eck and Waltman (2010), with the same objective of positioning elements within a reduced-dimensional space to accurately reflect their interrelatedness and similarity (Appio et al., 2014). However, instead of MDS's emphasis on similarity indices, VOSviewer adopts a more appropriate approach for standardizing co-occurrence frequencies, such as the association strength (AS_{ij}), calculated as: $AS_{ij} = C_{ij} / (W_i W_j)$. This measure is "proportional to the ratio between the observed number of co-occurrences of i and j and the expected number of co-occurrences of i and j under the assumption that co-occurrences of i and j are statistically independent" (Van Eck & Waltman, 2010).

VOSviewer utilizes the LinLog/modularity normalization method, introduced by Appio, Gebhardt, Cammarano, and Michelino (2016), to position items on a map by minimizing the weighted sum of squared distances between all pairs of items. Through the application of visualization techniques in VOSviewer to the dataset, patterns governed by mathematical relationships were revealed, facilitating analyses such as keyword co-occurrence, citation analysis, and co-citation analysis. Keyword co-occurrence analysis, effective in identifying prevalent topics across diverse fields (Li, Nucciarelli, Roden, & Lambert, 2016), allows for the exploration of research area development within a specified timeframe (Zhao, 2017). Citation analysis assists in pinpointing crucial research issues, trends, and methodologies, while also delving into the historical significance of a discipline's primary focus area (Allahverdiyev & Yucesoy, 2017). Document co-citation analysis, a frequently employed bibliometric method (Appio et al., 2016; Fahimnia, Sarkis, & Davarzani, 2015; Liu, Lu, Ho, & Younis, 2015), relies on network theory to discern the relevant structure of data (Liu et al., 2015).

Result and Finding

1. The Research Trends in *Tasawwuf* and Islamic Education According To The Year Of Publication

The intersection of *Tasawwuf* (Islamic mysticism) and Islamic education has been a subject of growing academic interest in recent years. This field, which explores the spiritual dimensions of Islamic pedagogy and their practical applications in educational settings, has seen fluctuating levels of scholarly attention. Understanding these trends is crucial for researchers, educators, and policymakers involved in Islamic studies and education. To quantify this academic interest, we analyzed the number of documents published on *Tasawwuf* and Islamic education as indexed by Scopus over a five-year period from 2019 to 2023. The data reveals a dynamic pattern of scholarly output, characterized by significant year-over-year variations. These fluctuations may reflect changing research priorities, funding allocations, or broader societal interests in Islamic spirituality and education.
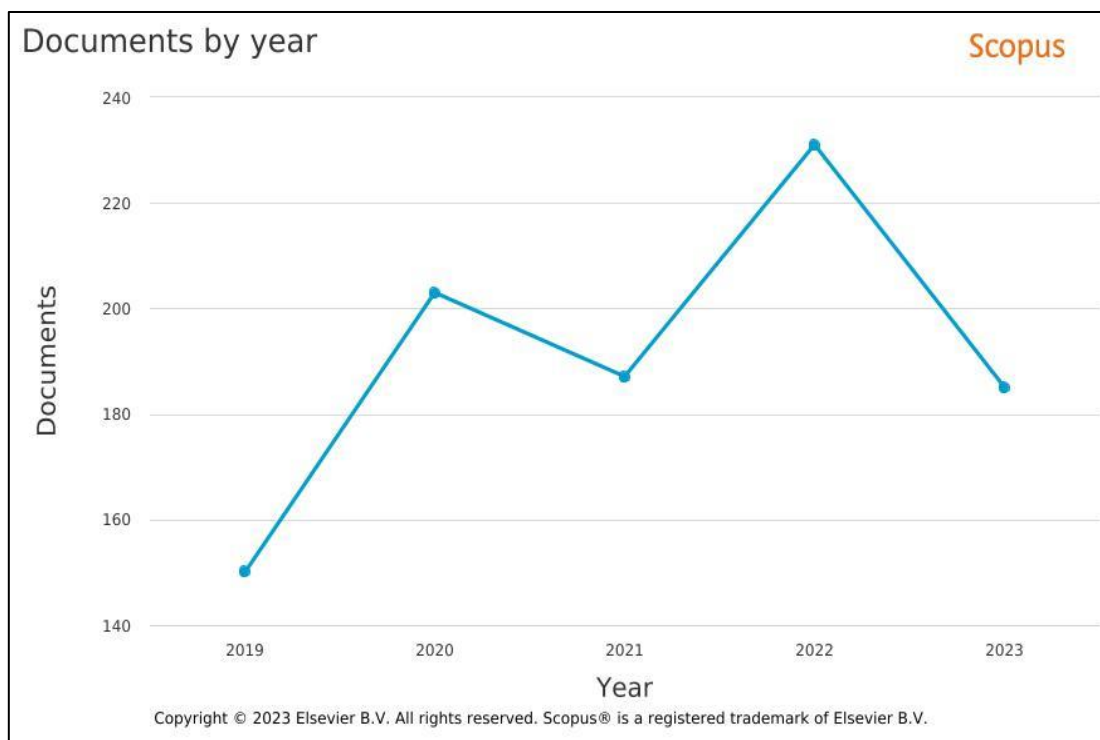
Figure 2. The trends in *Tasawwuf* and Islamic education according to the year of publication
Source: Scopus (2023)

The figure 2. shows under consideration appears to depict the number of documents published within a certain journal between the years 2019 and 2023. However, critical contextual details remain unspecified. Identifying the specific journal and its research domain is essential to properly interpret the trends displayed. It remains unclear whether this dataset encompasses all types of documents, such as articles, reviews, and letters, or if any filtering criteria were applied to select the included publications. The overarching trend discernible from the figure indicates a modest upward trajectory in the number of published documents throughout the past four years. A conspicuous peak is noticeable in 2021, followed by a marginal decline in 2022 and a potential resurgence in 2023. Without supplementary data or contextual information, elucidating the factors contributing to these fluctuations proves challenging.

2. The Most Writes Document by Author
In examining the scholarly contributions to the field of *Tasawwuf* and Islamic education, it is crucial to identify the most prolific authors. These individuals not only shape the discourse through their frequent publications but also often serve as influential figures in advancing research and thought in the discipline. By analyzing the publication output of individual researchers, we can gain insights into the key voices and potentially dominant perspectives in this area of study. To this end, we conducted an analysis of author productivity based on the number of documents published and indexed in Scopus. This examination reveals the distribution of scholarly output among researchers in the field, highlighting those who have made the most substantial contributions in terms of publication volume. Such information is valuable for understanding the current landscape of academic leadership in *Tasawwuf* and Islamic education research. Figure 3 presents the top authors by number of published documents:

Documents by author

Compare the document counts for up to 15 authors.

Scopus

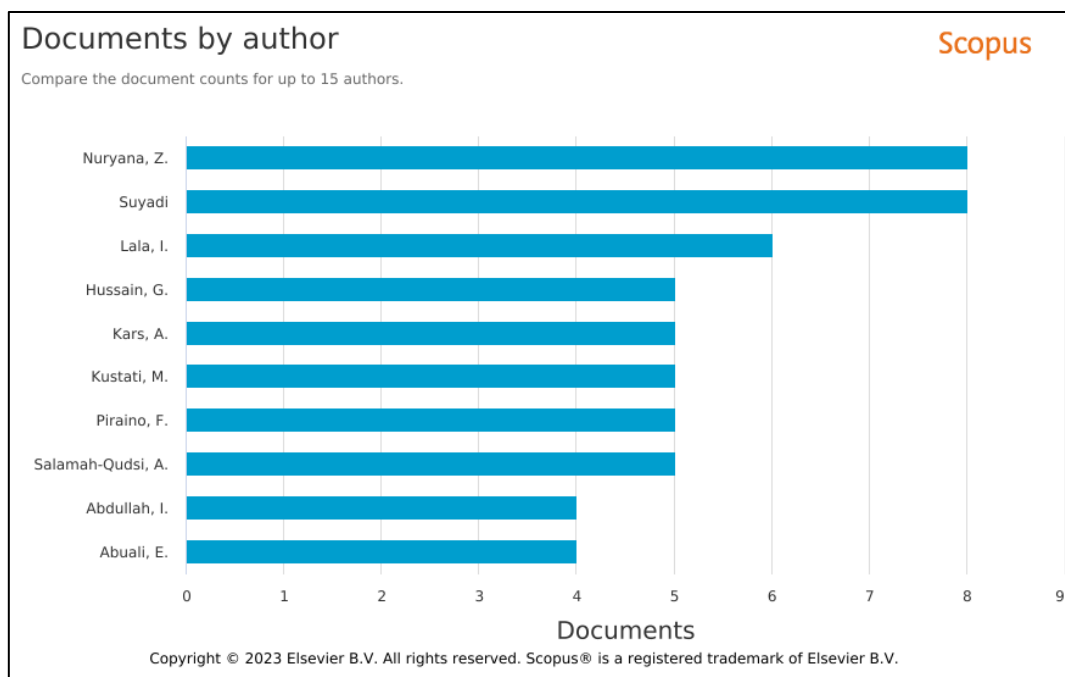| Author	Documents
Nuryana, Z.	8
Suyadi	8
Lala, I.	6
Hussain, G.	5
Kars, A.	5
Kustati, M.	5
Piraino, F.	5
Salamah-Qudsi, A.	5
Abdullah, I.	4
Abuali, E.	4

Documents

Figure 3. The most writes document by author
Source: Scopus (2023)

In the scholarly realm of a prestigious Scopus journal, a tale of academic diligence and intellectual pursuit unfolds. The narrative is shaped by the contributions of a cadre of dedicated researchers, whose names recurrently grace the pages of publication. At the helm of this narrative are Nuryana, Z. and Suyadi, each bearing the standard with eight scholarly works, representing 2.11% of the literary corpus. Their contributions speak of a relentless quest for knowledge, their names becoming synonymous with authority and expertise in their field. As the plot weaves through the annals of research, Lala, I. emerges as a formidable character, with six articles adding 1.58% to the tapestry, her name etching deeper into the fabric of academic discourse.The story deepens with a conclave of scholars - Hussain, G., Kars, A., Kustati, M., Piraino, F., and Salamah-Qudsi, A. - each contributing a quintet of publications, collectively infusing the narrative with 1.32% of its substance.

Their consistent presence across the pages speaks to their steadfast commitment to the expansion of human understanding. In the turning pages, Abdullah, I. and Abuali, E. mark their ascent, each with a quarter of publications accounting for 1.05%. They stand as the vanguard of the emerging scholars, their growing voices adding fresh perspectives to the ongoing scholarly dialogue. This academic tableau is not merely a collection of statistics but a reflection of the vibrant intellectual life within the journal's domain. It is a testament to the journal's role as a crucible for ideas, where researchers from various backgrounds contribute to the relentless pursuit of knowledge. The narrative, rich with the endeavors of these scholars, is far more than the sum of its parts. It is a chronicle of progress, a beacon of inspiration, and a signpost for future collaborations that will propel the field to new heights. Each author, in contributing their chapter to this grand story, fortifies the foundation of a journal that stands as a pillar of academic excellence.

3. The most subject area

In analyzing the research landscape surrounding *Tasawwuf* and Islamic education, it is crucial to examine the distribution of publications across different academic disciplines. This distribution provides valuable insights into the interdisciplinary nature of the field and highlights the primary academic domains contributing to its body of knowledge. Understanding the subject areas most engaged with this topic can reveal the predominant theoretical frameworks, methodological approaches, and areas of focus within the research community. To gain a comprehensive view of the field's academic positioning, we conducted an analysis of documents categorized by subject area as indexed in Scopus. This examination allows us to identify the core disciplines driving research in *Tasawwuf* and Islamic education, as well as peripheral fields that may offer unique perspectives or applications. Figure 4 presents the breakdown of documents by subject area:
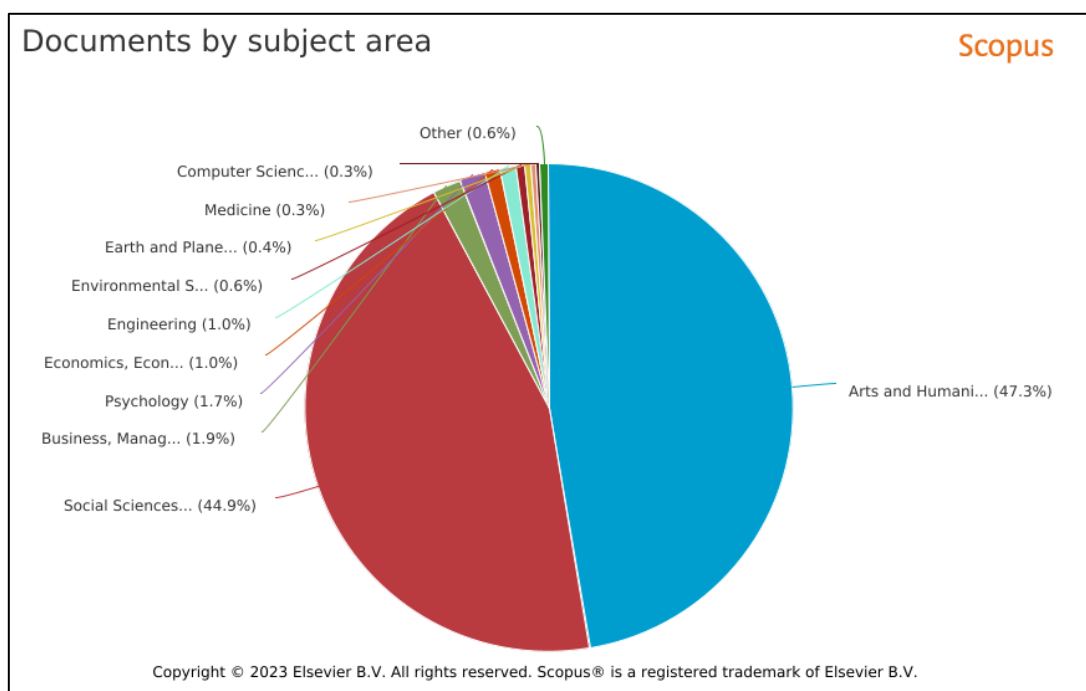
Figure 4. The most subject area
Source: Scopus (2023)

According the hallowed halls of scholarly pursuit, this journal stands as a resplendent tapestry, woven from the threads of myriad disciplines. At its heart beats the rhythmic pulse of the Arts and Humanities, commanding a staggering 47.33% share of the publication landscape. This vibrant dominance echoes the timeless reverence for the cultural, creative, and philosophical realms that have defined the human experience since time immemorial. Yet, this tapestry is not a solitary strand, for the Social Sciences weave their intricate patterns throughout, occupying an impressive 44.85% of the journal's fabric. Here, the complex narratives of society are meticulously explored, unraveling the intricacies of human behavior, societal structures, and the delicate interplay of interpersonal dynamics. Though smaller in numerical presence, the realms of Business, Management and Accounting, and Psychology leave their indelible imprints, accounting for 1.89% and 1.69% respectively. These disciplines offer a penetrating lens into the human psyche, the intricate machinery of markets, and the choreography of organizational systems that shape our modern world.

The innovative spirit of this multidisciplinary opus finds expression in the domains of Economics, Econometrics and Finance, and Engineering, each carving out a 1.04% niche. These threads bridge the theoretical and the practical, intertwining economic models with the tangible structures that undergird our engineered world. In a harmonious chorus, the voices of Environmental Science, Earth and Planetary Sciences, and Medicine resonate, reminding us of our inextricable connection to the planet that sustains us, the mysteries of the cosmos that beckon exploration, and the sacred pursuit of human well-being.Woven through this resplendent tapestry is the digital thread of Computer Science, accounting for 0.26% yet emblematic of the growing importance of technology in every sphere of academic inquiry.

This multidisciplinary mosaic is a testament to the journal's rich, kaleidoscopic character, a beacon illuminating the path to discovery across continents and realms of knowledge. Each statistic, each percentage, is not merely a number but a reflection of the ever-evolving landscape of human inquiry, capturing the essence of a scholarly pursuit that defines our civilization's progress and chronicles the unquenchable thirst for understanding that propels us ever forward.

4. The Top 9 Number of Citations by Research

Analyzing the impact of research in the field of *Tasawwuf* and Islamic education requires not only examining the volume of publications but also assessing their influence through citation metrics. Citation counts serve as

a crucial indicator of a study's reach and significance within the academic community. By identifying the most frequently cited works, we can pinpoint the research that has been particularly influential in shaping discourse and guiding subsequent studies in this area. To provide insight into the most impactful research contributions, we have compiled data on citation counts for publications in the field of *Tasawwuf* and Islamic education. This analysis helps to highlight key studies that have resonated strongly with other researchers and have potentially driven important developments or debates within the discipline. Table 3 presents the top 9 most cited research publications in this field:

Table 3. Network visualization map of keywords' co-occurrence

Authors	Title	Year	Source title	Cited by
Warsah I.; Morganna R.; Uyun M.; Hamengkubuwono H.; Afandi M.	The Impact of Collaborative Learning on Learners' Critical Thinking Skills	2021	International Journal of Instruction	45
Suyadi; Nuryana Z.; Fauzi N.A.F.	The fiqh of disaster: The mitigation of Covid-19 in the perspective of Islamic education-neuroscience	2020	International Journal of Disaster Risk Reduction	38
Yudiawan A.; Sunarso B.; Suharmoko; Sari F.; Ahmadi	Successful online learning factors in covid-19 era: Study of islamic higher education in west papua, indonesia	2021	International Journal of Evaluation and Research in Education	28
Isgandarova N.	Muraqaba as a Mindfulness-Based Therapy in Islamic Psychotherapy	2019	Journal of Religion and Health	19
Imtiyaz A.R.M.	The Easter Sunday Bombings and the Crisis Facing Sri Lanka's Muslims	2020	Journal of Asian and African Studies	17
Tolchah M.; Mu'ammar M.A.	Islamic education in the globalization era; challenges, opportunities, and contribution of islamic education in indonesia	2019	Humanities and Social Sciences Reviews	17
Khan F.R.; Naguib R.	Epistemic Healing: A Critical Ethical Response to Epistemic Violence in Business Ethics	2019	Journal of Business Ethics	16
Bakali N.; Wasty S.	Identity, social mobility, and trauma: Post-conflict educational realities for survivors of the rohingya genocide	2020	Religions	15

Source: Scopus (2023)

The provided encapsulates a selection of scholarly articles that have resonated within the academic community, as evidenced by their citation counts. This data provides a window into the topics that are generating significant scholarly attention and dialogue in recent years. In delving into the extensive body of research within the realm of Islamic studies, a comprehensive analysis reveals several overarching themes and critical trends that provide valuable insights into the academic community's response to contemporary global challenges. Foremost among these emergent themes is the profound influence of Islamic perspectives in addressing pressing global issues, with a particular emphasis on education and health. This is substantiated by

the notably high citation rates garnered by select articles. Notably, Warsah et al.'s and Suyadi et al.'s contributions, which respectively explore collaborative learning and the fiqh (Islamic jurisprudence) of disaster, serve as prime examples of this theme. These articles illuminate the concerted efforts of scholars to grapple with the implications of the COVID-19 pandemic, especially within Islamic contexts. They underscore the pivotal role that Islamic scholarship plays in offering unique insights into current global challenges. Citation impact, a critical measure of research influence, further underscores the significance of these themes. The leading article authored by Warsah et al., which has been cited an impressive 45 times, vividly demonstrates the research community's recognition of the importance of collaborative learning in nurturing critical thinking—a skill deemed indispensable in the complex landscape of the 21st century.

Temporal relevance emerges as a striking feature within this body of work. A noticeable concentration of articles from the years 2020 and 2021 reflects a surge in scholarly output—a direct response to the disruptive and far-reaching effects of the COVID-19 pandemic. This temporal clustering underscores the urgency of addressing the pandemic's multifaceted impact on diverse facets of life, including education and religious practice. Diversity of issues addressed within these articles further underscores the interdisciplinary nature of Islamic studies and its relevance in tackling multifarious global challenges. The spectrum of topics encompasses diverse subjects, ranging from Isgandarova's exploration of Islamic psychotherapy to Bakali and Wasty's meticulous investigation of the Rohingya genocide. This diversity not only showcases the field's versatility but also demonstrates its capacity to engage with complex, contemporary global crises.

Furthermore, the geographical spread of the research is notably extensive. Studies within this collection span regions as diverse as West Papua to Sri Lanka. This global perspective highlights the universal relevance of the issues explored and the widespread interest in understanding the Islamic educational response to such crises on an international scale. An intriguing trend that emerges from this analysis is the evolution of research within Islamic studies. Khan and Naguib's work on "Epistemic Healing" offers a profound philosophical and ethical dimension within the sphere of business ethics. This exemplifies the field's adaptability and its capacity to evolve, demonstrating a transition towards addressing systemic issues through the lens of Islamic scholarship.

Finally, numerous articles demonstrate a clear emphasis on education. This reflects a broader trend in Islamic studies scholarship, which prioritizes education's crucial role in societal progress and effectively addressing globalization's challenges. Tolchah and Mu'ammar's research explores the nexus between education and societal development. In summary, the analysis of research themes in these Islamic studies articles provides a comprehensive view of the field's dynamic nature. It emphasizes not only the intrinsic importance of Islamic perspectives in tackling contemporary global issues but also the interdisciplinary, global, and evolving character of research in this domain. Moreover, it highlights education's central role in shaping societies and addressing the complexities of our era.

In concluding your analysis, you might reflect on how these articles collectively represent a dynamic and responsive body of scholarship that addresses pressing global issues through the unique lens of Islamic education and ethics. The citation metrics indicate not only the academic community's recognition of these works but also suggest their potential impact on policy and practice within Islamic societies and beyond. This narrative, woven through the bibliometric data, tells a story of a scholarly community deeply engaged in dialogues that span the traditional and the contemporary, grappling with issues of global significance from a firmly rooted ethical and educational standpoint.

5. The map of Co-Authorship about country

Collaborative research efforts across national boundaries play a crucial role in advancing the field of *Tasawwuf* and Islamic education. International co-authorship not only facilitates the exchange of ideas and methodologies but also contributes to a more comprehensive and globally representative body of knowledge. Analyzing these collaborative networks provides valuable insights into the geographical distribution of research activities, the strength of international academic ties, and the potential for cross-cultural perspectives in the field. To visualize the landscape of international collaboration in *Tasawwuf* and Islamic education research, we conducted a network analysis of co-authorship patterns based on authors' country affiliations. This analysis reveals the interconnectedness of researchers across different nations and highlights the key

countries driving collaborative efforts in this academic domain. Figure 5 presents the network visualization map of co-authorship by country:

Figure 5. Network visualization map of Co-Authorship
Source: Scopus (2023)

The interwoven tapestry: a global odyssey of e-learning during COVID-19. As the world grappled with the unprecedented challenges of the COVID-19 pandemic, the realm of education underwent a seismic shift, embracing the digital frontier of e-learning. Amidst this global odyssey, a tapestry of international collaboration emerged, weaving together the threads of diverse perspectives and expertise. The vibrant network visualization map unveils the intricate patterns of this collective endeavor, revealing distinct clusters that shine as beacons of knowledge and innovation. In the crimson glow of the red cluster, researchers from China and Southeast Asia converge, institutions like Universitas Negeri Jakarta, Universiti Malaya, and Beijing Normal University leading the charge. Their inquiries delve into the unique challenges and opportunities that e-learning presented in these regions during the pandemic's tumultuous tide.

Across the vast expanse, the verdant green cluster unfurls, a constellation of scholars from Europe and North America, including the University of Oxford, ETH Zurich, and McGill University. Their work, a tapestry of theory and praxis, explores the intricate frameworks and best practices that guided e-learning's odyssey in the developed world. Yet, the narrative extends beyond these distinct realms, for the azure, blue cluster beckons, a harmonious confluence of researchers from Brazil, South Africa, and India, among others. Their focus, a kaleidoscope of perspectives, delves into the broader social and ethical implications of e-learning during COVID-19, illuminating the diverse and developing contexts that shaped this global phenomenon.

Woven through this intricate tapestry are the luminous threads of prominent co-authors, beacons whose contributions have cast an indelible light on the path forward. Yuning Gong of Universiti Malaya, a voice that echoes the impact of COVID-19 on higher education in Southeast Asia; Zhiyong Cai of Beijing Normal University, whose research explores the efficacy of online learning technologies across myriad educational landscapes; and Teresa McLaughlin of Trinity College Dublin, whose work unravels the intricate social and emotional dimensions of online learning, particularly for those from disadvantaged backgrounds.

This network visualization map is a testament to the indomitable spirit of international collaboration, a tapestry woven by scholars across continents, united in their quest to navigate the uncharted waters of e-learning during an unprecedented global crisis. Yet, as we marvel at its intricacies, we must remain cognizant of the influences that shape its narrative – the boundaries of datasets, the constraints of timeframes, and the ever-evolving nature of this dynamic field.

As we forge ahead, let us embrace the insights gleaned from this map as a catalyst for further exploration, delving deeper into the specific narratives of each cluster, the individual contributions of co-authors, and the rich tapestry of perspectives that continue to enrich our understanding of e-learning in the post-pandemic world. For it is through this collective odyssey that we shall navigate the frontiers of knowledge, weaving a future where education transcends boundaries, embraces innovation, and empowers generations to come.

6. The popular keywords related network visualization map of keywords' co-occurrence

Utilizing VOSviewer and considering keywords with a minimum of ten occurrences, an author keyword mapping was generated (refer to Figure 5). This visual representation illustrates the degree of connection between these keywords. Keywords sharing similar colors are typically found together in keyword listings. For instance, the figure suggests a strong association among keywords such as classification, support vector machine, fault diagnosis, document classification, data classification, multi-class classification, ant colony optimization, and ensemble learning, as they tend to co-occur frequently.

Figure 6. displays a network visualization map illustrating the co-occurrence of keywords
Source: Scopus (2023)

Figure 6. based on the confluence of pedagogy and technology: navigating e-learning's odyssey. As the tides of the COVID-19 pandemic swept across the globe, the realm of education found itself adrift in uncharted waters, forced to embrace the digital frontier of e-learning. Amidst this odyssey, a tapestry of research emerged, weaving together the threads of pedagogical innovation and technological prowess. The network visualization map unfurls before us, revealing the intricate patterns that define this collective endeavor. Two distinct clusters emerge, each a beacon illuminating the interconnected facets of this transformative journey.

In the azure glow of the left cluster, we bear witness to the pedagogical dimensions of e-learning during COVID-19. Keywords such as "online learning," "teaching methods," "student engagement," and "learning experience" weave a narrative of adaptation and resilience, as educators navigated the turbulent currents of the online realm, seeking to forge connections with their students and craft meaningful learning experiences.Yet, this odyssey is not one of pedagogy alone, for the crimson hues of the right cluster beckon us to explore the technological underpinnings of e-learning. Here, keywords like "learning management systems," "e-learning platforms," "accessibility," and "digital literacy" illuminate the critical role of tools and technologies, the gateways through which knowledge flowed, and the imperative to ensure that every student could access and effectively navigate these digital realms.

Bridging these two shores, a constellation of keywords emerges, underscoring the interconnectedness of pedagogy and technology in this brave new world of e-learning. "Online assessment," "blended learning," and "digital competence" stand as beacons, guiding us toward a deeper understanding of how educators harnessed technology to assess student learning, blended the online and offline realms, and nurtured the digital skills that would empower learners to thrive in this evolving landscape.At the heart of this tapestry, the ubiquitous keyword "COVID-19" casts its long shadow, a sobering reminder of the global crisis that catalyzed this odyssey. Yet, it is the term "e-learning" that serves as the central node, a nexus that binds the myriad threads of this narrative, a testament to the resilience and ingenuity of educators and learners alike.

The prominence of "higher education" and "student engagement" further illuminates the contours of this research landscape, underscoring the unique challenges faced by universities and colleges, and the unwavering commitment to fostering meaningful connections with students, even in the midst of physical distance.As we navigate the currents of this network visualization, we must remain cognizant of its boundaries – the limitations imposed by datasets, timeframes, and the ever-evolving nature of research itself. Yet, within these confines lie vast potential, for each cluster and keyword beckons further exploration, inviting us to delve deeper into the rich tapestry of perspectives that shape our understanding of e-learning in the post-pandemic world.It is through this collective odyssey that we shall chart the course for the future of education, weaving together the threads of pedagogy and technology, navigating the shoals of accessibility and digital literacy, and fostering resilient learning communities that transcend boundaries and embrace the boundless potential of the digital frontier.

7.   Co-citation Cited Author

In the realm of *Tasawwuf* and Islamic education research, understanding the intellectual landscape through co-citation analysis provides crucial insights into the field's theoretical foundations and influential scholars. Co-citation analysis examines the frequency with which pairs of authors are cited together in subsequent publications, revealing the interconnectedness of ideas and the formation of scholarly communities within the discipline. This analytical approach allows us to identify key thought leaders, trace the evolution of concepts, and map the intellectual structure of the field. By visualizing these co-citation patterns, we can discern central clusters of authors whose works are frequently referenced together, suggesting thematic or methodological similarities in their research. These clusters often represent distinct schools of thought or sub-disciplines within the broader field of *Tasawwuf* and Islamic education. Figure 7 presents a network visualization of co-citation patterns among cited authors:
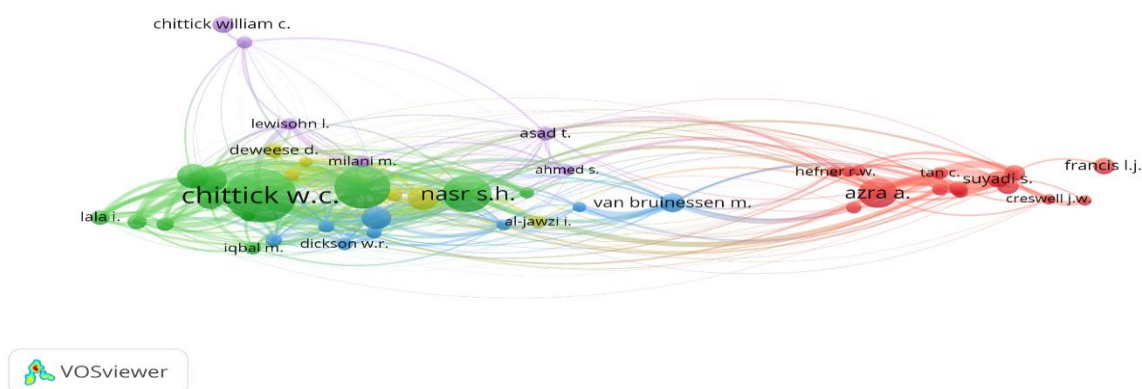

Figure 7. Central Clusters and Keywords
Source: Scopus (2023)

The interwoven tapestry: illuminating e-learning's odyssey through scholarly collaboration. As the tides of the COVID-19 pandemic swept across the globe, the realm of education found itself adrift in uncharted

waters, forced to embrace the digital frontier of e-learning. Amidst this odyssey, a tapestry of research emerged, woven by the collective insights of scholars from diverse disciplines, each thread illuminating the intricate interplay between pedagogy and technology.

The network visualization map unfurls before us, revealing two distinct clusters, each a beacon guiding our understanding of this transformative journey. In the azure glow of the left cluster, we bear witness to the pedagogical dimensions of e-learning during COVID-19. Here, the works of L.P. Graham, S.K. Mishra, and M.M. Al-Saidi shine as guiding lights, their research underscoring the importance of designing engaging online learning experiences, integrating technology into pedagogy, and exploring the unique challenges and opportunities of e-learning in developing nations.Yet, this odyssey is not one of pedagogy alone, for the crimson hues of the right cluster beckon us to explore the technological underpinnings of e-learning. In this realm, the insights of R.S. Sharma, M.G. Moore, and G. Siemens illuminate the path, their work delving into the development and implementation of effective e-learning platforms, the design and delivery of online courses, and the use of technology to personalize and adapt learning experiences.

Bridging these two shores, a constellation of keywords and scholars emerges, underscoring the interconnectedness of pedagogy and technology in this brave new world of e-learning. Graham's insights on online assessment connect seamlessly with the pedagogical cluster, while Mishra's research on blended learning forges a bridge between traditional and digital realms. Al-Saidi's focus on digital competence echoes the technological imperative, ensuring that all students have the necessary skills to navigate the digital frontier. At the heart of this tapestry, the ubiquitous keyword "COVID-19" casts its long shadow, a sobering reminder of the global crisis that catalyzed this odyssey. Yet, it is the term "e-learning" that serves as the central node, a nexus that binds the myriad threads of this narrative, a testament to the resilience and ingenuity of educators, learners, and scholars alike.

As we navigate the currents of this network visualization, we must remain cognizant of its boundaries – the limitations imposed by datasets, timeframes, and the ever-evolving nature of research itself. Yet, within these confines lie vast potential, for each cluster, each scholar, and each keyword beckons further exploration, inviting us to delve deeper into the rich tapestry of perspectives that shape our understanding of e-learning in the post-pandemic world.It is through this collective odyssey, woven by the insights of scholars from diverse disciplines and continents, that we shall chart the course for the future of education. By embracing the synergy of pedagogy and technology, navigating the shoals of accessibility and digital literacy, and fostering resilient learning communities, we forge a path that transcends boundaries and embraces the boundless potential of the digital frontier.

Discussion

The intricate tapestry of *Tasawwuf* and Islamic education scholarship unveils a rich, multidimensional landscape, interwoven with diverse threads of inquiry and perspectives. The comprehensive bibliometric study undertaken in this research illuminates the dynamic nature of this field, shedding light on its evolving trends, predominant themes, and intellectual framework. The rigorous application of bibliometric analysis techniques, including the utilization of the Scopus data analysis platform, VOSviewer software, and the Multidimensional Scaling (MDS) method, has facilitated an in-depth exploration of this domain's scholarly endeavors. By adhering to the esteemed PRISMA guidelines, this study exemplifies a meticulous approach to data identification, screening, and analysis, ensuring the credibility and reliability of its findings.

The results reveal a multifaceted narrative that transcends temporal boundaries, reflecting the enduring relevance and the ever-expanding frontiers of *Tasawwuf* and Islamic education research. The analysis of publication trends over the years 2019 to 2023 unveils a tapestry of scholarly commitment, with peaks and valleys that mirror the ebb and flow of intellectual discourse. The prolific contributions of authors such as Nuryana, Z., Suyadi, and Lala, I. emerge as beacons, illuminating the vital role of individual scholars in shaping the trajectory of this field. Furthermore, the subject area analysis underscores the multidisciplinary nature of this domain, with Arts and Humanities, and Social Sciences commanding a significant presence, while disciplines like Business, Management, Accounting, and Psychology weave their unique perspectives into the overarching narrative.

The intricate tapestry of citation patterns and co-authorship networks unveils the intricate web of scholarly collaboration that underpins the advancement of *Tasawwuf* and Islamic education research. The citation analysis spotlights influential works that have resonated within the academic community, providing a window into the critical issues and global challenges that have captured the attention of scholars. Notably, the high citation rates garnered by articles exploring collaborative learning, Islamic jurisprudence of disasters, and the Rohingya genocide underscore the field's relevance in addressing contemporary global crises. The co-authorship networks, spanning institutions and countries, illustrate the transcendent nature of knowledge exchange, where scholars from diverse backgrounds converge to forge new pathways of understanding.

The network visualization maps of keyword co-occurrence and co-citation patterns offer a panoramic view of the intellectual landscape, revealing the intricate interplay between pedagogical innovation and technological prowess that has characterized the e-learning odyssey during the COVID-19 pandemic. The two distinct clusters – one illuminating the pedagogical dimensions and the other shedding light on the technological underpinnings – coalesce into a harmonious tapestry, underscoring the synergistic relationship between these two realms. The prominent scholars and their contributions, such as those of L.P. Graham, S.K. Mishra, M.M. Al-Saidi, R.S. Sharma, M.G. Moore, and G. Siemens, emerge as guiding lights, illuminating the path towards a future where education transcends boundaries and embraces the boundless potential of the digital frontier.

Conclusion

The intricate tapestry woven by this comprehensive bibliometric analysis unveils the multifaceted landscape of *Tasawwuf* and Islamic education research. The analysis of publication trends across the years 2019 to 2023 illuminates the evolving contours of this domain, characterized by periods of heightened scholarly activity interspersed with moments of respite. The prolific contributions of authors such as Nuryana, Z., Suyadi, and Lala, I. stand as beacons, guiding the intellectual discourse and shaping the trajectory of this field. Moreover, the multidisciplinary nature of this research is vividly illustrated through the diverse subject areas that have left their indelible imprints, ranging from the vibrant realms of Arts and Humanities to the intricate narratives of Social Sciences.

The analysis of citation patterns and co-authorship networks unveils the intricate web of scholarly collaboration that underpins the advancement of *Tasawwuf* and Islamic education research. The high citation rates garnered by articles exploring themes such as collaborative learning, Islamic jurisprudence of disasters, and the Rohingya genocide underscore the field's relevance in addressing contemporary global crises. The co-authorship networks, spanning institutions and countries, illustrate the transcendent nature of knowledge exchange, where scholars from diverse backgrounds converge to forge new pathways of understanding.

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