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Exploring the Nexus of Workplace Spirituality: A Bibliometric Analysis

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Abstract

This study conducts a bibliometric analysis of Workplace Spirituality (WPS) research to examine its intellectual structure, emerging themes, and research trends. A total of 610 English-language articles indexed in Scopus and Web of Science from 1998–2024 were analyzed using Biblioshiny in RStudio's Bibliometrix package. The findings reveal significant growth in WPS research, with the highest publications recorded in 2021. Neha Garg emerged as the most influential author, while the Journal of Management, Spirituality & Religion was the leading journal. The USA and India contributed the most publications and citations. Major themes include workplace spirituality, job satisfaction, spiritual leadership, and Islamic workplace spirituality. The study offers valuable insights for scholars, policymakers, and organizations seeking future research directions and innovative HR practices.

Keywords: Bibliometric, Biblioshiny, Performance Analysis, Spirituality at Workplace, Science Mapping, Workplace Spirituality.

1 Introduction

In the Era of digitalization and globalization, the concept of Workplace Spirituality has been given importance in both sectors (public and private). It has a significant impact on an organization's quality and survival (Setiawan et al., 2024). In modern organizations, the growing popularity, applicability, and importance of Spirituality are reflected in employees' inner feelings (Pawar, 2009). It helps create a positive work environment, fosters job satisfaction, enhances performance, and promotes the overall well-being of employees within an organization (Aboobaker et al., 2022; Hassan et al., 2022). There are many other related terms to Workplace Spirituality, such as Spiritual organization, Spirit at Work, Spirituality at Work, and moral and ethical values at the Workplace (Gocen and Ozgan, 2018). In the early 1990s, Workplace Spirituality began as an exploratory research area, later supported by empirical studies. Initially popular in Western countries, interest in this concept spread to Asia after 2000 (Rajni et al., 2022). The idea has gained attraction, with organizations addressing employees' spiritual needs by creating meditation and prayer places and, in the West, employing Workplace chaplains or Spiritual mentors (Monika, 2022).

The term Workplace Spirituality is defined by Mitroff & Denton (1999) as discovering one's purpose in life, fostering strong connections among coworkers, aligning with both organizational and individual values, and contributing to a positive work environment. In other words, Spirituality at Work focuses on employees finding a deep sense of purpose and meaning in their jobs, along with a strong feeling of connectedness to their coworkers (Ashmos & Denton, 2000). Some

renowned researchers have discussed Workplace Spirituality, including its dimensions, such as a sense of community, alignment with organizational values, and meaningful work (Milliman et al., 2003). Nayyar et al. (2025) examine the evolution of Workplace Spirituality (WPS) in Indian organizations through a systematic review of 116 studies (2008–2023) using the TCCM framework and BERT-based topic modeling. Management remains important in private companies, governments, families, and academia because it constantly evolves and applies across different regions and organizations.

To the best of the scholar's knowledge, this study uniquely analyzes the current state of Workplace Spirituality research and highlights future research directions in a simple, comprehensive way. It can help academicians understand where their work stands, identify knowledge gaps, gain insights into research trends, and generate new research ideas using various tools, such as identifying emerging themes and conducting thematic analysis (Donthu et al., 2021).

Bibliometric analysis quantitatively evaluates research productivity, impact, key themes, trends, and gaps, providing valuable insights for scholars and policymakers to formulate strategies aligned with organizational and economic development goals (Lim & Kumar, 2024).

This study conducts a bibliometric analysis of Workplace Spirituality research (1998–2024) using Scopus and Web of Science data to examine publication trends, influential contributors, thematic linkages, and research clusters, and to identify future research directions and policy implications.

RQ1. What is the trend in the volume of the WPS research corpus?

RQ2. Which Journals, Authors, affiliations, and Countries are the most influential ones in the field of research?

RQ3. What are the key research areas and emerging themes in the WPS nexus?

RQ4. What is the co-citation network between the Authors?

The practical implications of understanding Workplace Spirituality in public and private institutions, as well as for policymakers, in formulating policies and practices that support organizational growth while addressing organizational issues, are of utmost importance and extend beyond academic curiosity. Furthermore, this study aims to identify future trends and research gaps in the academic community.

The rest of the paper is organized as follows. Section 2 presents a review of the literature; Section 3 describes the methodology used for conducting the bibliometric analysis, which is followed by Section 4, which presents results and discussion, elaborating on the development and recent trends of the investigated research field and detailed content analysis in the sense of cluster analysis and thematic analysis in the field. Finally, section 5 concludes the article.

2 Literature Review

A comprehensive literature review examined bibliometric studies on Workplace Spirituality, including related concepts such as Spirit at Work and Spirituality in the Workplace.

Rajni et al. (2022) conducted a bibliometric analysis using the Scopus database to examine the evolution of Workplace Spirituality (WPS). Their findings revealed that Workplace Spirituality was the most frequently cited keyword, followed by Spirituality, Spirituality in the Workplace, and Spiritual leadership. The study highlighted exponential growth in publications from 1998 to 2021, with a significant surge after 2012. Additionally, keywords such as job satisfaction, employee engagement, work engagement, well-being, and leadership were found to be prominently associated with WPS research.

Building upon these insights, Mohan and Murugan (2023) performed a combined bibliometric and cluster analysis of Workplace Spirituality indicators using Scopus data from 2003 to 2022. Their study emphasized the need for future research to incorporate multiple databases and a broader set of keywords to enhance the comprehensiveness of analysis.

Allam et al. (2021), using Scopus data from 2000 to 2020, observed fluctuations in publication trends, with slight declines in 2016 and 2019, followed by a peak in 2020. Their analysis employed tools such as Microsoft Excel, Harzing's Publish or Perish, and VOSviewer for data visualization and citation analysis. The study found that most publications were in English and concentrated within the fields of Business, Management, and Accounting, with significant contributions from the United States. The Journal of Management, Spirituality, and Religion emerged as a key source of publications. The authors also recommended expanding future research by incorporating additional databases and search terms.

The concept of Spirituality at the Workplace was initially proposed by Ashmos and Duchon (2000), who identified a gradual increase in scholarly output after 2005, despite minor fluctuations such as in 2009. Their work categorized the research process into stages, including topic identification, data acquisition, preprocessing, network construction, and interpretation.

Barik and Nayak (2023) conducted a bibliometric study covering the period 1998 to 2023 using the Scopus database and analytical tools such as Biblioshiny and VOSviewer. Their findings reinforced the view that Workplace Spirituality is a multidimensional construct within organizational behavior. Key themes identified included organizational culture, performance, Spirituality, and their interrelationships, with notable contributions from Indian scholars. The study also highlighted future research directions, emphasizing Spiritual leadership, organizational culture, religion, commitment, and job satisfaction, along with the need to incorporate broader databases such as Web of Science and Google Scholar.

Vedulka & Arawal (2024) synthesize spiritual leadership research through bibliometric analysis and a systematic review, identifying key contributors and mapping the field's intellectual structure. However, it lacks empirical validation of proposed relationships and is limited to Scopus. Future research should incorporate multiple databases and diverse languages to enhance comprehensiveness and robustness.

Despite these contributions, a gap remains in integrating multiple databases and in expanding the scope of bibliometric analysis. Therefore, the present study addresses this limitation by building upon prior research and adopting a more comprehensive approach.

Moreover, the literature review can be further strengthened by incorporating influential and highly cited studies such as Rocha and Pinheiro (2021), published in the *Journal of Business Ethics*. Their study is particularly significant as it examines Organizational Spirituality across both Scopus and Web of Science, thereby offering a more holistic perspective and serving as a valuable reference for the present research.

3 Research Gap

As highlighted in previous literature, few studies comprehensively analyze workplace spirituality using diverse or combined databases and employ relevant keywords in a focused manner (Dubey & Bedi, 2024). Although some recent studies, such as Munjal and Sachdeva (2024), have used multiple databases, there remains scope for more in-depth, integrated bibliometric analyses. Additionally, existing research has largely emphasized performance analysis, with comparatively less attention given to science mapping. Considering the growing importance of Workplace Spirituality and its evolving impact over time (Lata & Chaudhary, 2021; Vasconcelos, 2018), this study contributes by combining both performance analysis and science mapping to provide a more comprehensive understanding of current trends and future research directions in this field.

4 Methodology:

Bibliometric analysis is utilized to examine the contributions of authors, journals, and countries within a specific domain, while also identifying patterns of collaboration and emerging trends that can inform future research. To achieve a comprehensive understanding, both objective and subjective approaches are employed, namely performance analysis and science mapping, respectively (Donthu et al., 2021). This study adopts an integrated approach combining performance analysis and science mapping to generate meaningful insights into the research area. An extensive search strategy was employed using the topic Workplace Spirituality across the Scopus and Web of Science databases. The search incorporated a comprehensive set of keywords, including Workplace Spiritualities, Organizational Spirituality, Organizational Spiritualities, Spirituality at Work, Individual Spirituality, Spiritual Organization, Employee Spirituality, and Spirituality at Workplace. Language restrictions were applied, and the publication period spanned from 1998 to 2024. The search was conducted across titles and abstracts to ensure the selected keywords were relevant to the bibliometric analysis. The study followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework, encompassing the stages of identification, screening, eligibility, and final inclusion of articles (Mohana & Muruganb, 2024; see Figure 1).

Database	Criterion	Included
Scopus	Document Type	Articles
	Subject Area	Business, Management and Accounting; Social Sciences; Arts and Humanities; Economics, Econometrics and Finance; Psychology
	Language	English
	Publication Stage	Final
Web of Science	Document Type	Articles
	Web of Science Categories	Management; Religion; Business Ethics; Sociology; Psychology; Economics; Social Sciences, Interdisciplinary; Psychology, Applied
	Language	English
	Publication Stage	Final publications only (Early Access and Proceedings Papers excluded)

The research was conducted using published papers from Scopus and Web of Science (WoS) databases. Initially, 1,098 and 117 documents were identified from Scopus and WoS, respectively, using the keyword string listed in Table 1, and were further scrutinized against the inclusion and exclusion criteria in Table 2. The data from Scopus were extracted in “BibTeX” format and from WoS in “plaintext,” which were then converted to “BibTeX” using the bibliometrics package in RStudio version 4.4.0. The techniques for conversion, merging, and deduplication were similar (Echchakoui, 2020; Okolie & Ogundeji, 2022). Further records from Scopus (677) and 71 WoS records were merged, along with the removal of 57 duplicates in the same software. The merged files, with no duplicates, were then further converted into .xlsx format. The Excel file was further scrutinized, and to remove all records unrelated to the keywords, a manual review of the abstracts of 748 records was conducted, resulting in the removal of 81 records. A final corpus of 610 was thoroughly analyzed using various bibliometric techniques. The visual representation of the bibliometric study was created using both Microsoft Excel and the biblioshiny software within RStudio.

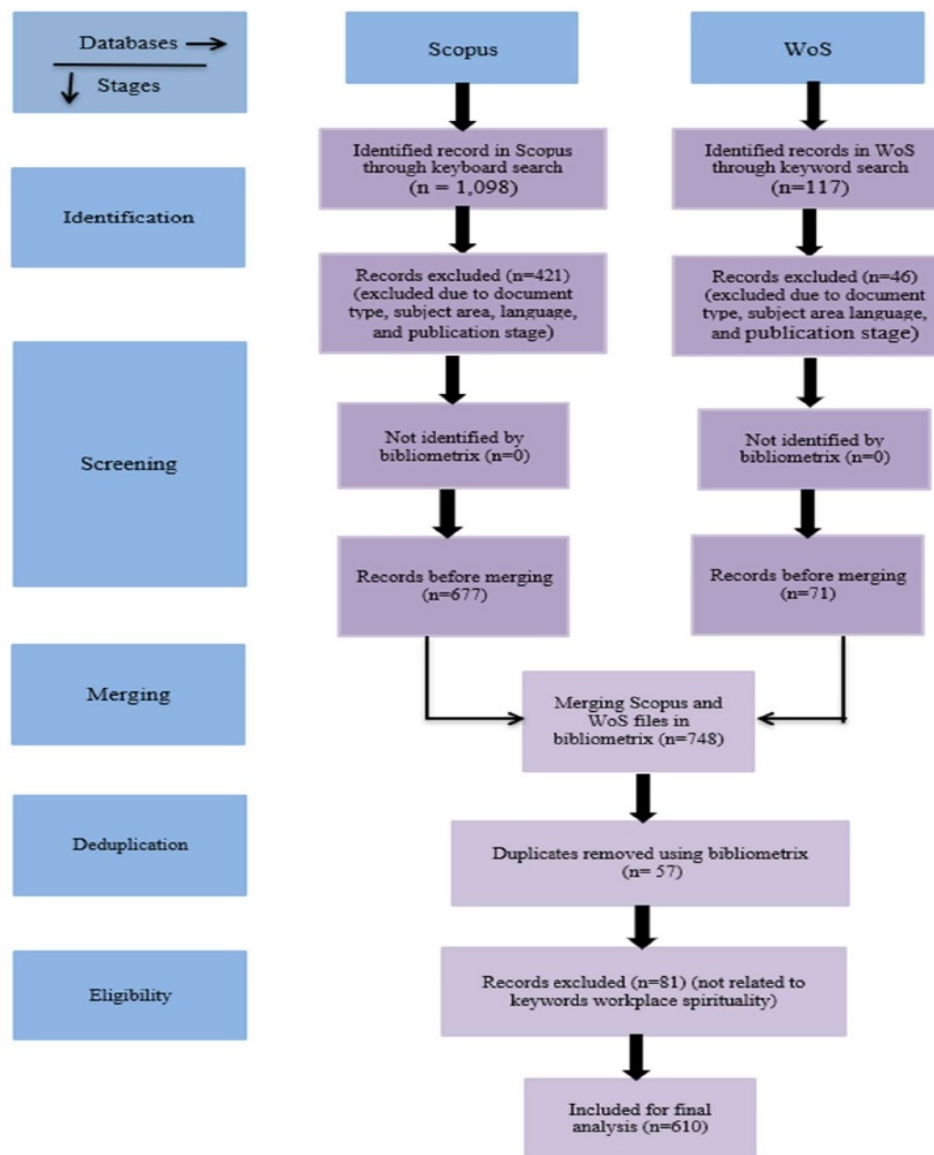


Figure 1: Flow diagram of research methodology (modified from (Okolie & Ogundeji, 2022))

The higher number of records retrieved from Scopus compared to Web of Science can be attributed to differences in database coverage, indexing policies, and journal inclusion criteria, with Scopus generally offering broader coverage of journals and conference proceedings. To enhance clarity and reproducibility, the study explicitly applied an identical keyword string, search fields (title and abstract), time span, and inclusion–exclusion criteria across both databases.

5 Results & Discussion

5.1 Performance Analysis

One of the best ways to address subjectivity in review papers is to conduct a quantitative analysis of the research in the area of interest. The bibliometric analysis is one such approach that helps highlight major developments and inform future research agendas. This type of analysis cannot be substituted for other kinds of reviews, such as narrative reviews or systematic literature reviews, but rather complements them. In general, two types of analysis can fulfill this goal: performance analysis and science mapping.

Performance analysis is essential for understanding the current status of the research, including the major authors, institutions, countries, or journals, and their respective citation and publication counts (Donthu et al., 2021). In this article, we discuss the basic statistical characteristics of publications, such as their productivity and impact, based on recognized bibliometric indicators such as the number of publications, citations, and average citations (Pan et al., 2023). The data obtained from such analysis helps various parties involved, the publishers, potential researchers, fund providers, and even

the government. Not just this, when combined with science mapping, it can provide valuable insights.

5.2 Descriptive statistics of publications

The information about publications that show a nexus between Workplace Spirituality is based on data retrieved from two databases, namely, Scopus and Web of Science, and is presented in Figure 2. There are 610 articles published, with an annual growth rate of 13.75%, and they are cited, on average, at 26.21 citations per document from 1998 to 2024. Out of these articles, 126 were published by single authors, meaning that two or more authors co-authored the remaining 484 articles. Additionally, 1,198 authors have contributed to the published documents since 1998. These documents originate from 269 sources, representing various publication bodies. These studies employ a sum of 1497 authors' keywords.



Figure 2: Main information about the research corpus

Source: Bibliophagy, based on the merged data of Scopus and Web of Science

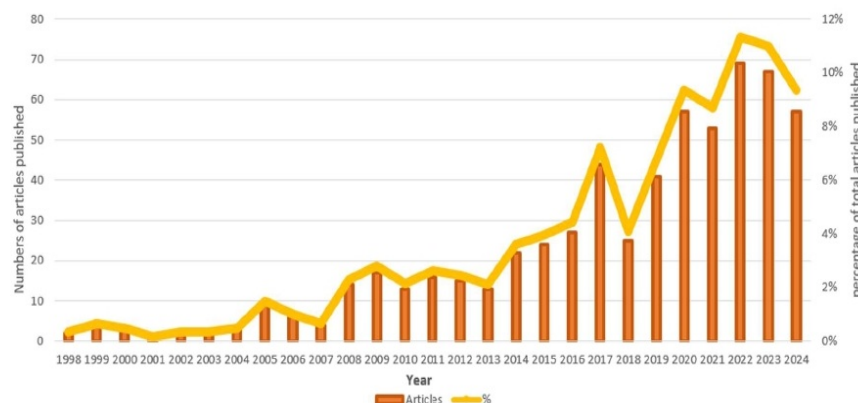


Figure 3: Yearly Publication and its proportion to the total research corpus

Source: Author's own

Figure 3 shows the yearly publication rate and the percentage of articles published each year, relative to the overall records of 610 from 1998 to 2024. The trend in WPS Nexus publications began in 1998. It has continued to rise since 2018, peaking in 2022 with a yearly total of 69 articles, accounting for 11.32% of total publications. Afterward, it increases again in 2023 by 10.99% from the preceding year. The growing publication trends indicate the rising importance of studying the nexus.

Leading authors, countries, and countries as per their citation structure

Most influential authors

Rank	Author	H	G	m	Institution	Country	TC	TP	TC/TP	PY	FY
1	Garg N	10	13	1.25	Delhi Technological University	India	397	13	30.54	2017	8
2	Jena L	7	7	0.70	Xavier University Bhubaneswar	India	159	7	22.72	2015	3
3	Pawar B	6	8	0.38	Indian Institute of Management Kozhikode	India	574	8	71.75	2009	8
4	Aboobaker N	5	6	0.84	Cochin University of Science and Technology	India	131	6	21.84	2019	6
5	Adawiyah W	5	8	0.63	Universitas Jenderal Soedirman	Indonesia	114	9	12.67	2017	2
6	Pandey A	5	5	0.30	Indian Institute of Technology Bombay	India	167	5	33.40	2008	3
7	Rahman M	5	5	0.50	Multimedia University	Bangladesh	90	5	18.00	2015	5
8	Chawla V	4	4	0.27	Indian Institute of Management Kozhikode	India	176	4	44.00	2010	4
9	Driscoll C	4	4	0.22	Saint Mary's University	Canada	120	4	30.00	2007	2
10	Duchon D	4	4	0.16	The University of Texas at San Antonio	United States	1679	4	419.75	2000	1

Table 3: Top 10 Most Productive Authors

Note: h: h-index, g: g-index, m: m-index, TC: Total Citation, TP: Total Publication, TC/TP: Average citation per publication, PY: First year of publication, FA: Number of publications as first author.

Source: Author's own

Table 3 ranks the most influential Workplace Spirituality authors by h-index, a measure of both productivity and citation impact. Neha Garg ranked first with the highest h-index, g-index (13), number of publications (13), and 397 total citations, averaging 30.54 citations per paper. Authors from India dominated the top positions, occupying ranks one to four in h-index and publication count. Another leading contributor from the Indian Institute of Management Kozhikode recorded the second-highest citation total (574) and the highest average citations (71.75). Overall, nine authors achieved more than 100 citations, while the USA recorded the highest national citation count (1679).

Country (TC)	USA	India	Thailand	United Kingdom	Portugal	Pakistan	China	Malaysia	Indonesia	New Zealand
TC	3744	2278	737	722	583	514	342	322	259	239
Country (TP)	India	USA	Indonesia	United Kingdom	Malaysia	Pakistan	South Africa	China	Korea	Portugal
TP	110	92	32	32	23	19	19	16	15	13
Country (TC)	South Africa	Canada	Greece	Turkey	Korea	Iran	Australia	Israel	Italy	Saudi Arabia
TC	226	207	201	190	187	95	86	76	68	58
Country (TP)	Canada	Australia	Thailand	Turkey	New Zealand	Poland	Saudi Arabia	Israel	Iran	Italy
TP	11	10	10	9	7	7	7	6	5	5

Table 4: Top 20 most influential countries based on the number of citations and publications.

Source: Made by Author

As indicated in Table 4, the most cited articles originated from the following countries: the USA, India, the United Kingdom, Portugal, Pakistan, China, Malaysia, Indonesia, and New Zealand. The USA has accumulated 3,744 total citations, the highest among all countries, followed by India and Thailand with 2,278 and 737, respectively. The most prolific countries listed in the table are India, the USA, Indonesia, the United Kingdom, Malaysia, Pakistan, South Africa, China, Korea, and Portugal. All of these countries have at least five publications in the WPS Nexus.

In addition, it is also evident that countries such as the USA and India hold the top spot in the list of the top two producers, and the top two highly cited countries leading both lists excel in both quantity and quality. More interestingly, despite publishing fewer papers than many other countries, Thailand has received 737 citations, ranking third in the citation rankings and underscoring its significant impact in the WPS domain.

Relevant affiliations

The institution's most productive affiliation was examined based on the number of documents on workplace spirituality. The results indicate that Universitas Jenderal Soedirman was the most relevant affiliation, with 11 articles published, followed by the School of Management, with 10. The Central University of Technology published nine articles, followed by

Cochin University of Science and Technology with eight. The other relevant affiliations with the highest number of articles published include Arizona State University (7), followed by different institutions with the same number of publications. The rest of the relevant affiliations are shown in Figure 4. Institutions engage in research as part of their vision by promoting and encouraging the real-world impact of research. The institutes, such as Universitas Jenderal Soedirman and the School of Management, increased their visibility and presence in Workplace Spirituality. Other institutions, such as the Cochin University of Science and Technology, Arizona State University, Kyungpook National University, University Putra Malaysia, University Sains Malaysia, the University of Nevada, and the University of the Punjab, are actively engaged in publishing in the areas of knowledge management and performance.

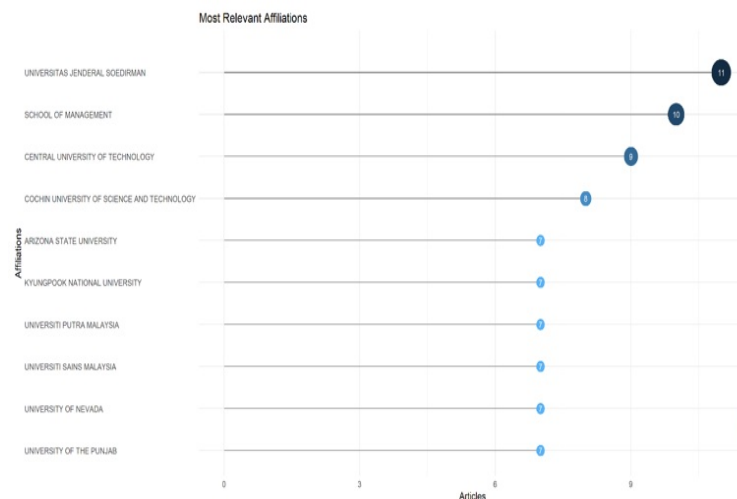


Figure 4: Most relevant affiliation to the total research corpus

Source: author's own

The most influential journals

Bradford's Law

To determine the core journals in the research area, Bradford's law has been applied, which categorizes journals into three zones. Approximately 90% of the relevant literature in a given area is found in only a few journals, as suggested by Bradford's law (Garfield, 1971). According to this law, if each zone comprises an almost equal number of articles, with the articles published in decreasing order, then the number of journals in the three zones will increase proportionately or in a geometric series towards the next zone (G & Anandhalli, 2016). In Figure 5, the first zone (core zone) comprises almost one-third of the publications, which are published in only 13 journals, including the Journal of Management Spirituality and Religion, Journal of Organizational Change Management, Journal of Business Ethics, and Religions. These are the most productive journals in the research corpus. Additionally, the second and third zones contain almost the same number of publications, with 204 and 200, respectively. However, the increase in journals towards the second and third zones is not in equal proportion, hence it violates Bradford's law.

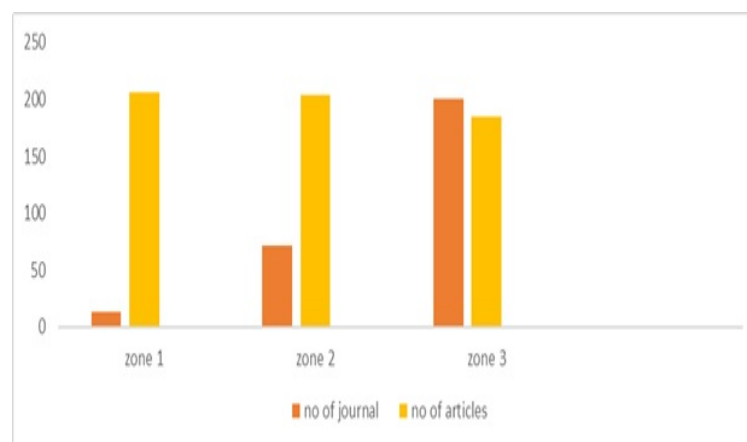


Figure 5: Distribution of Journals as per Bradford's Law

Source	H	TC	TP	PY	SJR	Quartile	CiteScore	Publisher	Subject Area	SNIP
Journal of Management, Spirituality & Religion	26	1900	75	2005	0.254	Q1	2.4	Taylor & Francis	Religious Studies	0.481
Journal of Business Ethics	20	1931	24	2008	2.624	Q1	12.8	Springer Nature	Law	2.841
Journal of Organizational Change Management	13	1806	25	1999	0.698	Q2	5.8	Emerald	Organizational Behavior and Human Resource Management	1.058
Journal of Management Development	7	278	7	2003	0.794	Q2	7.0	Emerald	Business, Management and Accounting (Miscellaneous)	1.602
Journal of Religion and Health	7	151	8	2005	0.867	Q2	5.4	Springer Nature	Religious Studies	1.254
Leadership & Organization Development Journal	7	401	7	2008	1.155	Q2	7.7	Emerald Publishing	Business, Management and Accounting (Miscellaneous)	1.512
International Journal of Organizational Analysis	6	128	9	2011	0.822	Q3	6.0	Emerald Publishing	Organizational Behavior and Human Resource Management	1.534
Journal of Human Values	6	260	7	2006	0.252	Q1	1.4	SAGE	Cultural Studies	0.837
Journal of Management Inquiry	6	1321	6	2000	1.837	Q1	8.3	SAGE	General Business, Management and Accounting	1.877
International Journal of Ethics and Systems	5	88	9	2018	0.442	Q1	4.4	Emerald Publishing	Philosophy	0.815
Management Research Review	5	132	6	2015	0.778	Q1	6.0	Emerald Publishing	General Business, Management and Accounting	1.268
Cogent Business & Management	4	141	5	2016	0.567	Q2	4.4	Cogent OA	Business, Management and Accounting (Miscellaneous)	1.153
Global Business Review	4	150	4	2008	0.552	Q1	7.1	SAGE	Business and International Management	1.195
Leadership Quarterly	4	907	4	2005	4.375	Q1	15.2	Elsevier	Sociology and Political Science	3.216

Table 5: Top 15 journals as per their local h-index

TP: Total Publications, SJR: SCImago Journal Rank, TC: Total citations, *, PY: year of first publication, #: Local impact.

Thereafter, for further in-depth analysis of the journals, they are arranged in decreasing order of h-index, which considers both the quantity and quality of the journals to determine which is a better option for submission for future research, for granting funds and libraries for future subscription (De Bruyn et al., 2023; Olden, 2007). It indicates the number of articles in a journal that have been cited at least as many times as the number of publications. Table 5 shows that the “Journal of Management, Spirituality & Religion” acquires the highest rank not just in terms of h-index (26) but also in terms of the number of publications (75). It is one of the newest journals publishing in the area of Workplace Spirituality, with the highest total citation count (1931), ranking second in SJR (2.624), Citescore (12.8), and SNIP (2.841). It clearly demonstrates the impact and influence of the Journal of Business Ethics in the field of the WPS nexus. Moreover, it is indexed as a Q1 journal by Springer and publishes in the field of Law. The Quartile 1 journal, “Leadership Quarterly,” shows the best performance across Citescore (15.2), SJR (4.375), and SNIP (3.216). Most journals are published by the publisher “Emerald,” followed by Elsevier. Seven of the top 14 journals are Q1, a positive sign that quality journals are publishing articles, as Q1 journals are among the top 50% most prestigious in the domain of Workplace Spirituality. Additionally, most journals are related to general management, organizational behavior, and human resource management, with the greatest number of publications overall, suggesting the topic’s significance not only in the present but also in the future for research.

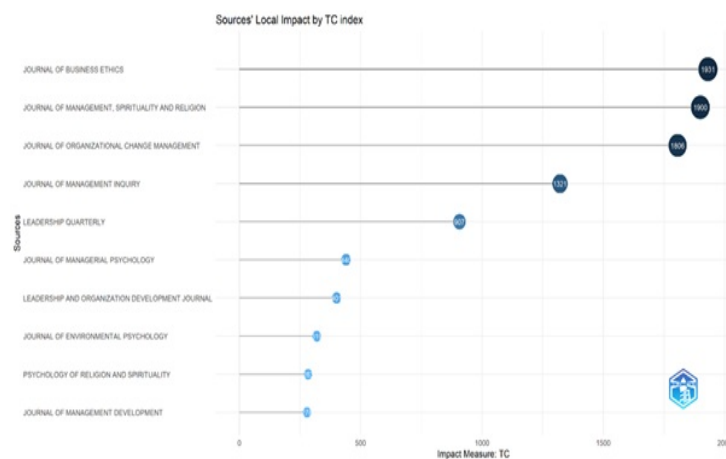


Figure 6: Top 10 most cited journals

In contrast with the above findings, when the journals are ranked based on the total citation count for identifying the most prominent journals in the field, the results show that as per the total citation count in Figure 6, the 3 most influential journals are the Journal of business ethics, journal of management, spirituality, and religion, and journal of organizational change management with 1931, 1900, and 1806 total citations, respectively. These journals continue to influence the field of interest greatly and can be used for future reference.

Science Mapping:

Performance analysis represents only one dimension of bibliometric analysis; to gain deeper insights into prospective trends, research gaps, key themes, and emerging topics within a research area, various analytical tools can be employed (Lim & Kumar, 2024). Science mapping is one such technique that includes co-authorship analysis, co-citation analysis, bibliographic coupling, co-word (keyword co-occurrence) analysis, citation analysis, and PageRank analysis. In the present study, bibliographic coupling of documents, keyword co-occurrence analysis, and thematic mapping were employed to gain insights into the major sub-themes within the Workplace Spirituality (WPS) nexus.

Co-Citation Analysis

Author Co-Citation Analysis

This figure illustrates the co-citation network related to Workplace Spirituality. The red cluster focuses on psychological and behavioral foundations of Workplace Spirituality. Authors such as Albert Bandura and Armand Rego contributed concepts related to meaning, values, inner life, teamwork, and employee well-being, forming the conceptual basis of WPS research. The blue cluster represents core contributors who formally established Workplace Spirituality as a research domain. Scholars such as Judi Neal Ashmos and Ian I. Mitroff emphasized meaningful work, organizational values, spirituality, leadership, job satisfaction, and organizational performance in workplace settings.

The green cluster highlights humanistic and philosophical contributors such as Abraham Maslow and Kant. Their theories on self-actualization, ethics, motivation, and human values indirectly influenced Workplace Spirituality by explaining personal growth, meaningful work, and ethical organizational behavior. The purple cluster emphasizes spirituality-based leadership and organizational transformation. Authors, including Fry and Delbecq, contributed theories linking spiritual leadership, ethical management, organizational culture, intrinsic motivation, and value-driven leadership practices,

expanding Workplace Spirituality research into leadership and strategic management domains.

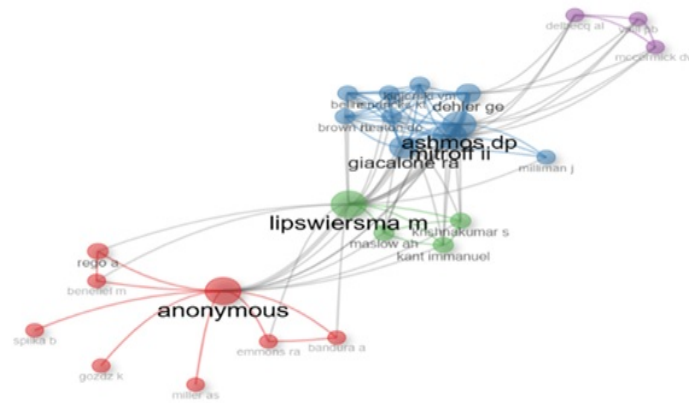


Figure 7: Authors' co-citation analysis of the total research corpus
Source: author's own

Keyword Analyses

The author's keywords are analyzed for temporal frequency to understand where most work has been done and where the research is headed in this specific area. A graph of the most frequently used keywords illustrates their usage and trends over time. Figure 8 depicts the development of the top 10 keywords in this research field, and it shows that the phrase Workplace Spirituality is frequently used in the articles, with a cumulative frequency of "1" in 2024, indicating growing popularity since its first use in the domain. It also helps in suggesting future research areas (Alkhamash, 2023). The words that indicate continuous growth in workplace spirituality are spirituality, job satisfaction, and religion, suggesting a strong association among these concepts even in 2024. Hence, studying the relationship among these keywords might be fruitful in the future. These findings align with those of Saisse et al. (2023).

It is more intriguing to note the growth of the keyword "Spirituality" in the literature, surpassing "job satisfaction" and "religion" in 2022 and "Spiritual leadership" in 2023, reaching a cumulative frequency of 30 in 2024. The keywords "spirituality," "job satisfaction," "Religion," and "Spiritual leadership" have frequencies of occurrence of 123, 43, 42, and 33, respectively.

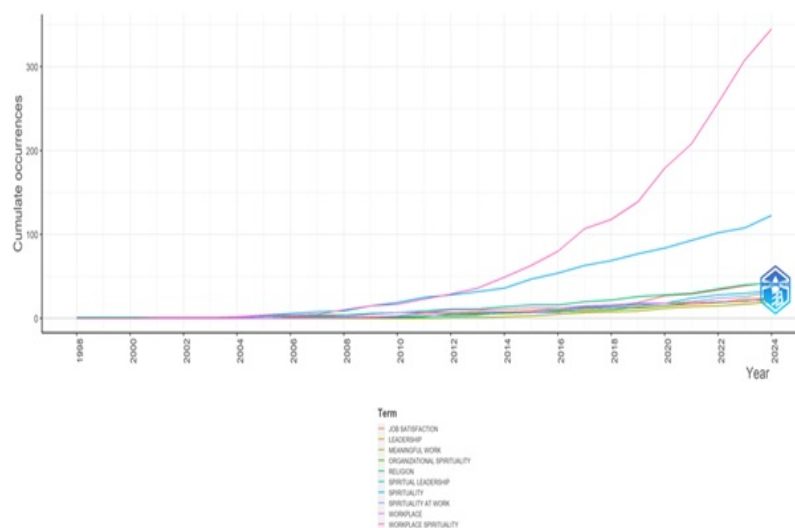


Figure 8: Top 10 Keywords over 1998–2024
Source: Bibliophagy

Co-occurrence of Author Keywords

The co-occurrence of authors' keywords is used to analyze underlying themes by identifying words that co-occur (Donthu et al., 2021). The thematic clusters that are formed using bibliographic coupling (present themes) are supplemented with the future themes using the thematic map and co-occurrence of authors' keywords (Donthu et al., 2021; Florek-Paszkowska & Hoyos Vallejo, 2023). The knowledge clusters formed are as follows: Figure 9 analyzes the 50 most significant

keywords in Workplace Spirituality (WPS) research using the Louvain clustering algorithm. The co-occurrence network shows that “Workplace Spirituality” is the most central and frequently connected keyword, strongly associated with spirituality, job satisfaction, organizational performance, and innovative work behavior. Node size represents keyword frequency, while link thickness indicates co-occurrence strength. Centrality measures such as betweenness, closeness, and PageRank identify influential keywords and their role in knowledge flow. The analysis highlights major thematic clusters and reveals how interconnected concepts shape the intellectual structure and development of WPS literature.

- i. Workplace Spirituality: The red cluster contains 27 keywords centered on Workplace Spirituality, strongly linked with job satisfaction, meaningful work, organizational performance, spiritual leadership, employee well-being, and innovative work behavior. High values of betweenness, closeness, and PageRank centrality indicate the significant influence and interconnectedness of these concepts within WPS research.
- ii. Spirituality: The second cluster is depicted in blue color in Figure 9 and is centered around the Workplace. It involves other keywords such as religion, leadership, Workplace, ethics, well-being, India, religiosity, values, performance, and employee Spirituality. Overall, this cluster includes 23 keywords. The important keywords, as per Pagerank, appear to be Spirituality, religion, leadership, Workplace, ethics, and well-being, with values of 0.11044047, 0.035784489, 0.030164514, 0.019768135, 0.021182554, and 0.014880551, respectively. The values of betweenness and closeness are the highest in Spirituality, Religion, and leadership, indicating a focus on these areas within this cluster.



Figure 9: Keywords co-occurrence

Node	Cluster	Betweenness	Closeness	PageRank
Workplace spirituality	1	950.0575	0.020408	0.285652
Job satisfaction	1	2.4783	0.011628	0.041255
Spiritual leadership	1	0.9440	0.011236	0.028851
Spirituality at work	1	0.2677	0.010989	0.016385
Organizational spirituality	1	0.4579	0.011111	0.014278
Meaningful work	1	0.0566	0.010638	0.021269
Organizational commitment	1	0.8056	0.010870	0.018384
Employee engagement	1	0.1429	0.010638	0.014923
Mindfulness	1	0.1667	0.010638	0.012367
Job performance	1	0.0000	0.010526	0.013080
Work engagement	1	0.0000	0.010417	0.010749
Sense of community	1	0.0000	0.010526	0.013342
Transformational leadership	1	0.0000	0.010526	0.011826
Emotional intelligence	1	0.0000	0.010526	0.009092
Spiritual well-being	1	0.0000	0.010638	0.010319
Employee well-being	1	0.0000	0.010638	0.011679
Organizational performance	1	0.0000	0.010417	0.006905
Ethical leadership	1	0.0000	0.010417	0.007546
Individual spirituality	1	0.0845	0.010638	0.009258
Organizational citizenship behavior	1	0.0000	0.010417	0.006905
Teachers	1	0.0000	0.010417	0.008186
COVID-19	1	0.0000	0.010638	0.007796
Employee performance	1	0.0000	0.010417	0.007546
Innovative work behavior	1	0.0000	0.010417	0.007546

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Node	Cluster	Betweenness	Closeness	PageRank
Person–organization fit	1	0.0000	0.010526	0.008397
Transcendence	1	0.0000	0.010526	0.007241
Affective commitment	1	0.0000	0.010417	0.006264
Spirituality	2	112.3221	0.013699	0.110440
Religion	2	3.6923	0.011236	0.035784
Leadership	2	5.9379	0.011765	0.030165
Workplace	2	1.0603	0.011111	0.019768
Ethics	2	4.4509	0.011111	0.021183
Well-being	2	0.4655	0.010989	0.014881
India	2	0.0000	0.010870	0.013018
Religiosity	2	0.0000	0.010638	0.009211
Values	2	0.0000	0.010753	0.010640
Performance	2	0.3272	0.010989	0.012545
Employee spirituality	2	0.0313	0.010989	0.013517
Employees	2	0.0471	0.010638	0.007799
Business ethics	2	0.0196	0.010753	0.009155
Commitment	2	0.0952	0.010870	0.010416
Gender	2	0.0690	0.010753	0.009968
Human resource management	2	0.0000	0.010638	0.006875
Job involvement	2	0.0000	0.010753	0.008668
Life satisfaction	2	0.0000	0.010638	0.006820
Management	2	0.0202	0.008696	0.010472
Organizational culture	2	0.0000	0.010638	0.006179
Spirituality in the workplace	2	0.0000	0.010753	0.007026
Trust	2	0.0000	0.010753	0.008429

Table 6: Keyword clusters based on centrality measures

Thematic analysis

The thematic map encompasses important themes and patterns, as well as a network analysis of word occurrence to define what science says in a given area (Thukral & Jain, 2021). The authors' keywords were used for this analysis, which has been considered a better option than keyword plus (Florek-Paszkowska & Hoyos-Vallejo, 2023). The keywords are clustered into bubbles. The bubble size determines the number of articles that have used the specific term. (Hanaa & Abdul, 2023). The clusters are further grouped into four quadrants based on Callon's centrality and density rank. Centrality indicates how well-integrated the theme is with other themes, and density indicates the theme's maturity. The first is measured on the x-axis, and the second on the y-axis. The four quadrants thus formed are as follows:

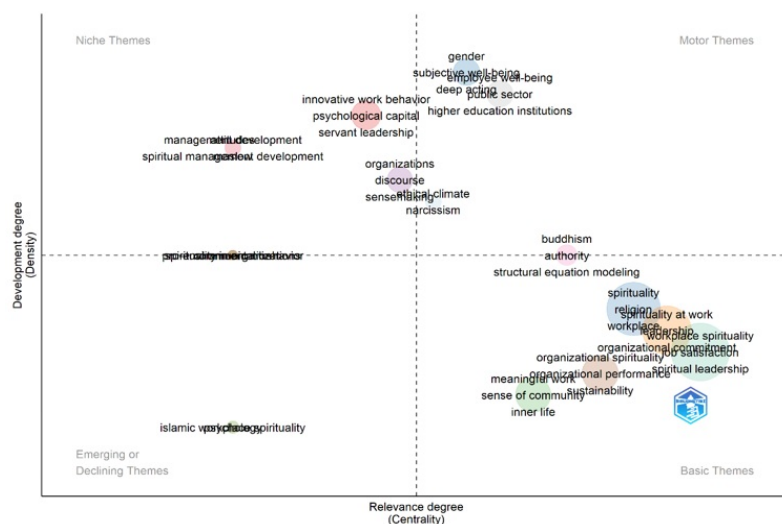


Figure 10: Thematic map

- Quadrant 1 (Motor Themes): Themes such as subjective well-being, employee well-being, gender, deep acting, public sector, and higher education institutions exhibit high centrality and high density. These themes are both well-developed and closely connected to the broader WPS literature, indicating that they currently drive research in the domain.
- Quadrant 2 (Niche Themes): Themes including innovative work behavior, psychological capital, servant leadership, and spiritual management demonstrate high density but relatively lower centrality. This suggests that these topics are conceptually mature but remain specialized and less integrated with the mainstream WPS literature. These areas provide opportunities for interdisciplinary expansion.

- iii. Quadrant 3 (Emerging or Declining Themes): The theme Islamic workplace spirituality appears in the emerging/declining quadrant with low centrality and low density. This indicates that the theme is either still developing or has received limited scholarly attention. The position suggests potential for future exploration and theoretical advancement
- iv. Quadrant 4 (Basic and transversal theme): Core themes such as workplace spirituality, spirituality at work, organizational commitment, organizational performance, spiritual leadership, sustainability, meaningful work, sense of community, and inner life show high centrality but lower density. These themes form the foundational structure of the WPS literature and are widely shared across studies, although further theoretical refinement remains required.

Overall, the thematic map indicates that employee well-being-related themes currently dominate the field. At the same time, areas such as servant leadership, innovative work behavior, and Islamic workplace spirituality offer promising directions for future research.

Thematic evolution in two time slices: 1998–2019 and 2020–2024

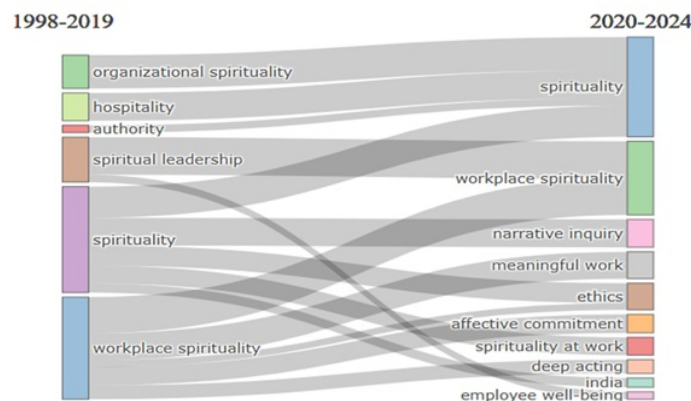


Figure 11: Thematic evolution by author keywords before and during the COVID-19 pandemic.

Figure 5 illustrates the evolution of research themes, clusters, or topics across two time periods (1998–2019 and 2020–2024). Core themes remained despite the evolution and diversification of the research themes over time. The clusters of ‘Spirituality’, ‘Workplace Spirituality’, and ‘Organizational Spirituality’ remained the three top research themes throughout the entire period of this WPS study. Although the figure focuses on the evolution of critical topics, core development between the two time slices can be observed. The ‘workplace spirituality’ topic is split into five clusters: ‘meaningful work’, ‘Workplace Spirituality’, ‘ethics’, ‘affective commitment’, and ‘deep acting’. The cluster of ‘Spiritual leadership’ merged into ‘Workplace Spirituality’ and ‘employee well-being’. It is worth noting that the ‘Spirituality’ cluster during the 2014–2019 period helped to grow four new clusters, including ‘narrative inquiry’, ‘ethics’, ‘Spirituality at Work’, and ‘India’. From the perspective of new clusters in the period 2020–2024, the ‘ethics cluster is a combined evolution of ‘Spirituality’ and ‘Workplace Spirituality’. The cluster of ‘affective commitment’ and ‘deep acting’ is strongly related to the clusters of ‘Workplace Spirituality’. In summary, Figure 11 shows the overall evolution of topics and core development across the two time slices. Some clusters have been split and merged with others between the two time slices. Overall, some new clusters, such as ‘employees’ well-being’ and ‘narrative inquiry’, developed from a few research themes of the 2020–2024 time slice.

6 Conclusion and Future Directions

This study explores the evolving nature and intellectual structure of Workplace Spirituality (WPS) research through a comprehensive bibliometric and science-mapping review. A total of 610 articles published in 269 scholarly journals from 1998 to 2024 across disciplines such as management, psychology, accounting, economics, and finance were analyzed. The findings reveal a significant annual publication growth rate of 13.75% and an average of 26.21 citations per document, indicating increasing academic interest in the WPS domain.

The study employed various science-mapping techniques, including author co-citation analysis, bibliographic coupling, keyword co-occurrence analysis, thematic mapping, and thematic evolution using the Bibliometrix-R package and BiblioShiny software. These methods helped identify influential contributors, emerging themes, and the field’s conceptual foundations. Garg N. emerged as the most influential author, while the USA and India were identified as leading contributors to WPS research. Key journals such as the Journal of Management, Spirituality, and Religion and the Journal of Business Ethics played a dominant role in advancing the literature.

The analysis further showed that workplace spirituality is strongly associated with themes such as job satisfaction, meaningful work, organizational commitment, spiritual leadership, and employee well-being. Thematic mapping identified employee well-being and subjective well-being as motor themes, whereas Islamic Workplace Spirituality and servant leadership emerged as developing research areas. Overall, the study provides a holistic understanding of the growth, thematic evolution, and future research directions of Workplace Spirituality, offering valuable insights for researchers, practitioners, and policymakers.

Research Implications

Based on the study’s findings, it is anticipated that further research will be conducted on emerging themes, such as Islamic workplace spirituality, within the context of workplace spirituality. Scholars can analyze the current status in WPS and gain insights into future trends. They can even collaborate with other authors in the field who have a significant impact and also consult influential journals for their future work or submissions. Researchers from other fields can also apply the methodology used in this study to gain better insights. The most prolific authors in the field can be consulted to develop policies and rules that foster a positive working environment and achieve the highest levels of performance and employee satisfaction. The results obtained are helpful for management and various developmental institutions in implementing innovative HR strategies that foster the culture of WPS within the organization.

Limitations

Despite the growing body of literature on workplace spirituality, the field remains fragmented, with limited integration of findings across disciplines such as management, psychology, and economics. Existing studies have largely relied on bibliometric techniques, with insufficient emphasis on in-depth qualitative or empirical validation of identified relationships and themes. Additionally, prior research is constrained by database selection (primarily Scopus and WoS) and language restrictions, potentially excluding relevant contributions. There is also a lack of focus on emerging themes, such as Islamic workplace spirituality and post-COVID-19 developments. Furthermore, limited attention has been given to linking bibliometric insights with practical organizational outcomes. Hence, there is a need for more comprehensive, multi-method, and inclusive studies to advance theoretical and empirical understanding in this domain.

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