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ABSTRACT

The purpose of this study is to examine the papers published in the ASLIB Journal of Information Management between 2014 to 2021. The Scopus database was chosen for bibliographic data extraction. The VOSviewer software was used to visualize the research results using network maps. During the research period, 311 papers with 2534 citations were discovered. The publication trends of the ASLIB Journal of Information Management have been identified using a variety of bibliometric variables. The findings of the study revealed that, the most documents (n=52) were published in 2020, while the most citations (n=558) were recorded in 2015. In total, 827 authors from 51 nations contributed to the publications. The average number of citations per document (ACPD) is 8.15, with 22.65 (2014) being the most and 0.26 being the lowest (2021). The level of collaboration varies between 0.74 and 0.84. During the study period, the average degree of collaboration was 0.786. According to the findings, the ASLIB magazine of information management publishes high-quality research articles on a variety of library and information science topics. The Journal Citescore is 3.3, SJR is 0.558, and SNIP is 1.132, according to Scopus.
KEYWORDS: *Bibliometric, Author Productivity, Authorship Pattern, Scopus, Database, ASLIB, Journal, VOSviewer*

Introduction

A journal plays a critical role in the academic lives of scientists and academic professionals. Journals provide accurate, up-to-date information in their fields of study. Researchers in this study chose the ASLIB Journal of Information Management as a source for a bibliometric analysis from 2014 to 2021, when Scopus begins indexing ASLIB Journal of Information Management publications.

Bibliometrics is a statistical method for analysing and measuring bibliographic data. The quantitative method of bibliometrics is used to analyse scholarly journals, books, and professionals. Alan Pritchard created the word "bibliometrics" in 1969. In the field of library and information science, bibliometric methods have a wide range of applications (Rawat et al., 2021). However, it has a wide range of applications. In a variety of evaluative contexts, bibliometrics are often utilised. They minimise the information available to make decisions to publication and citation counts (Bornmann & Marewski, 2019).

About the Journal

Aslib Journal of Information Management is a bi-monthly English-language journal published in the United Kingdom. This magazine was previously called as "Aslib Proceedings: New Information Perspectives (1949-2014)" and was published by Aslib. It was renamed "Aslib Journal of Information Management" after becoming a part of Emerald in 2014. Emerald is the current publisher of this journal. The Aslib Journal of Information Management publishes cutting-edge international research, practise, and methodologies related to the generation, storage, usage, sharing, archiving, and disposal of data and information (Ajim, 2021). The Aslib Journal of Information Management covers a wide range of disciplines in two distinct subject areas. It includes library and information sciences in the social sciences. It also includes information systems in computer science. Scopus, Web of Science, EBSCO, ProQuest, The Informed Librarian, and other databases index Aslib Journal of Information Management. As per the Scopus data retrieved on October 25, 2021, the journal's Citescore is 3.3, SJR is 0.558, and SNIP is 1.132.

Review of Literature

Kumar and Verma (2021) conducted a bibliometric analysis of articles published in the Journal of Library and Information Science between 2013 to 2020. The finding revealed that the journal articles are the most cited source of documents (991). The contribution of joint authors is greater (59.55 %) than that of single authors (40.45%). Library Philosophy and Practice (e-journal) is ranked first in the journal rankings.

Das (2021) carried out a bibliometric analysis of the Journal of Informetrics from 2016 to 2020. As per the analysis, the year 2018 saw the highest number of articles published, with 85(21.04%). The majority of the publications 339(83.91%) were provided by joint authors, with the remaining 65(16.09%) contributed by single authors.

Patel et al. (2021a) evaluated the Webology Journal publication trends from 2006 to 2020. The result of the study shows that the number of publications has fluctuated up and down from 2006 to 2017, but there has been an upward trend since 2018. The contribution of joint authors is also higher (62.31%) than that of single authors, as per study (37.69%). During the study period, Noruzi A was the most productive and cited author. The University of Tehran was ranked first among the top ten highly efficient universities, with 19 publications.

Verma (2018) performed a scientometric analysis of the Library Review and found that in the year 2002, the largest number of research output was 93 (9.19%), while articles 706 (69.76%) dominated the other types of publications in the library review. The co-authorship pattern is dominated by single author contributions, by this study.

Verma and Singh (2017) examined trends in authorship patterns and degree of collaboration in 255 articles published in the Journal of Librarianship and Information Science (JOLIS) between 2010 and 2016. During the seven years (2010-2016), the degree of collaboration was found to be 0.83 to 0.77. Over a seven-year period, multi-authorship papers have become more prevalent, outnumbering sole authorship.

Velmurugan (2013) investigated over 203 papers from the Annals of Library and Information Studies journal. The majority of the contributions (88%) were discovered to be co-authored (43.35 %) The average degree of collaboration is 0.64, ranging from 0.57 to 0.82. The average number of authors per paper is 1.87, with an average productivity of 0.53 per author.

Suresh, Hema, and Sankarasubramaniam (2015) analyzed 714 articles from the Indian Journal of Horticulture's volume 67-71 from 2010 to 2014. Multi-author papers were reported to account for 97.33 percent of the papers published. The growth rate was 0.41 in 2010 and declined to 0.19 in 2014, with the majority of the articles coming from India.

Objectives of The Study

The key objectives of the study are as follows:

- To examine the year-wise growth of publication with citation.
- To measure the annual growth rate (AGR), Average citation per documents (ACPD) and length of documents.
- To study the Authorship Pattern, Author Productivity, Degree of collaboration (DC) and Collaboration index.
- To find out the Co-occurrence with author keywords & Bibliographic Coupling with countries network analysis.

Methodology

Data Source

The aim of the research was to look into the scientific publications of the 'ASLIB Journal.' The Scopus database (the world's largest interdisciplinary database of abstracts and citations) (<https://scopus.com/>) was used to extract bibliographic data from 2014 to 2021.

Search Strategy

The Scopus database was used to conduct the document search, which was accomplished by selecting the source title. To find the exact phrase, the term 'ASLIB' was enclosed in quotation marks. SRCTITLE (aslib AND journal AND of AND information AND management) AND (EXCLUDE (PUBSTAGE, "aip")) was the search string. The bibliographic data from 311 papers was extracted in.csv and xls file formats.

Data analysis and visualization

Following data extraction, it was tabulated, evaluated, and analysed using a variety of bibliographic indicators to make the desired observations. The researchers examined the ASLIB journal's publishing patterns using a variety of bibliometrics indicators. Furthermore, the data was visualised with VOSviewer software version 1.1.16.

Important Points of the Data Sample During 2014 to 2021

The Scopus bibliographic database was used to create the data set. It includes all paper types 'article,' 'letter,' and 'proceedings paper' published between 2014 and 2021 in journals in the Scopus subject category 'Social science.' The number of publications represented in the data set is 311. The publications appeared to have 827 authors from 51 different countries, with a total of 2534 citations. Table 1 summarizes the statistics for the data.

Table 1: Summary of Data

Details	Observed value
Date of data extraction	30-08-2021
Study Time period	2014-2021
Time span	8
Total no. of documents	311
Total no. of authors	827
Total no. of citations	2534
Contributing countries	51
Types of documents	3

Year-wise growth rate of publications

Annual growth rate (AGR)

The annual growth rate (AGR) is calculated based on the formula cited by Kuri et al. (2020) in their study and mentioned as follows:

$$AGR = \frac{\text{End Value} - \text{First value}}{\text{First value}} \times 100$$

Table 2 depicts the chronological distribution of ASLIB papers and 311 articles published between 2014 and 2021. A maximum of 52 articles were published in 2020, compared to a minimum of 23 contributions in 2014. For the study period, a total of 2534 citations were discovered. The year with the most citations (558) was 2015, followed by 2014, with 521 citations. The average number of citations per document (ACPD) is 8.15, with a high of 22.65 (2014) and a low of 0.26. (2021). During the 8-year study period, a total average growth rate of 903.23 was discovered.

Table 2: Year-wise growth of publication with citation

Year	Documents	AGR (%)	Citations	ACPD
2014	23	0.00	521	22.65
2015	36	56.52	558	15.50
2016	40	11.11	416	10.40
2017	45	12.50	457	10.16
2018	38	-15.56	310	8.16
2019	46	21.05	177	3.85
2020	52	13.04	87	1.67
2021	31	-40.38	8	0.26
Total	311	903.23	2534	8.15

AGR - Annual Growth Rate ACPD = Average citation per documents

Authorship pattern of ASLIB

The authors attempted to identify the authorship patterns of articles published between 2014 and 2021. Table 3 shows the year-by-year contributions of the single and joint authors over the course of the study. According to the findings, the three authors had 92 of the most significant research publications, followed by 88 by two authors. Furthermore, the authors discovered that multi-authors contributed to the majority of ASLIB publications during the study period. The majority of the 244 contributions (78.45%) were written collaboratively, with the remaining 67(21.54%) authored by a single author.

Table 3: Authorship Pattern

Year	N ₁	N ₂	N ₃	N ₄	N _{≥5}
2014	5	8	7	1	2
2015	8	6	13	6	3
2016	9	12	8	5	6
2017	10	13	18	4	0
2018	8	12	13	1	4
2019	12	17	8	5	4
2020	10	12	17	7	6
2021	5	8	8	4	6

Total	67	88	92	33	31
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Analysis of Author Productivity of ASLIB

Productivity has been calculated based on the formula cited by Singh, Verma and Singh (2021) in their study and mentioned as follows:

$$\text{Author Productivity} = \text{Total no. of Publications} / \text{Total no. of authors}$$

Table 4 shows that the analysis of authors productivity in the ASLIB journal of information management identified a total average number of authors per publication of 2.66 and an average productivity per author of 0.38.

Table 4: Author Productivity

Year	Documents	No. of Authors	Avg. author / docs.	Productivity / author
2014	23	56	2.43	0.41
2015	36	98	2.72	0.37
2016	40	112	2.80	0.36
2017	45	106	2.36	0.42
2018	38	96	2.53	0.40
2019	46	111	2.41	0.41
2020	52	151	2.90	0.34
2021	31	97	3.13	0.32
Total	311	827	2.66	0.38

Degree of collaboration

Subramanyam (1983) formula was used to compute the degree of collaboration (DC). This formula is also cited by Patel et al. (2021b) in their study. The degree of collaboration can be mathematically expressed as:

$$DC = \frac{Nm}{Nm + Ns}$$

Where,

DC=Degree of collaboration
 Nm = Number of multi-authored research papers in the discipline published during a year
 Ns = Number of single-authored papers in the discipline published during the same year.

Table 5: Degree of collaboration

Year	Documents		Degree of Collaboration
	Single authored	Multi-authored	
2014	5	18	0.78
2015	8	28	0.78
2016	9	31	0.78
2017	10	35	0.78
2018	8	30	0.79
2019	12	34	0.74
2020	10	42	0.81
2021	5	26	0.84
Total	67	244	0.78

Table 5 demonstrates the degree of collaboration of authors by year. The level of collaboration varies between 0.74 and 0.84. During the period 2014-2021, the average degree of collaboration was 0.786, indicating that there is a higher level of collaboration in the journal. The year 2021 has the highest degree of collaboration, followed by 2019 in the last rank with 0.74.

Collaboration index

$$\text{Collaboration Index} = \frac{\text{Total authors of multi authored papers}}{\text{Total number of multi authored papers}}$$

Table 6 and Figure 1 provides the year wise mean number of authors per jointly authored papers. The year 2020 has both highest numbers of multi-authored papers and total authors of multi authored documents is 42, 141 respectively. The year 2014 has less no of multi authored papers and total no of authors multi authors document. CI ranges from 2.74 (2017) and 3.54 (2021) with an average of 3.11 per joint authored paper.

Table 6: Collaboration index of articles

Year	Multi-authored docs	Total authors of multi-authored docs	Collaborative index
2014	18	51	2.83
2015	28	90	3.21
2016	31	103	3.32
2017	35	96	2.74
2018	30	88	2.93
2019	34	99	2.91
2020	42	141	3.36
2021	26	92	3.54
Total	244	760	3.11

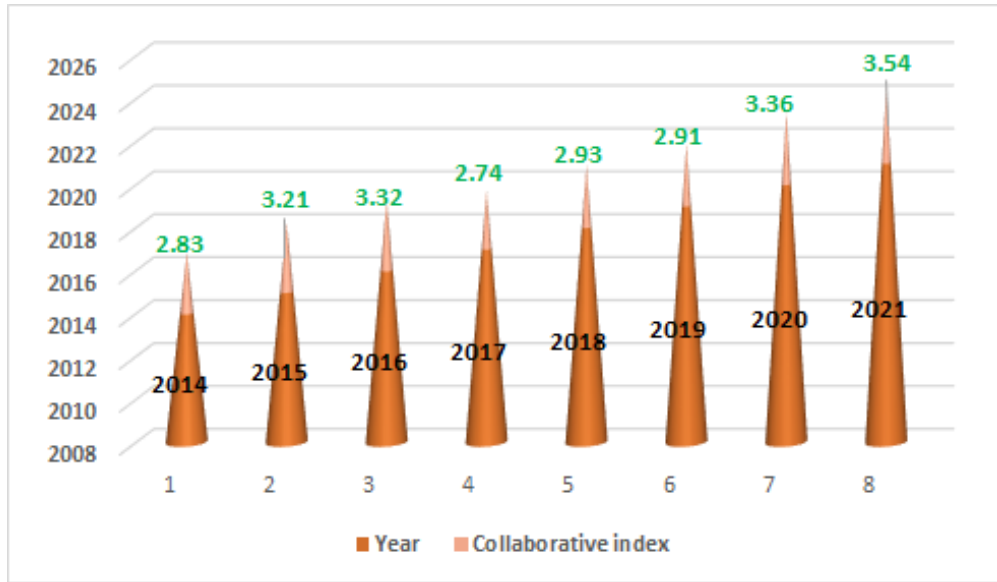


Figure 1: Collaborative index of articles

Length of documents

Table 7 shows the page range and year of publication in the journal "ASLIB Journal of Information Management" from 2014 to 2021. Out of 311 papers, 158 (50.80%) had between 16 and 20 pages, 80 (25.72%) had between 11 and 15 pages, and 51 (16.39%) had between 21 and 25 pages. Only four papers (1.28 %) had a page range of 1 to 05.

Table 7: Length of documents

Pages	Year								Total	Percentage
	2014	2015	2016	2017	2018	2019	2020	2021		
01-05	0	0	0	0	1	1	1	1	4	1.29
06-10	0	1	0	3	0	2	1	0	7	2.25
11-15	7	11	7	20	8	11	11	5	80	25.72
16-20	11	12	22	19	21	23	30	20	158	50.80
21-25	4	7	9	2	8	9	8	4	51	16.40
26-30	1	5	2	1	0	0	1	1	11	3.54
Total	23	36	40	45	38	46	52	31	311	100.00

Bibliographic Coupling with countries

Figure 2 illustrates a network visualization for bibliographic coupling with three clusters each containing one item. Out of the 42 countries, the maximum number of countries per document is 25. The total strength of bibliographic coupling with the other countries for each of the 19 countries. The United States has the highest level of bibliographic coupling compared to average citation.

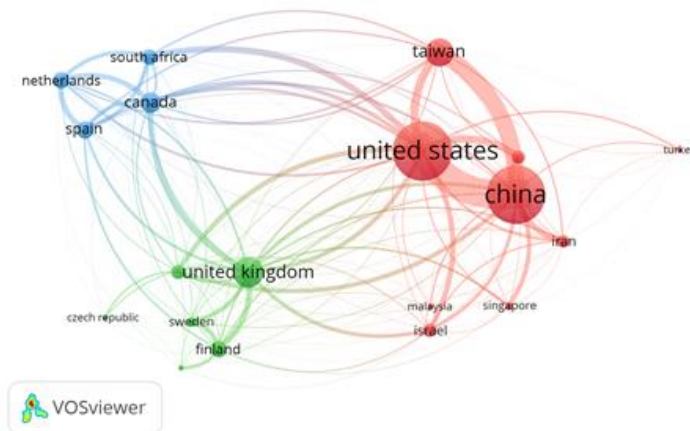


Figure 2: Network visualization of bibliographic coupling with countries

Co-occurrence with author keywords over normal citation

Keywords serve as a summary of the literature as well as a description of the study's focal point (Patel et al., 2021c). Keywords are more important in every paper, and citations are sometimes more important (Singh et al., 2021). VOSviewer term map visualization for level 1 cluster 6 with 19 items is shown in Figure 3. The visualization shows 1040 keywords derived from the titles and abstracts of papers related to the cluster. Over the average citation with additional terms, social media is the most effective co-occurrence of keywords.

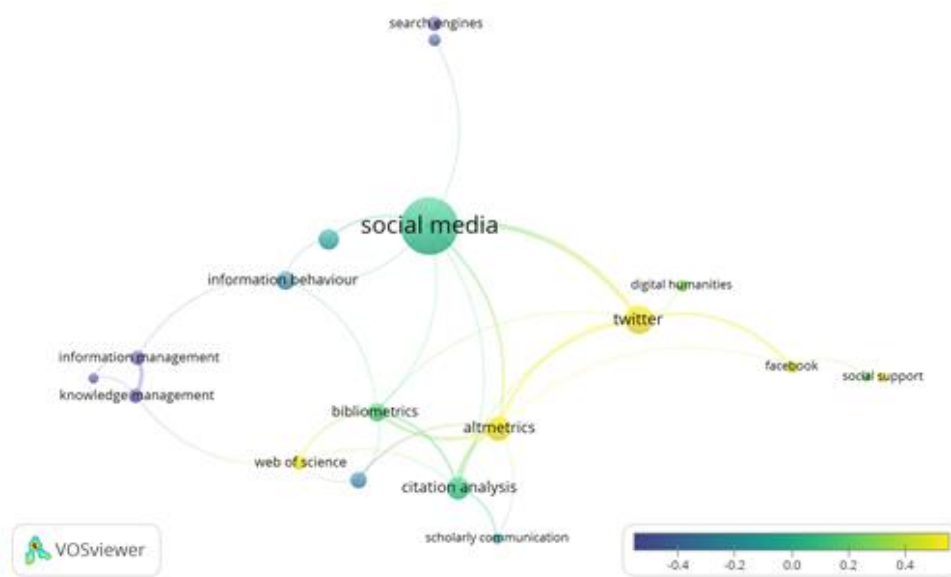


Figure 3: Co-occurrence with author keywords over normal citation

CONCLUSION

This study provided a bibliometric overview of the leading trends that occurred in the ASLIB journal from 2014 to 2021. The data for the study was retrieved from the Scopus database, and 311 publications were chosen for analysis. Bibliometric techniques are used for a variety of purposes, such as determining various scientific indicators, evaluating scientific output, selecting journals for libraries, and even projecting a topic's potential. As per the study, the year 2020 had the most contributions, with a maximum of 52 articles published. Furthermore, it was discovered that multi-authors contributed to the majority of publications in the ASLIB during the study period, with the year 2021 having the highest level of collaboration. The United States has the highest level of bibliographic coupling compared to average citation.

The ASLIB Journal of Information Management is a prestigious international journal in the field of library and information science. It publishes peer-reviewed original research in information and data management. It is a collection of open access scientific publications in the field of library and information science (LIS). This journal seeks high-quality, rigorous work that provides key insights into cutting-edge developments in research, practice, and related techniques on behavioral, technological, social, ethical, economic, political, and management-oriented factors affecting the creation, storage, usage, sharing, archival, and destruction of information and data.

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