A bibliometric evaluation of an international online journal of Advances in Library and Information Science (JALIS) from 2018 through 2022

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ABSTRACT

Using bibliometric techniques, the research evaluated papers published in the Journal of Advances in Library and Information Science (JALIS) from 2018 to 2022. (5 years). The study looks at publication growth, degree of collaboration, article authorship pattern, and distribution of citations. The survey revealed that 2022 through 2018 were always the year with the highest number of articles published. The mean value of the degree of collaboration is 0.76 and it ranges from 0.68 to 0.84. The results indicate that 219 articles were written by a total of 418 people, with an average contribution of 0.52 % per author and a predominance of pieces published by joint authors. According to subject analysis, Bibliometrics/Scientometrics and Electronic Resources occupied the top spot with the majority of papers submitted.

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KEYWORDS: Bibliometrics/Scientometrics, authorship patterns, degrees of collaboration, research articles, page numbers, and references.

INTRODUCTION

To examine the multiple facets of subjects, the discipline of library and information science (LIS) has developed a variety of quantitative methods. From librametrics to bibliometrics to scientometrics to informetrics to webometrics to cybermetrics, the metrics of LIS are constantly growing (Khan, 2016). Bibliometrics is the study of published literature in a field using statistical tools and methods. In a study titled "Statistical Bibliography or Bibliometrics?," authored by Alan Pritchard and published in 1969, the term "bibliometrics" was first used. The application of mathematics and statistical methods to literature and other media of communication" has been how he defined the phrase. Bibliometrics is, to put it briefly, the study and measurement of the publication patterns of all forms of written communication and their authors, as per Potter (1981). Primary journals are an important source of information and are considered as the primary vehicle for disseminating research results and information about new ideas in a discipline. They also aid in-depth study of a subject in its totality and are the indicators of literature

growth in any field of knowledge (Garg, Lamba & Singh, 2020). In the present paper depicts that scholarly communication to the Journal of Advances in Library and Information Science (JALIS) during 2018-2020. JALIS is an International peer reviewed online journal in Library and Information Science since 2012 on the Quarterly basis. JALIS has covered most of the professional areas in LIS with a good number of issues dedicated to topics like mapping of global research, performance in e-resources, Information and communication technology, Institutional repositories and much more (Source: http://jalis.in/index.html) and the Journal also covers technology and interdisciplinary research. The purpose of the current research was to investigate the distribution of publications in the journal Journal of Advances in Library and Information Science (JALIS) between 2018 to 2022. The length of the articles as well as the year, the subject, the level of author collaboration, and the authorship pattern are all examined in this paper. The current investigation goes in the opposite direction: The literature review is covered in Section 2, the study's objectives are presented in Section 3, the methodology and data are shown in Section 4, the data analysis is handled in Section 5, and the results and conclusions are emphasized in Section 6.

LITERATURE REVIEW

The bibliometric characteristics of journals in several sectors around the world have been the subject of numerous papers over the past few decades. Some of the specific studies include those by Koley and Sen (2003), Young (2006), Davarpanah, Aslekia, Thavamani, Autor, Singh, Ramasamy, Mondal, and Jana (2018), Vishwakarma and Mukherjee (2019), Karkeea and Sinha (2020), Sab et al. (2020), and Donthu, Kumar, and Pattnaik (2020).

According to **Ratten, et al.,** studied the Family Business Management Journal. It has published 158 articles in the journal, receiving 659 citations overall. The most productive nations are the United States and the United Kingdom, followed by those in Europe including Germany, Spain, Austria, and Sweden. Additionally, he looked at the order of authors, the index, the level of author collaboration, the most productive institutions and nations, the most productive writers, the most referenced journals, etc.

Vellaichamy & Jeyshankar It was discovered that 158 papers in total were published in the Journal of Webology between 2004 and 2013. The mean value of the degree of collaboration, which has a range of 0.182 to 0.693, is found to be 0.44. In a study of publications by subject, web analysis (24.68%) and social media (15.82%) studies had the highest number of citations. India has submitted more articles than any other nation, including Iran, the UK, the United States, and Australia.

Martinez-Lopez, et al., analysed the most cited papers, the most productive authors and journals, the most productive and influential institutions, the most productive and influential countries, the bibliographic coupling of institutions and countries, the most cited journals, and the number of citations that the articles in the European Journal of Marketing received.

Hajam studied the authorship pattern, distribution of articles by institutions, geographic distribution of articles, average page length of articles by volume, and average number of citations per article in the Journal of Social Work. .

Raza and Malik a 2009–2016 bibliometric analysis of the journal of knowledge management was conducted. From 2009 to 2016, 508 papers were published in the journal by a total of 1214 authors from 57 nations and 584 institutions. USA and UK contributions were top and second in five indices, respectively. Australia came in third overall.

articles and collaborative pieces, but placed fourth in single-nation articles and articles with the same author. Despite being rated ninth in terms of overall articles, India has the largest percentage of articles from a single country among the top 10 nations**.**

Vellaichamy & Esakkimuthu conducted a bibliometric analysis of articles published in the International Journal of Robotics Research between 2010 and 2019. There were 983 publications in all, and it was determined that the degree of collaboration ranged from 0.92 to 0.99, with a mean value of 0.97. The study found that the majority of writers chose to publish their research as articles, with the most articles being published in 2019 and the majority of contributions being between 16 and 20 pages in length.

Donthu, Kumar and Pattnaik a 45-year bibliometric examination of the journal of business research was completed. They have observed that with 39 papers each, Michel Laroche and Jean-Charles Chebat and Arch G. Woodside have the most JBR publications. The United States (4810) and the United Kingdoms (2817) have the largest percentages of JBR publications among the authors' linked nations. They also looked at co-authorship, bibliographic connections between writers and the institutions and nations with which they were affiliated, journal co-citations, and the co-occurrence of author-specified keywords.

Garg, Lamba and Singh investigated the growth pattern, the geographical distribution of the articles, the prolific authors and institutions and their output, the growth pattern of the papers' citations and the list of authors who receive the most citations. The survey found that the years 2012 to 2015 and 2016 to 2019 saw the highest number of publications published. The majority of articles (86.1%) were written by Indian authors, who also had the highest CPP and RCI values.

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OBJECTIVES

Considering bibliometric indicators as presented in Journal of Advances in Library and Information Science (JALIS) between 2018 to 2022, the study was conducted with the following objectives in mind. The objective of the study was to investigate the trends in published research.

1. Evaluate the output of publishing

2. Research output by subject

3. Analyze the authorship pattern

4. Examine the length of articles,

5. Collaboration trends,

6. Distribution of references in the articles, and their lengths.

7. Publication by a regional author

8. State-specific publications by authors
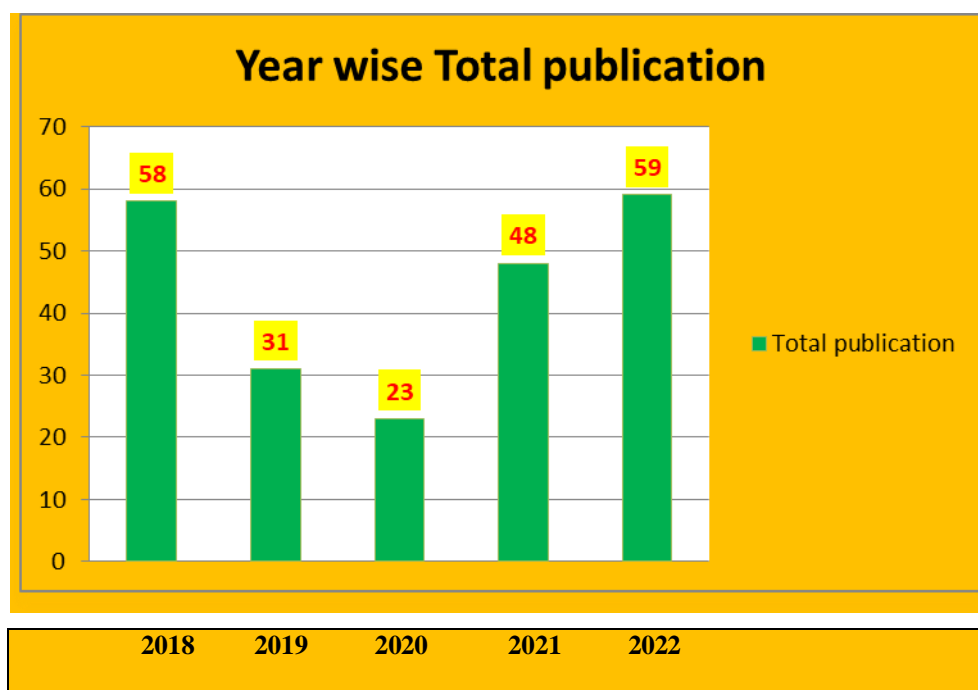
METHODS AND DATA

A bibliometric method was created as a result of library and information sciences research using a substantial portion of bibliographic materials (Broadus, 1987; Pritchard, 1969). Specifically, bibliometric studies construct representative summaries of the published literature to examine and identify bibliographic content. The data for the study was gathered from the website and is based on the bibliometric analysis used to detail the articles published in the Journal of Advances in Library and Information Science (JALIS) for the five-year period (2018-2022). (www.jalis.in). The website produced a total of 219 publications in 5 volumes, and MS-Excel was used to evaluate the information. The analysis is divided into publication outputs, specific topic analyses, and subcategories for authorship trends, degrees of collaboration, distribution of reference, and length of articles.

DATA ANALYSIS

1. Volume-wise distribution of articles

Table 1 and Figure 1 demonstrate the growth in JALIS publication each year. 219 research publications in all were published during 2018 and 2022. The analysis shows an upward trend beginning in 2018. Furthermore, the downward trend will continue through 2021. In contrast to previous years, research productivity for the last three years (2019, 2020, and 2021) has been rather low. The table reveals that the majority of publications are created in 2022, despite productivity being at its lowest in 2020. Moreover, the most publications (58 & 59) were discovered to be from 2018 & 2022.

Table-1: Volume-wise distribution of articles						
Year	Vol no	Issue No	Issue 1	Issue 2	Issue 3	Issue 4	Total publication %
2018	7	4	25	14	7	12	58 (26.48%)
2019	8	4	7	8	8	8	31 (14.15%)
2020	9	4	4	5	7	7	23 (10.50%)
2021	10	4	10	6	13	19	48 (21.91%)
2022	11	4	15	17	19	8	59 (26.94%)
Total	**5**	**20**	**61**	**50**	**54**	**54**	**219 (100%)**

Year wise Total publication

Year	Total publication
2018	58
2019	31
2020	23
2021	48
2022	59

2. Subject-based grouping of articles

From Table 2, it can be shown that the bulk of the publications were categorized as Scientometric/Bibliometric 53, Electronic Resources 37, Library Resource 17, ICT 12, Public Library 9, and Social Media 7. Less than six subject publications on other subjects have now been published.
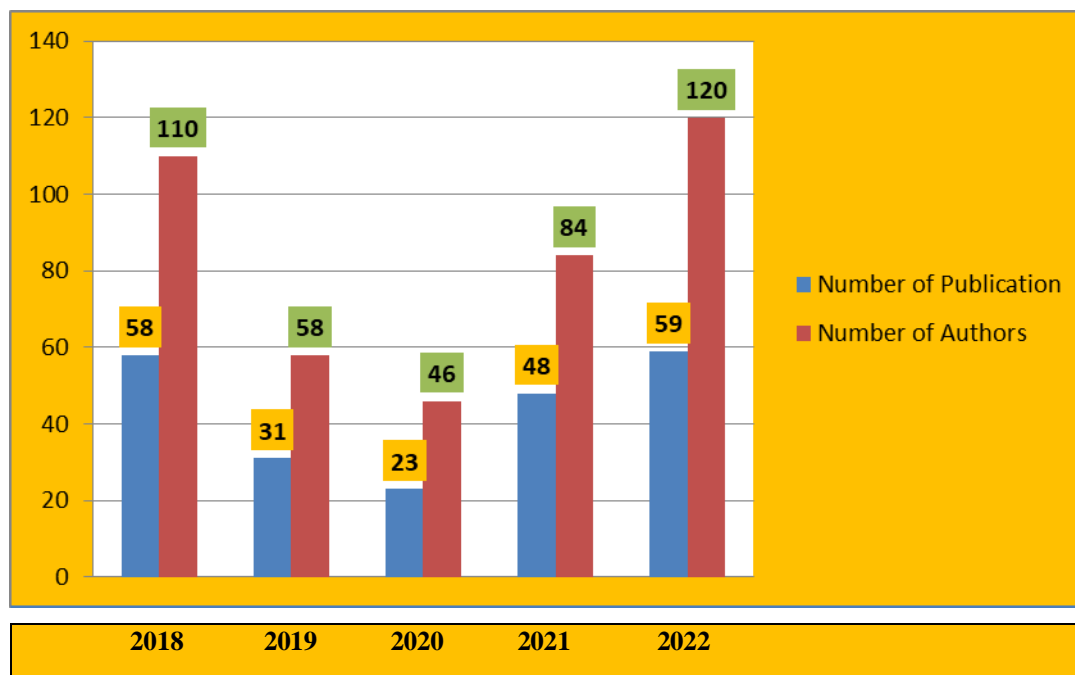
Table-2: Subject-wise distribution of research output						
Subjects	**Year of Publications**					**Total Publications**
	2018	**2019**	**2020**	**2021**	**2022**	
Bibliometric/Scientometrics	19	7	3	12	12	**53**
Electronic Resources	9	7	3	10	8	**37**
ICT	4	2	3	2	1	**12**
Social Networks	1	2	1	3	0	**7**
Job satisfaction	1	1	0	0	2	**4**
Content Analysis	2	2	0	0	1	**5**
Information Literacy Skill	2	0	0	1	0	**3**
Public Library	0	0	2	2	3	**7**
Library Professional	0	0	0	2	3	**5**
Library Resource	0	2	1	4	10	**17**
COVID 19	0	0	3	0	1	**4**
Information Seeking Behavior	0	1	1	3	4	**9**

3. Productivity of authors

The author productivity of research articles published in the Journal of Advances in Library and Information Science from 2018 to 2022 is shown in Table 3 and Figure 2. The year 2021 saw the most publications on average per author (0.57). Based on the analysis, 219 were produced by the total of 418 authors at a frequency of 0.52 per author.

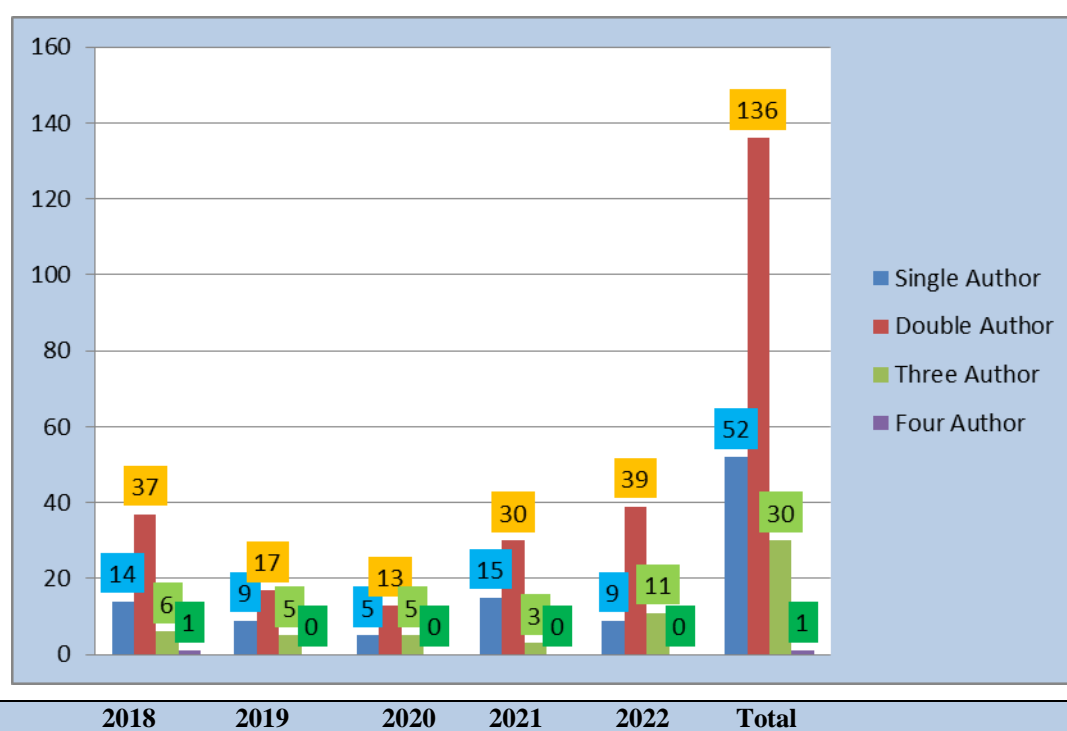| Table-3: Author Productivity			
Year of Publications	**Number of Publication**	**Number of Authors**	**Average publication per Author**
2018	58	110	0.53
2019	31	58	0.53
2020	23	46	0.50
2021	48	84	0.57
2022	59	120	0.49
Total	**219**	**418**	**0.52**

4. Pattern of Authorship

The authorship pattern of publications by year is shown in Table 4 and Figure 3. It indicates that the most publications (136) have been published using two authors, followed by articles including one author (52) and publications with three authors (30). Furthermore, it was discovered that authors published more articles collaboratively (76.26%) than individually (23.74%). It suggests because researchers are more interested in collaborating in teams than individually.

Table-4: Authorship Pattern								
SL NO.	**Authors**	**Publication year**					**Total**	**Percentage %**
		2018	**2019**	**2020**	**2021**	**2022**		
1	Single	14	9	5	15	9	**52**	**23.74**
2	Double	37	17	13	30	39	**136**	**62.1**
3	Three	6	5	5	3	11	**30**	**13.69**
4	Four	1	0	0	0	0	**1**	**0.45**
Total		**58**	**31**	**23**	**48**	**59**	**219**	**100**

5. Degree of Collaboration

Table 5 shows the degree of author collaboration for articles published in JALIS from (2018–2022) just using formula given by Subramanian (1983), which is expressed numerically.as:

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

Where,

DC = Degree of Collaboration,

Nm = Multiple Authored Publications
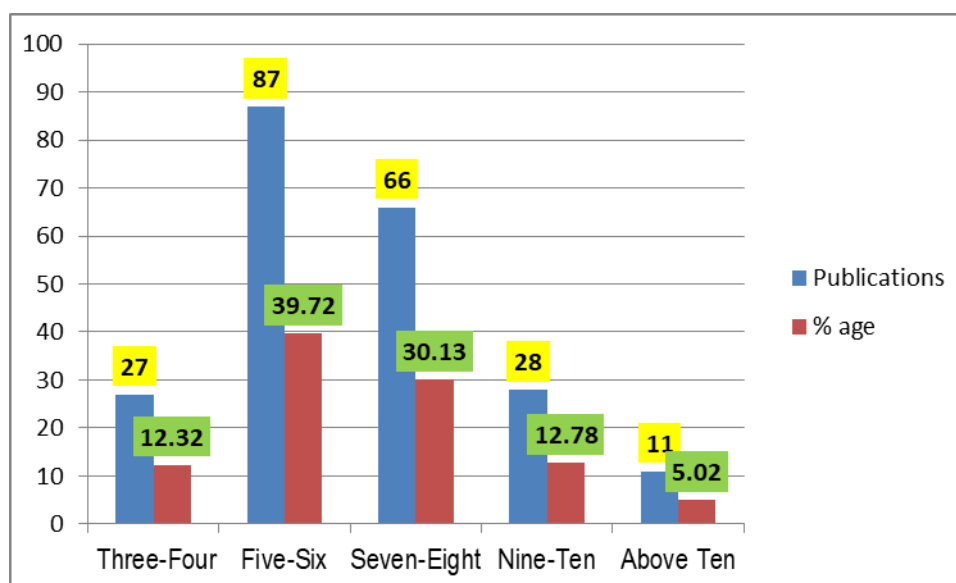
Ns = Single Authored Publications

The outcome demonstrates unequivocally that the average level of author collaboration in the specific journal is 0.76, demonstrating the expanding trend of collaborative research in JALIS. The degree of collaboration is at its highest point in 2022 (0.84), whereas it was at its lowest point in 2021 (0.68).

Table-5: Degree of Collaboration among authors					
SL No.	Year	Single Authored (NS)	Multi Authored (MS)	Total (NS+MS)	DC
1	2018	14	44	58	0.75
2	2019	9	22	31	0.70
3	2020	5	18	23	0.78
4	2021	15	33	48	0.68
5	2022	9	50	59	0.84
Total		**52**	**167**	**219**	**MV=0.76**

6. Publication Size

The research paper has been split into categories from three to ten pages, with the last category being designated as "greater than ten pages." Table 6 shows that out of 219 publications, 87 (39.72%) were published in 5–6 pages the majority of the time, followed by 66 (30.13%) in 7-8 pages, 28 in 9–10 pages, 27 in 3–4 pages, and 11 (5.02%) in more than ten pages. The study shows unequivocally that the majority of authors wrote their research papers in lengths of 5–6 pages.

Table-6: Length of Pages				
SL NO.	Size of Publication in Pages	Publications	% age	Cumulative % age
1	Three-Four	27	12.32	12.32
2	Five-Six	87	39.72	52.05
3	Seven-Eight	66	30.13	82.19
4	Nine-Ten	28	12.78	94.97
5	Above Ten	11	5.02	100
Total		**219**	**100**	

7. Reference distribution pattern

The distribution of citations in the Journal of Advances in Library and Information Science from across time period is displayed in Table 7. (2018-2022). The majority of the publications in JALIS included references, which was far its most remarkable quality. During the time of the present study, 219 articles that have been released in the particular journal included 2132 references. The year 2022 had the greatest references cited with 709, or 33.25% of all references, and the year 2020 seemed to have the least with 189, or 8.86% among all references.
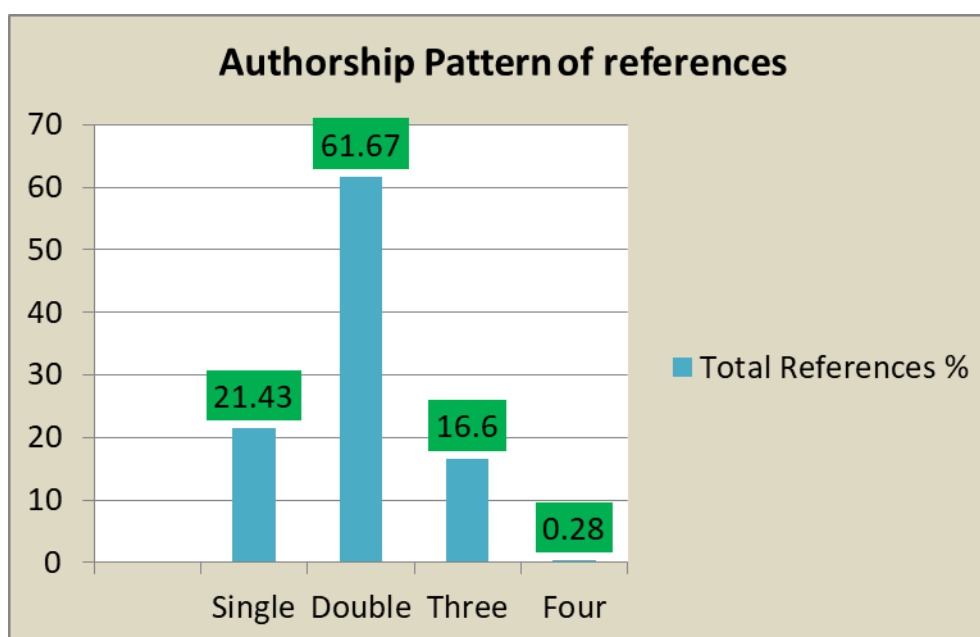
			No. Reference Issue				Total		Average
Year	Volume No.	No. of Articles	Issue No. 1	Issue No.2	Issue No.3	Issue No.4	References %	Cumulative References %	Ref. Per Issue Article
2018	7	58	204	107	78	134	523 (24.53)	523 (24.53)	9.01
2019	8	31	77	57	59	59	252 (11.81)	775 (36.35)	8.12
2020	9	23	33	38	71	47	189 (8.86)	964 (45.21)	8.21
2021	10	48	84	57	98	220	459 (21.52)	1423 (66.74)	9.56
2022	11	59	137	229	259	84	709 (33.25)	2132 (100.00)	12.01
Total		219					2132		9.73

Table-7: Reference distribution pattern

8. Authorship Pattern of references

The authorship pattern of references for articles published in JALIS is shown in Table 8 and Figure 4, and it was determined that there are 2132 references in total. Double authors cited one of most references, contributing for 61.67% of all references with 1315, followed by single authors with 457, or 21.43%, references. Three authors referenced 354 references, or 16.60%, in this work. In fact, only one article was published, and it contained six (0.28%) references by four authors.

SL NO.	Author Type	No of References in Issue-Wise				Total References %	Cumulative References %
		Issue No.1	Issue No.2	Issue No.3	Issue No.4		
1	Single	118	82	97	160	457 (21.43)	457 (21.43)
2	Double	379	300	328	308	1315 (61.67)	1772 (83.11)
3	Three	32	106	140	76	354 (16.60)	2126 (99.71)
4	Four	6	0	0	0	6 (0.28)	2132 (100.00)
Total		**535**	**488**	**565**	**544**	**2132**	

Table-8: Authorship Pattern of references

9. Geographical distribution of articles

Table 9 showed that most of the contributions are from Indian sources with 91.78% and the rest 8.22% only from other countries authors were written publications. 201 Authors publication from India country was highest, followed by 6 were in Sri Lanka, Bangladesh and Ibadan were 2 Publications.

Table -9: Geographical distribution of articles

Sl No.	COUNTRY	No. of Authors
1	India	201
2	Sri Lanka	6
3	Zambia	1
4	U.A.E.	1
5	Odisha	1

6	Nigeria	1
7	Bangladesh	2
8	Ethiopia	1
9	Ibadan	2
10	Islamabad	1
11	Calabar	1
Total		**219**

10. State wise distribution of articles

Table 10 showed that most of 98 articles written Tamil Nadu state followed by 47 articles written Karnataka , 26 articles written Telangana also 10 articles written Maharashtra, and 3 articles written Andhra Pradesh, Haryana, Jammu and Kashmir, and West Bengal.

Table- 10 : State wise distribution of articles		
S. No.	**Names of states**	**No of articles**
1	Andhra Pradesh	3
2	Chhattisgarh	1
3	Haryana	3
4	Jammu and Kashmir	3
5	Karnataka	47
6	Kerala	1
7	Maharashtra	10
8	Mizoram	2
9	Mumbai	2
10	New Delhi	1
11	Rajasthan	1
12	Tamil Nadu	98
13	Telangana	26
14	Uttar Pradesh	1
15	West Bengal	3

FINDINGS AND CONCLUSION

This study analysed publication productivity of Journal of Advances in Library and Information Science (JALIS) during 2018-2022. The findings indicate that the flow of papers to the journal was high in the beginning, but it continuously decreased during the later years (2019, 2020 & 2021). There were a total of 219 numbers of papers published by 418 numbers of authors. Most contributions were published in 2022, making up 59 (26.94%) of an article written by 120 people. Additionally, the information showed that throughout the study period, single writers published 52 (23.74%), double authors published 136 (62.10%), three authors published 30 (13.69%), and four authors produced one paper (0.4%). In a five-year examination of JALIS, 219 papers mentioned nearly 2132 references, with an average of 9.4 references per piece. The study also discovered that the total Degree of Collaboration (DC) over the course of five years was 0.76, with the value of DC reaching its peak in 2022 at 0.84 and its lowest in 2018 and 2020 at 0.70. Similarly, subject analysis revealed that research papers published in Bibliometrics, Scientometrics, and Electronic Resources papers were largely published during in the five years of the study. Information seeking behaviour, which has always been one of the most studied topics, was also one of the JALIS researchers' top interests. Considering the increasing relevance of technology for information and communication globally, it has also grown in popularity. Such studies assess the research as well as provide guidance for the investigation of new topics, and journal bibliometric research aids in the recognition of study trends in a certain area of study.

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