

# **Research Productivity of the Journal of Ravishankar University (Part-A) from 2016-2023**

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## **ABSTRACT**

*The Purpose of the Study is to explore the Journal "Journal of Ravishankar University (Part-A)" and the relationship between measuring and analyzing Articles, Authorship, The subject of distribution, Growth Ratio, Relative Growth Rate etc. The paper analyzes a bibliometric study of 88 articles were published during the period 2016-2023 in the Journal of Ravishankar University (Part-A). The paper covers bibliometric analyses of the year-wise distribution of articles, subject-wise distribution of articles, authorship patterns, and Relative Growth Rate.*

**KEYWORDS:** Bibliometrics, Authorship pattern, Growth Ratio, Journal of Ravishankar University (Part-A), Doubling time.

## **INTRODUCTION**

Bibliometrics is a research method used in library and information science. It is a quantitative study of various aspects of the literature on a topic and is used to identify the pattern of publication, authorship, and secondary journal coverage to gain insight into the dynamics of the growth of knowledge in the areas under consideration. This can lead to better organization of information resources, which is essential for effective and efficient use. Bibliometrics has attained sophistication and complexity with a national, international, and interdisciplinary character. (Thanuskodi)

The terms Bibliometrics and Scientometrics were introduced simultaneously by Pritchard, Nalimov, and Mulchenko in 1969. Pritchard defined the term 'Bibliometrics' as the application of mathematical and statistical methods to books and other communication mediums'. "Nalimov and Mulchenko" defined 'Scientometrics' as 'the application of those quantitative methods which are dealing with the analysis of science viewed as an information process'. So, Scientometrics is the measurement of science communication, and Bibliometrics deals with more general information processes. Bibliometrics is a quantitative evaluation of publication patterns of all macro and micro

communication along with their authorship by mathematical and statistical calculation. All the studies point towards the merits and weakness of the journal which will be helpful for its further development.(Krishnan and Baskaran)

### **Journal of Ravishankar University (Part-A)**

This paper studies the research productivity of the literature published in the Journal of Ravishankar University (Part-A) from 2016-2023. The Journal of Ravishankar University Part-A [Social Science] provides a platform for the publication of original research papers, and reviews in all branches of Social Science, including Management, Law, Psychology, History, Economics, Sociology and Social work, Library and Information Science, Literature and Languages, Philosophy and yoga, Ancient Indian history, Physical education, Education, Hindi, English, and Manuscripts are reviewed based on established guidelines. It is published biannually by the Pt. Ravishankar Shukla University, Raipur, India. (*JRUA-About Journal*)

### **LITERATURE REVIEW**

**Krishnamoorth, G. et. al. (2009)** studies highlight the bibliometric analysis of diabetes literature indexed the MEDLINE database for the period 1995-2004 shows that a maximum number of records (13244) was during 2003, followed by 12690 in 2002 and 11061 in 2001. Relative Growth Rate (RGR) was found to be decreasing year-wise. The Doubling Time (Dt) was found to increase every year. Ranking of the journals based on the quantum of research output on diabetes during 1995-2004 shows that the USA is the largest contributor of literature on diabetes research. The research productivity of diabetes conforms to Bradford's Law of Scattering.(Krishnamoorthy et al.)

**Thavamani, K. (2013)** observed from the study, the year 2008 was the most participating year during the study period 2007 - 2011. The Relative Growth Rate (RGR) was high in terms of literature productivity and Degree Collaboration (DC) were also high in terms of authorship pattern i.e., 108 out of 194 (0.556) and many more features were identified.(Thavamani kottithavam2008@yahoo.com)

**Hussain, Akhtar, et al. (2020)** study find out paper analyzes a bibliometric study of 578 articles that were published during the period January 1, 2000, to December 31, 2010, in the Electronic Library Journal. The paper covers the bibliometric analyses of year-wise distribution of articles, category-wise classification of papers, subject-wise distribution of articles, authorship patterns, and institutions-wise distribution of contributions. Special issues of the Electronic Library brought out during 2000-2010, and prolific authors from 2000 to 2010 have been analyzed. (Hussain et al.)

**Sahu, Harish Kumar. (2023)** studies highlight the Research Productivity and Degree of Collaboration in the Journal of Indian Library Association during 2015-2022. This study includes the year-wise distribution, references, Country-wise contributions, Authorship Patterns, Page length, Author's Contributions, and Degree of Collaboration of articles. A study found that the contribution of articles to the Journal of Indian Library Association is not only from India but also an inscription from abroad. At the time of the study, 262 research papers have been published from these 8 volumes, out of which 82 (31.29%) are single authors and 180 (68.70%) are multi-authors. Thus, it is seen that the number of multi-authors is more than that of single authors. (Sahu)

**OBJECTIVE OF THE STUDY:** The major objectives of the study are:

- ✓ To study the year-wise distribution of articles;
- ✓ To study the authorship pattern of the articles;
- ✓ To study the degree of collaboration;
- ✓ To study the Cited References in published papers;
- ✓ To study the Ranking of authors;
- ✓ To study the subject-wise distribution
- ✓ To study the Relative growth rate & doubling Time

### **METHODOLOGY OF THE STUDY**

For the analysis of the study, ten volumes (Vol. 21 to 29) containing 11 issues of "The Journal of Ravishankar University (PART-A)" published during the year 2016 to 2023 have been taken up for evaluation. The data were collected; organized and analyzed using MS Excel spreadsheets. The tables and graphs were generated by the objectives of the study. The gathered data after due scrutiny, were tabulated and processed for analysis and subsequent interpretation.

### **DATA ANALYSIS AND INTERPRETATION OF THIS STUDY**

For the purpose of this study, the Bibliographical data collected from the Journal of Ravishankar University (PART-A) from 2016 to 2023. Collected data were statistically analyzed, calculated, tabulated, and presented by using Relative Growth Rate method, Doubling Time, and K. Subramanian's formula for the Degree of Collaboration for its growth rate of the literature, author contribution and their collaboration, global participation towards the subject, trends of the subject growth and its grey areas etc.

### **YEAR WISE DISTRIBUTION OF THE ARTICLES**

**Table 1:** Year wise distribution of Articles

<b>Year</b>	<b>Vol.</b>	<b>No.</b>	<b>Article</b>	<b>%</b>
2016	21	1	4	4.21
	22	1	18	18.95
2017	23	1	10	10.53
2018	24	1	5	5.26
2019	25	1	5	5.26
2020	26	1	8	8.42
2021	27	1	11	11.58
2022	28	1	11	11.58
	28	2	9	9.47
2023	29	1	7	7.37
2023	29	2	7	7.37
<b>Total</b>			<b>95</b>	<b>100.00</b>

**Table 2:** Authorship Pattern

No. of Authors		Vol.	No.	One author	Two authors	Three authors	More than three Authors	Total
Year	2016	21	1	1	3	-	-	4
		22	1	7	8	3	-	18
	2017	23	1	3	6	1	-	10
	2018	24	1	-	5	-	-	5
	2019	25	1		4	1		5
	2020	26	1	1	5	1	1	8
	2021	27	1	3	2	4	2	11
		28	1	4	4	-	1	9
	2022	28	2	4	5	2	-	11
		29	1	2	3	1	1	7
2023	29	2	5	1	1	-	7	
<b>Total</b>				<b>30</b>	<b>46</b>	<b>14</b>	<b>5</b>	<b>95</b>
<b>%</b>				<b>31.57</b>	<b>48.42</b>	<b>14.73</b>	<b>5.26</b>	<b>100.00</b>

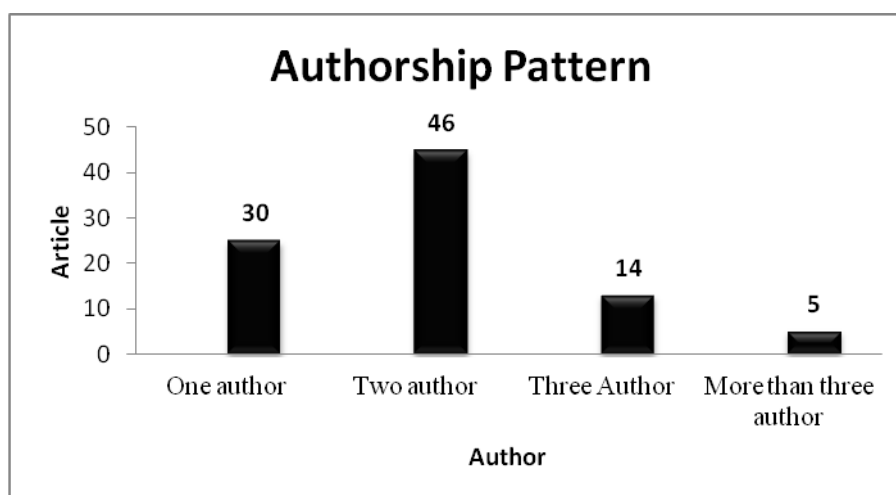
**Fig. - 1**

Table 1 indicates that the majority of authors preferred to publish their research results in single authorship mode (30 Article; 31.57%) followed by two authorship mode (46 Article; 48.42%) and three authorship modes (14 Articles; 14.73 %) and more than three authors (5 Article; 5.26 %) were quite negligible.

### Degree of Authors Collaboration

**Table 2:** Degree of authors Collaboration

Year	No. of Authors per article		Degree of collaboration
	Single	Multiple	
2016	8	31	0.79
2017	3	15	0.83

2018	-	10	1.00
2019	-	11	1.00
2020	1	17	0.94
2021	3	24	0.89
2022	8	28	0.78
2023	7	18	0.72
<b>Total</b>	<b>30</b>	<b>154</b>	<b>0.84</b>

To determine degree of collaboration in quantitative terms, the formula given by K. Subramanyam (1983) was used.

The formula is

$$C = \frac{NM}{NM+NS}$$

Where C = Degree of collaboration

NM = Number of multi authored papers

NS = Number of single authored papers

$$C = \frac{154}{154 + 30}$$

$$C = 0.84$$

It was observed that Degree of Collaboration was high i.e., 154 (0.84) in terms of collective contribution and individually responsible authors' contribution was less towards the subject. (i.e., 30) The result was extracted by using the K. Subramanian's formula for Degree of Collaboration.

### **Cited References in published papers**

**Table 3:** Cited References in published papers

S.no.	Reference/Year	2016	2016	2017	2018	2019	2020	2021	2022 (1)	2022 (2)	2023 (1)	2023 (2)	Total
1	0-10	2	12	5	5	3	3	6	2	3	5	5	51
2	11-20	2	3	5	-	-	1	2	7	5	1		26
3	21-30	-	2	-	-	1		1	2	-	1		7
4	31-40	-	1	-	-	1	2	2	-	1	-	2	9
5	41-50	-	-	-	-	-	2	-	-	-	-		2
		<b>4</b>	<b>18</b>	<b>10</b>	<b>5</b>	<b>5</b>	<b>8</b>	<b>11</b>	<b>11</b>	<b>9</b>	<b>7</b>	<b>7</b>	<b>95</b>

It is clear from Table no. 3 that out of total 95 articles, maximum 0-10 reference has been given in 51 articles, similarly in second order 11-20 reference has been given in 26 articles and 41-50 references has been given in 2 articles.

## Ranking of Authors

**Table 4:** Ranking of Authors

S.No.	Name of contributor	Number of contributions	Rank	%
1	Harish Kumar Sahu	9	1	4.89
2	L. S. Gajpal	7	2	3.80
3	Archana Sethi	7	2	3.80
4	Meeta Jha	6	3	3.26
5	Nitesh Kumar Mishra	5	4	2.72
6	Santu Ram Kashyap	5	4	2.72
7	Maya Verma	4	5	2.17
8	G. K. Deshmukh	4	5	2.17
9	Sanskriti Joseph	4	5	2.17
10	Anshu Mala Tirkey	3	6	1.63
11	Sudhir Kumar Upadhyay	3	6	1.63
12	Rajeev Chaudhary	3	6	1.63
13	Mithilesh Kumar Singh	2	7	1.09
14	Kamal Narayan Gajpal	2	7	1.09
15	Aditi Joshi;	2	7	1.09
16	Rakesh Kumar Patel	2	7	1.09
17	Mitashree Mitra	2	7	1.09
18	Anamika Modi Jain	2	7	1.09
19	Asha Sahu	2	7	1.09
20	Padma Agrawal	2	7	1.09
21	Anjali Yadav	2	7	1.09
22	Supern Sen Gupta	2	7	1.09
23	Narendra Tripathi	2	7	1.09
24	Shivendra Bahadur	2	7	1.09
25	Abha Rupendra Paul	2	7	1.09
26	Pankaj Kumar	2	7	1.09
27	Baleshwar Kumar Besra	2	7	1.09
28	Shraddha Shahane	2	7	1.09
29	Neelam Markande	2	7	1.09
30	Another author that contributed 1 article	90	8	48.91
<b>Total</b>		<b>184</b>		<b>100.00</b>

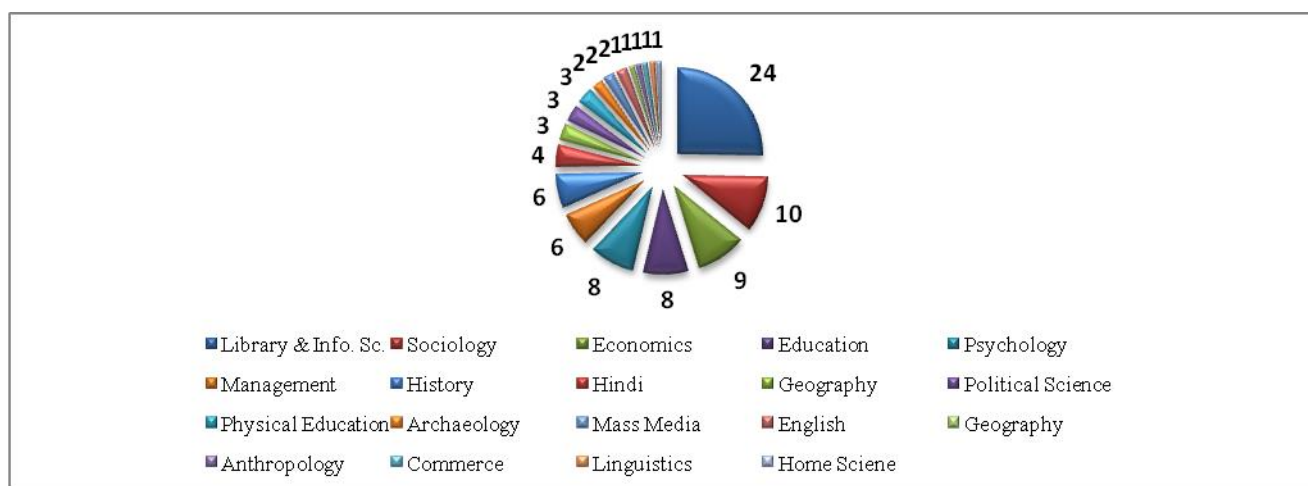
A total of 184 authors have contributed to 95 articles till the year 2016-2023. A maximum contribution has been made by Harish Kumar Sahu in publishing 9 articles, L.S. Gajpal and Archana Sethi have published 07 articles and Meeta Jha has contributed 6 articles.

**Subject-Wise Distribution**

**Table 5:** Subject-wise distribution

	Subject	2023		2022		2021	2020	2019	2018	2017	2016		Total	%
1	Library & Inf. Sc.	3	2	3	4		2	2	2	2	1	3	24	25.26
2	Sociology		1	2		1		1	1	1		3	10	10.53
3	Economics	1	2	1		3			1	1			9	9.47
4	Education		1			1				3	1	2	8	8.42
5	Psychology	1		2	1	1	2				1		8	8.42
6	Management				1		2	1			1	1	6	6.32
7	History					1	2			1		2	6	6.32
8	Hindi				1					2		1	4	4.21
9	Geography			2					1				3	3.16
10	Political Science	1										2	3	3.16
11	Physical Education				1	2							3	3.16
12	Archaeology	1		1									2	2.11
13	Mass Media				1	1							2	2.11
14	English					1						1	2	2.11
15	Geography		1										1	1.05
16	Anthropology											1	1	1.05
17	Commerce							1					1	1.05
18	Linguistics											1	1	1.05
19	Home Science											1	1	1.05
		7	7	11	9	11	8	5	5	10	4	18	95	100.00

**Fig. - 2**



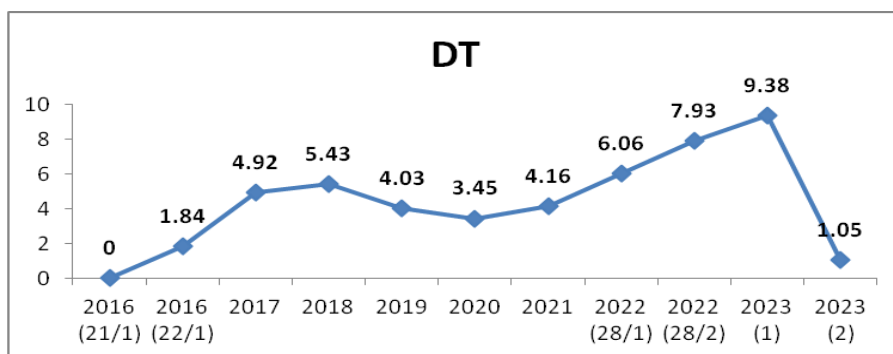
Journal of Ravishankar University (Part-A), is a Social Science Journals, cover all the topics of Social Science. Looking at the first three subjects, a maximum number of 24 articles have been published in the journals on the subject of Library and Information Science, second number 10 articles on Sociology and third number 9 articles on Economics.

**Relative Growth Rate (RGR) and Doubling time of year wise publications**

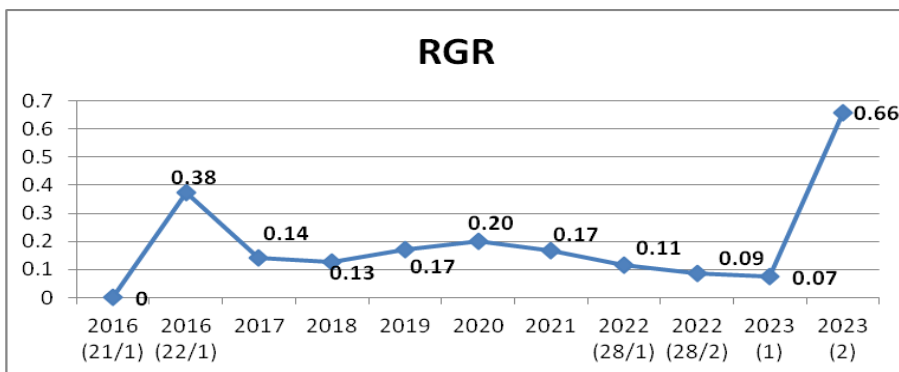
**Table 6 :** Relative Growth Rate (RGR) and Doubling time of year wise publications

Year	Vol.	No.	Article	Cumulative record	W1	W2	RGR	Mean	DT
2016 (21/1)	21	1	4	4	0	3.09	0	0.16	0
2016 (22/1)	22	1	18	22	3.09	3.47	0.38		1.84
2017	23	1	10	32	3.47	3.61	0.14		4.92
2018	24	1	5	37	3.61	3.74	0.13		5.43
2019	25	1	5	42	3.74	3.91	0.17		4.03
2020	26	1	8	50	3.91	4.11	0.20	0.22	3.45
2021	27	1	11	61	4.11	4.28	0.17		4.16
2022 (28/1)	28	1	11	72	4.28	4.39	0.11		6.06
2022 (28/2)	28	2	9	81	4.39	4.48	0.09		7.93
2023 (1)	29	1	7	88	4.48	4.55	0.07		9.38
2023 (2)	29	2	7	95	4.55	5.21	0.66		1.05
<b>Total</b>			<b>95</b>	<b>184</b>					

**Fig. - 3**



**Fig. - 4**





The growth of publications was analyzed by using two parameters Relative Growth Rate and Doubling time (Mahapatra 1985). RGR is a measure to study the increase in many articles over time. The rate of growth of articles published in the Journal “Journal of Ravishankar University (Part-A)” is ascertained by calculating relative growth rates and doubling time for publications. The RGR from the year 2016 (22/1) is 0.38, the final year 2023 is 0.66. The relative growth rate rises and falls.

## CONCLUSION

The average year-wise co of articles from the Journal of Ravishankar University (Part-A) is 11. In the Authorship pattern, the major contribution of articles was from single authors 30 (31.57%) followed by two authors 46 (48.42%), three authors 14 (14.73 %), and more than three authors 5 (5.26 %). maximum 0-10 reference has been given in 51 articles, similarly in second order 11-20 reference has been given in 26 articles and 41-50 references have been given in 2 articles. Maximum contribution has been made by Harish Kumar Sahu. The maximum number of 24 articles have been published in journals on the subject of Library and Information Science.

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