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# Research Productivity of Library and Information Science Faculty of West Zone of India: A Bibliometric Study

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#### **Abstract**

This study conducts a Bibliometrics analysis with the aim of identifying significant contributions of LIS faculties. There has been rapid increase of academic literature by faculties so that it is an important aspect to analyse their intellectual work with Bibliometric parameters. Bibliometrics used as a research method in Library and Information Science field. This research work based on secondary data total 13 universities taken from the West Zone of India in which 37 permanent faculties presently working. Researchers collected data from University websites, Google Scholar and Research Gate. In this study examined the Prolific Authors, Authorship Pattern, degree of collaboration and top Preferred Journals.

**Purpose:** The main purpose of this study is to examine the analytical patterns of the literature published in the International Journal of Information Dissemination and Technology on the basis of citation analysis and to analyse the articles published from the year 2017-2021. Results show that total 218 articles referred 1289 citations in which journals are the most favourable form of documents with the contribution of 54.46%.

Methodology: For the present study International Journal of Information Dissemination and Technology has been selected as the source journal. (IJIDT) is a Quarterly Refereed/ Juried Journal for Information Scientist/ Professionals and Knowledge Managers. All the lead articles and research paper of five volumes (Vol 7-Vol 11) containing 20 issues published during 2017-2021 have been taken up for the study. Statistical tools, like tabular presentation of various data, line diagram, bar diagram and pie diagram are used to represent the study effectively.

*Findings:* From this study the major findings are:

- (a) The number of papers in various volumes in IJIDT from 2017-2021, The maximum articles are published in 7 volume i.e. 56(25.68%) and the lowest number of contributions are 35 (16.05%) in the volume 11.
- (b) Maximum number of references is found in 96 articles cite 11-15 references with 44.03% followed by 6-10 references with 19.26% and 0-5 and 16-20 references with 12.84% respectively both.
- (c) The distribution of bibliographical forms of cited documents preferred journals as the source of information. Journals contribute highest citations with 702 (54.46%) followed by web resources with 296 (22.96%) and books with 182(14.11%). Citations from

theses/ dissertations are marginal. Here, others include seminar proceedings and report etc.

(d) Two authors papers are the most with 73 articles (34.43%) followed by single authors with 64 articles (30.18%) and three authors with 42 articles (19.81%). There are small percentages of articles published by more than five authors with 4 articles (1.88%).

**Value:** It is expected that citation methods are used in studies of properties and behaviour of recorded knowledge for analysis of the structures of scientific and research areas.

**Keywords:** Prolific Author; LIS Faculty; Bibliometrics; Library and Information Science; Preferred Journal.

#### 1. Introduction

Research plays an important role in the educational process as a source of accurate information. The main purpose of research is to find out the truth. Bibliometrics Analysis is the application of mathematical and statistical methods to analyse the books, books chapter, journals, thesis and other media of communication. Bibliometric methods are used for measurement of research output, productivity of individuals and collaboration among them. It is also deal with four major parts: productivity, collaboration, research topics and citation impacts. In technological era bibliometrics emerged an established inter-disciplinary research field. Research and publication enhance the reputation and recognition of the higher institution globally. Faculty members of any higher institution have performed two functions First is teaching second is research. In present era research has now become very significant aspect of scholarly output involving theses, dissertation, conference proceedings, books and journal articles. In this study researcher used bibliometrics indicators like, authorship pattern, degree of collaboration and distribution of faculties research output of west zone in the field of Library and Information Science.

#### 2. Review of Literature

Maurya.et al. (2021) examined the research performance of Library and Information Science faculties through Google Scholar. Total 79 LIS faculties from 17 Central Universities permanent faculty were considered. In this study authors had taken data from 1980-2018 and in which maximum publication count in 2017. M.K. Verma (Mizoram University) was a highly productive author found during the study period. In this study M. Madhusudan (Delhi University) found highly cited author. Author measured the keyword frequency of occurrences and top ten highly cited publications.

**Das & Parabhoi** (2020) did a bibliometrics study on Library and Information Science women faculty in India during 1988-2018. Data were collected from the Scopus database. Total 146 research articles found by 38 faculties. Majority of work published in Journal articles form. Dual authorship found on top most positions during the study. P. Mahajan was the most productive faculty of India from Punjab University.

**Sharma & Chakravarty(2018)** did a bibliometric study on 67 library and Information Science faculties of selected Universities of North India. Total 1038 articles found in 227 journals. Data were collected through questionnaires and University websites till 2014. Total

2420 publications were published by LIS faculty. In state wise presentation maximum publication published by Uttar Pradesh and Prof. Jagtar Singh, Punjab University was on top first. Maximum literature published in Library Herald journal followed by Journal of Library and Information Science journal.

Chakravarty & Sharma(2016) analysed the research output of Library and Information Science at Punjab University, Chandigarh and Guru Nanak Dev University, Amritsar till 31 December 2014. Survey method was used for data collection. Author found 152 publications of PU and 111 GNDU. Journal was the highest source of publication while Punjab University maximum published literature in Conference Proceedings form. PU has maximum publications in double authors and GNDU with Single author. The degree of collaboration of PU (0.61) was found and GNDU with 0.28.

#### 3. Objectives

- To find out the University and State wise distribution of LIS Faculties.
- > To find out highly productive university.
- > To examine the form wise distribution of publication
- > To examine the degree of collaboration by analysing authorship patterns.
- To depict the most prolific authors of the department of LIS.

#### 4. Hypotheses

- ➤ Joint Authors publications are greater than single author.
- Library Philosophy Practice Journal is most preferred journal.

#### 5. Research Methodology

For this study data were collected from university websites, Google Scholar and Research gate. Total 568 publications were published by 37 LIS faculty till 2021. The study covered 2012-2021 data published by LIS faculty. This study covered 13 select universities of West Zone of India, which have the department of Library and Information Science presently working with permanent faculty.

#### 6. Data analysis and Interpretation

#### **6.1. State wise distribution of LIS Faculties**

**Table-6.1.1 State wise distribution of LIS Faculties** 

S.N.	State	Name of Universities	Faculty Members	Percentage
1		Central University of Gujarat	4	10.81
2	Gujarat	Gujarat University	4	10.81
3		Sardar Patel University,	3	8.11

4		Saurashtra University Rajkot	1	2.70
5	Veer Narmad South Gujarat University		1	2.70
6	University of Rajasthan		4	10.81
7	Rajasthan	Mohanlal Sukhadia University	1	2.70
8	Goa University		6	16.22
9		Dr. Babasaheb Ambedkar Marathwada University	2	5.41
10		Rashtrasant Tukadoji Maharaj Nagpur University	3	8.11
11	Maharashtra	Sant Gadge Baba Amravati University	2	5.41
12		Savitribai Phule Pune University	3	8.11
13		Shivaji University	3	8.11
		Total	37	100.00

The above table revealed that four states have thirteen universities in which 37 permanent faculties. Maximum faculty in Goa University with 6 followed by Central University of Gujarat, Rajasthan University and Gujarat University with 4 faculty members.

# **6.2** University-wise distribution of LIS Faculties

Table-6.2.1 University-wise distribution of LIS Faculties

S.N.	Name of Universities	Professor	Associate Professor	Assistant Professor	Total	Percentage
	Central University of	1		3		
1	Gujarat	1	-	3	4	10.81
2	Gujarat University	-	2	2	4	10.81
3	Sardar Patel University,	-	-	3	3	8.11
4	Saurashtra University Rajkot	-	1	-	1	2.70
5	Veer Narmad South Gujarat University	-	1	-	1	2.70
6	University of Rajasthan	-	-	4	4	10.81
7	Mohanlal Sukhadia University	-	-	1	1	2.70
8	Goa University	1	-	5	6	16.22
9	Dr. Babasaheb Ambedkar Marathwada University	1	1	-	2	5.41
10	Rashtrasant Tukadoji Maharaj Nagpur University	-	3	-	3	8.11
11	Sant Gadge Baba Amravati University	1	-	1	2	5.41
12	Savitribai Phule Pune University	2	-	1	3	8.11
13	Shivaji University	1	-	2	3	8.11
	Total	7	8	22	37	100.00

During the study period researchers found that 7 professors, 8 Associate Professors and 22 Assistant Professors in thirteen universities. Two professors in Savitribai Phule Pune University whereas 3 Associate Professors in Rashtrasant Tukadoji Maharaj Nagpur University and 5 Assistant Professors in Goa University.

### **6.3 Highly Productive University**

**Table-6.3.1 Highly Productive University** 

S.N.	Name of University	Publications	Percentage
1	Savitribai Phule Pune University	208	17.82
	Dr. Babasaheb Ambedkar Marathwada	165	
2	University		14.14
3	Central University of Gujarat	148	12.68
	Rashtrasant Tukadoji Maharaj Nagpur	146	
4	University		12.51
5	Shivaji University	120	10.28
6	Sant Gadge Baba Amravati University	104	8.91
7	Gujarat University	76	6.51
8	Veer Narmad South Gujarat University	69	5.91
9	Goa University	44	3.77
10	Sardar Patel University	37	3.17
11	University of Rajasthan	26	2.23
12	Mohanlal Sukhadia University	14	1.20
13	Saurashtra University Rajkot	10	0.86
	Total	1167	100.00

Table-6.3.1 shows that total 1167 publication published by 13 universities during 2012-2021. Savitribai Phule Pune University was on top first with 208 publications followed by Dr. Babasaheb Ambedkar Marathwada University with 165 publications. Central University of Gujarat was on third position with 148 publications.

# 6.4 Form wise distribution of publication

Table-6.4.1 Form wise distribution of publication

S.N.	Form of Documents	Documents	Percentage
1	Journal Articles	568	48.67
2	Book	47	4.03
3	Seminar/Conference Proceedings	234	20.05
4	Books Chapter	267	22.88
5	Others	51	4.37
	Total	1167	100.00

The above show that form wise distribution of LIS faculty publications during the period. Researcher found maximum literature published in Journal articles with 568 followed by books chapter with 267 literatures. LIS faculty published 234literature in Seminar/ Conference Proceeding form and least publication in Book form i.e. 47 documents.

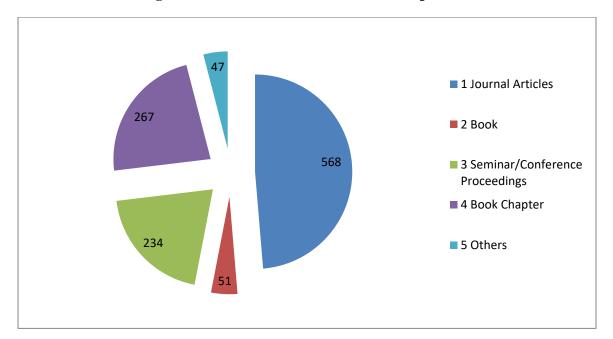


Figure-6.4.(A) Form wise distribution of publication

**6.5.** Top Ten Preferred Journals

**Table-6.5.1 Top Ten Preferred Journals** 

a N			Percentage
S.N.	Journals Name	<b>Documents</b>	(%)
1	"Knowledge Librarian"	68	11.97
2	Library Philosophy and Practice (E-Journal)	59	10.39
	International Journal of Information Dissemination and		
3	Technology	43	7.57
4	College Libraries	41	7.22
5	DESIDOC Journal of Library and Information Technology,	28	4.93
6	Vishwawarana National Research Journal	25	3.70
7	Journal of Advancements in Library Sciences.	20	3.52
8	PEARL - Journal of Library & Information Science	19	3.35
9	Library Herald.	18	3.17
10	E-Library Science Research Journal	12	2.11

The above table depict that top ten preferred journals in which "College Librarian" was on top first position with 68 documents followed by "Library philosophy and practice(E-Journal)" with 59 documents. "International Journal of Information Dissemination and Technology" was on third position with 43 documents.

E-Library Science Research Journal
Library Herald.

PEARL - Journal of Library & Information...

Journal of Advancements in Library...

Vishwawarana National Research Journal
DESIDOC Journal of Library and...

College Libraries
International Journal of Information...

Library Philosophy and Practice (E-Journal)

"Knowledge Librarian"

68

Figure-5.5. (B) Top Ten Preferred Journals

# 6.6. Authorship Pattern and Degree of Collaboration

**Table-6.6.1. Authorship Pattern** 

10

20

30

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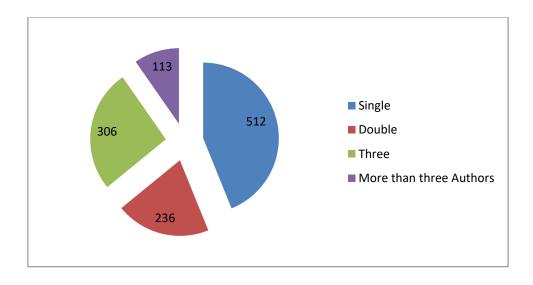
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S.N.	Authorship Pattern	Publications	<del>%</del>
1	Single	512	43.87
2	Double	236	20.22
3	Three	306	26.22
4	More than three Authors	113	9.68
	Total	1167	100.00

This table indicates a total 1167 documents published by LIS faculty in which the maximum literature published by single author which was 512 followed by three authors which was 306 and double authors which was 236 publications.

Figure-6.6 (C) Authorship Pattern



# **Degree of Collaboration**

The degree of collaboration is defined as the ratio of the number of collaborative research publications to the total number of publications during the certain period of time. The formula suggested by Subramanyam (1983) has been used. It is shows as:

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

Where,

DC= Degree of Collaboration of Faculty Members

**Nm= Number of Multiple Authored papers** 

**Ns= Number of Single Authored papers** 

So,

$$DC = \frac{655}{655 + 512}$$
$$= 0.56$$

The above calculated value of degree of collaboration of LIS faculty is 0.56.

#### **6.7 Most Prolific Authors**

**Table-6.7.1 Most Prolific Authors** 

S.N.	Name of Faculty Member	Designation	Name of University
			Dr. Babasaheb Ambedkar Marathwada
1	Prof. Vaishali Khaparde	Professor	University
		Associate	Dr. Babasaheb Ambedkar Marathwada
2	Dr. Shashank S. Sonwane	Professor	University
		Associate	Rashtrasant Tukadoji Maharaj Nagpur
3	Dr. Shalini Lihitkar	Professor	University
		Associate	Gujarat University
4	Dr. Atul Bhatt	Professor	
	Prof. Bansode Sadanand		Savitribai Phule Pune University
5	Yelnathrao	Professor	
6	Prof. Namita Khot	Professor	Shivaji University
7	Prof. Vaishali Praful Gudadhe	Professor	Sant Gadge Baba Amravati University
8	Prof. Ganesha Somayaj	Professor	Ganesha Somayaj
	Prof. Shri. Rajendra Madhavrao		
9	Kumbhar	Professor	Savitribai Phule Pune University
		Associate	Rashtrasant Tukadoji Maharaj Nagpur
10	Dr. Satyaprakash M. Nikose	Professor	University

Table 6.7.1 exhibits the top ten prolific authors of West zone. Prof. Vaishali Khaparde (Dr. Babasaheb Ambedkar Marathwada University) was the most prolific author on the basis of publications followed by Dr. Shashank S. Sonwane (Dr. Babasaheb Ambedkar Marathwada University). Third most prolific author was Dr. Shalini Lihitkar (Rashtrasant Tukadoji Maharaj Nagpur University).

# **Findings and Conclusion**

The present study analyses the research output of LIS faculty of west zone, India during 2012-2021. During the study researchers found 13 universities in which 37 permanent faculties are presently working. Goa University has maximum faculty followed by Central University of Gujarat and Gujarat University. Maximum designation in 13 universities is Assistant Professor then Associate Professor and Professor. LIS faculty published their research work in Journal Articles form followed by Books Chapters. Maximum literature published by single author (43.87%) followed by three authors (26.22%) and measure degree of collaboration which is 0.56. In author wise production Prof. Vaishali Kharpade, Professor of Dr. Babasaheb Ambedkar Marathwada university in top first rank. "Knowledge Librarian" journal is the top most preferred journal followed by Library philosophy and Practice (E-Journal).

In this study researcher formulate two hypotheses in which first hypothesis rejected because single author is greater than joint authorship and the second hypothesis is Library Philosophy and practice is most preferred journal but during the analysis research found that "Knowledge Librarian" is most preferred journal used by LIS faculties. Finally, through this study researchers conclude that LIS faculty can collaborate with each other so that the growth of LIS research output has been increased. During the study researcher observed that LIS faculty is less than required hence researcher suggests that Professor, Associate Professor and Assistant Professor should be appoint for these universities.

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