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PEARL: A JOURNAL OF LIBRARY AND INFORMATION SCIENCE: A BIBLIOMETRIC STUDY

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**PEARL: A JOURNAL OF LIBRARY AND INFORMATION
SCIENCE: A BIBLIOMETRIC STUDY**

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Abstract

This paper presents a bibliometric analysis of the journal titled “**PEARL : A Journal of Library and Information Science**” This Journal is recognised one of the most important Journals in the field of Library and Information Science, The study covered from the period between 2010 to 2018. The study exposed 223 research papers in Pearl during 2010-2018 that were published in 36 issues of 9 volumes. The analysis cover mainly the number of articles, authorship pattern, subject wise distribution of articles, average number of references per articles, forms of documents cited, year wise distribution of cited journals etc. All the studies point towards the merits and weakness of the journal which will be helpful for its further development. The result showed that out of 372 articles single author contributed 138 (37.09%) articles while the rest 234 (62.91%) articles were contributed by Multi-authors. The Study reveals that most of the contributions are from India with Karnataka state 92 (14.35%).

KeyWords: Bibliometrics, Authorship Pattern, Geographical distribution, Author Productivity, Citation Analysis, Degree of Colloboration, etc.

INTRODUCTION:

The word "bibliometrics" constitutes one of the major thrust areas of research in the field of library and information science. It utilizes quantitative analysis and statistics to describe patterns of publications within a given field or body of literature. The term statistical bibliography was first employed by E.W. Hulme in 1923, to refer to the application of quantitative techniques to libraries. The word bibliometrics appeared in print in 1969 in Alan Pritchard's article statistical bibliography or bibliometrics in the December issue of the Journal of Documentation. It flourished in early 20th century with the works of Lotka, Bradford and Zipf who observed distribution pattern in word frequency, author and journal productivity. Bibliometric methods have been used in Eastern Europe countries to monitor science and scientists. The

field of bibliometrics has produced major information scientists such as B.C. Brookers and H. Egghe. In 1948, the great library scientist, S.R. Ranganathan, coined the term “librametry”, which historically appeared first and was intended to streamline the services of librarianship. Bibliometrics is analogous to Ranganathan’s librametrics, the Russian concept scientometrics, infometrics, and sub disciplines like econometrics, psychometrics, sociometrics, biometrics, technometrics, chemometrics, and climetrics, where mathematics and statistics are applied to study and solve problems in their respective fields. Scientometrics is now used for the application of quantitative methods to the history of science and overlaps with bibliometrics to a considerable extent. The present study has been undertaken in order to know the nature and contents of articles in the **“PEARL: A Journal of Library and Information Science”**.

NEED FOR THE STUDY:

Periodicals are the indicators of literature growth in any field of knowledge. They emerge as the main channel for transmitting knowledge. Due to the escalating cost of the periodicals and lack of adequate library budgets, the selection of any particular journal for a library should be done carefully. Library authorities are forced to reduce the number of journal subscriptions. Bibliometric analysis has many applications in library and information science in identifying research trends, core journals, etc., and thereby framing subscription policies for tomorrow. These studies will be helpful for librarians in collection development.

ABOUT THE JOURNAL:

“PEARL: A Journal of Library and Information Science” is being published since 2007 by University Library Teachers Association of Andhra Pradesh, Hyderabad. It is a quarterly publication with March, June, September and December issues. The **“PEARL : A Journal of Library and Information Science”** is an official publication of Library and Information Science field. It is one of the leading journals and also more than one decade it is being the important indexing and abstracting journals of the world. It publishes original research articles by renowned Library Professionals, Librarians, students and Research scholars on all aspects of the field of library and Information Science. The aim of the journal is to provide a forum for the LIS community to publish their research findings and also to open new vistas for further research. The Journal is indexed by Google Scholar, EBSCO Discovery, Summon ProQuest, CNKI Scholar, and Indian Citation Index. The journal also got 0.057 Research Impact Indicator by Indian Citation Index. This Journal under the one roof of the **“Indian Journal.com”**.

RELATED REVIEW OF LITERATURE:

This article reviews a few studies conducted abroad as well as in India on bibliometric study in chronological order:

According to Natarajan N O (2016) in his study *Bibilometric Analysis of on Journal of Library and Information Technology (DESIDOC) during the period of 2006-2015*. The Author analysed the authorship pattern, geographical distributions, Productivity of single author vs Multiple authors and Subject wise distribution of Articles research are analysed

Mondal and Saha (2015) in their study of *Journal of Indian Library Association during 2008-2014* reveal that total 115 articles from 21 issues were analysed. The 21.74% articles are published in volume number 49, 18.26% are in vol. no.50 and lowest 8.7% are published in vol. no. 46. The study shows that 192 authors are contributed their articles in JILA during 2008-2014. 44.35% articles are contributed by single and two authors and 11.30% contributed by three authors.

Thavamani (2014) in his scientometric study on *Pearl journal* reveals that 273 contributions published in the *Pearl journal* during the year 2007–2013. The maximum number of contributions 47 (17.216%) were published in the year 2009 and minimum number of papers 31 (11.355%) were published in the year 2012. 107 contributions (39.194%) out of 273 had contributed by single author, 114 contributions (41.758%) by two authors, 41 contributions (15.018%) by three authors and the lowest number of contributions 11 (4.029%) contributed by four authors.

Rani (2014) in her study on *Bibliometric analysis of PEARL: A Journal of Library and Information Science* reveal that maximum number of articles 47 (19.66%) were published in the year 2009, 45 (18.82%) in 2010 and 44 (18.41%) in 2008. All 239 articles were published during the period 2007 to 2012. The journal published 39.85% articles an average per year. Volume 3 contributed greatest numbers of 47 articles followed by volume 4 the second top position with 45 articles. The least number of articles is in volume 6 with 32 articles only.

Baskaran (2013) in his study on research productivity of *Alagappa University* during 1999-2011 reveals that in 1999 (3.99%) publications were published, in 2004 and 2005 (7.47%) were published and in 2011 (12.5%) were published. The study observed that there is less than 5 % of publications brought from 1999 to 2001, and less than 10 % of publications are published between 2002 and 2008 and more that 10 % of publications occurred during 2009 to 2011.

Jena, Swain and Sahu (2012) in their bibliometric study of *The Electronic Library* from 2003 to 2009 revealed some interesting bibliometric traits of this journal. Taking the above mentioned literature into context, the present study aims to provide some value addition to the corpus of literature on bibliometric studies.

OBJECTIVES OF THE STUDY:

Objective of the study will be following as:

ANALYSIS OF THE ARTICLES:

- To make an analysis of articles published in “PEARL: A Journal of Library and Information Science” from 2010 to 2018.
- To identify the number of contributions published during the period of study
- To determine the year wise distribution of articles
- To study the authorship pattern
- To find out the ranking of leading contributors
- To examine published articles of Indian authors and foreign authors.
- To study the length of articles
- To study the subject coverage of articles
- To discover the number of cited documents and the average number of references per article.
- To identify the number and forms of documents cited.

METHODOLOGY:

Methodology applied in the present study is bibliometric analysis which is used to study in detail the bibliographic features of the articles and citation analysis of reference appended at the end of each article, published in **PEARL : A Journal of Library and Information Science**” from 2010 to 2018. The data pertaining to **PEARL : A Journal of Library and Information Science**” regarding 372 articles made from volume 04 in 2010 to volume 12 in 2018. Then they are tabulated and analysed for making observations.

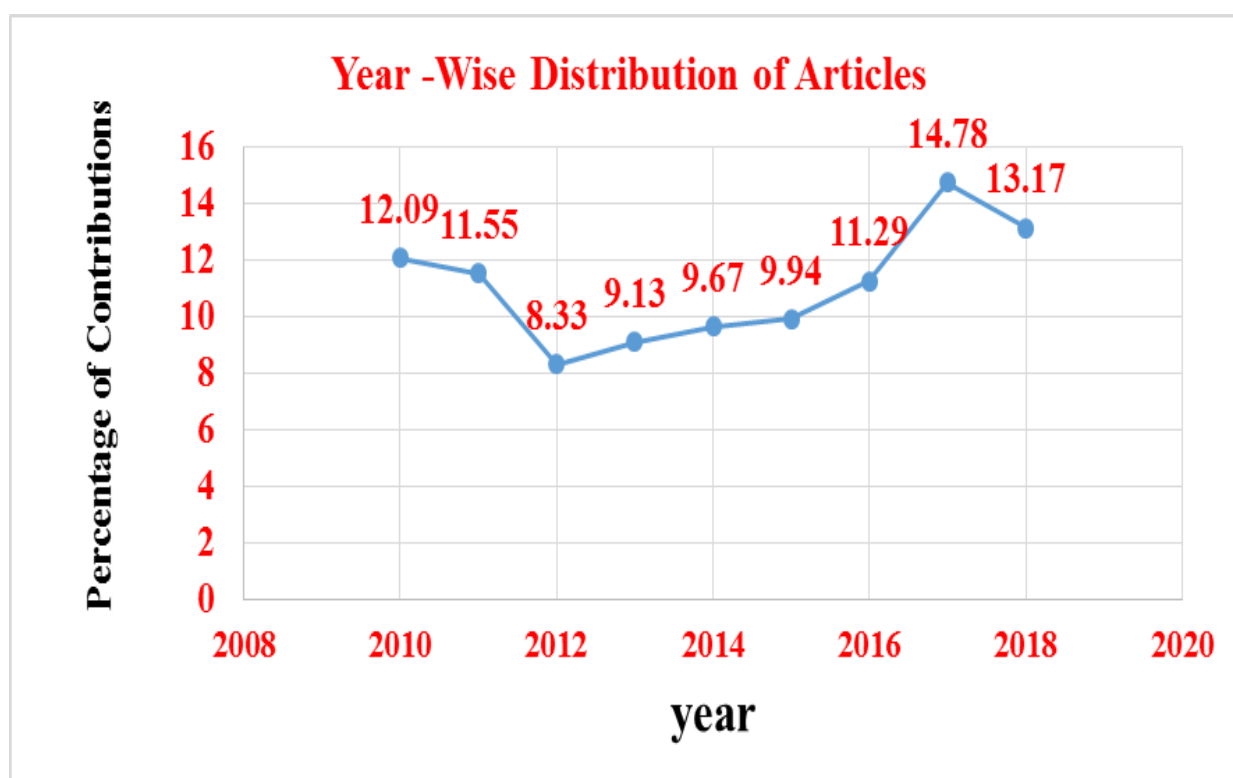
ANALAYSIS:

The Journal Research papers from 36 issues during 2010-2018 were retrieved from the www.IndianJournal.com website and are consider for analysis and interpret. The analysed data is obtainable in tabulated form and explain clearly

Table-1 Year Wise Distribution of Articles

Year	Vol.No.	No.of Issues				No. of contribution	Percentage (%)
		1	2	3	4		
2010	04	11	11	12	11	45	12.09
2011	05	11	11	12	9	43	11.55
2012	06	7	8	7	9	31	8.33

2013	07	9	9	8	8	34	9.13
2014	08	9	9	9	9	36	9.67
2015	09	9	8	12	8	37	9.94
2016	10	9	11	9	13	42	11.29
2017	11	8	16	15	16	55	14.78
2018	12	11	12	16	10	49	13.17
Number of Issues		36				372	100.00
		Total				372	



The **PEARL: A Journal of Library and Information Science** Journal regularly publishes in Quarterly issues National journals of repute. The journal published 372 research papers during the period of study i.e. from 2010 to 2018. Table I shows that the

allocation of papers in the Pearl Journal during 2010-2018. Total 372 papers were published in 36 issues of 09 volumes. The greatest 55 (14.78%) papers were published in the volumes of 11, 49 (13.17%) in vol.no .12, 45(12.09%) in Vol.no.04 43 (11.55%) papers were published in the volume number 05, 42 (11.32%) in vol.no.10, 37 (08.60%) papers were published in Volume number 9, 36 (09.11%) , papers were published in Volume number 8, 34 (08.60%) papers were published in Volume number07, and Least number of papers were published in 31(8.33%) in the Volume number in 6.

Table-2 Distribution of Articles (Issue-Wise)

Month of Issues	Volume Number									Total
	04	05	06	07	08	09	10	11	12	
January-March	11	11	07	09	09	09	09	08	11	84
April-June	11	11	08	09	09	08	11	16	12	95
July-September	12	12	07	08	09	12	09	15	16	100
October-December	11	09	09	08	09	08	13	16	10	93
Total	45	43	31	34	36	37	42	55	49	372

The table 2 reveals distribution of articles (Issue-wise). In the Volume No.11 shows the highest number of total articles. The second highest position is occupied by Volume No. 12. It is followed by volume Number 04, volume Number 02.09., etc. The lowest number of total articles in volume 06. The contribution of articles in volume 11 and 12 were more in June and September respectively.

SUBJECT WISE DISTRIBUTION OF ARTICLES

Table-3 Subject wise distribution of Articles

Subjects	Number of Papers	Percentage %
Digital/Online/E-Resources	52	13.97
Librarianship	38	10.21
Users Studies	45	12.09
Knowledge/Information	27	07.25
ICT	35	09.40
Library Resources/Services	25	06.72
Bibliometrics studies	31	08.33
Journals/Citations	21	05.64
Libraries	09	02.41
Web based Resources	08	02.15
Research Methodology	16	04.30
Scientometrics	16	04.30

Cloud Computing	05	01.34
Library Consortia	05	01.34
Social Media and its Applications	05	01.34
Open Source Software/Search Engines	04	01.07
Web Metrics	04	01.70
Information Literacy	03	0.80
Library Automation/Software	13	03.49
Classification/Cataloguing	02	0.53
Institutional Repositories	02	0.53
HRM	02	0.53
Literature	02	0.53
IPR	01	0.26
Plagiarism	01	0.26
Total	372	100.00

Table reveals that total 25 areas of library and information sciences were covered in Pearl Journal during 2010- 2018. Greatest 52 (13.97%) papers were on digital/online/r- resources, 45 (12.09 %) on User studies, 38 (10.20%) on Librarianship, 35 (09.40 %) on ICT, 27 (07.25%) on Knowledge/Information, 25 (06.72%) on Library Recourse / Services. The table shows complete detail of 25 areas of library and information science with their quantity and percentage.

AUTHORSHIP PATTERN:

Table-4 Degree of Author Collaboration in Pearl Journal during 2010-2018

Year	Volume	Single Authored Papers	Multi Authored Papers	Total	Degree of Collaboration
2010	4	18	27	45	0.60
2011	5	19	24	43	0.55
2012	6	10	21	31	0.67
2013	7	12	22	34	0.64
2014	8	16	20	36	0.55
2015	9	15	22	37	0.59
2016	10	15	27	42	0.64
2017	11	19	36	55	0.65
2018	12	14	35	49	0.71
Total		138	234	372	0.62

Table 4 presents Subramanyam formula for calculating author's degree of collaboration in a discipline. The degree of collaboration among authors is based on the ratio of the number of papers published in a discipline during certain period of time. The degree of collaboration (collaboration coefficient) between authors is measured mathematically as;

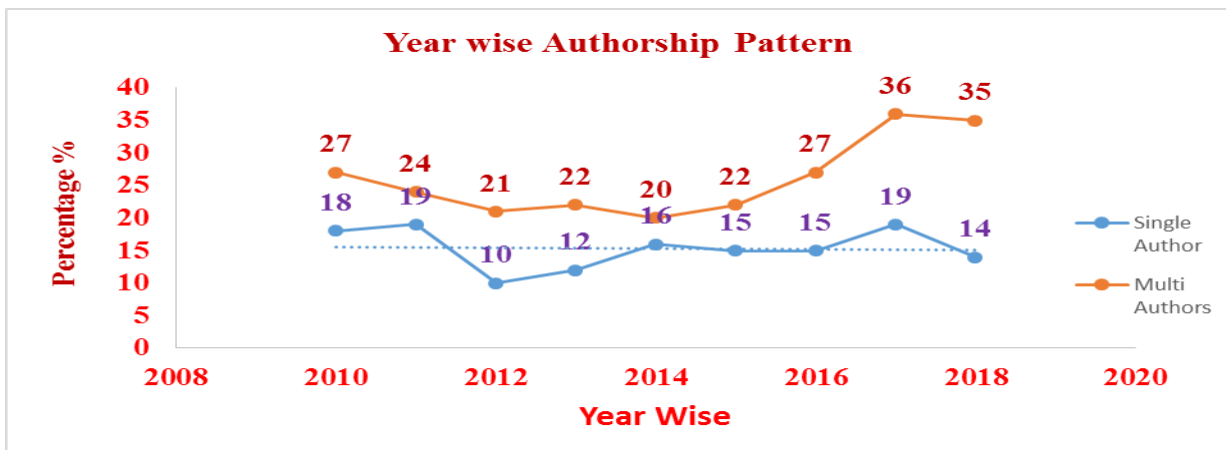
$$C = \frac{Nm}{Nm+Ns}$$

Where C is the degree of collaboration, Nm is number of multi-authored papers, and Ns is number of single-authored papers.¹⁰ According to Subramanyam formula, the degree of collaboration over the years from 2011-2016 is calculated and it varies from 0.56 to 0.68 and the average degree of collaboration is 0.61 which shows supremacy of joint authorship.

Table-5 Year-Wise Authorship Pattern

Year	Single Authored Papers	Multi Authored Papers	Total
2010	18	27	45
2011	19	24	43
2012	10	21	31
2013	12	22	34
2014	16	20	36
2015	15	22	37
2016	15	27	42
2017	19	36	55
2018	14	35	49
Total	138(37.09%)	234 (62.90 %)	372(100.00%)

The above table-5 showed that out of 372 articles single author contributed 138 (37.09 %) articles while the rest 234 (62.91%) articles were contributed by Multi Authors

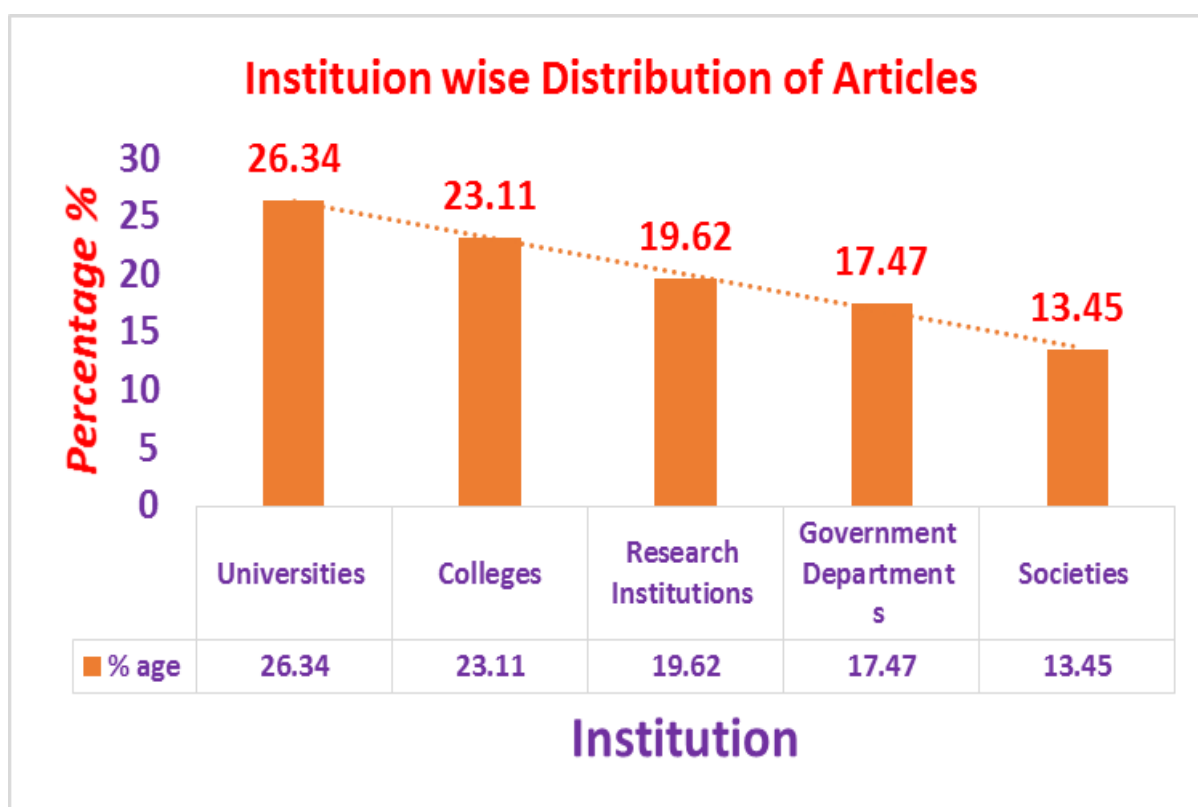


INSTITUTION WISE CONTRIBUTION:

Table-6 Institution-Wise Distribution of Articles

Name of the Institution	No.of Articles	Percentage (%)
Universities	98	26.34
Colleges	86	23.11
Research Institutions	73	19.62
Government Departments	65	17.47
Societies	50	13.45
Total	372	100.00

The table 6 envisages the institution wise contributors. These sectors have been grouped into five distinct categories for the convenience of the study. The highest contributions were from universities with 98 (26.34%). This is followed by Colleges 86 (23.11%), research institutions with 73 (19.62%) and government departments 65(17.47%) The remaining 50 articles (13.45%) were contributed by Societies.



COUNTRY WISE CONTRIBUTION:

Table-7 State-Wise Distribution of Authors in Pearl journal during 2010-2018

Rank	State / Union Territory/ Other countries	Number of Authors	Percentage (%)
1	Karnataka	92	14.35
2	Andhra Pradesh	82	13.01
3	Tamil Nadu	70	11.10
4	Odisha	55	08.58
5	Maharashtra	53	08.26
6	Chandigarh	40	06.24
7	Punjab	34	05.30
8	Delhi/New Delhi	30	04.68
9	Haryana	22	03.43
10	Uttar Pradesh	20	03.12
11	Gujarat	18	02.80
12	Madhya Pradesh	16	02.49
13	West Bengal	15	02.34
14	Puducherry	12	01.87
15	Assam	05	0.78
16	Chhattisgarh	05	0.78
17	Jammu & Kashmir	05	0.78
18	Kerala	05	0.78
19	Mizoram	05	0.78
20	Rajasthan	05	0.78
21	Meghalaya	04	0.62
22	Telangana	04	0.62
23	Uttrakhand	04	0.62
24	Sikkim	01	0.15
	Other countries	39	6.08
	Total	641	100.00

Table 7 reveals that 641 Indian authors from 24 states of India had contributed their papers in Pearl Journal during 2010-2018. The greatest 92 (14.35%) authors were from Karnataka, 82 (13.01%) from Andhra Pradesh, 70 (11.10%) from Tamil Nadu, 55 (8.58%) from Odisha, 53 (8.26%) from Maharashtra. The 39 (6.08%) authors from foreign countries had also contributed their papers in Pearl during 2010-2018.

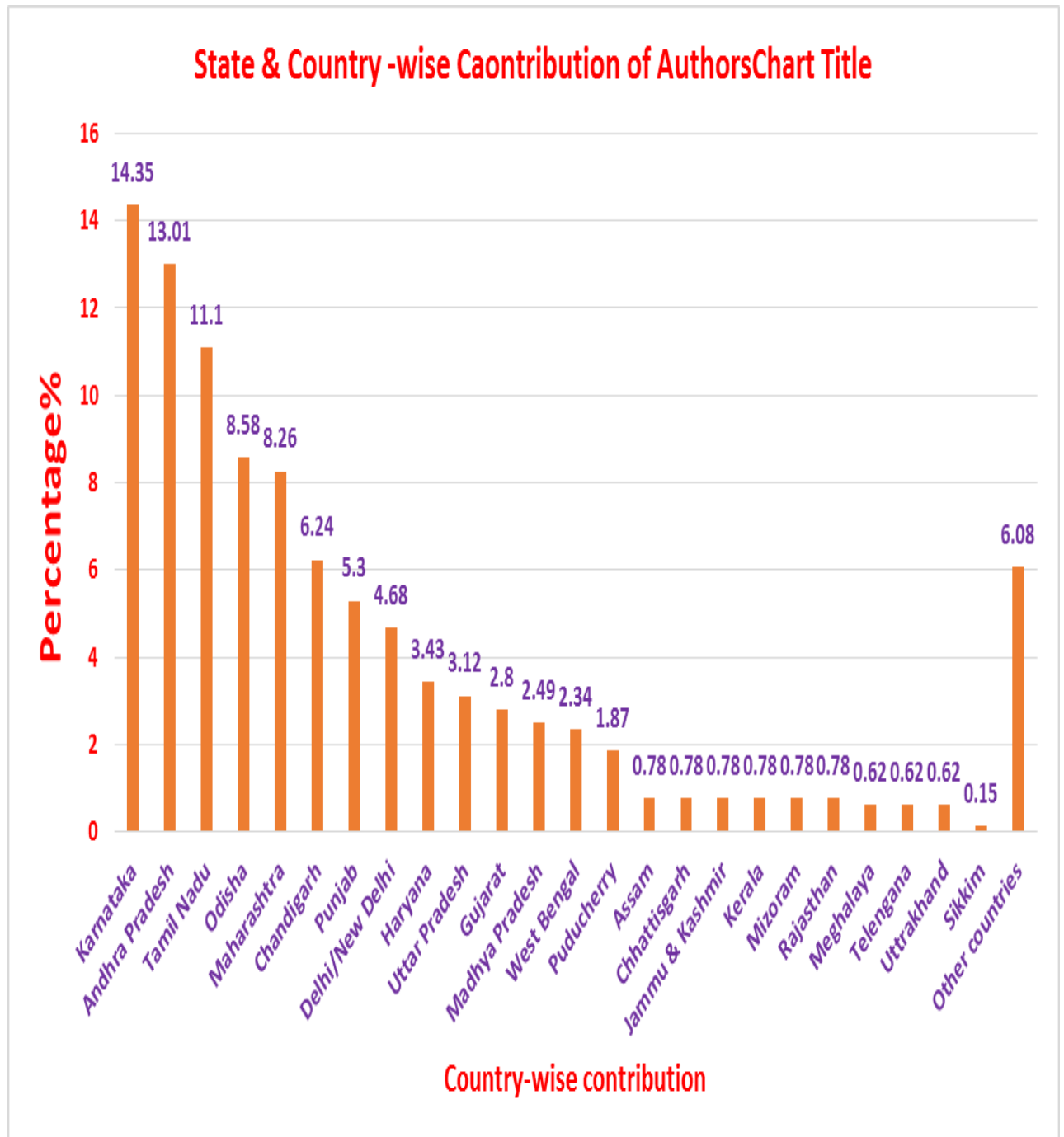


Table -8 Length of the Papers Published in Pearl Journal during 2010-2018

Year	Length of the Papers-Number of Pages					Total
	1-5	6-10	11-15	16-20	>21	
2010	18	21	09	04	02	54
2011	15	20	08	05	01	49
2012	14	19	07	02	03	45
2013	13	19	07	01	01	41
2014	12	18	05	03	02	40
2015	10	17	04	02	02	35
2016	09	16	04	05	03	37
2017	08	16	03	06	02	35
2018	07	15	03	08	03	36
Total	106 (28.49%)	161 (43.27%)	50 (13.44%)	36 (9.67%)	19 (5.10%)	372 (100.00%)

Table 8 reveals that greatest 161 (43.27%) published papers in Pearl Journal during 2010-2018 had length between 6-10 pages, 106 (28.49%) length of 1-5 pages, 50 (13.44%) length of 11-15 pages, 36 (9.67%) length of 16-20 and 19(5.10%) are more than 21 pages.

Table -9 References in the Papers Published in Pearl Journal during 2010-2018

Year	Number of references cited						Total
	1-5	6-10	11-15	16-20	21-25	26-30	
2010	13	11	09	07	04	02	54
2011	13	15	08	06	05	01	49
2012	14	14	07	07	02	03	45
2013	11	19	07	06	01	01	41
2014	10	13	05	05	03	02	40
2015	08	17	04	04	02	02	35
2016	07	16	04	04	05	03	37
2017	08	16	03	03	06	02	35
2018	07	10	03	03	08	03	36
Total	91 (24.46%)	131 (35.21%)	50 (13.44%)	45 (12.09%)	36 (9.67%)	19 (5.10%)	372 (100.00%)

Table 9 shows that 131 (35.21%) papers had cited 6-10 references; 91(24.46 %) cited 1-5 references, 50 (13.44%) cited 11-15 references, 45(12.09%) cited 16-20 references, 36(9.67%) cited 21-25 references, 19 (5.10%) cited 26-30 references.

FINDINGS OF THE STUDY:

Following are the main findings of the study

- Total 372 papers were published in the 36 issues of 09 volumes in Pearl Journal during the year of 2010-2018.
- The greatest 234 (62.90 %) contributors are Multi- authored in the 36 issues. Degree of collaboration of multi-authored is greater than single authored.
- The highest contributions were from universities with 98 (26.34%).Universities got first rank Position compare with other Institution.
- Indian authors from 24 states of India had contributed their papers in Pearl Journal during 2010-2018.The greatest 92 (14.35%) authors were from Karnataka is take first Rank.
- The Maximum 131(35.21%) papers cited 6-10 pages references. Greater Number 52(13.97%) of papers cover the subject area was digital/online/r-resources in Pearl Journal during 2010-18.

CONCLUSION:

Bibliometric studies do provide some guide lines for the librarians and Information scientist in the decision making process in their acquisition policy. These finding are much helpful for librarians and information scientists while taking decision regarding collection development removing out dated documents from the shelves and also in maintaining need based collection in librarians. Pearl: A Journal of Library and Information Science is a very prominent journal in the field of library and information science. Library professionals, teachers, scientists, research scholars and other dignitaries at national and international level are willing to contribute their research papers in Pearl journal. The bibliometric analysis during 2010-2018 of this journal clears that Pearl covers 24 Indian states, and other foreign countries and 641 authors of different destination without any partiality.

REFERENCES:

- Pritchard, A. (1969). Statistical bibliography or bibliometrics. *Journal of Documentation*, 25(4), 338-349.
- K. Swain, Dillip, Swain, Chandrakanta and Rautaray, Bijayalaxmi.(2014) Bibliometric analysis of the Journal of Educational Media and Library Science from 2008 to 2012. *PEARL - A Journal of Library and Information Science*, Vol. 8, No.1, pp. 9-14.

Y. Rani, Sudha. (2014) "Bibliometric Analysis of PEARL: A Journal of Library and Information Science," *PEARL - A Journal of Library and Information Science*, Vol. 8, No.3, pp. 151-154.

C. Baskaran. (2013). "Research productivity of Alagappa University during 1999-2011: a bibliometric study," *DESIDOC Journal of Library & Information Technology*, Vol. 33, No.3, pp.236-242, 2013.

K. Thavamani. (2014). "Authorship pattern and collaborative research work in Pearl: A Journal of Library and Information Science: A Scientrometric Study," *PEARL - A Journal of Library and Information Science*, Vol. 8, No.3, pp 169-176.

Mondal, Dhiman and Saha, Satarupa. (2015). "Journal of Indian Library Association during 2008-2014: a bibliometric study," *Journal of Indian Library Association*, Vol. 51, No.1, pp 27-33.

Natarajan N O. (2016). A Bibliometric Analysis of on Journal of Library and Information Technology (DESIDOC) during the period of 2006-2015. *Research Trends in Library and Information Science*, pp 67-72.

Jena, K.L., Swain, D. K. and Sahu, B. B. (2012). Scholarly communication of the Electronic Library from 2003-2009: A bibliometric study. *The Electronic Library*. 30(1), pp.103-119. DOI: 10.1108/02640471211204097.

K.Subramaniam,"Bibliometric Studies of Research in Collaborations: A Review." *Journal of Information Science*. Vol.6.pp37, 1983.