

RESEARCH PRODUCTIVITY OF LIBRARY TRENDS DURING 2007-2016

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Abstract: - *The present research paper is based on the bibliometric analysis of 459 documents published in 'Library Trends' from 2007 to 2016. The paper carried out various parameters of bibliometric such as total output and cited publications; year wise distribution of research output; most prolific author, top five countries in terms of research output and top cited article of the journal. This study resulted that the most productive year 2007 (15.6%) and USA is on top with highest research output (69.7%) and contribution in total research output. Marshall, J.G. and Rathbun-Grubb, S. are most productive authors. ACPP of Corral, S. is highest.*

Keywords:-Research Output; Bibliometric; Library Trends; Scopus; Top Cited Article, Research Performance.

INTRODUCTION

Research is the art of scientific investigation which helps to build knowledge. It is an original addition to the available knowledge for further advancement. It gathers new knowledge or data from primary or first-hand sources. Journals are considered the first hand information sources which include new and updated articles with latest issue of research on specific field of study. To know the latest publishing trends in different field of study there are bibliometric studies in existence. These studies analysis the research

output of particular field of knowledge to reveal some interesting facts and may prove beneficial for the concerned research fraternity. Therefore, the current study has been considered to find out the research output or latest publishing trends of library science discipline through bibliometric techniques by selecting one of the core journal of this field Titled "Library Trends" .

1.1 Bibliometric

The word 'Bibliometric' was coined by Pritchard in 1969. It is a combination of two words 'biblio' and 'metrics' . The word 'biblio' is

derived from a Latin and Greek Word combination 'biblion', which means book, paper. On the other side the word 'metrics' refers 'measurement'. Bibliometrics is statistical analysis of written publication, such as books or articles. It is a type of research method used in library and information science. Some definitions used for 'Bibliometrics' are as under:

- According to Bellis (2009), "Bibliometric is a set of methods to quantitatively analyze scientific and technological literature."
- Potter (1981) defines bibliometrics as "the study and the measurement of the publication pattern of all forms of written communication and their author."
- According to Pritchard (1969), Bibliometrics is defined as "the application of mathematics and statistical methods to books and other media of communication".

1.2 Source journal

Library Trends is a publication of John Hopkins University Press. It is a quarterly journal and is published since 1952 regularly. Each issue of this journal is a special-topic issue and is overseen by one or more guest editors. It has peer-review policy. The process may be single-blind, double-blind, or open at the discretion of the guest editors. Guest editors are selected by General Editor, with the advice of the Editorial Board, based on the content of submitted proposals. The scope of journal is Library and Information

Science. It is indexed and abstract in many databases like Web of Science, Scopus, and EBSCO Host etc. The present study covers the bibliometric analysis of journal between the years 2007 to 2016.

2. METHODOLOGY

In this present study, documents published in "Library Trends" journals from 2007 to 2016 have been analyzed. The data has been extracted from the largest abstracting and citation database of peer-reviewed literature which is Scopus database. The data was extracted from the Scopus using the strings "Library Trends" and afterwards followed a few filters. The data was shifted to MS-Excel for analysis and presented in tabular form for further interpretations.

3. REVIEW OF RELATED LITERATURE

For any research, review of related literature serves as a mandate to go ahead with. The reviews entail numerous messages and information further research. Often it serves whether an area is fit to be studied for a doctoral work or not. Further from the previous studies, we get to know about the methodology, applied for, how the data was collected, analyzed and presented and the best part is to glance through, arriving at the results on the basis of analyzed data. Few important literature reviews are presented from the scientific literature completed both in India and abroad.

Bansal, Sonia (2017) in the research paper entitled “Bibliometric Analysis of the ‘Veterinary Clinics of North America: Equine Practice’” presents a bibliometric study of total 197 articles published in this journal. The study explored that 62.94% articles were contributed by single authors and it shows that single authors’ contribution was in majority. Around 33.5% articles have length 11-15 pages followed by 27.42% articles with 16-20 pages and 18.78 articles with 6-10 pages. Only 1.01% articles have length of 36-40 pages. It shows papers of more than 20 pages are less in journal. The study shows that 12.17 % papers have 30-39 citations followed by 11.11% articles having 40-49 citations, 10.58% with 20-29 and 9.52% papers having citations between 10-19 and 70-79. The study shows that only 1.06% articles have citations between 140-149 and 150-159.

Mulla (2012) has described the bibliometric analysis of 998 articles of Information Science and Scientometrics (ISS) that appeared in different journals during the period of 2005-2009. The study revealed that, most researchers preferred to publish their research results in journals; as such 91.98% of articles were published in journals. Most productive year was 2009 with 32.97% of publications. The authorship trend shows that, out of 1703 authors who contributed a total of 998 articles, out of which 40.96% articles were two authored. The degree of collaboration in ISS was 0.78, and in the country wise contribution, India was the most productive country with 83.99% contribution of the total

publications. It also further examines year wise distribution of articles, form wise distribution of documents, length of the papers, authorship pattern, rank wise distribution of collaborators, institution wise distribution of articles, country wise distribution of contributions, state wise distribution of contributions, and journal wise distribution of articles.

Chang and Huang (2011) in their study used three bibliometric methods to find out the citation tendency of LIS researcher and revealed that LIS researchers preferred to cite publications in LIS discipline and the degree of interdisciplinary within LIS has increased, particularly co-authorship.

Chikate (2008) carried out a study on "Citation Analysis of Theses in Library and Information Science Submitted to University of Pune: A Pilot Study". In this study 27 LIS dissertations were analyzed. A total of 6,257 citations were found in all 27 dissertations. Analysis represents different cited sources, rank list of journals in LIS field, author ship pattern etc. College and Research Libraries was the most cited journal, followed by Scientometrics. Nearly three quarters of the journal articles were from LIS journals, 33 from other subject areas.

Patra & Chand (2006) in their study base on LISA employed standard bibliometric techniques to analyze the collected data .To find out the core journal of library science Bradford's law of scattering had been used.

Tiew (2002) in the study of the Malaysian Journal of Library & Information Science for a

five year period from 1996 to 2000 explored the publication pattern of journal through bibliometric analysis. The study revealed that most of the contributions were from Malaysian academics and single-authored articles were preferred by the governing places.

Mahapatra, G and Das, B. (2000) described the growth of publications on geology during 1987-1996 and found that the year 1989 was the most productive year with 551 (11.45%) publications. In the authorship pattern, joint authorship was dominating over single authorship (29.16 %).

A few other studies conducted by Tripathi and Garg, (2014) etc. were also consulted for interpreting and analysis of data.

4. OBJECTIVES

The study has been conducted with taking following objectives in to consideration:

- To identify the total output and cited publications of Library Trends journal during 2007-2016
- To find out year-wise distribution of research output in Library Trends.
- To identify the most prolific authors of Library Trends.
- To find out top five countries produced more research output.
- To identify top cited articles of Library Trends.

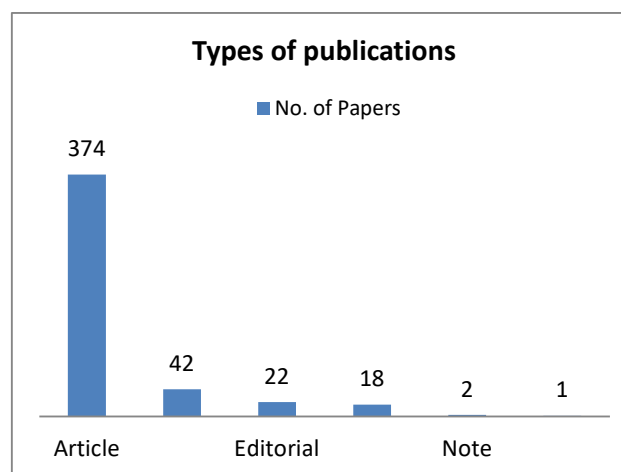
5. DATA ANALYSIS

5.1 Type of Research output in Library Trends during 2007-16

There were five type of publications appeared in different issues of “Library Trends” journal during the period under study. It is apparent that majority of literature published in Library Trends was in form of Research Articles (81.5%) while one tenth were in form of Reviews(9.1%). Other publications were least appeared like Editorial (4.8%), conference papers (3.9%), Notes (0.4%) and others (0.2%).

Table 1 Type of Publications

Document Type	No. of Papers	%
Article	374	81.5
Review	42	9.1
Editorial	22	4.8
Conference Paper	18	3.9
Note	2	0.4
Unknown	1	0.2
Total	459	



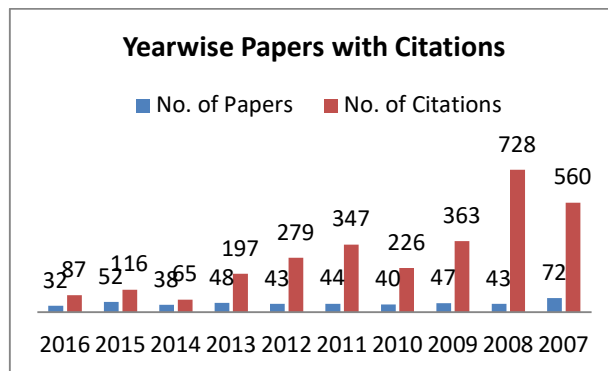
5.2 Yearly distribution of research output and citations

Table 2 shows the year wise distribution of research output and citations during the period 2007-2016. It is very clear from the table that most productive year has been 2007 (15.6%) distantly followed by 2015(11.3%). More citations were noted for the year 2008 (24.5%) followed by 2007(18.8%). It is noteworthy to mention here that latest year recorded comparatively less citations than the previous years. ACPPI was also highest in the year 2008(16.9).

Table 2

Year wise distribution of papers and citations

Year	No. of Papers	%	Total citations	%	ACPP
2016	32	6.9	87	2.9	2.7
2015	52	11.3	116	3.9	2.2
2014	38	8.2	65	2.1	1.7
2013	48	10.4	197	6.6	4.1
2012	43	9.3	279	9.4	6.5
2011	44	9.5	347	11.6	7.8
2010	40	8.7	226	7.6	5.6
2009	47	10.2	363	12.2	7.7
2008	43	9.3	728	24.5	16.9
2007	72	15.6	560	18.8	7.7
Total	459	100.0	2968	100.0	6.4



5.3 Most prolific authors

The list of ten top authors who gave highest contribution to Library Trends during the period 2007 -2016 is given in Table 3. In terms of number of publications, Marshall, J.G. and Rathbun-Grubb, S. are most productive author with 9 each publications followed by Morgan, J.C. with 8 publications . It is also noticed that these ten authors collectively produced 12.8 percent research output of total publications and received almost equal percentage of citations (11.4%). ACPPI of Corral, S. is highest (23.0) distantly followed by Cloonan, M.V.(7.0).

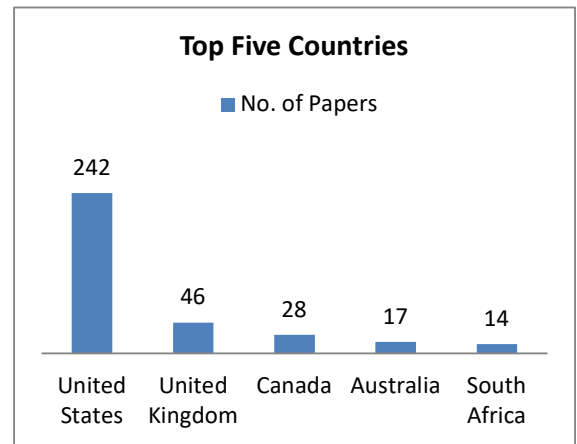
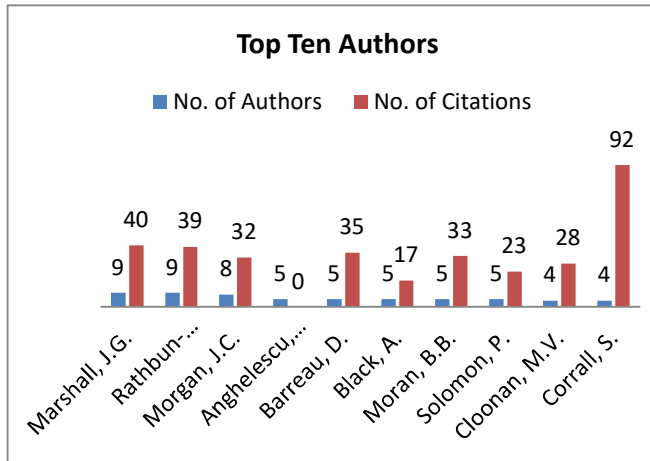
Table 3

Top ten authors in terms of research publications

Most Prolific Authors	No. of Papers	Total Citations	ACPP
Marshall, J.G.	9	40	4.4
Rathbun-Grubb, S.	9	39	4.3
Morgan, J.C.	8	32	4.0
Anghelescu, H.G.B.	5	0	0
Barreau, D.	5	35	7.0
Black, A.	5	17	3.4
Moran, B.B.	5	33	6.6

Solomon, P.	5	23	4.6
Cloonan, M.V.	4	28	7.0
Corrall, S.	4	92	23.0
Total	59	339	5.7
%	12.8	11.4	-

United Kingdom	46	13.2
Canada	28	8.1
Australia	17	4.8
South Africa	14	4.1
Total	347	
%	75.5	



5.4 Country wise research output

Table 4 shows the top five countries in terms of research publication in Library Trends during period of ten years. As per the table United States produced highest research output (69.7%) among all top five most productive countries distantly followed by United Kingdom (13.2%). Other top listed countries contributed comparatively less research output as Canada gave 8.1 percent and Australia and South Africa contributed a little more than 4 % research output published in the journal.

Table 4

Top five countries in terms of research publications

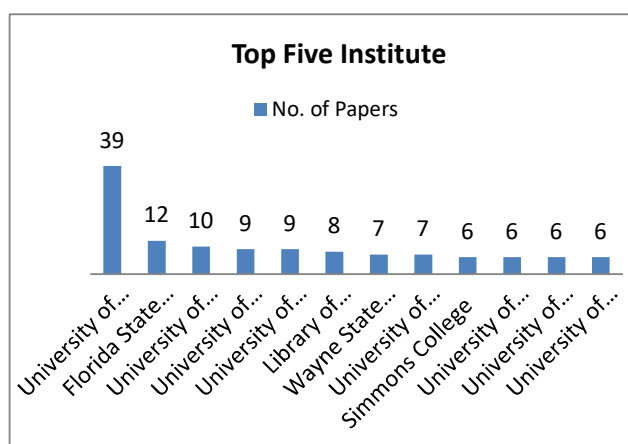
Country	No. of Papers	%
United States	242	69.7

5.5 Institution wise research output

Table 5 lists the top ten institutions made highest contribution in terms of research output during 2007-2016 in the journal. These top ten institutions together produced more than one fourth (27.2%) of the research output. University of Illinois at Urbana-Champaign contributed highest research output (31.2%) among top ten institutions in terms of research output in Library Trends distantly followed by Florida State University (9.6%). It is also found that four Institutions at position 7th, 8th, 9th and 10th produced equal share of research output (4.8% each).

Table 5
Top five institutions in terms of research publications

Institution	No. of Papers	%
University of Illinois at Urbana-Champaign	39	31.2
Florida State University	12	9.6
University of Illinois	10	8.0
University of Sheffield	9	7.2
University of Wisconsin-Madison	9	7.2
Library of Congress	8	6.4
Wayne State University	7	5.6
University of Alberta	7	5.6
Simmons College	6	4.8
University of Toronto	6	4.8
University of Wisconsin-Milwaukee	6	4.8
University of Michigan, Ann Arbor	6	4.8
Total	125	
%	27.2	



5.6. Top cited papers during 2007-16

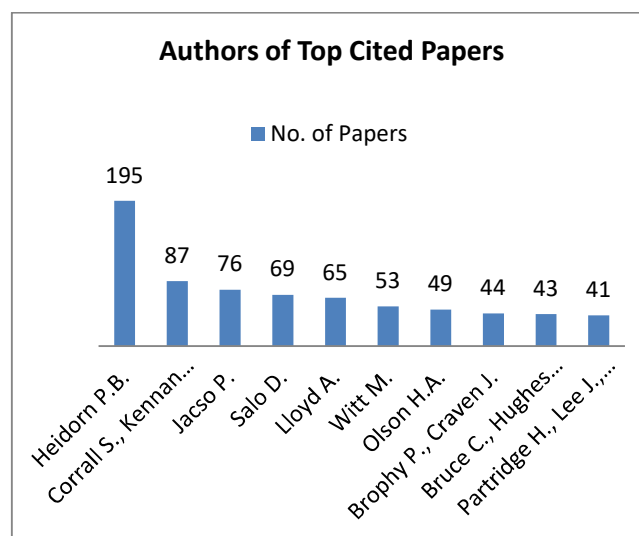
Top 10 highly cited papers of “Library Trends” during 2007-2016 are listed in table 6. These papers received 24.3 percent citations in all. The paper titled “Shedding light on the dark data in the long tail of science” authored by Heidorn P.B. published in the year 2008 received highest number of citations and the paper at 10th position in receiving highest citations entitled “Becoming “Librarian 2.0”: The skills, knowledge, and attributes required by library and information science professionals in a web 2.0 world” authored by Partridge H., Lee J., Munro C. in the year 2010 received 41 publications.

Table 6
Top Cited Papers

Authors	Title	Year	Cited by
Heidorn P.B.	Shedding light on the dark data in the long tail of science	2008	195
Corrall S., Kennan M.A., Afzal W.	Bibliometrics and research data management services: Emerging trends in library support for research	2013	87
Jacso P.	Testing the calculation of a realistic h-index in google scholar,	2008	76

	scopus, and web of science for F. W. Lancaster		
Salo D.	Innkeeper at the Roach Motel	2008	69
Lloyd A.	Trapped between a rock and a hard place: What counts as information literacy in the workplace and how is it conceptualized?	2011	65
Witt M.	Institutional repositories and research data curation in a distributed environment	2008	53
Olson H.A.	How we construct subjects: A feminist analysis	2007	49
Brophy P., Craven J.	Web accessibility	2007	44
Bruce C., Hughes H., Somerville M.M.	Supporting informed learners in the twenty-first century	2012	43
Partridge H., Lee J., Munro C.	Becoming "Librarian 2.0": The skills, knowledge, and attributes required	2010	41

	by library and information science professionals in a web 2.0 world (And beyond)		
Total			722
%			24.3



6 CONCLUSION

Bibliometric is well known area of library and Information Science which aims to examine the latest publishing trends in different field of study. These studies can be useful for understand various aspects and recent research trends. This study presents the various publication trends of ‘Library Trends’ journal. The study defines that during the study period ,there were five type of publications appeared and majority was of research article 374 (81.5%). The study shows that Marshall, J.G. and Rathbun-Grubb, S. are most productive author . ACPP of Corral, S. is highest (23.0) distantly

followed by Cloonan, M.V.(7.0). USA is most productive country (69.7%). The study shows that most cited paper by Heidorn P.B. published in the year 2008 received highest number of citations (195).

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