Mapping of Research Productivity in Lovely Professional University: A Scientometric Study

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Abstract

This paper discusses about the published research articles and its citation available in the Indian Citation Index by the authors from Lovely Professional University. The relevant data are collected from Indian Citation Index and it was analyzed. It shows among the published. 387 articles, maximum of 148 (38.24%) articles published in 2015 and minimum 1 (0.26%) article published in 2007. Based on the citation study during the period 86 citations were made. Among the Citations, maximum of 20 (23.26%) citations in 2010 and 2015 followed by 19 (22.09%) citations in 2012 was identified.

Keywords: Citation Analysis, Lovely Professional University, Mapping, Research Productivity ICI, Scientometric, Year Wise Distribution

1. Introduction

The true barometer of assessing the quality and quantity of a journal is the Citation Index. While discussing citation, one needs to understand the citation. Simply, when another refers other works in his/her article, we call the article referred is cited. In other words the citation is called as the previous work which is referred in the present work. The quality of a given work can rightly be adjudged through the number of citations that it gets. Therefore, a certain piece of article or research paper is carrying more number of citations get more impact than the work carrying fewer citations. Therefore, we always refer to some indexing and abstracting databases like Scopus, Web of Science, or even Google Scholars to know the impact of a journal, a particular article or a particular author. Indian Citation Index which was initiated by Diva Enterprises is just an indexing and abstracting database.

2. Review of Literature

Nicholas and Ritchie [1] view that, "bibliometric studies provide information about the structure of knowledge and how it is communicated" Moreover, bibliometric studies are normally employed to evaluate the academic research output, the quality of the journal, impact and influence of articles, authors, and assorted parameters. Though there has been substantial growth of literature on bibliometric studies during the last decade, the authors focus on some of the pertinent literature that relate to the present study. Potter [2] defines bibliometric study as "the study and measurement of the publication patterns of all forms of written communication and their authorship". In a most interesting study Mooghali [3] et al., analyzed records of three premiere indexes namely, "Social Science Citation Index", "Science Citation Index", and "Arts and Humanities Citation Index", and projected how the field of "scientometrics" evolved between 1980 to 2009. The pattern of growth of literature in the field of Nanoscience

during 1990 to 2009 was reported by Karpagam et al, [4]. In the similar vein, Abramo [5] exercised bibliometric techniques on some national level research assessments. Lapon-Kandeishein and Prebor [6] have done their bibliographical research on Hebrew printing also needs mention. In the similar light bibliometric studies by veterans like Krampen, Eye and Schui [7], Kumar Suchetan [8] and others also presented findings on different directions. Dhanavandan and Tamizhchelvan [9] studied research productivity and citations of universities in south Tamil Nadu from 2009 to 2013 which is based on Indian Citation Index.

3. Methodology

"This study aims to discuss about the analysis of the citation index of the research output by faculty members of Lovely Professional University [10]. The relevant sources and data are collected from Indian Citation Index. Based on the available sources the following discussions are made."

4. Analysis and Interpretation

The distributions of the research output by the authors from Lovely Professional University that are available in Indian Citation Index were analyzed in the Table 1.

5. Year Wise Distribution of Published Articles Vs Citations

Table 1. Year Wise Distribution of Published Articles Vs Citations

S.No.	Year	Articles	%	Citation	%	Citation Density	Article/ Citation
1	2007	1	0.26	1	1.16	1.000	1
2	2008	4	1.03	0	0	0.000	N/A
3	2009	14	3.62	2	2.32	0.143	7
4	2010	23	5.94	20	23.26	0.870	1
5	2011	24	6.20	5	5.81	0.208	5
6	2012	51	13.18	19	22.09	0.373	3
7	2013	57	14.73	9	10.47	0.158	6
8	2014	65	16.80	10	11.63	0.154	7
9	2015	148	38.24	20	23.26	0.135	7
	Total	387	100	86	100	3.041	37

The above Table shows that the year wise distribution of articles published by the various authors from Lovely Professional University. From 2007 to 2015, 387 articles were published which are indexed in Indian Citation Index. Among the 387, maximum of 148 (38.24%) articles published in 2015 and minimum 1 (0.26%) article published in 2007. Based on the citation during the period 86 citations were made. Among the 86 Citations, maximum of 20 (23.26%) citations in 2010 and 2015 followed by 19 (22.09%) citations in 2012 was identified.
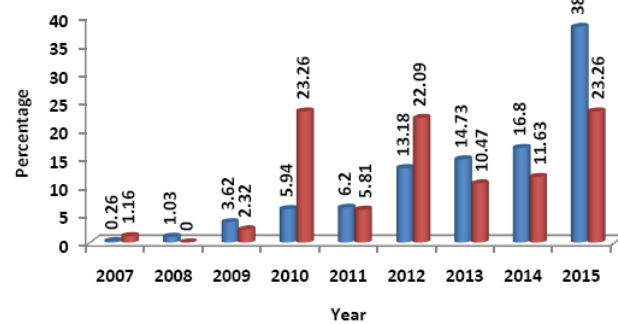

Table 2. Year wise distribution of cited articles and cited density

S. No.	Year	Cited Articles	%	Cited Density	Article/Cited Articles
1	2007	1	2.04	1.000	1.000
2	2008	0	0	0.0	0.000
3	2009	2	4.08	0.143	7.000
4	2010	5	10.21	0.217	4.600
5	2011	2	4.08	0.083	12.000
6	2012	10	20.41	0.196	5.100
7	2013	6	12.24	0.105	9.500
8	2014	8	16.33	0.123	8.125
9	2015	15	30.61	0.101	9.867
	Total	49	100	1.968	57.192

The above Table presents the year wise distribution of Cited articles, Cited density and Article/Cited articles published by the various authors from Lovely Professional University. From 2007 to 2015, 49 cited articles were available which are indexed in Indian Citation Index. Among the cited articles maximum of 15 (30.61%) in 2015 followed by 10 (20.41%) cited articles in 2012. Based on the cited density during the period maximum of 1 in 2007 and followed by 0.217 in 2010, was identified.
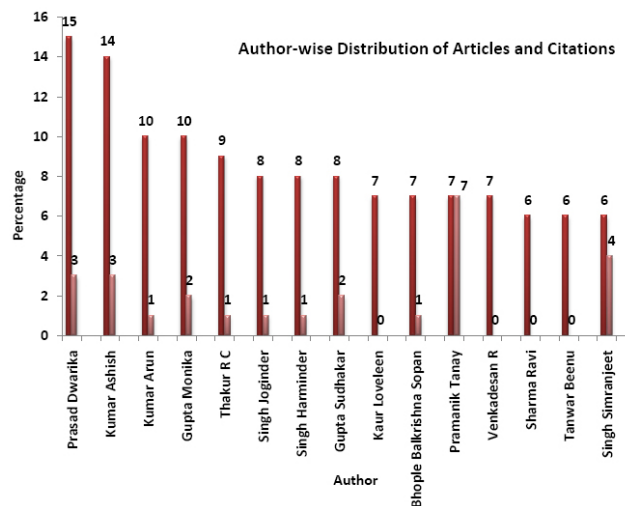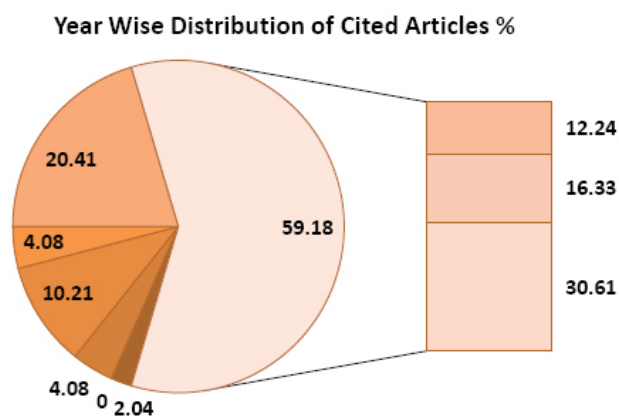
Year Wise Distribution of Cited Articles %

Author-wise Distribution of Articles and Citations

Table 3. Author-wise distribution of articles and citations (Top 15)

S.No.	Author	Articles	Citation	Citation Density
1	Prasad Dwarika	15	3	0.200
2	Kumar Ashish	14	3	0.214
3	Kumar Arun	10	1	0.100
4	Gupta Monika	10	2	0.200
5	Thakur R C	9	1	0.111
6	Singh Joginder	8	1	0.125
7	Singh Harminder	8	1	0.125
8	Gupta Sudhakar	8	2	0.250
9	Kaur Loveleen	7	0	0.000
10	Bhople Balkrishna Sopan	7	1	0.143
11	Pramanik Tanay	7	7	1.000
12	Venkadesan R	7	0	0.000
13	Sharma Ravi	6	0	0.000
14	Tanwar Beenu	6	0	0.000
15	Singh Simranjeet	6	4	0.667
	Total	128	26	3.135

The above table reveals that the author wise distribution of the articles published and citations are available in the Indian Citation Index. Only we consider in the top fifteen authors. Among the 15, Prasad Dwarika occupied the first position with 15 articles and 3 citations followed by author Kumar Ashish in the second position with 14 articles and 3 citations and Kumar Arun in the third position with 10 articles and 1 citation (Ranked by Articles only). In the case of highest citations Pramanik Tanay is in the first position with 7 citations and Singh Simranjeet occupies the second position with 4 citations

Table 4. Subject wise distribution of cited articles (TOP 15)

S.No.	Subject Category	Articles	Citation
1	Pharmacology and Pharmaceutical Science	140	42
2	Chemistry	116	25
3	Biological Science	95	8
4	Health Science	53	26
5	Engineering Science and Technology	34	2
6	General Science and Technology	32	9
7	Management	30	2
8	Biotechnology	19	3
9	Business and Marketing	17	3
10	Environmental Science	16	2
11	Computer Science and Technology	16	0
12	Social Science	12	0
13	Arts and Humanities	11	0
14	Education	9	0
15	Economics	9	1
	Total	609	56

The above Table presents the top 15 subjects it includes various articles published and cited from the Lovely Professional University that are available in the Indian Citation Index. "As per the sources available in the Indian Citation Index. Among the articles 140 from Pharmacology and Pharmaceutical Science is in the first rank, 116 articles from Chemistry with second rank and 95 articles from Biological Science subject in third rank were

identified. It is revealed from the table that Pharmacology and Pharmaceutical Science subject has the highest citations 42 when comparing to other subjects".
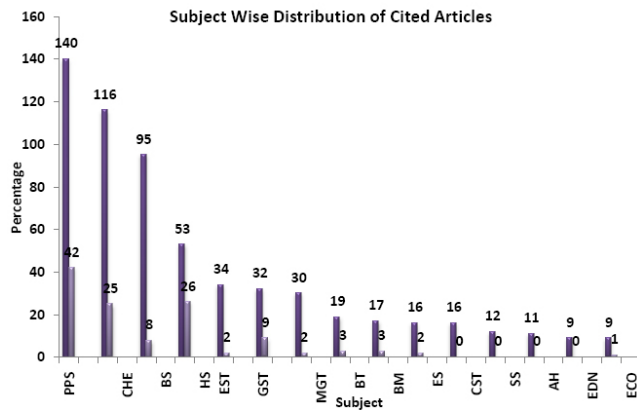

Table 5. Distribution of top 15 cited journals

S.No.	Publications	Articles	Citation
1	Research Journal of Pharmaceutical, Biological, and Chemical Sciences	57	6
2	Journal of Chemical and Pharmaceutical Research	36	5
3	Oriental Journal of Chemistry	28	11
4	Indian Journal of Science and Technology	24	8
5	Indian Journal of Physiotherapy and Occupational Therapy	18	0
6	Biosciences, Biotechnology Research Asia	12	1
7	Asian Journal of Research in Business Economics and Management	11	0
8	International Journal of Pharmacy and Pharmaceutical Sciences	11	3
9	The Criterion: An International Journal in English	11	0
10	International Journal of Drug Development and Research	10	14
11	International Journal of Chemtech Research	9	0
12	International Journal of Engineering Science and Technology	9	1
13	Asian Journal of Pharmaceutical & Clinical Research	8	0
14	Asian Journal of Chemistry	7	1
15	Educational Quest- An International Journal of Education ad Applied Social Sciences	7	0
	Total	258	50

The data presented in the above table shows the top 15 journals articles published and cited by authors in Lovely Professional University. Among the top 15, Research Journal of Pharmaceutical, Biological, and Chemical Sciences occupies the first place with 57 articles the second place in Journal of Chemical and Pharmaceutical Research with 36 articles and the third place in Oriental Journal of Chemistry with 28 articles publications. Based on the citation International Journal of Drug Development and Research occupies the first position with 14 citations and Oriental Journal of Chemistry is in the second position with 12 citations.
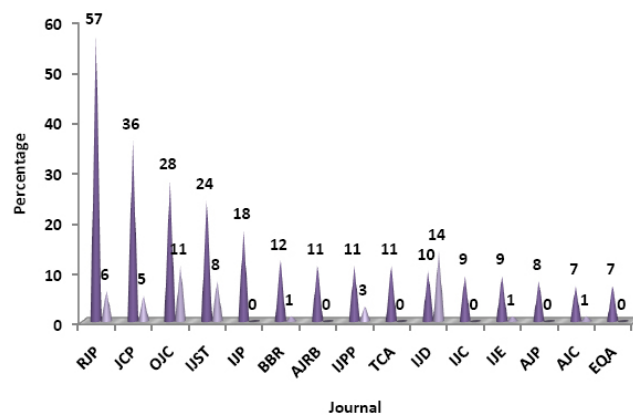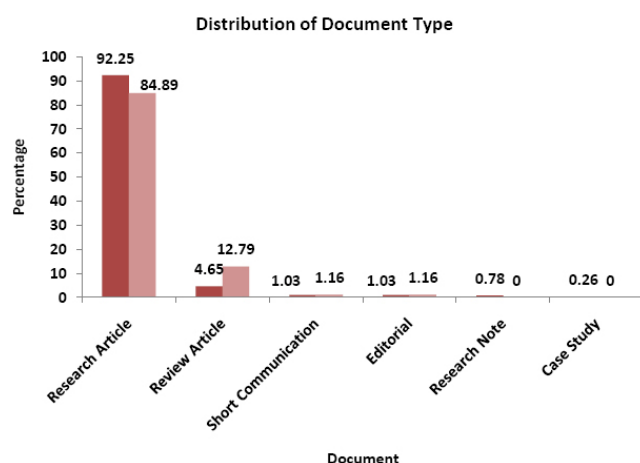

Table 6. Distribution of document type

S. No.	Document Type	Articles	%	Citation	%
1	Research Article	357	92.25	73	84.89
2	Review Article	18	4.65	11	12.79
3	Short Communication	4	1.03	1	1.16
4	Editorial	4	1.03	1	1.16
5	Research Note	3	0.78	0	0
6	Case Study	1	0.26	0	0
	Total	387	100	86	100

The above table expresses the distribution of document type based on the articles published from Lovely Professional University. It shows among the 387 articles, which includes 357 (92.25%) Research Articles, 18 (4.65%) Review Articles and 4 (3.38%) Short Communication and Editorial type. Among the 86 Citations, which include 73 (84.89%) Research Articles type followed by 11 (12.79%) Review article type it is concluded that the highest articles and citations are from research article type of documents.

Distribution of Document Type

Pharmaceutical, Biological, and Chemical Sciences occupies the first place with 57 articles followed by the Journal of Chemical and Pharmaceutical Research with 36 articles and the third place in Oriental Journal of Chemistry with 28 articles publications. Based on the citation International Journal of Drug Development and Research occupies the first position with 14 citations and Oriental Journal of Chemistry is in the second position with 12 citations. The distribution of document type study proves that 357 (92.25%) from Research Articles followed by 18 (4.65%) Review Articles and 4 (3.38%) Short Communication and Editorial type. Among the 86 Citations, 73 (84.89%) are Research Articles type followed by 11 (12.79%) Review article type. It is concluded that the highest articles and citations are from research article type of documents.

6. Conclusion

Indian Citation Index is a user friendly, authentic citation database to users. During the study period among the published articles 387, maximum of 148 (38.24%) articles published in 2015 and minimum 1 (0.26%) article published in 2007. Based on the citation during the period 86 citations were made. Maximum of 20 (23.26%) citations in 2010 and 2015 followed by 19 (22.09%) citations in 2012 was identified. The cited articles study reveals that the maximum of 15 (30.61%) in 2015 followed by 10 (20.41%) cited articles in 2012. The cited density study shows that during the period maximum of 1 in 2007 and followed by 0.217 in 2010, was identified. The Author Wise Distribution of Articles and Citations study tells that the author Prasad Dwarika occupied the first position with 15 articles and 3 citations followed by author Kumar Ashish in the second position with 14 articles and 3 citations and Kumar Arun in the third position with 10 articles and 1 citation. In the case of highest citations Pramanik Tanay is in the first position with 7 citations and Singh Simranjeet occupies the second position with 4 citations. The Subject wise distribution of articles study reveals that 140 articles from Pharmacology and Pharmaceutical Science is in the first rank, 116 articles from Chemistry with second rank and 95 articles from Biological Science subject in third rank were identified. It is revealed from the study that Pharmacology and Pharmaceutical Science subject has the highest citations 42 when comparing to other subjects.. The Distribution of Top 15 Cited Journals depicts that, the Research Journal of

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