

## RESEARCH ARTICLE

MAPPING OF RESEARCH PRODUCTIVITY IN SRM UNIVERSITY:  
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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 SRM University. The relevant data are collected from Indian Citation Index and it was analyzed. It shows among the 510 articles, the maximum of 157(30.78%) articles published in 2015 and minimum of 1 (0.20%) articles published in 2005. Based on the citation during the period 153 citations were made. Among the 153 Citations, maximum of 32 (20.92%) citations in 2010 and minimum number of citation 1 (0.65%) in 2006 & 2007, was identified.

**Keywords:** Mapping, Research Productivity ICI, Year wise Distribution, Citation Analysis, SRM University, Scientometric.

## 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 less citation. 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, "study of bibliometrics concept provides information, 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 analysis as "the calculation and study of the research publication patterns of all types of written communication and their authorship nature". In a most interesting study Mooghali *et al.* (3) analyzed records of three premiere indexes known as, "SSCI", "SCI", and "AHCI", and it is projected in 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 assessment. Lapon-Kandeishein and Prebor (6) bibliographical research on Hebrew printing also needs mention. In the similar light bibliometric studies by veterans like Krampen *et al.* (7), Kumar Suchetan (8) and others also presented findings on different directions. Dhanavandan and Tamizhchelvan (9) studied citations and research productivity of south Tamil Nadu universities from 2009 to 2013 based on Indian Citation Index (ICI).

## 3. METHODOLOGY

This study aims to discuss about the analysis of the citation index of the research output by faculty members of SRM University. 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 SRM University that are available in

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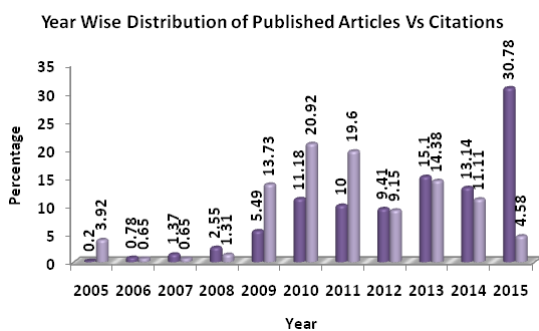
Indian Citation Index were analyzed in the table 1.

#### 4.1. Year wise distribution of published articles vs citations

**Table 1. Year Wise Distribution of Published Articles vs Citations.**

S. No.	Year	Articles	%	Citation	%	Citation Article/Citation Density	Article/Citation
1	2005	1	0.20	6	3.92	6.000	0
2	2006	4	0.78	1	0.65	0.250	4
3	2007	7	1.37	1	0.65	0.143	7
4	2008	13	2.55	2	1.31	0.154	7
5	2009	28	5.49	21	13.73	0.750	1
6	2010	57	11.18	32	20.92	0.561	2
7	2011	51	10.00	30	19.60	0.588	2
8	2012	48	9.41	14	9.15	0.292	3
9	2013	77	15.10	22	14.38	0.286	4
10	2014	67	13.14	17	11.11	0.254	4
11	2015	157	30.78	7	4.58	0.045	22
Total		510	100	153	100	9.323	56

The above Table shows that the year wise distribution of articles published by the various authors from SRM University. From 2005 to 2015, 510 articles were published which are indexed in Indian Citation Index. Among the 510 maximum of 157 (30.78%) articles published in 2015 and minimum of 1 (0.20%) articles published in 2005. Based on the citation study during the period 153 citations were made. Among the Citations, maximum of 32 (20.92%) citations in 2010 and minimum number of citation 1 (0.65%) in 2006 & 2007, was identified.



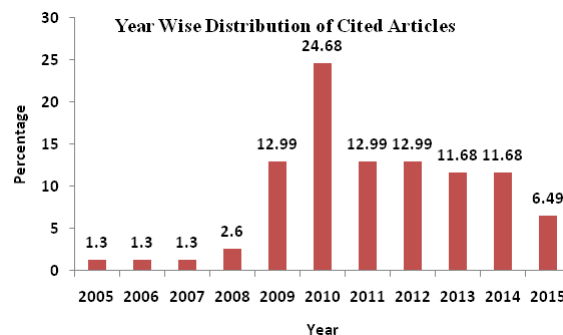
#### 4.2. Year wise distribution of cited articles & cited density

**Table 2. Year Wise Distribution of Cited Articles & Cited Density**

S. No.	Year	Cited Articles	%	Cited Density	Article/Cited Articles
1	2005	1	1.30	1.000	1.000
2	2006	1	1.30	0.250	4.000

3	2007	1	1.30	0.143	7.000
4	2008	2	2.60	0.154	6.500
5	2009	10	12.99	0.357	2.800
6	2010	19	24.68	0.333	3.000
7	2011	10	12.99	0.196	5.100
8	2012	10	12.99	0.208	4.800
9	2013	9	11.68	0.117	8.556
10	2014	9	11.68	0.134	7.444
11	2015	5	6.49	0.032	31.400
Total		77	100	2.924	81.600

The above Table presents the year wise distribution of Cited articles, Cited density and Article/ Cited articles published by the various authors from SRM University. From 2005 to 2015, 77 cited articles were available which are indexed in Indian Citation Index. Among the 77 cited articles maximum of 19 (24.68%) in 2010 and minimum of 1 (1.30%) cited articles in the years of 2005, 2006 and 2007. Based on the cited density during the period maximum of 1 in 2005 and minimum number of 0.032 in 2015, was identified.

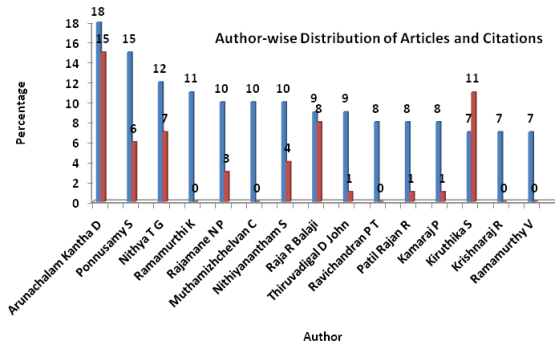


#### 4.3. Author wise distribution of articles and citations (Top 15):

S. No.	Author	Articles	Citation	Citation Density
1	Arunachalam Kantha D	18	15	0.833
2	Ponnusamy S	15	6	0.400
3	Nithya T G	12	7	0.583
4	Ramamurthi K	11	0	0.000
5	Rajamane N P	10	3	0.300
6	Muthamizhchelvan C	10	0	0.000
7	Nithiyanantham S	10	4	0.400
8	Raja R Balaji	9	8	0.889
9	Thiruvadigal D John	9	1	0.111
10	Ravichandran P T	8	0	0.000
11	Patil Rajan R	8	1	0.111
12	Kamaraj P	8	1	0.125
13	Kiruthika S	7	11	1.571
14	Krishnaraj R	7	0	0.000
15	Ramamurthy V	7	0	0.000
Total		149	57	5.323

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, Arunachalam Kantha D occupied the first position with 18 articles and 15 citations followed

by the author Ponnusamy S in the second position with 15 articles and 6 citations and Nithya T G in the third position with 12 articles and 7 citations (Ranked by Articles only). In the case of highest citations again Arunachalam Kantha D is in the first position with 15 citations and Kiruthika S occupies the second position with 11 citations and Raja R Balaji occupies the third position with 8 citations.



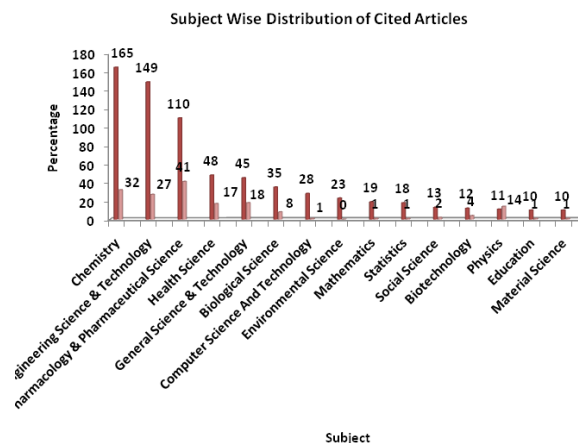
#### 4.4. Subject wise distribution of cited articles (Top 15):

**Table 4. Subject Wise Distribution of Cited**

Articles (TOP 15)				
S. No.	Subject Category	Articles	Citation	
1	Chemistry	165	32	
2	Engineering Science & Technology	149	27	
3	Pharmacology & Pharmaceutical Science	110	41	
4	Health Science	48	17	
5	General Science & Technology	45	18	
6	Biological Science	35	8	
7	Computer Science & Technology	28	1	
8	Environmental Science	23	0	
9	Mathematics	19	1	
10	Statistics	18	1	
11	Social Science	13	2	
12	Biotechnology	12	4	
13	Physics	11	14	
14	Education	10	1	
15	Material Science	10	1	

The above Table presents the top 15 subjects it includes various articles published and cited from the SRM University that are available in the Indian Citation Index. As per the sources available in the Indian Citation Index. Among the articles 165 from Chemistry is in the first rank, 149 articles from Engineering Science & Technology with second rank and 110 articles from Pharmacology & Pharmaceutical Science subject in third rank were identified. It is revealed from the

table that Pharmacology & Pharmaceutical Science subject has the highest citations 41 when comparing to other subjects.



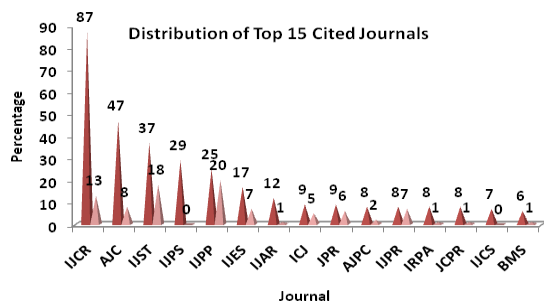
#### 4.5. Distribution of top 15 cited journals

**Table 5. Distribution of Top 15 Cited Journals**

S. No.	Publications	Articles	Citation
1	International Journal of Chemtech Research	87	13
2	Asian Journal of Chemistry	47	8
3	Indian Journal of Science & Technology	37	18
4	International Journal of Pharmaceutical Sciences: Review & Research	29	0
5	International Journal of Pharmacy & Pharmaceutical Sciences	25	20
6	International Journal of Engineering Science & Technology	17	7
7	International Journal of Advanced Research in Computer Science	12	1
8	Indian Concrete Journal (The)	9	5
9	Journal of Pharmacy Research	9	6
10	Asian Journal of Pharmaceutical & Clinical Research	8	2
11	International Journal of Pharmtech Research	8	7
12	International Review of Pure & Applied Mathematics	8	1
13	Journal of Chemical & Pharmaceutical Research	8	1
14	International Journal of Chemical Sciences	7	0
15	Bulletin of Materials Science	6	1
	Total	317	90

The data presented in the above table shows the top 15 journals articles published and cited by authors in SRM University. Among the top 15, International Journal of Chemtech Research occupies the first place with 87 articles in the second place the Asian Journal of Chemistry with 47 articles and the third place in Indian Journal of Science & Technology with 37 based on the article publications. Based on the citation International Journal of Pharmacy & Pharmaceutical Sciences

occupies the first position with 20 citations and Indian Journal of Science & Technology is in the second position with 18 citations.

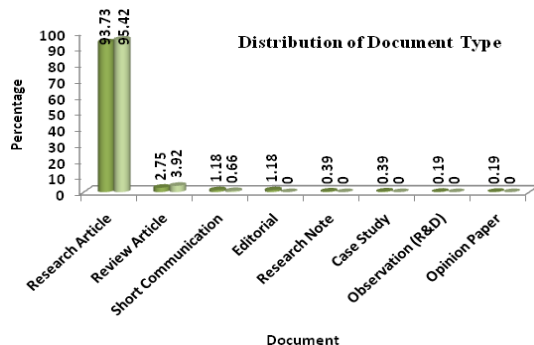


#### 4.6. Distribution of document type:

**Table 6. Distribution of Document Type**

S. No.	Document Type	Articles	%	Citation	%
1	Research Article	478	93.73	146	95.42
2	Review Article	14	2.75	6	3.92
3	Short Communication	6	1.18	1	0.66
4	Editorial	6	1.18	0	0
5	Research Note	2	0.39	0	0
6	Case Study	2	0.39	0	0
7	Observation (R&D)	1	0.19	0	0
8	Opinion Paper	1	0.19	0	0
Total		510	100	153	100

The above table expresses the distribution of document type based on the articles published from SRM University. It shows among the 510 articles, which includes 478(93.73%) Research Articles, 14(2.75%) Review Articles and 6(1.18%) Short communication and Editorial type. Among the 153 Citations, which include 146(95.42%) Research Articles type followed by 6(3.92%) Review Article and Short Communication type 1(0.66%). It is concluded that the highest articles and citations are from research article type of documents.



## 5. CONCLUSION

Indian Citation Index to offer an easy-to-use, reliable bibliographic and citation database to

users. During the study period among the published articles 510 the maximum of 157(30.78%) articles published in 2015 and minimum of 1(0.20%) articles published in 2005. The research study shows that most of the years the number of article publications in gradually increasing. It shows the interest in publication of articles in SRM university. Based on the citation during the period 153 citations the maximum of 32(20.92%) citations in 2010 and minimum number of citation 1(0.65%) in 2006&2007, was identified. The cited articles study reveals that among the 77 cited articles maximum of 19(24.68%) in 2010 and minimum of 1(1.30%) cited articles in 2005-2007. Based on the cited density during the period maximum of 1 in 2005 and minimum number of 0.032 in 2015, was identified. The Author Wise Distribution of Articles and Citations study tells that the author Among the 15, Arunachalam Kantha, D. occupied the first position with 18 articles and 15 citations followed by author Ponnusamy, S. in the second position with 15

articles and 6 citations and Nithya T G in the third position with 12 articles and 7 citations (Ranked by Articles only). In the case of highest citations again Arunachalam Kantha D is in the first position with 15 citations and Kiruthika, S. occupies the second position with 11 citations and Raja R Balaji occupies the third position with 8 citations. The Subject wise distribution of cited articles study reveals that the 165 articles from Chemistry is in the first rank, followed by Engineering Science & Technology with 149 articles and 110 articles from Pharmacology & Pharmaceutical Science subject in third rank were identified. It is revealed from the table that Pharmacology & Pharmaceutical Science subject has the highest citations 41 when comparing to other subjects. The Distribution of Top 15 Cited Journals depicts that, International Journal of Chemtech Research occupies the first place with 87 articles the second place in Asian Journal of Chemistry with 47 articles and the third place in Indian Journal of Science & Technology with 37 based on the article publications. Based on the citation International Journal of Pharmacy & Pharmaceutical Sciences occupies the first position with 20 citations and Indian Journal of Science & Technology is in the second position with 18 citations. The distribution of document type study shows that among the shows among the 510 published articles, it includes 478(93.73%) Research Articles, 14(2.75%) Review Article and 6(1.18%) Short communication and Editorial type. Among the 153 Citations, Research Articles are 146(95.42%) type followed by Review Articles with 6(3.92%) and Short Communication type 1(0.66%). It is concluded that the highest articles

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