

PUBLICATIONS PRODUCTIVITY OF SOCIAL SCIENCE DEPARTMENTS OF BHARATHIAR UNIVERSITY, COIMBATORE: A BIBLIOMETRIC ANALYSIS

¹Prof. M. Nagarajan

²Senior Fellow (ICSSR), Department of Library and Information Science

²Annamalai University, Annamalai Nagar -608 002, India.

Abstract : This paper analysis publication productivity of Faculty members of Social Science Departments of Bharathiar University during 1985-2018. It covers 177 publications during the period of study. The data was collected from Scopus database. Result showed that journal articles occupy the first position among the various sources of publications. Two authored contribution rank first in order. Degree of Collaboration is 0.085.

IndexTerms - Publication Productivity, Bibliometrics, Bharathiar University, Social Sciences

I. INTRODUCTION

The Bibliometrics is a type of research method used in Library and Information Science. It is a quantitative study of various aspects of literature on a topic and is used to identify the pattern of publication; authorship and secondary journal coverage with the objective of getting an insight into the dynamics of growth of knowledge in the areas under consideration. This consequently leads to the better organization of information resources that is essential for its most effective and efficient use. Bibliometrics today has attained sophistication and complexity having national, international and interdisciplinary character. The present study focuses attention on the bibliometric analysis of publication of faculty members of Social Science Departments in Bharathiar University.

II. OBJECTIVES OF THE STUDY

The study is mainly aimed at the following objectives:

- To find out year wise distribution of publication from 1985 to 2018.
- To identify source wise distribution of publication.
- To find out authorship pattern and degree of collaboration.
- To identify the most prolific author.
- To find out ranking list of journals.
- To identify collaborated institutions.

III.METHODOLOGY

Data was collected from Scopus database. Scopus is an international multi disciplinary database indexing over 15000 international peer reviewed journals in Science and Technology, besides more than 500 international Conference/Seminars proceedings. Applied advanced search with first keyword "Bharathiar University" as "author address" and then limited the search to 1985 to 2018. Except science departments, got 177 publications. The data entered into the data sheet prepared in MS excel. Analysis done using simple arithmetic method.

IV.ANALYSIS AND INTERPRETATION

Table 1
Year-wise Distribution of Contributions

Year	Contribution	Percentage	Cumulative Total	Cumulative Percentage
1985	1	0.56	1	0.56
1989	1	0.56	2	1.30
1990	3	1.69	5	2.82
1991	3	1.69	8	4.52

1992	1	0.56	9	5.08
1993	2	1.13	11	6.21
1996	1	0.56	12	6.78
1997	2	1.13	14	7.91
2000	3	1.69	17	9.60
2001	3	1.69	20	11.30
2002	3	1.69	23	12.99
2003	2	1.13	25	14.12
2004	1	0.56	26	14.68
2005	2	1.13	28	15.81
2006	1	0.56	29	16.38
2007	2	1.13	31	17.51
2008	5	2.82	36	20.34
2009	3	1.69	39	22.03
2010	6	3.39	45	25.42
2011	12	6.78	57	32.20
2012	8	4.52	65	36.72
2013	7	3.95	72	40.67
2014	12	6.78	84	47.45
2015	15	8.47	99	55.93
2016	27	15.25	126	71.18
2017	25	14.12	151	85.31
2018	26	14.69	177	100.00
	177	100		

Data presented in table 1 indicates the year wise distribution of publications of faculty members of Social Science departments in Bharathiar University. The research output is observed to 1 in 1985 and it went up to 26 in 2018. There is no publication from 1986 to 1988. It is observed from the table that in the year 2016 has recorded highest number of publications (15.25%), followed by 14.69% in 2018. The publication output during the study period 1985-2018 consists of 177 records with an average publication per year as 7 publications. Overall publication output was found to be steadily increasing nature.

Table 2
Source-wise Distribution of Contribution

S.No.	Sources	No. of Contribution	Percentage
1	Article	140	79.10
2	Conference Paper	25	14.12
3	Book Chapter	8	4.52
4	Review	4	2.26
Total		177	100.00

In table 2 the data on the distribution of research output by type of publication source is presented. Out of various sources of publications in Social Sciences research, articles that appeared in the Journals have shown a predominant contribution (79.10%), and this sources occupies the first position. The sources of conference paper comes second in order (14.12%). Book chapters form of publication occupies the third position (4.52%) with respect of total output. Review form of publication takes the fourth in order of 2.26 percent of publications. Hence the majority of faculty members intend to publish their research papers in journals in general and reputed journals in particular.

Table 3
Authorship Pattern of Contributions

S.No	Authorship Pattern	No of Contributions	Percentage
1	Single Author	15	8.47

2	Two Authors	113	63.84
3	Three Authors	31	17.51
4	Four Authors	4	2.26
5	Five Authors	6	3.39
6	Six and above Authors	8	4.52
	Total	177	100.00

Table 3 indicates the authorship pattern in Social Science research output. It could be observed that, the two authors contributions rank first in order (63.84%) in respect to total number of research output published during the study period. Three authors contributions come next in order (17.51%) of sharing the total output during the period of examination. Single author contributions rank third in order (8.47%) with respect to the total number of papers recorded in this study. Six and above authors contributions occupy the fourth position (4.52%) with regard to total output during the study period. Five authors contributions occupy the fifth position (3.39%) with respect to the total number of research output and Four authors contributions occupy the last position 2.26 percent sharing in total research output in Social Science subjects. It could be seen clearly from the discussion that two authors contributions rank first in order and three authors contributions rank second in order.

Table 4
Authors with over 3 papers

S.No	Name	No. of Contributions	Percentage
1	Sundaresan, M.	6	3.39
2	Audinarayana, N.	5	2.82
3	Balaji, B.	5	2.82
4	Balachandran, K.	4	2.26
5	Kathiravan, C.	4	2.26
6	Lingaraja, K.	4	2.26
7	Selvam, M.	4	2.26
8	Soundararajan, V.	4	2.26
9	Thangavel, N.	4	2.26
10	Annalakshmi, N.	3	1.69
11	Arumainayagam, S.D.	3	1.69
	Total	46	25.99

Table 4 shows the authors who have more than 3 contributions. It could be noted that out of 177 publications, 46(25.99%) publications were contributed by 11 authors, among the 11 authors, Sundaresan, M contributed 6(3.39%) papers, followed by Audinarayana, N and Balaji, B were contributed 5(2.82%) papers each. The remaining 8 authors contributed less than 4 papers during the study period. It could be deducted from the discussion that Sundaresan, M contributed 6(3.39%) papers.

Table 5
Top 10 Keywords

S.No	Keyword	No. of Times Appeared
1	Article	9
2	Human	9
3	India	8
4	Data Mining	7
5	Female	6
6	Humans	6
7	Adolescent	5
8	Information Technology	5
9	Effluent Treatment	4
10	Male	4

The keywords used by the faculty members of Social Science departments have been identified and the same has been shown in table 5. The key word that has appeared more than 4 times alone taken up for the study. It is observed from the table that the word 'Article' and 'Human occupies the first position which appeared 9 times. Ranking second in order the word 'India' share

8 times. The word 'Data mining' which is put at third in order appeared 7 times. The remaining words appeared less than 6 times during the study period.

Table 6
Top 10 Collaborative Institutions

S.No.	Name of the Institutions	No. of Contributions	Percentage
1	Bharathidasan University	7	3.95
2	Shree Gurukripa Institute of Finance and Management	5	2.82
3	Pondicherry University	5	2.82
4	CMS Academy of Management and Technology	3	1.69
5	Jeppiaar Engineering College	3	1.69
6	Christ University, Bengaluru	3	1.69
7	Chickanna Government Arts College	2	1.30
8	National Taiwan University	2	1.30
9	National Institute of Technology Tiruchirappalli	2	1.30
10	University of Madras	2	1.30

Table 6 indicates the top 10 collaborative institutions. The faculty members of social science departments in Bharathiar University has collaborated with faculty members of Bharathidasan University and published 7 papers and collaborated with Shree Gurukripa Institute of Finance and Management and Pondicherry University published 5 papers each. The remaining institutions published less than 3 papers collaborated with Bharathiar University.

Table 7
Top 10 Journals

S.No	Title of the Journals	No. of Articles	Percentage
1	International Journal Of Applied Business And Economic Research	8	5.71
2	Indian Journal Of Finance	7	5.00
3	International Journal Of Quality Reliability Management	7	5.00
4	Journal Of The Indian Academy Of Applied Psychology	6	4.28
5	Indian Journal Of Social Work	5	3.57
6	International Journal Of Economic Research	4	2.85
7	International Journal Of Recent Technology And Engineering	4	2.85
8	International Journal Of Management Science And Engineering Management	3	2.14
9	Journal Of Sustainable Forestry	3	2.14
10	Prabandhan Indian Journal of Management	3	2.14
Total		50	35.71

The journals that has more than 3 articles were identified and the same has been shown in table 7. The total of 140 journal articles, 50(35.71%) articles appeared in 10 journals. Among the 10 journals, 'International Journal of Applied Business and Economic Research' has 8(5.71%)articles rank first in order, it is followed by 'Indian Journal of Finance' and 'International Journal of Quality Reliability Management' has 7(5.00%) articles each 'Journal of the Indian Academy of Applied Psychology' has 6(4.28%) articles. The remaining 6 journals has less than 5 articles.

Degree of Collaboration

The degree of collaboration has been calculated with the following formula suggested by Subramaniam K (1983) and the results are shows in the table 8.

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

Where, C = Degree of Collaboration

NM = Number of Multiple authors

NS = Number of Single authors

Table 8
Degree of Collaboration

Single authored	Multiple authored	Degree of Collaboration
15	162	0.085

Table 9
Citation Analysis

Year	No. of Contributions	No. of Cited Contributions	Total Citations	ACPI
1985	1	0	0	0
1989	1	0	0	0
1990	3	3	7	2.33
1991	3	1	6	2.00
1992	1	1	1	1.00
1993	2	2	6	3.00
1996	1	1	1	1.00
1997	2	2	5	2.50
2000	3	2	15	5.00
2001	3	2	21	7.00
2002	3	3	92	30.67
2003	2	1	15	7.50
2004	1			0.00
2005	2	1	1	0.50
2006	1	1	1	1.00
2007	2	1	1	0.50
2008	5	4	101	20.20
2009	3	2	30	10.00
2010	6	4	45	7.50
2011	12	11	96	8.00
2012	8	6	60	7.50
2013	7	7	36	5.14
2014	12	9	68	5.67
2015	15	4	9	0.60
2016	27	10	27	1.00
2017	25	13	27	1.08
2018	26	6	7	0.27
Total	177	97	678	3.83

The year wise distribution of cited publications is presented in table 9. It can be seen from the table that, out of 177 publications 97 papers has received citations. A maximum number of 101 citations received in the year 2008. It is followed by 96 citations in 2011, 92 citations in 2002 and 68 citations in 2014.

VI.CONCLUSION

The study analysed the research publications of Faculty members of Social Science departments in Bharathiar University during 1985 to 2018. The study found that the highest number of publications was produced in the year 2016. Sundaresan, M. has contributed 7 papers, he was considered to be first ranked author. Journal articles occupy the first position with 140(79.10%) articles; it is followed by conference papers (14.12%). Two authored contributed 113(63.84) publications. Degree of Collaboration is 0.085.

REFERENCES

- [1] Nagarajan, M (2016). Research output in science in the State Universities of Tamil Nadu: A Scientometric Analysis, International Journal of Library Science and Information Management, Vol.2 (4):98-103.
- [2] Nagarajan, M (2018). A Bibliometric Analysis of Research output in Social Sciences with special reference to selected universities in Tamil Nadu, International Journal of Reviews and Research in Applied Sciences and Engineering, Vol.10(1):444-451.
- [3] Manimekalai, S and Nagarajan, M (2018). Literature output on Gout: A Bibliographic Study, International Journal of Computer Sciences and Engineering, Vol.6 (9):342-348.
- [4] Chandra, S and Nagarajan, M (2018). A Scientometric Analysis: Collaborative Trend in Indian Tuberculosis Research, IJSARJ, Vol.4 (4):1536-1543.

