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Research Productivity of Social Scientists in Bharathidasan University, Tamilnadu: A Bibliometric Analysis

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Abstract:

The paper presents the contribution of Faculty members of Social Sciences in Bharathidasan University, Tamil Nadu. Describes the year wise growth, form wise distribution of research output, authorship pattern degree of collaboration. Studies the impact of research under different existing Social Science Department of the university and analyses the strong and weak areas of university research, collaborative nature of research in terms of the authorship pattern.

Keywords - Bibliometrics, Social Sciences and Bharathidasan University.

Introduction

Bibliometric analysis has become a well established part of information research. The most obvious use of bibliometric data is to improve bibliographic control, as it clearly not possible to provide efficient secondary services without knowing the size and characteristics of a literature. Bibliometric has grown out of the realization the literature is growing and changing at a rate which no librarian or information worker equipped with traditional bibliometric methods and skills could keep abreast. The popularity in the adoption of bibliometric techniques in various disciplines stimulated stupendous growth in literature on bibliometric and its related areas. The purpose of the present study is to measure the productivity of Bharathidasan

University researchers contributing to social sciences research using various bibliometric techniques.

2. Objectives of the Study

The major objectives of the present study are:

1. To find out growth of publication in social sciences in Bharathidasan University.
2. To analyse the form wise distribution of research output.
3. To study the authorship pattern and degree of collaboration of the research output.
4. To study the international and Institutional collaboration of research output.

3. Methodology of the Study

The present study uses 19 years publication output data from 2001 to 2019 to understand the broad characteristics of the research output of the Faculty members of Social Science Departments in Bharathidasan University. The data of the study was taken from the SCOPUS Database from 2001-2019 which were then tabulated and analysed.

4. Analysis and Interpretation

Table 1

Year wise Distribution of Research Output

Year	Frequency of Research Output	Percentage	Growth Rate
2001	0	0.00	
2002	0	0.00	
2003	0	0.00	
2004	0	0.00	
2005	1	1.47	
2006	1	1.47	0.00
2007	0	0.00	-1.00
2008	0	0.00	
2009	1	1.47	
2010	2	2.94	1.00
2011	4	5.88	1.00
2012	1	1.47	-0.75
2013	3	4.41	2.00
2014	8	11.76	1.67
2015	3	4.41	-0.63
2016	4	5.88	0.33
2017	10	14.71	1.50
2018	9	13.24	-0.10
2019	21	30.88	1.33
Total	68	100.00	0.53

Data presented in table 1 show the year wise distribution of research output. It is observed from the table that the Bharathidasan University has started publishing from 2005, the research had gained momentum from 2009 onwards. Here too there is no uniformity\ in growth or decline. Here it is interesting to note that nearly 71.43 per cent of the total publications of the year 2019 are in the field of Library and Information Science and especially in the Journal “Library Philosophy and Practice”. A maximum number of 21 (30.88%) publications appeared in the year 2019.

Table 2 : Block Year wise Distribution of Research Output

S.No.	Block Year	No. of Publications	Percentage	Cumulative Percentage
1	2001-2005	1	1.47	1.47
2	2006-2010	4	5.88	7.35
3	2011-2015	19	27.94	35.29
4	2016-2019	44	64.71	100.00
	Total	68	100.00	

Table 2 indicates the block year wise distribution of research output. It is observed from the table that, a maximum number 44(64.71%) output appeared during the block year 2016-2019 and a minimum number of 1(1.47%) output appeared in the block year 2001-2005. It could be seen clearly from the table that the publication of the faculty members shows increasing trend.

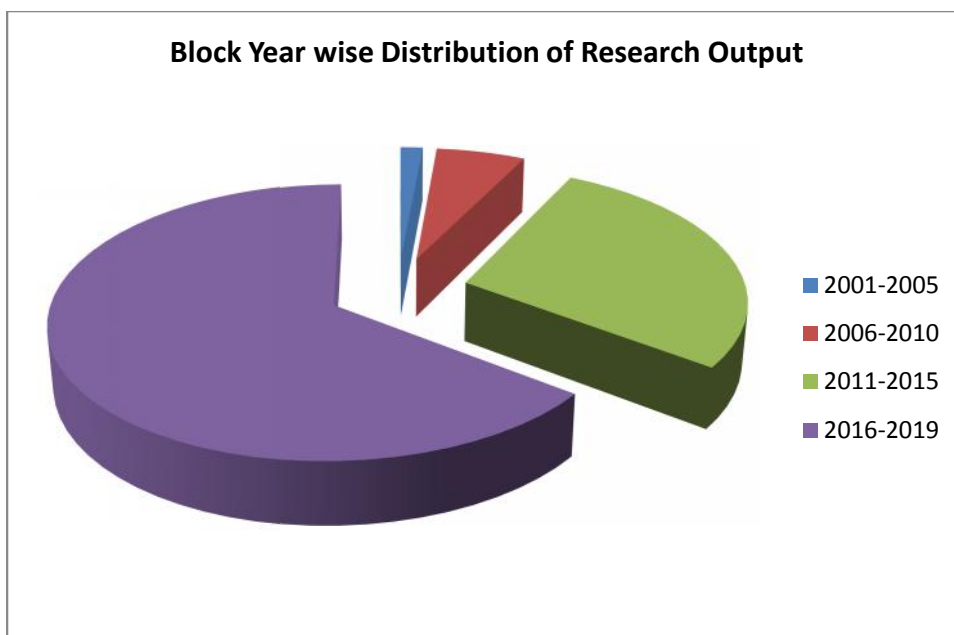


Table 3 : Source wise distribution of Research Output

S.No.	Sources	No. of Publications	Percentage
1	Journal Article	41	60.29
2	Conference Paper	22	32.35
3	Book Chapters	5	7.35
	Total	68	100.00

Table 3 shows the source wise distribution of research output. Out of various sources of publications, articles that appeared in the journals have shown a predominant contribution (60.29%) followed by conference papers (32.35%) and book chapters (7.35%). Hence the majority of the social scientists intend to publish their research papers in journals in general and reputed journals in particular.

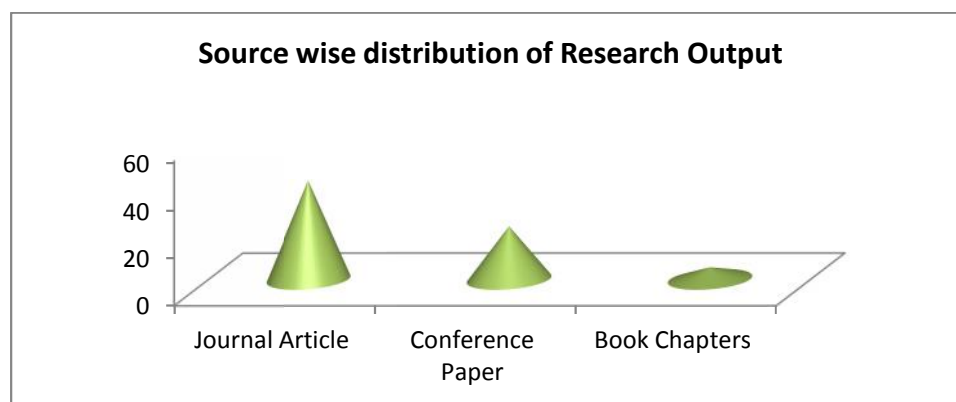


Table 4

Authorship pattern in Social Sciences Research

S.No.	Number of Authors	Frequency of Research Output	Percentage	Cumulative Percentage
1	Single Author	6	8.82	8.82
2	Two Authors	26	32.24	47.06
3	Three Authors	16	23.53	70.59
4	Four Authors	10	14.71	85.30
5	Five Authors	5	7.35	92.45
6	Six Authors	4	5.88	98.53
8	More than 6	1	1.47	100.00
	Total	68	100.00	

From table 4 it can be found that the highest per cent (38.24%) of the publications by scholars from Bharathidasan University are of joint authorship i. e by two authors followed by

three authored publications (23.53%) and four authored publications (14.71%). Here it is to be noted that only 8.82 per cent of the publications are of solo nature.

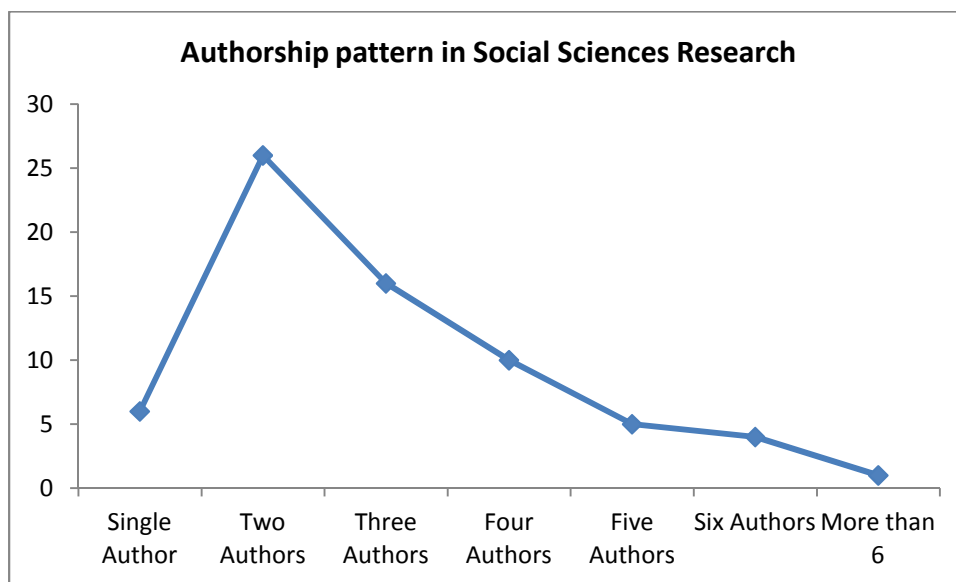


Table 5

Degree of Collaboration

Single Author (NS)	Percent	Multiple Authors (NM)	Percent	Total Number of Authors	Degree of collaboration
6	8.82	62	91.18	68	0.91

A study of data from Table 5 indicates the degree of collaboration in research output. The degree of collaboration is 0.91 during the study period. Out of 68 literature published, 6 papers are published by single author which is 8.82 percent of total output and 62 are from multiple authors which is 91.18 percent of total output.

Table 6

Correlation between the total publications and publications in the field of Social Sciences

Year	Publications	Percentage	Year	Publications	Percentage
2001	54	0.98	2001	0	0.00
2002	70	1.27	2002	0	0.00
2003	135	2.45	2003	0	0.00
2004	138	2.50	2004	0	0.00
2005	153	2.78	2005	1	1.47
2006	166	3.01	2006	1	1.47
2007	163	2.96	2007	0	0.00
2008	179	3.25	2008	0	0.00

2009	235	4.26	2009	1	1.47
2010	253	4.59	2010	2	2.94
2011	387	7.02	2011	4	5.88
2012	368	6.68	2012	1	1.47
2013	382	6.93	2013	3	4.41
2014	461	8.36	2014	8	11.76
2015	473	8.58	2015	3	4.41
2016	433	7.85	2016	4	5.88
2017	411	7.46	2017	10	14.71
2018	482	8.74	2018	9	13.24
2019	570	10.34	2019	21	30.88
	5513	100.00	Total	68	100.00

Table 6 shows the overall total publications of Bharathidasan University in all the fields and the publications in Social Sciences for the period from 2001 to 2019. There is no uniformity in growth or decline in all subjects taken together as well as Social Sciences alone from 2001 to 2019. The year 2019 marks the peak of the publication in all the subjects and Social science publications. The trend of research over the years for all the subjects and the specific subject social sciences varies. But the correlation coefficient of total publication count and the publication count in the field of Social Sciences is 0.77 which is positive and not so strong. This shows that, as the total publications by scholars of Bharathidasan University increases the publications in Social Sciences also increases to a little extent.

Table 7

International collaboration of Social Sciences Research

S.No	Country/Territory	Publications	Percentage
1.	United States	11	14.86
2.	Australia	7	9.46
3.	New Zealand	4	5.41
4.	United Kingdom	4	5.41
5.	Sri Lanka	3	4.05
6.	Malaysia	2	2.70
7.	Mexico	2	2.70
8.	Sweden	2	2.70
9.	Austria	1	1.35
10.	Bangladesh	1	1.35
11.	Belgium	1	1.35
12.	Bhutan	1	1.35
13.	Botswana	1	1.35
14.	Canada	1	1.35
15.	China	1	1.35

16.	Costa Rica	1	1.35
17.	Cyprus	1	1.35
18.	Czech Republic	1	1.35
19.	Denmark	1	1.35
20.	Ethiopia	1	1.35
21.	Finland	1	1.35
22.	France	1	1.35
23.	Germany	1	1.35
24.	Ghana	1	1.35
25.	Italy	1	1.35
26.	Jordan	1	1.35
27.	Kazakhstan	1	1.35
28.	Kuwait	1	1.35
29.	Latvia	1	1.35
30.	Libyan Arab Jamahiriya	1	1.35
31.	Mauritius	1	1.35
32.	Moldova	1	1.35
33.	Mongolia	1	1.35
34.	Morocco	1	1.35
35.	Netherlands	1	1.35
36.	Nigeria	1	1.35
37.	Oman	1	1.35
38.	Pakistan	1	1.35
39.	Palestine	1	1.35
40.	Portugal	1	1.35
41.	Romania	1	1.35

The scholars of Bharathidasan University have contributed 68 publications in the field of Social Sciences of which there are publications are international collaboration in nature. Majority of international collaboration are with USA forming 14.86 per cent of total collaborations followed by Australia (9.46%) and New Zealand and United Kingdom each having 5.51 per cent.

Table 8

Top 10 Cited papers of Bharathidasan University

Year	Document Title	Authors	Journal Title	Total Citations	Excluding Self citation
2017	Effect of temperature on stock market indices: A study on BSE and NSE in India	Kathiravan C., et al	International Journal of Economic Research	10	1
2018	An empirical investigation	Kathiravan C., et	Academy of	8	0

	of the inter-linkages of stock returns and the weather at the Indian stock exchange	al	Strategic Management Journal		
2014	The stock market efficiency of emerging markets: Evidence from Asian region	Lingaraja K., Selvam M., Vasanth V.	Asian Social Science	6	0
2018	Big data analytics-application of artificial neural network in forecasting stock price trends in India	Sigo M.O., et al	Academy of Accounting and Financial Studies Journal	5	1
2018	Predicting stock market movements of India using data deterministic approach	Sigo M.O. et al	Academy of Strategic Management Journal	5	1
2015	Efficiency measurement of Kenyan commercial banks	Miencha I.O., Murugesan S., Vasanth V., Lingaraja K., Raja M.	Mediterranean Journal of Social Sciences	5	3
2017	Academic domains as political battlegrounds: A global enquiry by 99 academics in the fields of education and technology	Al Lily A.E., et al	Information Development	4	1
2014	Impact of corporate governance practices and firm performance: An empirical study	Venkatraman K., Selvam M.	Indian Journal of Finance	4	4
1996	Biochemical and histological alterations in the prawn <i>Macrobrachium lamerrei</i> following exposure to automobile discharge	Yamuna A., Kabila V., Geraldine P.	GeoJournal	4	3
2019	Effect of weather on cryptocurrency index: Evidences from Coinbase Index	Kathiravan C., Selvam M., Maniam B., Venkateswar S., Gayathri J., Pavithran A.	International Journal of Financial Research	3	0

Among the top 10 highly cited articles published by social scientist of Bharathidasan University, one paper “Effect of temperature on stock market indices: A study on BSE and NSE in India” published by Kathiravan C., et al has the highest citation count of 10 followed by the paper “An empirical investigation of the inter-linkages of stock returns and the weather at the Indian stock exchange” by Kathiravan C., et al. Here it is to be noted that except two papers,

all the other 8 papers have self citations and in specific, 3 papers have all self citations. This warrants the audience to assess the quality of papers having more self citations.

Table 9

Institutional collaboration of Social Sciences Research

Institution	Publications
Anna University	7
James Cook University, Australia	5
University of Auckland	4
Madras Institute of Technology	4
Bharathiar University	4
PSG College of Technology	4
The University of Tennessee, Knoxville	3
Sam Houston State University	3
Saint Mary's College of California	3
Central University of Tamil Nadu	3
Bishop Heber College, Tiruchirappalli	2
University of Delhi	2

The scholars of Bharathidasan University in the field of Social Sciences have a total of 44 inter- institutional collaborations of which the highest collaboration is with Anna University with 7 papers and James Cook University, Australia with 5 papers. The other collaborating institutions are University of Auckland, Madras Institute of Technology, Bharathiar University, PSG College of Technology etc.

5. Findings of the Study

The year wise distribution of publications shows that the highest number of 21 (31.88%) publications have appeared in year 2019. Majority of the papers are contributed by two authorship 26 (38.24%). Degree of collaboration is 0.91. The journal articles occupied the first position (60.29%) in respect of total number of publications, published during the period of analysis.

6. Conclusion

The present study is related to bibliometric analysis of research articles published by the Faculty Members of Bharathidasan University. This study has analysed various aspects such as year wise publications, Authorship patterns and international collaboration. So, this study definitely will help universities to motivate the Faculty Members to improve their research activities.

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