

Scientometric Portrait of Dr. Anil Kumar Dhiman, an Information Scientist

Sushil Kumar Sharma¹, Sompal Singh²

How to cite this article:

Sushil Kumar Sharma, Sompal Singh. Scientometric Portrait of Dr. Anil Kumar Dhiman, an Information Scientist. Indian j. lib. inf. sci. 2019;13(2):107-118.

¹Assistant Library & Information Officer,
²Deputy Librarian, Central Library, Indian
Institute of Technology, Roorkee, Uttarakhand
247667, India.

Address for correspondence

Sushil Kumar Sharma, Assistant Library
& Information Officer, Central Library, Indian
Institute of Technology, Roorkee, Uttarakhand
247667, India.

E-mail: sharmask_60@yahoo.com

Received on 15.04.2019,

Accepted on 04.05.2019

Abstract

It is seen that many scientometric portrait studies have been carried for different scientists/professionals working in different fields but almost no major study is conducted for library & information scientists. Dr. Anil Kumar Dhiman, who has contributed 22 books and 172 papers/articles in library field, is a rising information scientist in the field of library & information science.

This paper presents a scientometric portrait of Dr. Anil Kumar Dhiman by analyzing his contribution in library & information science field.

Keywords: Bio-bibliometrics; Information Profile; Informetric Portrait; Scientometric Portrait.

Introduction

The study of "Scientometric Portrait" is a part of bibliometrics. The term was used by Prichard (1969) to "shed light on the process of written communications and of the nature and course of a discipline (in so far as this is displayed through written communication) by means of counting and analyzing the various facets of written communication".

However, it was Kalyane and Kalyane (1993)⁸ who for the first time used the phrase "Scientometric Portrait" to carry out bio-bibliometric studies on scientists⁸. Sen and Gan (1990)²¹ used the term "Bio-bibliometrics" for the studies on individual scientists²¹. However, it is seen that many bio-bibliometric studies have been conducted but nobody has used the term "bio-bibliometrics" in the titles of the papers, for example Sinha and Bhatnagar (1980)¹⁷, Sinha and Ullah (1994)¹⁹, Munnolli and Kalyane (2003)¹⁴, and

Sinha and Dhiman (2001)¹⁸ except that of Tiew (1999)²³ and Manjunath and Ramesha (2015)¹² in the titles. Nevertheless, in some of the studies, for example by Kalyane and Devarai (1994)⁷ and Kalyane and Samanta (1995)⁹, the term 'Informetrics' is used in the titles of their papers on C.S. Vekata Ram and K. Ramiah respectively. However, Sinha and Bhatnagar (1980)¹⁷ and Sinha and Ullah (1994)¹⁹ have used the term "Information Profile" for scientometric portrait.

However, Koganurmath, *et al.* (2003)²² have suggested that 'Scientometric portrait' is the appropriate phrase for the studies on scientists and 'Informetric portrait' for the studies on researchers in other disciplines such as arts, humanities and social sciences, but a common use of the term "Scientometric Portrait" is seen to be used more commonly.

Biographical Sketch of Dr. Dhiman:

Dr. Anil Kumar Dhiman, born in 1965, is working as Information Scientist in Gurukul

Kangri University, Haridwar since 2003. He holds M.A. in Political Science, M.Sc. in Botany, B.Ed. and M.Sc. in Computer Applications, M.L.I.Sc., M.B.A. (IT), and M.B.A. (HR). He is double doctorate in Botany and Library & Information Science. He is also a recipient of APSI Young Scientist Award-1999; USSHLE-IJILIS-PBDBBS Award- 2003; Glory of India International Award- 2006 and LPA Best Librarian Award- 2016.

He has published more than 214 papers in both field of his study that is in Library & Information Science and Botany, and 32 books on different aspects of Library & Information Science and Botany. Besides, he has presented about 62 papers in conferences/seminars of national and international reputes including one in Nepal during 2011 and another in Pakistan during 2015 on the occasion of 100 years of Library Science education in Asia at Punjab University, Lahore. His books are referred in the syllabi of various universities.

Dr. Dhiman has been placed at first position in contributing articles / research papers in PEARL journal by Thavamani (2014)²⁴. It is mentioned that during 2007–2013, he has contributed 8 papers among 502 articles published in the journal. He has been judged as third most prolific writer for library & information science books by Dadhe and Kesarwani (2016)² in their study that was aimed to find out contributions of publishers in India towards the growth of LIS literature, in terms of publications of books. Singh (2017)²⁰ has also ranked him first in his study “Bibliometric Analysis of Pearl: A Journal of Library and Information Science during 2011–2016” for writing articles in the journal.

Earlier Studies

Kalyane and Kalyane (1993)⁸ have conducted the first study under “Scientometric Portrait” to study the contribution of Vinodini Reddy, the Director of the National Institute of Nutrition (NIN), Hyderabad which is one of the leading food and nutrition centers in Southeast Asia. Dr. Reddy carried out extensive researches on protein energy malnutrition, nutritional anemia, and vitamin A deficiency and blindness that constitute major nutrition problems in developing countries. It is noted in the study that she has published 141 research papers out of which 41 were written as solo author and 100 were written in collaboration during 1960–1993. Further, it is noted that she has main authorship in 74 papers and was co-author in 67 papers.

Kalyane and Sen (1996)¹⁰ have presented a scientometric portrait of Pierre-Gilles de Gennes,

a Noble Laureate and Physicist. The study shows that he has published 422 papers during 1956 to 1995 in diverse fields of science such as, magnetism, superconductors, hydrodynamics, polymers, liquid crystals, gels, and glues. His productivity peaked in his 40's and his journal preference shows a distinct national bias. However, the scattering of papers over 146 journals does not follow Bradford's law.

Kademani, Kalyane and Kademani (1996)⁶ have presented the scientometric portrait of Dr. K.S. Krishnan, who is a well known Indian Physicist by analyzing his publications by year, domain, collaboration pattern, channels of communication used, keywords etc. He has to his credit 135 papers and highest collaboration coefficient was observed during 1937–38, 1944–45, 1951–53, 1955 and 1961. However, the productivity coefficient was 0.32 and publication density was 6.43 whereas the publication concentration was 7.69. The results of the study show the temporal variations of his productivity and of the types of papers published by him is of such a nature that he is eminently qualified to be taken as a ‘role model’ for the younger generation to emulate.

Keshava *et al.* (2010)¹¹ have studied the scientometric portrait of Prof. S.S. Kubakaddi, a Physicist. It is seen that Kubakaddi has published 4 single authored and 81 multi-authored papers during 1974–2008 and his first paper was published in 1974 when he was 23. His multi-authored papers include two-authored (22), three-authored (48) and four authored (11) and his highest productivity was in 1987 with the output of 9 publications at the age of 36. The highest collaboration coefficient (0.71) of Prof. Kubakaddi is found at the age of 44–48 during 1995–1999.

Munnolli, Pujar and Kademani (2011)¹⁵ have presented the Scientometric Portrait of Harald zur Hausen, a renowned scientist and Nobel Laureate in the field of physiology. He had 285 publications during 1964–2009 in four domains: Adenoviruses (14), Epstein Barr and Herpesviruses (72), Papillomaviruses (122) and other associated disciplines (77). The study notes that the average number of his publications per year was 6.19. Highest Collaboration Rate (1) of Harald zur Hausen was found 13 times of his 46 years of career. He has reported his research output through 74 different channels including 61 journals (82.43%), 12 Book chapters (16.22%) and 1 Report (1.35%). His most preferred journals for publishing papers were International Journal of Cancer (48), Virology (39), Journal of Virology (33), Cancer Research (14) and Medical Microbiology and Immunology (13).

Co-Authorship Index for mega authored papers for domain 'Papillomavirus' (154) is more than average indicates this domain involves more of collaborative research.

Saravanan and Prasad (2012)¹⁶ have studied the Scientometric Portrait of G. Thanikaimoni, who is a Palynologist of high repute in India. This study shows that Dr. G. Thanikaimoni has published 35 single authored and 21 multi-authored papers during 1965–1991. It is remarkable that nearly 35 percentage of his research was in fact collaborative. Further, he entered the field when it was in its infancy in India and the tropics and GT was certainly one of the discipline builders of Palynology in India, which meant that a good amount of his early research was fundamental and hence more individual.

Adhe, Sonvane and Vaishnav (2014)¹ have studied the scientometric portrait of Prof. G.K. Kulkarni, a well known Zoologist. The study notes that he has published 170 publications and 95.76% of them were published when he was working with the funded research projects during 1977–87, 1989–92, 1995–99, 2001–2006 and 2008–2009. He has published most frequently during 3rd, 4th and 6th decades of his life. He has a cluster of 49 collaborators.

Dutta (2015)⁴ has presented a scientometric portrait of Galileo Galilei, the father of modern science. This study has been executed by studying citations of Galileo's 11 publications (books, pamphlets and manuscripts) from Web of Science over a time span of 58 years, that is, since 1955–2013. It has been observed that these 11 publications received 338 citations over the said time span from 227 source items including articles, conference papers, review, editorial material, etc.

Manjunath and Ramesha (2015)¹² have studied the Bio-bibliometric profile of Sir C.V. Raman. The authors have to analyze the communication and collaboration pattern of Sir C.V. Raman as reflected through Google Scholar, where his 480 articles are indexed. It is seen that in 65 years of publication, Dr. Raman had published on an average of 7-8 articles per year, while no publication have been noted in the year 1933. Highest number of articles have appeared in the year 1962 (34, 7.08%) followed by 1965 (22, 4.58%) and 1963 (21, 4.37%).

Mukhopadhyay (2015)¹³ has studied the citation profiles of some Indian scientists: J.C. Bose, S.N. Bose and K.C. Kar. This study approaches more than one or two scientists taken together and their scientific research contributions as statistical populations in terms of measurable outputs. The

results of the study show that J.C. Bose was the most productive author but K.C. Kar even with much more collaborators was not the same. It has been further noted that J. C. Bose ranked first and was followed by the two other scientists, S.N. Bose and K.C. Kar as per the number of total citations received by their scientific papers.

Gadad and Ravi (2016)⁵ have studied the publication of Prof. Paul Greengard, who is a Nobel laureate and presented his scientometric portrait. He has published 214 research papers in the field of medical science which appeared in Pub Med search engine. It is noted in the study that out of his total 214 papers, he has authored 2 articles as single author and 212 were authored in multiple authorship. He has selected 66 reputed journals to publish his research output and his 25 articles were published in Proceedings of Natural Academy of Science, USA.

Dixit and Jange (2017)³ have recently studied the scientometric portrait of Prof. S Sreenivasa Murthy, who is a Fellow of Indian National Academy of Engineering (INAE), wherein he published 105 articles in scientific journals and 182 articles in conference proceedings. His collaborative authorship in scientific journals is found in the size of 18 single authored, 11 double authored, 40 three authored, 27 four authored and 9 five authored and similarly in conference proceedings, 40 single authored, 26 double authored, 54 three authored, 40 four authored, 18 five authored and 2 six authored. Two and three authored paper publications constitute nearly 48% of the total authorship of his papers while single author papers are nearly 17% of the total authorship. His h-index is 15 and received 739 citations for his scholarly research work. However, most active researchers in the research group of Prof. S. Sreenivasa Murthy were Bhim Singh, B. P. Singh, C.S. Jha, G.J. Berg, G. Bhuvanawari and A. K. Tondon.

Objectives of the Study

The main objective of the study is to highlight the quantitative and qualitative aspects of Dr. Dhiman's publications using scientometric tools and methods. The present study aims to identify:

- Year-wise details of his publications
- Authorship pattern of his publications
- Quinquennium-wise productivity of his publications
- Channels of his publications
- Collaboration pattern of his publications
- Core collaborators of Dr. Dhiman in his

research career, and

- Channels of communication and distribution of publications among these channels.

Methodology

Dr. Dhiman was asked to send his bio-data to analyze his contribution from various angles as stated in the objectives of the study. Further, help was also sought from internet resources to find the citations and other related details about him and his work. As stated earlier, he has published papers and books in Library & Information Science and Botany as well, but for present study, only his contribution as reflected through papers in the field of Library & Information Science is taken for analysis.

Thus, the present study is based on his 172 papers published in journals, conferences and seminar proceedings, and as book chapters in edited works during a span of 21 years from 1997–2017.

Data Analysis

The information collected on various points from bio-data of Dr. Dhiman was tabulated, presented

and analyzed to confirm the objectives of the study. The results are presented through various tables 1 as below:

Year Wise Productivity

Table 1 presents year-wise contribution of 172 publications by the mentor from 1997–2017.

Table 1: Details of Year Wise Publications

S.N.	Year	Total Number of Papers	Cumulative No. of Papers
1.	1997	1	1
2.	1998	1	2
3.	1999	1	3
4.	2000	8	11
5.	2001	8	19
6.	2002	5	24
7.	2003	5	29
8.	2004	1	30
9.	2005	2	32
10.	2006	6	38
11.	2007	5	43
12.	2008	12	55
13.	2009	7	62
14.	2010	15	77
15.	2011	15	92
16.	2012	19	111
17.	2013	9	120
	2014	10	130
	2015	15	145
	2016	8	153
	2017	19	172

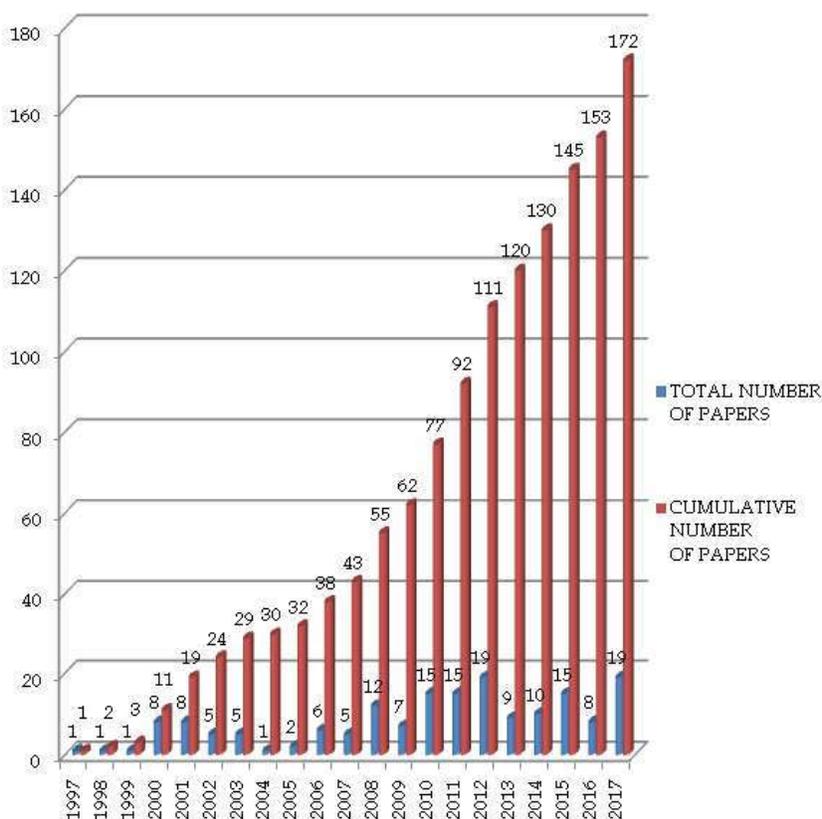


Fig. 1: Details of Year Wise Publications

18.	2014	10	130
19.	2015	15	145
20.	2016	8	153
21.	2017	19	172
Total		172	-

Table 1 shows that in 21 years of his career, he has published 172 papers, out of which maximum number of papers was produced in 2012 and 2017, followed by 17 in 2015 and 15 each in 2010 and 2011 respectively. His contribution is also shown through figure 1.

Authorship Pattern of Publications

Table 2 shows the authorship pattern of Dr. Dhiman’s articles/papers. It is seen that out of total 172 papers, 71 papers were published in journals, 12 as book chapters and 89 as seminar / conference proceedings. Out of them, 90 were published as solo author, followed by 80 papers as joint authorship, where in 61 papers, he was the first author, and in 19 he was at second place. Further, he has also written two articles in a multiple authorship, where in one article, he was at first place and in another at second place in authorship. Figure 2 also depicts the authorship pattern of Dr. Dhiman’s contribution.

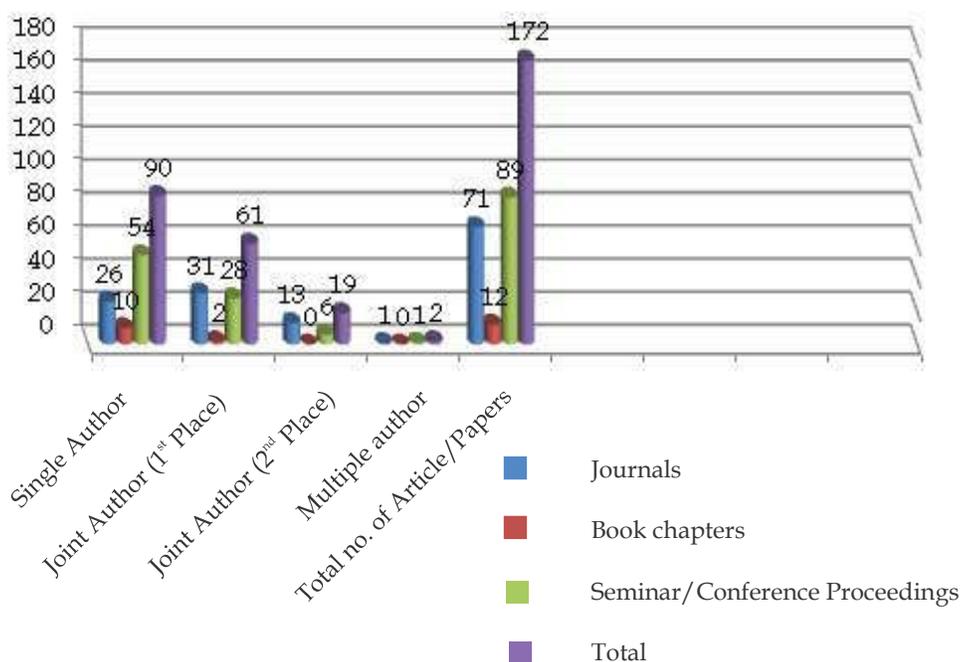


Fig. 2: Authorship Pattern of Publications

Table 2: Authorship Pattern of Publications

S. N.	Type of Publications	Single Author	Joint Author (at first place)	Joint Author (at second place)	Multiple Author	Total No. of Articles/ Papers
1.	Journals	26	31	13	1	71
2.	Book Chapters	10	2	-	-	12
3.	Seminar/Conference Proceedings	54	28	6	1	89
Total		90	61	19	2	172

Table 3: Quinquennium-wise Productivity

S.N.	Year	Total Number of Papers	Cumulative No. of Papers
1.	1997-2001	18	18
2.	2002-2006	19	37
3.	2007-2011	54	91
4.	2012-2016	62	143
5.	2017 - contd.	19	172
Total		172	

Quinquennium-wise Productivity:

Table 3 describes quinquennium-wise productivity which consists over four quinquenniums from 1997-2017.

It is seen from table 3 that quinquennium-wise maximum productivity years were 2012-2016, in which total 62 papers were published by the author, followed by 44 papers in 2007-2011 and 19 in 2002-2006. However, his first quinquennium was with low productivity when only 18 papers could be published by him.

Further, table 4 presents quinquennium-wise collaboration for journal publications. It is seen that out of total 71 articles in journals, he has contributed 9 articles as single author during 2007-2011 quinquennium, followed by 7 publications as joint authorship at first place during 2012-2016 but as joint author in second place he has written maximum during first quinquennium (1997-2001).

Overall, maximum contribution is made by him during 2007-2011 and 2012-2016 when he contributed 22 papers each respectively.

Table 5 reveals quinquennium wise contribution of book – chapters made by Dr. Dhiman. It is seen from the table that he has contributed only 14 publications as book chapters, where maximum 4 chapters were contributed during 2012-2016 quinquennium followed by the same 4 publications during 2007-2011 quinquennium. But majority of them were contributed as a single author.

Table 6 presents the quinquennium details of the articles which are published in proceedings of seminar and the conference. It is clear from the table that total 87 papers are contributed by him. Out of 87, 54 contributions are made as a single author, followed by 26 as joint author at first place and 6 at second place. Further, one contribution is made in multiple authorship at first place. It is also seen that maximum contribution is made during 2012-2017 when he has produced 35 articles/papers, followed by 27 publications during 2007-2011.

Table 7 presents quinquennium-wise collaboration of his total publications. It is seen that out of total 172 publications, 2012-2016

Table 4: Quinquennium-wise Collaboration (Journal Publication)

Quinquennium	Single Authorship	Joint Authorship (at first place)	Joint Authorship (at second place)	Multiple authorship	Total Publications
1997-2001	5	2	5	-	12
2002-2006	5	3	-	-	8
2007-2011	9	10	3	-	22
2012-2016	7	12	3	-	22
2017-contd.	-	5	1	1 (at 2 nd position)	7
Total	26	32	12	1	71

Table 5: Quinquennium-wise Collaboration (Chapter in Books)

Quinquennium	Single Authorship	Joint Authorship (at first place)	Joint Authorship (at second place)	Multiple authorship	Total Publications
1997-2001	-	-	-	-	-
2002-2006	-	-	-	-	-
2007-2011	4	1	-	-	5
2012-2016	4	1	-	-	5
2017-contd.	2	-	-	-	2
Total	10	2	-	-	14

Table 6: Quinquennium-wise Collaboration (Seminar/Conference Proceedings)

Quinquennium	Single Authorship	Joint Authorship (at first place)	Joint Authorship (at second place)	Multiple authorship	Total Publications
1997-2001	5	-	1	-	6
2002-2006	11	-	-	-	11
2007-2011	12	12	3	-	27
2012-2016	19	14	1	1 (at 1 st position)	35
2017-contd.	7	2	1	-	10
Total	54	28	6	1	89

quinquennium was his most productive where he has contributed 62 papers/articles that is followed by 54 articles during 2007–2011 quinquennium and 19 papers during 2002–2006 quinquennium. However, he contributed 19 papers in 2017 alone.

Quinquennium-wise collaboration of his total publications is also shown in figure 3.

Channels of Publications

Table 8 depicts various channels he has used to publish his articles/papers. It is seen from the table that he has used 23 journals for his journal articles/papers, and 12 papers as book chapters, and 89 in seminar / conference proceedings.

He has contributed maximum 17 articles in “Indian Journal of Information, Library and Society” being published from Cuttack (Odisha) by Dr. B.B. Shukla, first D.Litt. in Library Science

of the world and retired Head of Department, S.B. College, Cuttack, in which he is writing since 2000 regularly; followed by 9 publications in “PEARL: A Journal of Library Science” being published by Andhra Library Teachers’ Association, Hyderabad, where he has contributed from 2007–2015. It is followed by 7 articles in Granthalaya Vigyan that is only Hindi medium Library Science journal being published from Jaipur by Dr. S.P. Sood, retired Associate Professor of Library Science of University of Rajasthan, Jaipur (Rajasthan).

It is noteworthy to mention that one of his articles is published in French language journal, which is *Bibliothèque* in 2007.

Collaboration with other Authors

As mentioned earlier, Dr. Dhiman already has published a total of 172 articles, where 90 articles were contributed as single author but the rest 82,

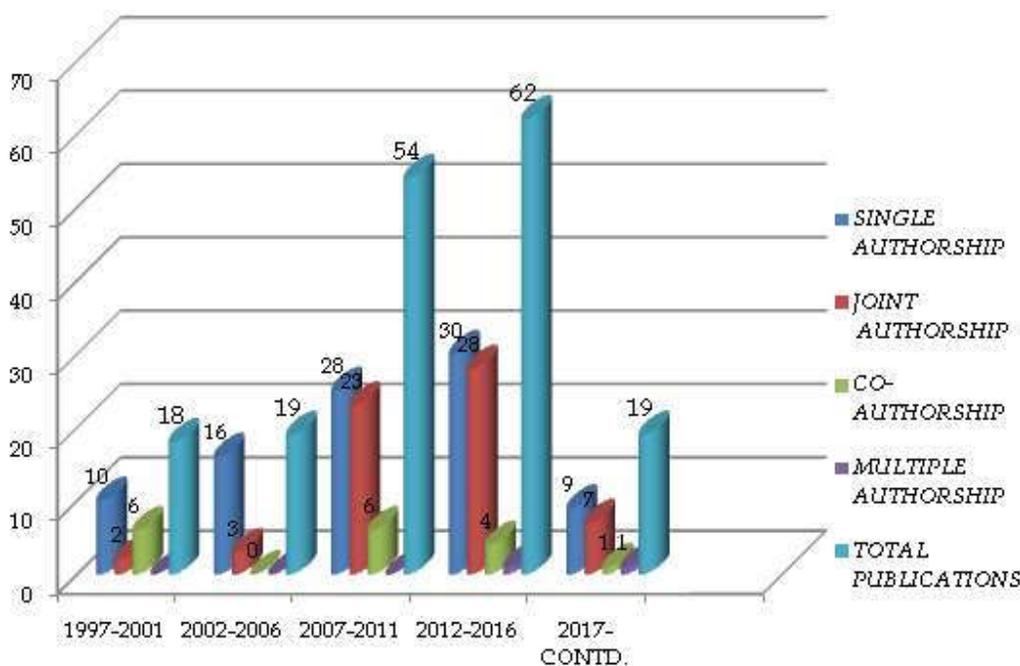


Fig. 3: Quinquennium-wise Collaboration (Total Publications)

Table 7: Quinquennium-wise Collaboration (Total Publications)

Quinquennium	Single Authorship	Joint Authorship (at first place)	Joint Authorship (at second place)	Multiple authorship	Total Publications
1997–2001	10	2	6	-	18
2002–2006	16	3	-	-	19
2007–2011	25	23	6	-	54
2012–2016	30	27	4	1	62
2017–contd.	9	7	2	1	19
Total	90	62	18	2	172

Table 8: Channel of Publications

S.N.	Name of the Channel	Year's Range	No. of Publications	Cumulative No. of Publications
1.	Bibliothèque	2007	1	1
2.	Annals of Library Science and Documentation	2000-2001	2	3
3.	CLIS Observer	2002	1	4
4.	DESIDOC Bulletin of Information Technology	2000-2015	3	7
5.	Ellxir Journal Library Science	2016	1	8
6.	Granthalaya Vigyan	2012-2017	7	15
7.	Green Farming	2008	1	16
8.	IASLIC Bulletin	2000	1	17
9.	Indian Journal of Information, Library and Society	2000-2016	17	34
10.	Indian Journal of Information and Services	2011	1	35
11.	Indian Journal of Library and Information Science	2010-2017	3	38
12.	International Library Movement	2003	1	39
13.	Journal of Information Science	2007	1	40
14.	KELPRO Bulletin	2012	1	41
15.	KIIT Journal of Library and Information Management	2014	1	42
16.	Library Progress	1998-2012	7	49
17.	Library Waves	2017	1	50
18.	Lucknow Librarian	1997	1	51
19.	Pakistan Journal of Library Science	2008	1	52
20.	PEARL : A Journal of Library Science	2007-2015	9	61
21.	Professional Journal of Library and Information Technology	2012	5	66
22.	SRELS Journal of Information Management	2000-2008	3	69
23.	University News	2008-2012	2	71
24.	Chapters in Books	2008-2017	12	83
25.	Seminar/Conference Proceedings	1999-2017	89	172

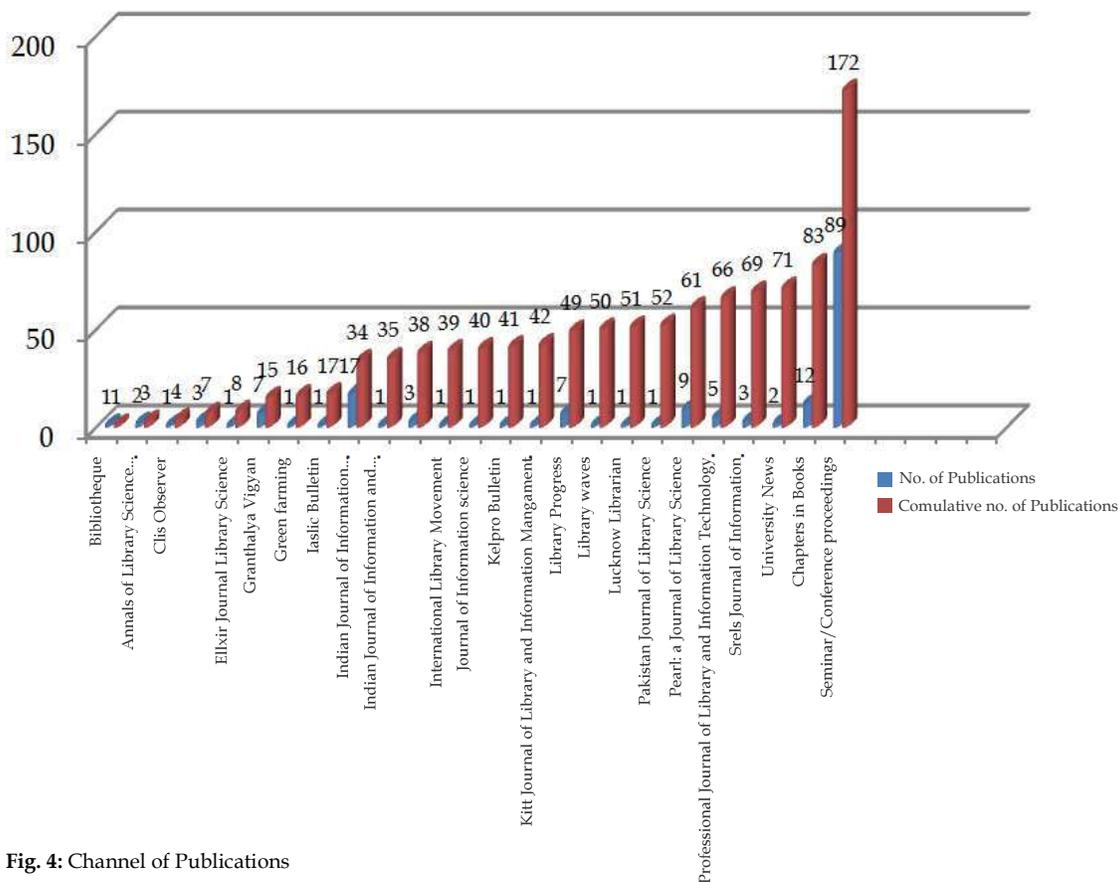


Fig. 4: Channel of Publications

are contributed as multiple authorship. Thus, his collaboration was also ascertained to know with whom he has shared authorship. Table 9 depicts collaboration pattern of Dr. Dhiman in journal articles.

Table 9 clearly depicts that out of the total 71 articles Dr. Dhiman has published in journals, 45 are written in collaboration with joint authorship except that only one article that was written in multiple authorship where he was second among three authors. Further, in 31 articles he is the first author and in the rest 13 articles/papers he is at second position among two-authored papers. It is clear that he has contributed maximum 13 articles with Yashoda Rani, followed by 7 with S.C. Sinha and 3 papers with Dr. B.B. Shukla.

Further, table 10 detailed out the contribution made as book chapters in collaboration of other authors by Dr. Dhiman. It is seen that Dr. Dhiman

has contributed only 12 articles as book chapters, and most of them were written as solo author. However, only two papers were contributed by him in joint authorship where he has been the first author.

Table 11 depicts the collaboration of his articles/papers published in seminar / conference proceedings. It is seen that out of 88 papers, only 35 papers were written in collaboration where in 28 papers, he has been the first author, followed by 6 papers, where he was at second place among two-authored papers. However, one paper was written in a multiple authorship, where he was on first position.

Collaboration with authors in all publication is depicted through table 12. It is seen that maximum collaboration is made with Yashoda Rani, with whom he has written 25 articles, followed by 11 with Hemant Sharma with whom he has contributed

Table 9: Collaboration in Journal Articles

S.N.	Name of Author	Collaboration at first place in Joint Authorship Papers	Collaboration at second place in Joint Authorship Papers	Collaboration in Multiple Authorship Papers	Total No. of Papers
1.	Arya, C.	1	-	-	1
2.	Bahuguna, A.	1	-	-	1
3.	Bharti, R.K.	2	-	-	2
4.	Goswami, R.	1	-	-	1
5.	Gupta, R.K.	1	1	-	2
6.	Gupta, Shalabh	1	-	-	1
7.	Jat, Madan Lal	1	-	-	1
8.	Pandey, C.P.	2	-	-	2
9.	Rani, Yashoda	8	5	-	13
10.	Sharma, Hemant	4	-	-	4
11.	Shinde, K.J.	-	1	-	1
12.	Shrivastava, D.K.	1	-	-	1
13.	Shukla, B.B.	3	-	-	3
14.	Singh, Surendra	2	-	-	2
15.	Sinha, S.C.	2	5	-	7
16.	Sumanlata, R.	1	-	-	1
17.	Yadav, Sumanlata	1	-	1*	2
	Total	31	13	1	45

Note: * As second author with S.Yadav

Table 10: Collaboration in Articles contributed as Book Chapters

S.N.	Name of Author	Collaboration at first place in Joint Authorship Papers	Collaboration at second place in Joint Authorship Papers	Collaboration in Multiple Authorship Papers	Total No. of Papers
1.	Sharma, Hemant	1	-	-	1
2.	Singh, Ibohal	1	-	-	1
	Total	2	-	-	2

Table 11: Collaboration in Seminar / Conference Articles

S.N.	Name of Author	Collaboration at first place in Joint Authorship Papers	Collaboration at second place in Joint Authorship Papers	Collaboration in Multiple Authorship Papers	Total No. of Papers
1.	Atri, Yogesh	1	-	-	1
2.	Bharti, R.	2	-	-	2
3.	Goswami, R.	1	-	-	1
4.	Gupta, Raj K.	1	-	-	1
5.	Gutpa, Sushma	2	-	-	2
6.	Pandey, C.P.	-	1	-	1
7.	Rana, M.S.	2	-	-	2
8.	Rani, Yashoda	8	4	-	12
9.	Sharma, Anjali	-	-	1*	1
10.	Sharma, Hemant	6	-	-	6
11.	Sharma, S.K.	1	-	-	1
12.	Singh, Ibohal	1	-	-	1
13.	Singh, Surendra	2	-	-	2
14.	Sinha, S.C.	-	1	-	1
15.	Ullah, Furqan	1	-	-	1
	Total	28	6	1	35

Note: * As first author with Sharma, A and Sharma, N.

Table 12: Collaboration with Authors in All Publication

S.N.	Name of Author	Collaboration at first place in Joint Authorship Papers	Collaboration at second place in Joint Authorship Papers	Collaboration in Multiple Authorship Papers	Total No. of Papers
1.	Rani, Yashoda	16	9	-	25
2.	Sharma, Hemant	11	-	-	11
3.	Sinha, S.C.	2	6	-	8
4.	Singh, Surendra	4	-	-	4
5.	Bharti, R.	4	-	-	4
6.	Shukla, B.B.	3	-	-	3
7.	Pandey, C.P.	2	1	-	3
8.	Yadav, Sumanlata	1	-	1	2
9.	Singh, Ibohal	2	-	-	2
10.	Rana, M.S.	2	-	-	2
11.	Gutpa, Sushma	2	-	-	2
12.	Gupta, R.K.	1	1	-	2
13.	Goswami, R.	2	-	-	2
14.	Ullah, Furqan	1	-	-	1
15.	Sumanlata, R.	1	-	-	1
16.	Shrivastava, D.K.	1	-	-	1
17.	Shinde, K.J.	-	1	-	1
18.	Sharma, S.K.	1	-	-	1
19.	Sharma, Anjali	-	-	1	1
20.	Jat, Madan Lal	1	-	-	1
21.	Gupta, Shalabh	1	-	-	1
22.	Gupta, Raj K.	1	-	-	1
23.	Bahuguna, A.	1	-	-	1
24.	Atri, Yogesh	1	-	-	1
25.	Arya, C.	1	-	-	1
	Total	62	18	2	82

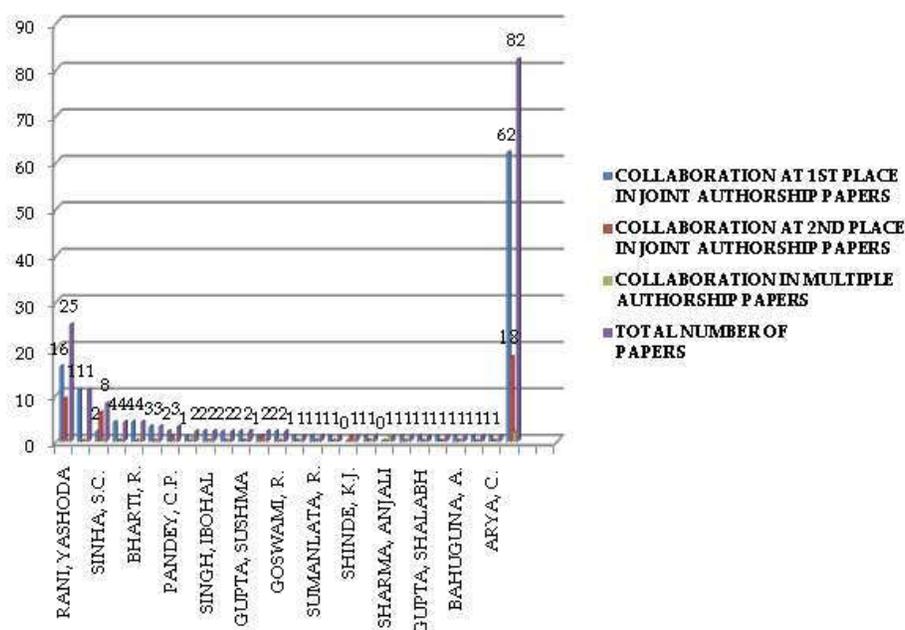


Fig. 5: Collaboration with Authors in All Publication

11 articles and it is followed by S.C. Sinha with whom 8 papers were contributed.

They are followed by 4-4 articles/papers each with R. K. Bharti and Surendra Singh and 3 each with Dr. B.B. Shukla and C.P. Pandey.

Figure 5 also shows collaboration of his publications with all the authors in 172 publications.

Major Findings

The major findings of the present study include:

Dr. Dhiman has published 172 articles/papers during a span of 21 years from 1997–2017, his average of writing papers per year comes to 8.19, that is roughly equal to 8 papers per year.

Out of the total 172 publications, 91 papers/articles are written as single author, followed by 80 papers in joint authorship and a few (only 2) are written in multiple authorship. Thus, it can be said that he prefers to write in solo authorship.

Out of the total 82 collaborated papers/articles, 61 are written in joint authorship at first place, followed by 19 articles in joint authorship at second place.

2012–2016 was his most productive quinquennium when he has contributed 60 articles followed by 54 articles in 2007–2011 quinquennium.

Maximum collaboration is seen with Yashoda Rani with whom he has written 25 papers, followed

by 11 papers with Hemant Sharma and 8 with S.C. Sinha. Further, 4-4 papers are contributed with R.K. Bharti and Surendra Singh and 3-3 each with B.B. Shukla and C.P. Pandey respectively.

He has chosen “Indian Journal of Information, Library and Society” that is being published from Cuttack (Odisha) as the first choice of his publication in which he has published 17 articles followed by 9 publications in “PEARL: A Journal of Library Science” and 7 articles in Granthalaya Vigyan.

Thus, it can be concluded that Dr. Dhiman prefers to write in solo authorship and the main source of his publications are journals, which are considered as the primary source of information. However, some of his articles are published in CALIBER proceedings which is also a peer-reviewed conference proceeding published by Infilbnet, Ahmadabad, (now Gandhinagar) Gujarat.

Conclusion

It is realized that the individuals are the source of ideas. The life of individuals and their works stimulate the younger generation to emulate them. Thus, the present study that was conducted for Dr. Dhiman’s contribution in library & information science field, shows that the work of Dr. Dhiman has made a mark on the various areas they dealt with earnestly for the encouragement of library science in India. No doubt that his work can be

presented as a role model in the field of library & information science.

This is also supported by the studies made by Thavamani (2014)²⁴, by Dadhe and Kesarwani (2016)² and Singh (2017)²⁰, where he has been judged as the most prolific writer in the field of library & information science.

References

- Adhe G, Sonvane S, Vaishnav AA. Role Model Scientist- Prof. GK Kulkarni: A Scientometric Portrait. Knowledge Librarian- An International Peer Reviewed Bilingual E-Journal of Library. 2014;1(1):80-114.
- Dadhe PP, Kesarwani SK. Publishers of LIS Books in India: A Study. Library Herald. 2016;54(1):96-114.
- Dixit GP, Jange J. Scientometric Portrait of Prof. S Sreenivasa Murthy. International Journal of Research in Library Science. 2017;3(1):24-35.
- Dutta B. Galileo as viewed through Scientometric Looking Glass. Journal of Scientometric Research. 2015;4(2):85-95.
- Gadad R, Ravi B. Nobel Laureate Prof. Paul Greengard: A Scientometric Portrait. International Journal of Academic Library Information Science. 2016;4(1):42-50.
- Kademani BS, Kalyane VL, Kademani AB. Scientometric Portrait of Sir K.S. Krishnan. Indian Journal of Information, Library and Society. 1996;9(2):125-150.
- Kalyane VL, Devarai RS. Informetrics on CS Venkata Ram. In: CP Vashishth, LS Ramaiah, NV Jagga Rao, *et al.* (Eds). New Horizons in Library and Information Science: Dr. Velaga Venkatappaiah. Madras: Festschrift T.R. Publications; 1994. pp. 475-78.
- Kalyane VL, Kalyane SV. Scientometric Portrait of Vinodini Reddy. Journal of Information Science. 1993;4(1):25-45.
- Kalyane VL, Samanta RK. Informetrics on K Ramaiah. In: GV Narasimha Raju, AA Raju, LS Ramaiah, *et al.* (Eds). New Vistas in Library and Information Science: Papers in Honour of Professor. New Delhi: Vikas Publishing House Pvt. Ltd.; 1995. pp. 565-78.
- Kalyane VL, Sen BK. Scientometric Portrait of Nobel Laureate Pierre-Gilles De Gennes. Malaysian Journal of Library & Information Science. 1996;1(2):13-26.
- Keshava, Chennakumaraswamy AN, Lokeshappa H, Ganjihal GA. A Scientometric Portrait of Prof. SS Kubakaddi. PEARL - A Journal of Library and Information Science. 2010;4(1):21-27.
- Manjunath M, Ramesha. Bio-bibliometric Profile of Sir. CV Raman as seen through Google Scholar. International Journal of Library and Information Studies. 2015;5(3):41-48.
- Mukhopadhyay G. Citation Profiles of Some Indian Scientists: JC Bose, SN Bose and KC Kar. International Journal of Librarianship and Administration. 2015;6(2):143-164.
- Munnolli SS, Kalyane VL. Scientometric Portrait of Ram Gopal Rastogi. Annals of Library and Information studies. 2003;50(1):1-17.
- Munnolli SS, Pujar SM, Kademani BS. Scientometric Portrait of Nobel Laureate Harald zur Hausen. Annals of Library and Information Studies. 2011;58(1):71-78.
- Saravanan G, Prasad S. Scientometric Portrait of G Thanikaimoni: A Palynologist of High Repute. In: P Sadasivamurthy, D Shivalingaiah, SL Sangam, *et al.* (Eds). National Conference on Scientometrics: Conference Proceedings; 2012. pp.279-91.
- Sinha SC, Bhatnagar IMS. The Information Profile of a Plant Pathologist: A Bibliometric Study. Annals of Library Science and Documentation. 1980;27(1-4):21-31.
- Sinha SC, Dhiman AK. Bibliometric Study of Dr. RC Sinha, a Plant Pathologist. Annals of Library Science and Information Studies. 2001;48(2):73-84.
- Sinha SC, Ullah MF. Information Profile of an Indian Bibliometrician: Bibliometric Study of Dr. IN Sengupta's Publications. Indian Journal of Information, Library and Society. 1994;7(3-4):250-261.
- Singh J. Bibliometric Analysis of Pearl: A Journal of Library and Information Science during 2011-2016. Asian Journal of Information Science and Technology. 2017;7(2):1-7.
- Sen SK, Gan SK. Biobibliometrics: Concept and Application in the Study of Productivity of Scientists. International Forum on Information and Documentation. 1990;15(3):13-21.
- Koganurmamath MM, *et al.* Scientometric Portrait of Nobel Laureate Wolfgang Ketterle. Knowledge Management in Special Libraries in Digital Environment. 2003;43:447.
- Tiew WS. Khoo Kay Kim, Professor of Malaysian History: A Biobibliometric Study. Malaysian Journal of Library & Information Science. 1999;4(2):47-57.
- Thavamani K. Authorship Pattern and Collaborative Research Work in Pearl- A Journal of Library and Information Science: A Scientometric Study. PEARL- A Journal of Library and Information Science. 2014;8(3):169-76.

