

Geographical distribution of Gandhi literature: a bibliometric study

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ABSTRACT

Bibliometrics is becoming an emerging tool to analyse the growth and quality of research in any scientific field. It is a set of methods used to study or measure texts and information. It is measuring the output and the impact of scientific research by evaluating and ranking people and institutions, countries and research outputs. In the present work significant effort has been made to collect all the periodical literature on the mythological personality Mohandas Karamchand Gandhi, that were published in English till 2010 to analyse the geographical dimensions of Gandhian literature. On this basis of bibliometric analysis the study revealed that M K Gandhi has gained the popularity worldwide with the contribution from more than 50 countries. The top two universities were University of Delhi and University of California.

Keywords: Mahatma Gandhi, Bibliometrics, Gandhian Philosophy, Periodical literature

INTRODUCTION

Mahatma Gandhi is among those renowned personalities who spent their whole life for the sake of the development of the society. Numerous books, articles, thesis, letters, short communications have been written on Mahatma Gandhi life, thoughts, philosophy by authors from all over the world. His work has been so impactful that, Gandhian studies have emerged as a discipline.

Looking the importance and growing literature on Mahatma Gandhi, in this paper an attempt has been made to analyse the periodical literature on Gandhi to examine the geographical characteristics using an emerging tool i.e. bibliometrics. It is based on statistical laws for evaluating the impact of research done, in any scientific field. It is widely used to analyze the growth of literature both qualitatively and a quantitatively including citations, quality metrics of authors, quality metrics of sources, keywords analysis and many more parameters. There are several studies, which are done using the bibliometric tools such as Gupta (1983) collected data from SCI and conducted studies on research publication of Chandrashekhar: winner of the 1983 Nobel prize for physics. He focused on citation analysis and concluded that there are 401 publications with 12000 citation for the period of 1961-1980. He concluded that there is a high correlation in quantity, quality of works, citedness and receiving honours and awards.

LITERATURE REVIEW

Kademaniet.al. (1994) Highlighted quantitative aspects of Nobel Laureate Dr. C.V. Raman. They have analyzed his publication and found highest collaboration coefficient was 1.0 during 1936-40, mean synchronous self-citation rate was 15.05 and publication density was 22.95 and they confirm that Bradford law is not applicable.

Jena (2006) conducted bibliometrics study of "Indian Journal of Fibre and Textile Research" for period of 1996-2004. He found average citation was 16 per article. Collaborative research was dominant in this field. In term of geographical distribution 85.87% contribution by Indian authors rest 14.13% share distributed with 21 countries. They concluded that



journals were very popular among Indians and suggested that journal should reduce the time lag between the date of receipt and date of publication.

Patra and Chand (2006) conducted bibliometrics study on Library and Information science literature published in India based on data abstracted in Library and information science abstracts (LISA). They applied Bradford law to identify journal selection criteria by Indian authors. For exploring the productivity pattern of authors, they have applied Lotka's law and concluded that contribution in International journal is very less and majority of the authors wish to write solo papers.

Kademani et al (2009) studied publication output on Bhabha scattering. They studied the growth of the term 'Bhabha scattering' by exploring the International Nuclear Information System (INIS) (1970-2008), Science Citation Index (1982-2008), and INSPEC (1969-2008) databases. In total 1305 papers were fetched from these databases, which contributes 32.62 average papers per year by 41 countries. Germany was at top with 421 contributions. The top journals were Physics Letters-Band the top three high frequency keywords were Bhabha scattering, radiative corrections, annihilation.

Mamdapur et.al. (2011) analysed articles published in Baltic Astronomy for the period of 2000-2008. They analyzed the contribution, authorship pattern, distribution of references, and length of paper. They found 0.89 were degree of collaboration, authors trusted on journals followed by books, conference proceeding and reports. They concluded top 20 cited journals covering 87.60% of references.

Ray and Sen (2012) conducted study of 4098 published letter by Rabindranath Tagore. They studied the growth pattern of letters written by Rabindranath Tagore and in addition to this they checked the applicability of Bradford's laws. They found throughout his literacy career, he wrote letter to 350 persons covering in all aspects such as literacy, social, educational, philosophical, and personal matters. The analysis indicated that Bradford's law is not strictly followed but it helped to identify the core personalities to whom Rabindranath used to make maximum correspondence.

Objectives of the study

METHODOLOGY

The primary objectives of the study is to analyse the distribution of Gandhian literature for various parameters such as topographical distribution of authors, comparison of national and international contributions, type of organization, top rank universities and top rank institutes. To accomplish these several primary and secondary sources in English language were scanned solitary for collecting the periodical data on Gandhian Philosophy till 2010. The obtained data were processed with different bibliometric techniques with the help of MS excel.

RESULTS AND DISCUSSION

Geographical Distribution of authors

Contributions were received from researchers both from within India and overseas. In present case out of 6305 contributors, only 4729 contributors were considered since addresses were not identified for 1576 authors. Table 1 lists the country-wise distribution of the authors. Among 59 countries, majority of contributors were from India with 2755 contributors, accounting for 43.70 % of the total, followed by USA with 1126 (17.86 %), UK with 251 (3.98 %), Australia with 134 (2.13 %) and Canada with 118 (1.87 %). It was observed that in Gandhian literature contributions from abroad was 31.30 % of the total.

Table 1- Geographical distribution of authors

S. No.	Name of Country	No. of Contribution	In %
1	India	2755	43.70
2	USA	1126	17.86
3	United Kingdom	251	3.98
4	Australia	134	2.13



5	Canada	118	1.87
6	Germany	52	0.82
7	South Africa	37	0.59
8	The Netherlands	28	0.44
9	Sweden	21	0.33
10	Norway	20	0.32
11	Japan	19	0.30
12	Italy	17	0.27
13	France	14	0.22
14	New Zealand	10	0.16
15	Pakistan	10	0.16
16	Sri Lanka	10	0.16
17	Russia	9	0.14
18	Cyprus	8	0.13
19	Ireland	8	0.13
20	Israel	7	0.11
21	Indonesia	6	0.10
22	Singapore	5	0.08
23	Denmark	4	0.06
24	Malaysia	4	0.06
25	7 countries contributed 3 each paper	21	0.33
	7 countries contributed 2 each paper	14	0.22
	21 countries contributed 1 each paper	21	0.33
Address was not mentioned		1576	25.00
Total		6305	100.00

National vs International contributions

Figure1 shows the comparison of national vs international contributions in the field of Gandhian literature. In the present case, only those contributors were considered whose address was available. It was observed that till 1960, international contributions were dominating, whereas after 1960 an Indian contribution has shown rapid growth. It is astonishing to note that in the 21st century, the difference between national and international contributions is very less, more precisely 1.25 %.



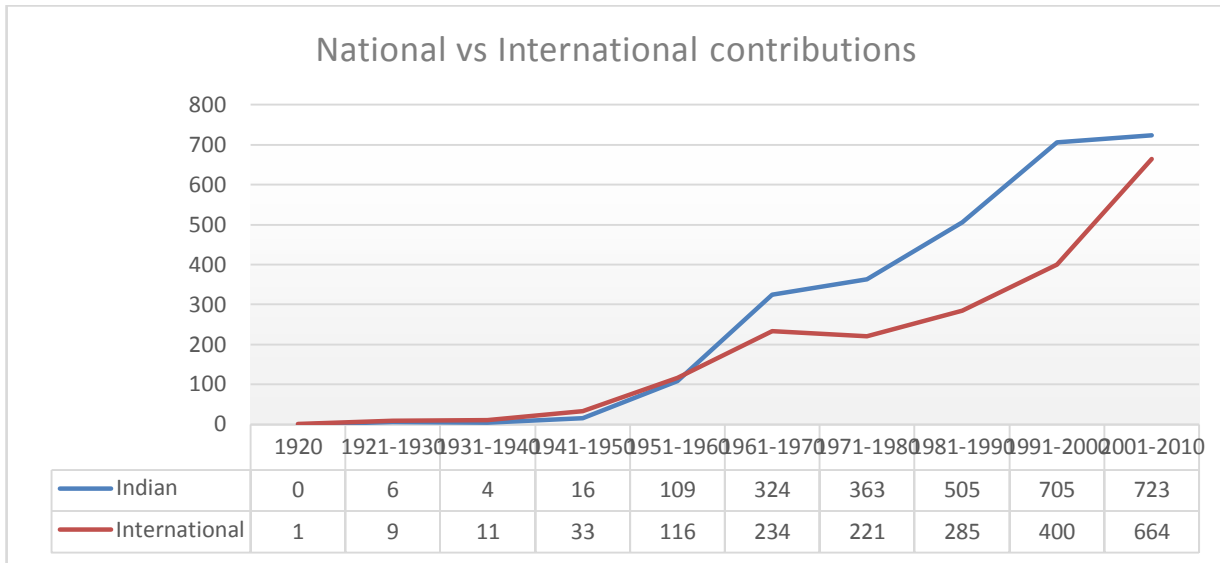


Figure 1: National vs International contributions

Distribution of Type of Organizations

The contributions of authors were analysed on the basis of the type of organizations. All the contributions were grouped into seven broad categories of organizations (Figure2). The highest number of articles i.e. 2420 (accounting for 38.38 %) were affiliated from universities, whereas authors affiliated with the institutions, have contributed 1074 (17.03 %) of the total. There was 1576 number of authors found where affiliation could not identify due to non-availability of addresses. The analysis shows that in Gandhian literature, the top two organizations were universities and institutions.

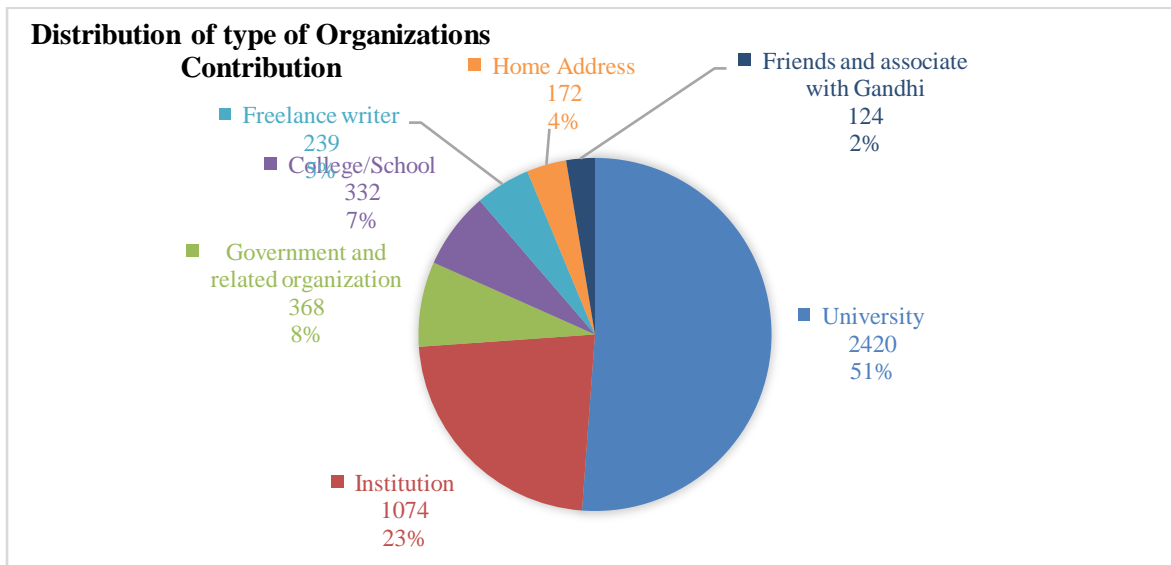


Figure2: Distribution of type of organizations

Highly Productive Universities

In order to know the highly productive universities contributing to the Gandhian literature from the period 1920-2010, the contribution of universities has been further analysed. Table 2 reflects the top ranked universities who have greater than or equal to 10 occurrences in the authors’ affiliation. It can be clearly seen that University of Delhi from India ranked on the first position with 248 (10.25 %) contributions. The second position was occupied by University of California, USA having



83 (3.43 %) contributions. The third and fourth positions were again also occupied by the Indian universities namely the Jawaharlal Nehru University and the Panjab University with 74 (3.06 %) and 68 (2.81 %) contributors respectively. The University of Chicago, USA stood on the fifth position with 59 (2.44 %) contributions. The highly productive universities were from nine different countries. India ranked on the first with 23 universities, and the USA held second position with 20 universities.

Table 2- Rank list of highly productive universities

S.No.	Name of University	Country	No. of Contribution	In %	Cumulative %
1	University of Delhi	India	248	10.25	10.25
2	University of California	USA	83	3.43	13.68
3	Jawaharlal Nehru University	India	74	3.06	16.74
4	Panjab University	India	68	2.81	19.55
5	University of Chicago	USA	59	2.44	21.98
6	University of Allahabad	India	42	1.74	23.72
7	Columbia University	USA	32	1.32	25.04
8	Harvard University	USA	32	1.32	26.36
9	La Trobe University	Australia	28	1.16	27.52
10	University of Hyderabad	India	27	1.12	28.64
11	University of Rajasthan	India	26	1.07	29.71
12	University of Calcutta	India	24	0.99	30.70
13	University of London	U.K.	23	0.95	31.65
14	Mahatma Gandhi University	India	21	0.87	32.52
15	University of Hawaii	USA	20	0.83	33.35
16	Banaras Hindu University	India	19	0.79	34.13
17	Jamia Milia Islamia	India	19	0.79	34.92
18	Kurukshetra University	India	19	0.79	35.70
19	University of Cambridge	U.K.	18	0.74	36.45
20	University of Madras	India	18	0.74	37.19
21	University of Bombay	India	17	0.70	37.89
22	University of Virginia	USA	17	0.70	38.60
23	Himachal Pradesh University	India	16	0.66	39.26
24	University of Illinois	USA	16	0.66	39.92
25	University of Toronto	Canada	16	0.66	40.58
26	University of Wollongong	Australia	16	0.66	41.24
27	Andhra University	India	15	0.62	41.86
28	Cornell University	USA	15	0.62	42.48
29	University of Minnesota	USA	15	0.62	43.10
30	University of Oxford	U.K.	15	0.62	43.72
31	Kakatiya University	India	14	0.58	44.30
32	Sri Venkateshra University	India	14	0.58	44.88
33	Aligarh Muslim University	India	13	0.54	45.41



34	Indiana University	USA	13	0.54	45.95
35	University of Amsterdam	The Netherlands	13	0.54	46.49
36	University of Kwa-Zulu NataL	South Africa	13	0.54	47.02
37	University of Maine	USA	13	0.54	47.56
38	University of Michigan	USA	13	0.54	48.10
39	University of Texas	USA	13	0.54	48.64
40	University of Wisconsin	USA	13	0.54	49.17
41	Emory University	USA	12	0.50	49.67
42	North Eastern Hill University	India	12	0.50	50.17
43	University of Colorado	USA	12	0.50	50.66
44	University of Idaho	USA	12	0.50	51.16
45	University of Sydney	Australia	12	0.50	51.65
46	Tata Institute of Social Sciences	India	11	0.45	52.11
47	University of Calgary	Canada	11	0.45	52.56
48	University of Pennsylvania	USA	11	0.45	53.02
49	York University	Canada	11	0.45	53.47
50	Heidelberg University	Germany	10	0.41	53.88
51	HNB Garhwal University	India	10	0.41	54.30
52	Michigan State University	USA	10	0.41	54.71
53	Rabindra Bharati University	India	10	0.41	55.12
54	University of Hull	U.K.	10	0.41	55.54
55	University of Lancaster	U.K.	10	0.41	55.95
56	University of Maryland	USA	10	0.41	56.36
57	University of Tokyo	Japan	10	0.41	56.78
58	Vishwa Bharti University	India	10	0.41	57.19
Other (410)			1036	42.81	100
Total			2420	100	

Highly Productive Institutions

Table 3 reflects the top 25 institutes. These 25 institutions covered 43.39 % of total occurrences of institutions from three countries. India occupied the first position with 20 institutions, followed by USA and Norway having three and two institutions, respectively. The top three institutions were from India namely Gandhian Institute of Studies, Varanasi; Gandhi Peace Foundation; Nehru Memorial Museum and Library having contribution of 76 (7.08 %), 54 (5.03 %) and 51 (4.75 %) respectively.

Table 3- Rank list of highly productive institutions

S.No.	Name of Institution	Country	No. of Contribution	In %	Cumulative %
1	Gandhian Institute of Studies, Varanasi	India	76	7.08	7.08
2	Gandhi Peace foundation	India	54	5.03	12.10
3	Nehru Memorial Museum and Library	India	51	4.75	16.85



4	Centre for the study of developing societies	India	42	3.91	20.76
5	Indian Institute of Technology, Kanpur	India	18	1.68	22.44
6	Grandhigram, Madhurai	India	17	1.58	24.02
7	Institute of Gandhian Studies, Wardha	India	16	1.49	25.51
8	Rensselaer Polytechnic Institute	USA	16	1.49	27.00
9	EKTA, Mumbai	India	14	1.30	28.31
10	Gandhigram Rural Institute	India	12	1.12	29.42
11	Indian social Institute	India	12	1.12	30.54
12	Institute of Chinese Studies	India	12	1.12	31.66
13	United Nations Centre	USA	12	1.12	32.77
14	Institute for social Research	Norway	11	1.02	33.80
15	Gandhi Smirit and Darshan Samiti	India	10	0.93	34.73
16	Indian council of Historical Research	India	10	0.93	35.66
17	Indian Council of Social Science Research (ICSSR)	India	10	0.93	36.59
18	Madras Institute of Development Studies	India	10	0.93	37.52
19	A N Sinha Institute of Social Studies, Patna	India	9	0.84	38.36
20	Gokhale Institute of Politics and Economic	India	9	0.84	39.20
21	Indian Institute of Technology, Bombay	India	9	0.84	40.04
22	International Peace Research Institute	Norway	9	0.84	40.88
23	National Gandhi Museum	India	9	0.84	41.71
24	Unitarian Universalist Association, USA	USA	9	0.84	42.55
25	Vivekananda Kendra	India	9	0.84	43.39
Other (318)			608	56.61	100

CONCLUSION

Mahatma Gandhi, the father of nation is the most admired personality not in India, but also worldwide. Gandhi is the most prominent figure that the researchers from all over the world are captivated by his philosophies, ideas. The periodical literature on Gandhi is contributed by the researchers from broad horizon of world (more than 50 countries) including India, USA, UK, Canada, Netherland, South Africa etc. It was figured out that, initially the contribution was at international level, but after 1960 a significant contribution from India has also come into the pool and presently, national contribution is comparable to international contributions/ The top ten universities, who are exploring the Gandhi's thought maximum are University of Delhi, from India and University of California from USA. In context to Institutes top 7 are from India and at the top Gandhian Institute of Studies, Varanasi.

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