

BIBLIOMETRIC STUDY OF DOCTORAL DISSERTATIONS ON ENGLISH LANGUAGE AND LITERATURE

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Bibliometric analysis for 4066 citations collected from the doctoral dissertations on the English language and literature accepted by Dr. Babasaheb Ambedkar Marathwada University has been carried out to determine the use pattern of the literature by the researchers in English. Provides the main bibliographic forms of literature cited. Non-serial publications i.e. books, published from U.K. and periodicals from U.S.A. are mostly cited. Ranked list of periodicals, books and authors shows that Modern Fiction Studies and Times Literary Supplement are most preferred journals, whereas, American Fiction and Main Currents in American Thoughts are most frequently cited books. Amongst the first ten most cited authors, six are from USA and two each are from UK and India. English citations account for 99% and only one percent of the citations are shared by the two other languages, namely, Marathi and Sanskrit. Countrywise distribution of periodicals and chronological distribution of citations indicate substantial use of older literature with a half-life value of 27.5 years. Authorship study indicates increasing trend towards multiple authorship. The data under study do not exactly fit into the Bradford's Law of Scattering.

INTRODUCTION

Bibliometrics has established itself as a viable and distinctive research technique for studying science of science based on citation data. Citation analysis is one of the most important bibliometric techniques involving analysis of the references forming part of primary communication. Citations are the formal explicit linkages between publications that have particular points in common.

Citoanalytical study of doctoral dissertations or theses which are the products of research activity form an important source of information because normally the first chapter provides that state-of-the-art list of references of previous work. Such studies may be useful for acquisition of materials, provision of better services to patrons and knowing the location of materials. What part of literature is cited most, for how long the literature remains useful to readers, and languages of most cited publications - knowledge of all these provides guidance to collection development policies, individual item selection, and retention and binding decisions.

Such studies have been attempted in different subjects in natural sciences but paucity of such works exists in humanities and social sciences. However, some significant studies have been conducted in some areas of social sciences such as, history, anthropology, political sciences, sociology and agricultural economics [2]. The purpose of the present study is to investigate the use pattern of literature as revealed through the analysis of citations figuring in the doctoral dissertations of English language and literature accepted by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

OBJECTIVES

The objectives of the study are to :

- i) determine the number of citations per dissertation;
- ii) observe authorship pattern;
- iii) find out the forms of documents used - their languages and countries of origin;

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- iv) compile a ranked list of journals, books and authors;
- v) observe chronological distribution and frequency of cited journals; and
- vi) determine the half-life of the journal literature and the productivity of journals.

METHODOLOGY AND SAMPLE

The total population for this study is 4066 citations that figured in 26 doctoral dissertations accepted by the University till the end of 1992. These cita-

tions pertained to journals, books, dissertations, theses, reviews etc. The bibliographic details for the source (dissertation) and the cited documents were recorded on catalogue cards which were tabulated and analysed.

ANALYSIS

Number of Citations per Dissertation

Table 1 shows that 60% of the dissertations were having citations between 100 - 300, while 30% were

Table 1

Number of citations per dissertation

Sl.no.	Number of citations	Number of dissertations	Percentage
1	2	3	4
1.	Below 100	08	30.77
2.	101-200	11	42.30
3.	201-300	05	19.23
4.	301-400	01	3.85
5.	401-500	01	3.85
	Total	26	100.00

having nearly 100 citations. Only two dissertations had citations between 300-500. The maximum citations were 431 and minimum 56. The average number of citations per dissertation was 156.

Authorship Pattern

Authorship study (Table 2) reveals that 35% of the

articles have been contributed by single authors, double authorship contribution accounts for 40%. Three authored and more than three authored contributions accounted for 25%. This shows that more and more articles are being contributed under joint authorship. Alternatively, it can be said that there is an increasing trend towards multiple authorship [3].

Table 2

Authorship Pattern

Number of authors	Citations	Percentage
1	2	3
1	424	34.87
2	488	40.13
3	182	14.97
4 and above	122	10.03
Total	1,216	100.00

Bibliographic Forms

Table 3 represents the document preference of authors. Out of 4,066 citations, 2,603 (64%) are books. Periodicals ranked second with 1,216 (29.92%) citations only. This indicates the importance of books to the scholars and also their de-

pendence on books rather than on journals [4]. This may be due to the fact that the basic matter for the study are still found more in books than any other form of documents. The rest of the citations are noticed from reviews (4.8%), Dissertation Abstracts International (1%) and reports (0.27%).

Table 3

Bibliographic forms

Sl.no.	Bibliographic form	Number of citations	%	Cumulative	
				Citations	Percentage
1	2	3	4	5	6
1.	Books	2603	64.01	2603	64.01
2.	Periodicals	1216	29.92	3819	93.93
3.	Reviews	195	4.80	4014	98.73
4.	Dissertation Abstracts	41	1.00	4055	99.73
5.	Reports	11	0.27	4066	100.00
	Total	4066	100.00	4066	100.00

Language-wise Distribution

It can be seen from Table 4 that majority of the

documents 1,205 (99.09%) are in English and rest i.e., 11 (0.91%) are in other languages, namely, in Marathi and Sanskrit.

Table 4

Language distribution

Sl.no.	Language	Number of citations	Percentage	Cumulative	
				Citations	Percentage
1	2	3	4	5	6
1.	English	1205	99.09	1205	99.09
2.	Marathi	07	0.58	1212	99.67
3.	Sanskrit	04	0.33	1216	100.00
	Total	1216	100.00	1216	100.00

Country-wise Distribution of Cited Journals

The alphabetical list of countries that are producing periodicals referred by the scholars (Table 5)

shows that sixtynine most frequently cited periodicals considered are belonging to 9 countries, out of which 47 (66.52%) are from USA, followed by British journals 12 (22.60%). India accounts for

Table 5

Country-wise distribution (Periodicals)

Sl. no.	Country	Number of		Percentage
		Journals	Citations	
1	2	3	4	5
1.	Belgium	1	8	0.65
2.	Canada	2	16	1.71
3.	India	3	23	2.45
4.	Kenya	1	7	0.75
5.	Netherland	1	10	1.07
6.	Pakistan	1	12	1.28
7.	Singapore	1	26	2.77
8.	U.K.	12	212	22.60
9.	U.S.A.	47	624	66.52
	Total	69	938	100.00

only 3 journals (2.45%). The analysis reveals that the scholars depends mostly on literature published from USA and UK only.

Country-wise Distribution of Cited Books

It is very important to determine the geographical

scattering of cited books while studying the use pattern of research literature in a particular discipline. It is clear from the Table 6 that nearly 46.87% cited books emerged from UK. USA and India are the next two countries each covering 37.84% and 6.76% of books respectively.

Table 6

Countrywise distribution (Books)

Sl.no.	Country	Number of citations	Percentage
1	2	3	4
1.	U.K.	1220	46.87
2.	U.S.A.	985	37.84
3.	India	176	6.76
4.	U.S.S.R.	29	1.11
5.	France	18	0.69
6.	Australia	11	0.42
7.	Czhekslovakia	09	0.35
8.	Germany	09	0.35
9.	Denmark	08	0.30
10.	Brazil	07	0.27
11.	Hungary	07	0.27
12.	Poland	07	0.27
13.	Canada	06	0.23
14.	Pakistan	05	0.19
15.	Norway	05	0.19
16.	Belgium	03	0.12
17.	Netherland	03	0.12
18.	Scotland	03	0.12
19.	Sweden	03	0.12
20.	Italy	02	0.07
21.	Unidentified	87	0.34
	Total	2603	100.00

Rank List of Periodicals

The journal literature on English language and English literature seems to be widely distributed, as 1,216 articles reported in all the 26 dissertations were obtained from as many as 221 journals. The journals cited for 10 or more times are given in Table 7 with their ranks, countries of origin and citation percentage. This list consists of 32 jour-

nals covering 58% of the journal literature. The analysis also reveals that there is concentration of citations on a very few key journals. The Table indicates that the journal *Modern Fiction Studies*, published from USA, tops the list with a tally of 54 citations. The journal *Times Literary Supplement* (UK) with 46 citations ranks second and *New York Times Book Review* (USA) with 39 citations.

Table 7

Ranked list of the cited periodicals

Sl.no.	Rank	Name of the journal	Country	Number of citations	Citation percentage	Cumulative no. of citation	Cumulative percentage	Remark
1.	1	Modern Fiction Studies	U.S.A.	54	4.44	54	4.44	Subscribed by the Library
2.	2	Times Literary Supplement	U.K.	46	3.78	100	8.22	-do-
3.	3	New York Times Book Review	U.S.A.	39	3.20	139	11.42	-do-
4.	4	Critique	U.K.	38	3.12	177	14.54	-do-
5.	5	Phylon	U.S.A.	36	2.96	213	17.5	-do-
6.	6	College English	U.S.A.	29	2.38	242	19.88	-do-
7.	7	PMLA	U.S.A.	26	2.13	268	22.01	-do-
8.	7	Commentary	Singapore	26	1.13	294	24.4	-do-
9.	8	Saturday Review	U.S.A.	25	2.05	319	26.19	-do-
10.	9	American Literature	U.S.A.	23	1.89	342	28.08	-do-
11.	9	Dial	U.S.A.	23	1.89	365	29.97	-do-
12.	10	Nineteenth Century Fiction	U.S.A.	21	1.72	386	31.69	
13.	10	Time	U.S.A.	21	1.72	407	33.41	-do-
14.	11	Criterion	U.S.A.	20	1.64	427	35.05	-do-
15.	11	Encounter	U.K.	20	1.64	447	36.69	-do-
16.	11	Twentieth Century	U.S.A.	20	1.64	467	38.33	
17.	12	Hudson Review		19	1.56	486	39.89	
18.	12	Sunday Magazine		19	1.56	505	41.45	
19.	12	The Times		19	1.56	524	43.01	
20.	13	Atlantic	U.K.	18	1.48	542	44.49	-do-
21.	13	Nation	U.S.A.	18	1.48	560	45.97	-do-
22.	13	Partisan Review	U.S.A.	18	1.48	578	47.45	
23.	14	American Scholar	U.S.A.	15	1.23	593	48.68	Subscribed by the Library
24.	14	Commonweal	U.S.A.	15	1.23	608	49.91	
25.	14	New Republic	Canada	15	1.23	623	51.14	
26.	14	Southern Review	U.S.A.	15	1.23	638	52.37	
27.	15	Criticism	U.S.A.	12	0.98	650	53.35	-do-
28.	15	London Magazine	U.K.	12	0.98	662	54.33	-do-
29.	15	Scrutiny	Pakistan	12	0.98	674	55.31	
30.	15	Yale Review	U.S.A.	12	0.98	686	56.29	Subscribed by the Library
31.	16	English Studies	Netherland	10	0.82	696	57.11	-do-
32.	16	Listner	U.K.	10	0.82	706	57.93	
33-90.		58 Titles having 9 to 3 citations		325	26.89	1031	84.82	
91-144.		54 Titles having 2 citations		2X54	4.44	1139	93.00	
145-221.		77 Titles having 1 citations each		1X77	6.25	1216	100.00	
Total :				221	100.00	1216	100.00	

Rank List of Books

Table 8 lists 25 books arranged in order of their ranks. The books cited at last 3 times have been selected. The total number of books cited by the authors were 2,603, but the first 23 books have

been selected on above criterion. The analysis of the ranked list reveals that the book *American Fiction* ranks first, followed by *Main Current in American Thoughts* and *American Social Fiction* respectively, both published from U.S.A.

Table 8

Ranked list of cited books

Sl.no.	Rank	Title	Number of citations	Authors
1.	1	American Fiction	13	Maxwell, B.E.S.
2.	2	Main Currents in American Thought	11	Moyne, V.L.
3.	3	American Social Fiction	9	Millgate, Michael
4.	4	Contemporary British Novelists	9	Malin, I
5.	4	Guide to Modern World Literature	8	Soymouramith
6.	5	Fantasy in 20th Century British Novels	7	Sanders
7.	5	Postwar British Fiction: Now Accidents and Attitudes	7	Gindin, J.J.
8.	6	Ideas and the Novel	6	Mc Carthy, Mary
9.	6	The Evaluation of the English Language from Chaucer to the Twentieth Century	6	Mcknight, H.
10.	6	The Sence of Life in the Modern Novel	6	Mizener Arthur
11.	6	The Theory of the Novel	6	Stevick, Philip
12.	7	An Essays on Comedy and the uses of the Comic Spirit	5	Meredith, George
13.	7	Contemporary American Jewish Literature	5	Malin Irving
14.	7	The American Novel and its Traditions	5	Meredith, George
15.	7	The History of English Novel	5	Stevenson, L.
16.	8	Eros and Evil	4	Masters, R.E.L.
17.	8	F. Scott Fitzgerald, A collection of Critical Essays	4	Mizener
18.	8	Indian Writing in English: Critical Essays	4	Maccutchion, David
19.	8	The Art of Creation	4	Edward Carpenter
20.	8	The Cycle of American Literature	4	Millgate
21.	8	Towards Democracy	4	Edward Carpenter
22.	8	Twelve Original Essays on Great American Novels	4	Shapiro
23.	9	American Social Fiction	3	Michael
24.	9	Nostromo	3	MC Laugl Lin, Juliet, C.
25.	9	The Influence of Freud on American Psychology	3	Shakow, David and David Rapaport

Rank List of Authors

The list which includes the authors cited 10 or more

times indicates that amongst the first ten most cited authors six are from U.S.A. and two each from U.K. and India (Table 9).

Table 9

Rank list of authors

Sl.no.	Rank	Name of Author	Times cited
1.	1	F. Scott Fitzgerald	39
2.	2	Ted Hughes	28
3.	3	William Faulkner	25
4.	4	Shri Aurobindo	24
5.	4	Brooks Van Wyck	24
6.	5	Edward Carpenter	23
7.	5	R.K. Narayan	23
8.	6	Mark Twain	19
9.	7	Ernest Hemingway	18
10.	7	Norman Mailer	18
11.	8	Leslie A Fiedler	16
12.	9	Freud Sigmund	15
13.	10	Joseph Conrad	14
14.	10	Aldous Huxley	14
15.	10	Theodore Drieser	14
16.	11	Mulkraj Anand	12
17.	11	James Baldwin	12
18.	11	Anita Desai	12
19.	12	Maxwell Geismar	11
20.	12	C.P. Snow	11
21.	13	Anthony Burgess	10
22.	13	U. Dhumal	10
23.	13	Fredrick Hoffman	10
24.	13	Kazin Alfred	10
25.	13	Philip Roth	10
26.	13	Trilling Lionel	10

Chronological Distribution of Cited Periodicals : Time Span

Time span is relatively long in this study, a period of four decades is needed to cover nearly 90% citations. The maximum number of citations be-

longed to the period 1961-70 (Table 10). It also shows that older references are less cited than the later ones [5]. Nearly, 13% of the citations belonged to the first half of the century and 78% to the second half of the century.

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Table 10

Chronological distribution of periodicals

Years	Citations	Percentage
1990-86	19	1.56
1985-81	33	2.71
1980-76	142	11.68
1975-71	139	11.47
1970-66	228	18.75
1965-61	213	17.52
1960-56	98	8.06
1955-51	81	6.66
1950-46	37	3.04
1945-41	23	1.80
1940-36	16	1.32
1935-31	09	0.74
1930-26	36	2.96
1925-21	28	2.30
1920-16	05	0.41
1915-11	03	0.25
1910-06	0	0.00
1905-01	01	0.08
Period not mentioned	105	8.63
Total	1216	100.00

Chronological Distribution of Cited Books

It can be observed from Table 11 that nearly 69%

of the citations were of the period ranging from 1931 to 1970. Documents pertaining to earlier period were cited less and latter period least.

Table 11

Chronological distribution of books

Years	Citations	Percentage
1901-1910	19	0.73
1911-1920	38	1.46
1921-1930	208	7.99
1931-1940	305	11.72
1941-1950	409	15.71
1951-1960	554	21.28
1961-1970	519	19.94
1971-1980	409	15.71
1981-1990	90	3.46
Period not mentioned	52	2.00
Total	2603	100.00

Frequency of the Cited Periodicals

The frequency distribution of cited periodicals (Table 12) shows that 73% periodicals were cited

1-5 times, while 12% cited 6-10 times, 10% cited 11-25 times, 3% cited from 26-40 times and only 1% cited 41-55 times.

Table 12

Frequency distribution of periodicals

Frequency	Periodicals used	Percentage
1	77	34.84
2 - 5	86	38.91
6 - 10	28	12.67
11 - 15	8	3.62
16 - 20	9	4.07
21 - 25	5	2.26
26 - 30	3	1.36
31 - 35	0	0.00
36 - 40	3	1.36
41 - 45	0	0.00
46 - 50	1	0.45
51 - 55	1	0.45
Total	221	100.00

Half-life of the Journal Literature

To find out the half-life, the citations were divided into 18 groups each comprising a time span of 5 years (Table 13). The last group includes the journals whose years of publication were not given. The graph was plotted by taking period on X-axis and the cumulative number of citations of the journals on the Y-axis (Fig. 1). The maximum number

of citations given as 1,216 on Y-axis cuts at point 'P'. Half number of total citations meet at point 'D' on Y-axis. A line drawn from Point 'D' parallel to X-axis cuts the curved graph at point 'B'. Again another line drawn from Point 'B' parallel to Y-axis meets the X-axis at point 'C'. Distance from point 'D' to 'C' is the half-life of the total literature published during the period 1901 to 1990 which is 27.5 years.

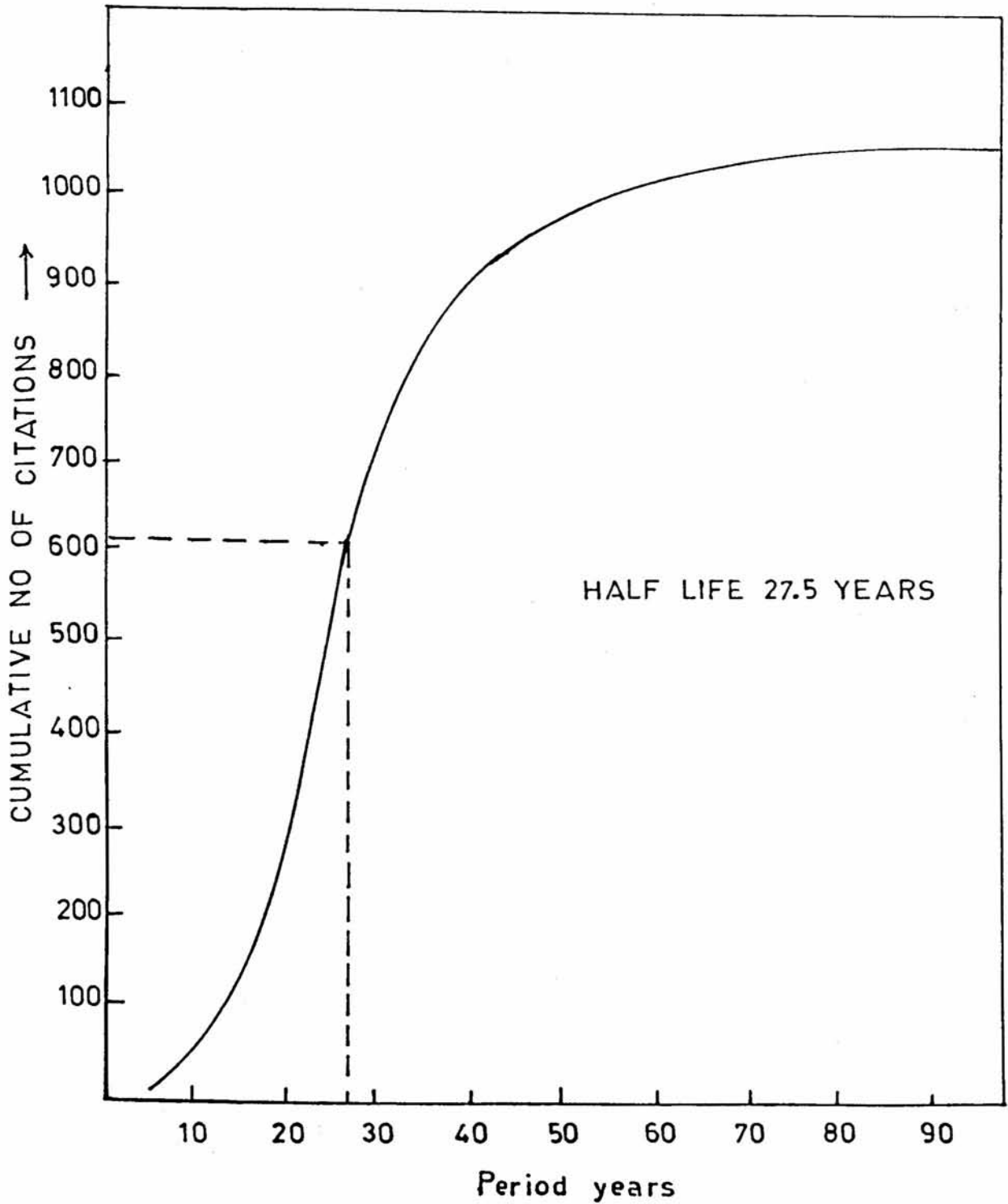


Figure 1 : Obsolescence of English Literature

Table 13

Half-life of the literature

Period	Citations	Cumulative citations	Percentage of citations	Cumulative percentage of citations
1990-86	19	19	1.56	1.56
1985-81	33	52	2.71	4.27
1980-76	142	194	11.68	15.95
1975-71	139	333	11.43	27.38
1970-66	228	561	18.75	46.13
1965-61	213	774	17.52	63.65
1960-56	98	872	8.06	71.71
1955-51	81	953	6.66	78.37
1950-46	37	990	3.04	81.41
1945-41	23	1013	1.89	83.30
1940-36	16	1029	1.32	84.62
1935-31	9	1038	0.74	85.36
1930-26	36	1074	2.96	88.32
1925-21	28	1102	2.30	90.63
1920-16	5	1107	0.41	91.04
1915-11	3	1110	0.25	91.28
1910-06	0	1110	0.00	91.28
1905-01	1	1111	0.08	91.37
Period not mentioned	105	1216	8.64	100.00
Total :	1216	1216	100.00	100.00

Application of Bradford's Law

The law states that if a group of journals are arranged in an order of decreasing productivity that is, the journal that yields the most relevant articles comes first and the most unproductive last, then

the journals will be grouped into a number of zones each producing a similar number of relevant articles. However, the number of journals in each zone will be increasing rapidly. The relationship between the zones is $1 : a : a^2$ [6].

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Accordingly, a graph was plotted with log of journals on the X-axis and the cumulative number of articles on the Y-axis (Fig. 2). The cumulative number of articles was divided into 3 equal zones [7] which are indicated by the points Y_1, Y_2, Y_3 on Y-axis. Then from these three points a line parallel to X-axis was drawn which meets the curve at the points P_1, P_2, P_3 . Then lines were drawn viz., P_1X_1, P_2X_2, P_3X_3 such that they are parallel to Y axis resulting:

- OX_1 = First zone covers 13 journals
- OX_2 = Second zone covers the next 45 journals
- OX_3 = Third zone covers the rest of the 221 journals.

According to Bradford, the relationship between the zones is $1 : a : a^2$ while the relationship in each zones of the present study is $13 : 45 : 23$ which does not fit into the Bradford's distribution.

Table 14

Application of Bradford's Law

R_1	A_1	Ranking	$R_1 \times A_1$	Cumulative citations
1	54	1	54	54
1	46	2	46	100
1	39	3	39	139
1	38	4	38	177
1	36	5	36	213
1	29	6	29	242
2	26	8	52	294
1	25	9	25	319
2	23	11	46	365
2	21	13	42	407
3	20	16	60	467
3	19	19	57	524
3	18	22	54	578
4	15	26	60	638
4	12	30	48	686
2	10	32	20	706
7	9	39	63	769
5	8	44	40	809
11	7	55	77	886
3	6	58	18	904
11	5	69	55	959
9	4	78	36	995
12	3	90	36	1031
54	2	144	108	1139
77	1	221	77	1216

R_1 - Number of journals
 A_1 - Number of citations

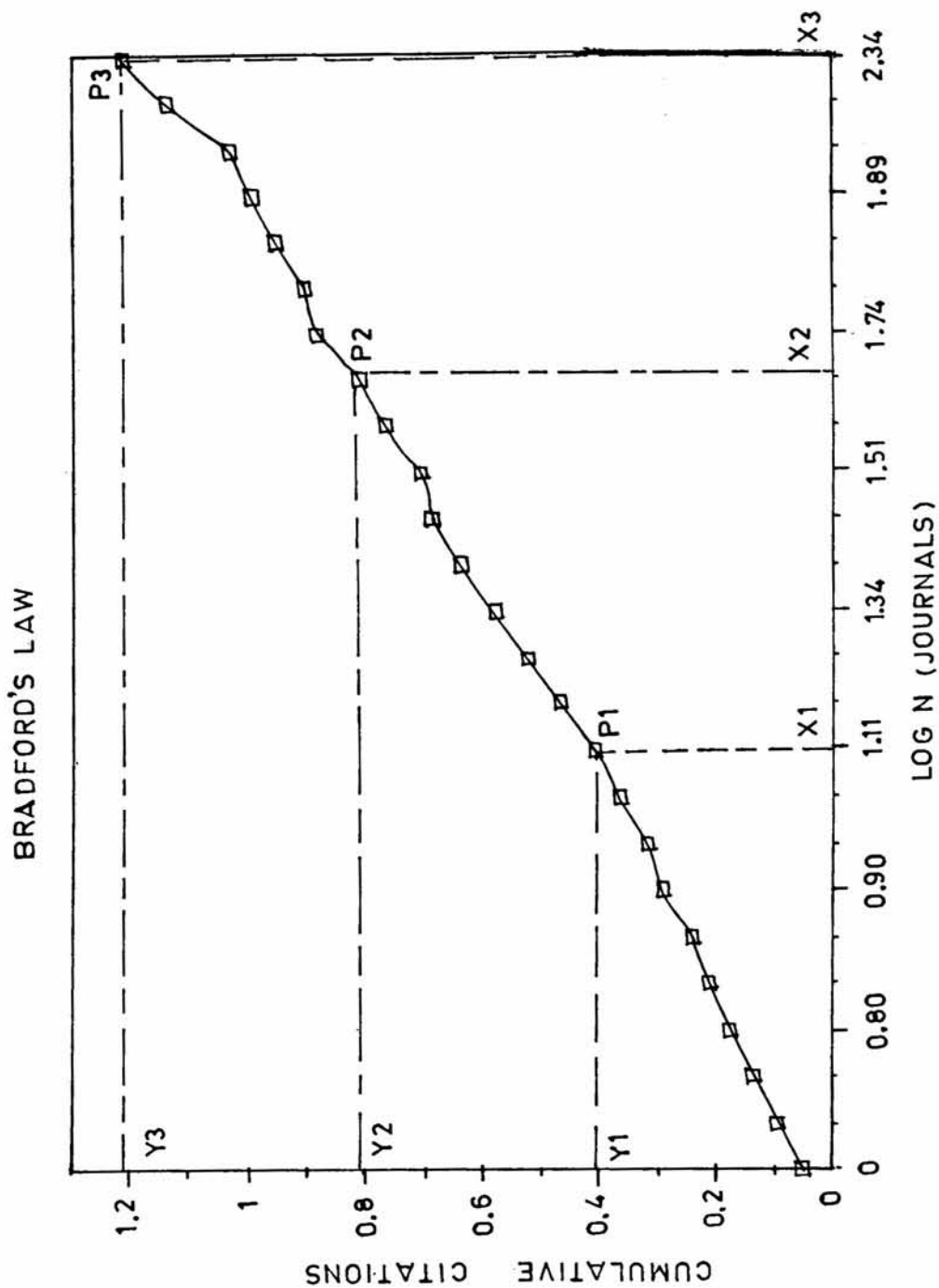


Figure 2 : Bradford's Law of Scattering

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