

JOURNAL OF INDIAN COFFEE : A BIBLIOMETRIC STUDY

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The Journal of "Indian Coffee" published by the Coffee Board since 1937 has played a key role in the dissemination of coffee information all over the world. This paper analyses the authorship pattern, the range and frequency of references cited and examines year-wise distribution of papers. It also shows subject wise break up of the papers and average length of papers provided in the articles. The results indicate that the trend is towards single authorship and there exists a high degree of collaboration in coffee research.

INTRODUCTION

Bibliometrics is an emerging thrust unit of research in the field of library and information science; Pritchard [1] first introduced the term bibliometrics as the "application of mathematics and statistical methods to books and other media of communication". Roy [2] has defined bibliometrics "as a study of the process of information use by analyzing the characteristics of documents and their distribution by statistical methods". According to Sengupta [3], bibliometrics is "organization of classification and quantitative evaluation of publication pattern of all macro and micro communications along with their authorship by mathematical and statistical applications (or) calculus".

The basic aim of a bibliometrics study is to assist the users in locating the existing information or identifying a book or any other materials which may be of interest to him. It help to avoid duplication in research and also serves as a tool for book selection, identification, and utilization of information in terms of place of publication, subject and also various forms

OBJECTIVES

This study has been undertaken to

- determine year-wise distribution of papers in the field;
- examine the nature of authorship pattern in coffee research;
- determine the frequency and mean number of references cited by researchers in the field of coffee research;
- examine the average length of papers; and
- find out subject-wise distribution of papers.

SOURCE AND METHODOLOGY

For the purpose of this study, the journal "Indian Coffee" has been selected as the source journal. It is a monthly publication of Coffee Board, Bangalore (CBIB), India. This journal contains broad information on coffee research and other related fields. It has completed 62 volumes up to 1998. In the present paper, only 10 volumes i.e., 1989-98 have been studied.

Collection of data in studies of research collaboration is a difficult problem. The extent of collaboration cannot be easily determined by traditional methods of survey and observation and the bibliometric methods offer convenient and non-reactive tool for studying collaboration in research. Hence this method has been used in the present study. The data regarding number of authors per paper was noted and it was tabulated year-wise for

the period of 1989-1998. Analysis was made to identify the nature and pattern of authorship and the degree of collaboration in coffee research. For the subject-wise analysis of articles based on information that has appeared in these papers, interlink with other subjects can also be determined.

ANALYSIS

The total number of papers published in ten years (1989-1998) are 334 which consist of articles, technical notes and analytical studies.

Year-wise Distribution of Papers

Table 1 reveals the details regarding the distribution of 334 papers in the volume 53-62 (1989-1998) of *Indian Coffee*. The maximum number of papers was 72 (21.56%) published in 1998 and minimum number of articles 15(4.50%) in 1991.

Length of the Papers

Table 2 reveals that 212 (63%) papers cover 1 to 3 pages, followed by 96 (28.75%) papers covering 4 to 6 pages. However, the number of papers with more than 15 pages are only 2 (0.89%).

Table 1

Year-wise Distribution of papers in Indian Coffee

Year	Total	Percentage
1989	30	8.98%
1990	20	5.98%
1991	15	4.50%
1992	25	7.48%
1993	42	12.58%
1994	30	8.98%
1995	26	7.78%
1996	29	8.68%
1997	45	13.48%
1998	72	21.56%
Total	334	100%

Table 2

Length of the papers in Indian Coffee

No. of Pages	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total	%
1-3	10	9	11	13	26	23	17	21	32	50	212	63.47%
4-6	14	7	4	9	10	5	9	8	12	18	96	28.75%
7-9	5	3	Nil	3	5	2	Nil	Nil	Nil	Nil	18	5.38%
10-12	1	1	Nil	Nil	1	Nil	Nil	Nil	1	2	6	1.79%
13-15	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0	0.00%
Above 15	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	2	2	.89%
Total	30	20	15	25	42	30	26	29	45	72	334	100%

Study References

Table 3 depicts the details regarding the number of references appended in articles published during the survey period. Out of 334 articles, 272 articles had no references at all. The number of papers

with 1 to 3 references were 14 (4.19%) followed by 13 papers (3.89%) during 4-6 references, 12 papers (3.60%) having more than 15 citations and the rest of 23 papers had above six and below 15 citations.

Table 3

Study references

No. of References	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total	%
NIL	18	14	11	17	29	26	20	22	43	72	272	81.43%
1-3	5	1	Nil	1	5	1	1	Nil	Nil	Nil	14	4.19%
4-6	6	1	1	3	Nil	Nil	2	Nil	Nil	Nil	13	3.89%
7-9	1	2	1	1	Nil	1	Nil	2	1	Nil	9	2.69%
10-12	Nil	Nil	1	3	1	Nil	1	Nil	1	Nil	7	2.10%
13-15	Nil	Nil	Nil	Nil	5	Nil	1	1	Nil	Nil	7	2.10%
Above 15	Nil	2	1	Nil	2	2	1	4	Nil	Nil	12	3.60%
Total	30	20	15	25	42	30	26	29	45	72	334	100%

Authorship Pattern

Table 4 indicates the details about the authorship pattern. A total of 214 papers (64.08%) out of 334 have been contributed by single authors; 55 papers

(16.46%) by two authors and 39 (11.68%) have been contributed by three authors and 26 papers (7.78%) were contributed by more than three authors.

Table 4

Authorship Pattern

No. of Authors	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total	%
Single	13	14	11	14	20	18	14	17	34	59	214	64.08%
Two	10	4	4	3	14	1	4	6	5	4	55	16.46%
Three	5	2	Nil	7	5	5	5	4	2	4	39	11.68%
Above three	2	Nil	Nil	1	3	6	3	2	4	5	26	7.78%
Total	30	20	15	25	42	30	26	29	45	72	334	100%

Subject-wise Distribution of Papers

Table 5 reveals the subject-wise distribution of articles during the survey period. Of the 334

papers, 209 dealt with four subjects namely, plantation, cultivation and processing 75 (22.46%); standards and quality 51 (15.26%); pest, diseases and IPM 42 (12.58%); and economics, trade and marketing 41 (12.28%).

Table 5

Subject-wise analysis of articles

Sl.No.	Subject	No. of papers	%
1.	Plantation, cultivation and processing	75	22.46
2.	Fertilizer and Irrigation management	25	7.48
3.	Production and Consumption	22	6.58
4.	Economics, Trade and Marketing	41	12.28
5.	Industry	16	4.79
6.	Health	9	2.69
7.	Environment	15	4.49
8.	Research	13	3.90
9.	Chemistry and Coffeine	14	4.20
10.	Standards and Quality	51	15.26
11.	Pest, Diseases and IPM	42	12.58
12.	Biotechnology	11	3.29
Total		334	100%

RESULTS

The following conclusions can be drawn from the present study.

- i) The maximum number of articles published during 1989 to 1998 in the journal *Indian Coffee* is 72 papers published in 1998 (21.56%) and minimum number of articles, ie, 15 were published in 1991 (4.50%).
- ii) Most of the articles deal with topics like plantation, cultivation and processing of coffee.
- iii) Most of the papers are contributed by single authors, though the general trend is for multiple authorship.

iv) Coffee researchers in India either do not publish elsewhere (as indicated by an average of 4% references) or they still continue to refer to the old documents.

v) The average length of papers ranges between 1 to 6 pages which constitutes 92% of the whole and which is the ideal length for research and technical papers.

CONCLUSION

As per the study, lack of citations in majority of the papers and also citations to very old documents indicates thateither the scientists do not have access to new research publications in their institutions or they are not using latest information for their research. The research scientists should

be made aware of this trend and the latest research results, methods etc., for their own research should be made available.

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