



Scientometric Analysis of Journal of Current Science (2010)

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ABSTRACT

A scientometric analysis of journal of Current Science and all the volumes of the journals published during the period 2010. The study analysis monthly-wise distribution of articles, authorship pattern, volume-wise productivity, distribution of document in current science journal in 2010, degree of collaboration and gender-wise distribution.

KEYWORDS: Scientometric Analysis, Authorship Pattern, Current Science

INTRODUCTION

Bibliometrics and Scientometrics are types research methods used in Library & Information Science. It utilizes quantitative analysis and statistics to describe pattern of publications with in a given field or body of literature. Scientometric technique has extensive applications in identifying the research trend in a subject, authorship and collaboration research and to get actual and accurate data for information handling and transfer. Scientometrics has been defined as quantitative and qualitative measuring techniques for evaluation and interpretation of science of science including its different activities, like productivity, progress, organization and management of science by application of the mathematical and statistical calculations. Scientometrics offers a powerful set methods and measures for the structure and process of scholarly communications.

OBJECTIVES

The objectives of the present study are listed below:

- To find out monthly-wise distribution of contributions and the average number of
- To analyze the authorship pattern.
- To determine the volume-wise productivity of articles/publications.
- To observe the type of articles in Current Science.
- To estimate the degree of collaboration among authors.
- To find the gender-wise contribution.

SOURCE JOURNAL

"Current Science Journal" has been selected as the source journal. It is a research journal in the field of science. It is Fortnightly journal published by Current Science Association or the Indian Academy of Sciences. All the monthly journals published during the year of 2010 have been taken up for this study.

METHODOLOGY

In this study the volume 98 & 99 (2010) was taken into consideration. Data were collected with adequate details such as title of articles, name of the contribution, and their address and affiliations details for each articles. At the same time, the reference appended by the respective authors at the end of each article were also counted and tabulated, all the collected data were analyzed for making observation.

Table: 1 Monthly-wise Distribution of Articles in 2010

Monthly	Vol. No.	No. of Articles	Percentage
Jan	98	69	8.10
Feb	98	70	8.22
Mar	98	66	7.75
Apr	98	71	8.34
May	98	65	7.64

Jun	98	62	7.29
Jul	99	63	7.40
Aug	99	64	7.52
Sep	99	69	8.11
Oct	99	84	9.88
Nov	99	89	10.46
Dec	99	79	9.29
Total		851	100

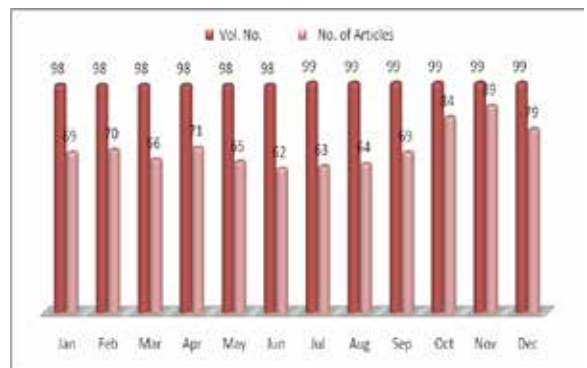


Table 1 reveals the total number of articles published form 2010. The total number of articles published is 851. It is seen that the number of articles published is highest in November 2010 with 89 articles.

Table - 2 Authorship Pattern

Pattern of author	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
Single	32	29	30	40	40	26	30	30	31	42	36	38	404	47.47
Two	12	22	13	9	8	11	20	16	8	12	17	20	168	19.74
Three	10	6	8	10	7	8	6	6	13	16	17	9	116	13.63
Four	8	7	8	3	2	4	2	4	9	2	48	4	61	7.16
Five	4	3	2	5	3	7	2	5	5	6	36	3	51	6.00
More than five	3	3	5	4	5	6	3	3	3	6	5	5	51	6.00
Total	69	70	66	71	65	62	63	64	69	84	89	70	851	100

Table 2 indicates the details about the authorship pattern out of 851 articles, 404 (47.47%) articles were contributed by single author, were by two authors 168 (19.74%) articles ,were by three authors 116 (13.63%) articles, were by four authors 61 (7.16%) articles, were by five authors 51 (6%) articles, were by more than five authors 51 (6%) articles. Joint authorship is widely accepted in this era.

Table – 3 Volume-Wise Productivity

S. No	Vol. No	No. of Articles/ Publications	Valid Percentage
1.	98	403	47.35
2.	99	448	52.65
Total		851	100

Table 3 reveals that volume-wise productivity of articles. Out of 851 articles the maximum numbers of articles are in Vol. No. 99 contributing

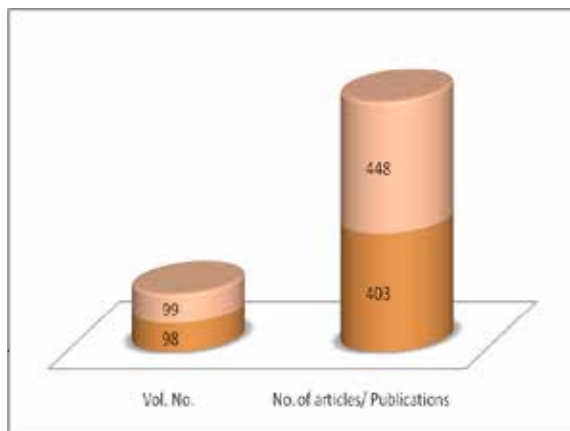


Table: 4 Distributions of Documents in the Journal of Current Science

Types of Documents	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
Correspondence	14	14	14	15	13	11	15	16	17	19	20	17	185	21.8
News	10	4	7	4	7	8	3	3	4	9	5	2	66	7.8
Opinion	2	1	1	0	3	0	1	3	1	6	4	1	23	2.8
Commentary	5	5	4	4	1	4	3	1	2	4	4	2	39	4.5
Scientific Correspondence	1	4	2	5	4	4	4	5	5	7	7	7	55	6.4
General Article	1	1	3	2	3	3	4	5	5	5	2	2	36	4.2
Review Article	0	1	1	2	1	2	2	1	1	0	2	4	17	2.0
Research Account	0	0	0	0	1	0	0	0	1	1	1	0	4	0.4
Research Article	5	5	6	4	8	5	5	6	5	5	3	4	65	7.7
Research Communication	13	9	10	9	10	13	15	7	15	14	14	14	143	16.80
Research News	0	2	1	1	0	2	1	3	3	1	4	0	18	2.1
Book Reviews	6	9	7	8	5	6	6	5	5	6	10	8	81	9.5
Historical Commentary /News	1	2	1	2	0	0	1	0	1	2	1	1	12	1.4
Others	11	13	9	15	9	4	3	9	4	5	12	17	107	12.6
Total	68	70	66	71	65	62	63	64	69	84	89	79	851	100%

Table 4 reveals that distribution of documents in current science, it is observed from the table that 21.8% correspondence in the first order out of total from current science journal. The last category in the table is Research Account is 0.4%. Out of fourteen major area of current science Correspondence shared the highest percentage 21.8% (185 articles).

Analysis of data in Table 5 shows that maximum number of papers is contributed by multiple authors 447 (52.53%). Articles having single authors contribute 404 (47.47%) of the total paper.

Table - 5: Degree of Collaboration

S. No	Authorship	No. of Papers	Percentage	Degree of Collaboration
1	Single Author	404	47.47	0.47
2	Multiple Author	447	52.53	0.53
Total		851	100	100

DEGREE OF COLLABORATION

The formula given by K. Subramanyam is useful for determining the degree of collaboration in quantitative terms. The study followed the same formula which is mathematically put as.

$C = \frac{NM}{NM+NS}$
 Where C = Degree of collaboration
 NM = Number of Multiple authored papers
 NS = Number of Single authored papers in the present study
 NM = 447
 NS = 404

Thus the degree of collaboration in current science is 0.53 which clearly indicates its dominance upon individual contribution.

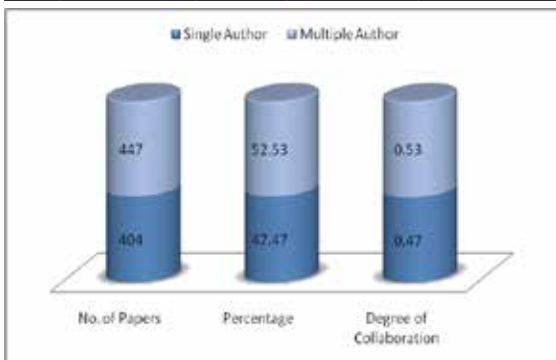


Table - 6: Gender-Wise Distribution

S.No	Gender	Number	Percentage	Cumulative Percentage
1	Male	1350	83.85	83.85
2	Female	260	16.15	100
Total		1610	100	

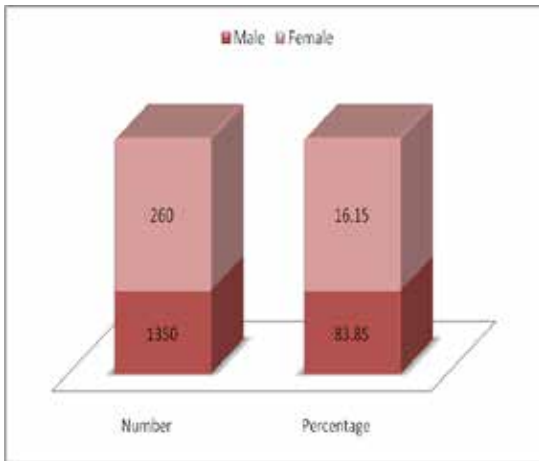


Table 6 indicates Gender-wise that 83.85% (1350) Male respondents take the first position 16.15% (260) Female respondents take the second position.

FINDINGS & CONCLUSION

The following are drawn from the present study

1. Most of the contributions in the journal are by two authors.
2. 99 Volumes contains high number of articles 448 (52.65%) contributed.
3. The month-wise distribution of articles reveals that maximum numbers of articles were published is highest in Nov 2010 with 89 articles.
4. The degree of collaboration is founded to be 0.53
5. The Gender-wise contribution analysis reveals that male authors contribution is high.

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