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## RANKING OF JOURNALS IN JOURNAL OF BIOSCIENCES

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### ABSTRACT

**J**ournal ranking is widely used in academic circles in the evaluation of an academic journal's impact and quality. Journal rankings are intended to reflect the place of a journal within its field, the relative difficulty of being published in that journal, and the prestige associated with it. They have been introduced as official research evaluation tools in several countries. The aim of the present research paper is to describe the ranking of journals in the journal of biosciences. Data collected from 2157 articles in the period 1979 to 2015. The data were downloaded from the journal's website. This study aims to analyze the research output performance of all areas of Biology which is the premier journal in the country within its scope. The present research covers mainly the ranking of journals and its analysis. The result showed that in Journal of Biosciences published total 61537 journal cited citations published during the period of study i.e. from 1979 to 2015. The study helps to selection of most referred journals in Biology subject.

**KEYWORDS:** Bibliometric Study, Journal of Biosciences, Ranking list, Citations analysis, Bradford's zones.

### RANKING OF JOURNALS :

Journals are essential for research but

frequent exercise in different subject fields.

By the actual citation counting information is collected from the references cited in sources articles. By studying the average number of citations, one can develop a list of cited journals in the ranked order. Such ranked lists are very often used as guidelines in the acquisition of periodicals and other materials in the library.

In spite of the fact that, libraries have limited financial resources and libraries can't afford to subscribe to all journals required, a major portion of the available library budget spend towards subscription of periodicals. This amount meant for subscription of periodicals has to be spent judiciously so as to ensure maximum usage of these

their increasing cost demands that librarians study their qualities, usefulness, and suitability to a particular group of users. The ranking list is a practical tool to help select journals of maximum utility in relation to their coverage of new and important literature in a particular subject area.

It is assumed what the authors read or use usually reflected in their writings through citations. The sample of citations should be able to reveal of general picture as the reading pattern of a community or a part of it. It is on the basis of this assumption that the compilation of journal ranked list has become a



subscribed journals by more and more users. To enhance the utility of the periodicals of various levels, the librarian and his staff have to adopt various approaches both in deciding about which journals are to be subscribed on priority and how to put them in to better use. The study of this kind helps librarians priorities subscription to journals on the basis of their usage.

The first six journals in the ranking list together accounted for nearly 20 percent of the total citations. The Table-1 also shows that the first three most frequently cited journals are J. Bio. Chem. 3633 (5.90%), Proc. Natl. Acad. Sci. 2649 (4.30%) and Nature (London) 2297 (3.73%).

Thus it is noted that a few journals yielded more citations and more journals yielded a few citations. A high concentration in a few journals is evident. Therefore 'core' or productive journals can be identified on the basis of the ranked list.

**Table - 1 : Ranking List of Journals**

Sr. No.	Rank	Name of Journal	Country of origin	Total	Percentage	Cumulative Citation	Cumulative Percentage
1	1	J. Bio. Chem.	US	3633	5.90	3633	5.90
2	2	Proc. Natl. Acad. Sci	US	2649	4.30	6282	10.21
3	3	Nature(London)	UK	2297	3.73	8579	13.94
4	4	Science	US	1589	2.58	10168	16.52
5	5	Biochem. Biophys. Acta	Netherlands	1265	2.06	11433	18.58
6	6	Cell	US	1139	1.85	12572	20.43
7	7	J. Mol. Biol.	US	1120	1.82	13692	22.25
8	8	Biochemistry	US	1067	1.73	14759	23.98
9	9	NucleicAcidsRes	UK	995	1.62	15754	25.60
10	10	PlantPhysiol.	US	821	1.33	16575	26.94
		Other Total		44962	73.06	61537	100.00
		<b>Total</b>		<b>61537</b>	<b>100.00</b>		

#### Bradford's Zones for Journal of Biosciences :

**Table -2 : Bradford's zones for journal of biosciences**

Zone	Number of Citations	Journals	Cumulative Number of citations	Cumulative Number of journals
01	20659 (33.57%)	17 (0.24%)	20659	17
02	20590 (33.46%)	214 (3.03%)	41249	231
03	20288 (32.97%)	6826 (96.73%)	61537	7057

It is observed from the Table-2 that there are 17 (0.24%) journals in the nucleus and they are the most productive journals devoted to journal of biosciences sharing 20659 (33.57%) of total cited citations. The next zone is represented by 214 (3.03%) journals which shares 20590 (33.46%) of total citations, and the third zone is

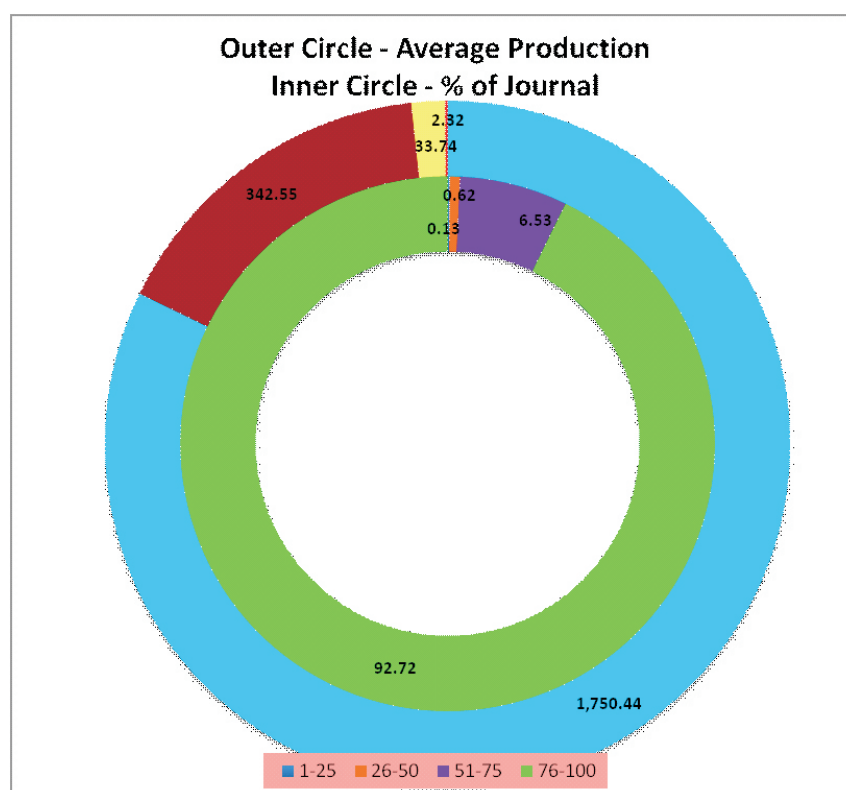
represented by 6826 (96.73%) journals which shares 20288 (32.97%) of total cited citations. Each zone has approximately one third of the total citations. Hence the journal distribution as per the Bradford's law of scattering reveals the ratio 17 : 214 : 6826.

**Table – 3 : Productivity of journals in Journal of Biosciences**

Sl. No.	Percent of Citations	Number of Citations	Number of Journals Covered	Percent of Journals	Average Production of Journals
01	0-25	15754	9	0.13	1750.44
02	26-50	15072	44	0.62	342.55
03	51-75	15556	461	6.53	33.74
04	76-100	15155	6543	92.72	2.32
<b>Total</b>		<b>61537</b>	<b>7057</b>	<b>100.00</b>	<b>8.72</b>

It is observed from the above Table-3 that in journal of biosciences the first 25 percent of the citations are covered by the first 9 journals with an average of 1750.44 citations per journal. The average productivity has gone down considerably to 2.32 articles in the fourth group. This shows the concentration of more number of citations in a few journals. Table – 3 and figure – 1it confirms that the data fits well with Bradford's law of scattering.

**Figure – 1 : Productivity of Cited Journals in Journal of Biosciences**



**CONCLUSION :**

Bibliometric analysis is the analysis of the structure of literature using various tools, counting, ranking-frequency and citation analysis. It is particularly important tool in the area of information retrieval.

The ranked list of journals was also prepared from the journals citations in Journal of Biosciences 1979 to 2015. Out of 61537 cited, Journal J. Bio. Chem. With 3633 (5.90%) ranked first. Followed by Proc. Natl. Acad. Sci. with 2649 (4.30%) and Nature (London) with 2297 (3.73%). The journals falling within the first ten titles account for as much as 26.94 percent of citations. Above Table-2 concluded Bradford's law found that 17 journals covered 20659 citations, 214 journals covered 20590 and 6826 journals covered 20288 citations. Hence the ratio is 17 : 214 : 6826. The most important result shows that concentration of more number of citations in a few journals thus confirms that the data fits well with Bradford's law of scattering. It is concluded from the study that most cited journals' country origin, US occupied in this biosciences journal. The study of this kind helps librarians priorities subscription to journals on the basis of their usage.

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