

# Mapping of Western Europe Countries Library and Information Science Publications: A Study Based on Scimago Journal and Country Rank Database

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**Abstract** - This paper discusses about the Western Europe countries Library and Information Science publications during the period of 1996-2016 and its citation available in the Scimago Journal and Country Rank data base by the authors from top 15 countries (based on publications). The relevant data are collected from Scimago Journal and Country Rank data base and it was analyzed. It shows among the Western Europe countries Library and Information Science publications totally 38394 articles were published which are indexed in Scimago database. Among the publications, maximum of 12664(32.98%) articles published by United Kingdom and followed by Germany with 5282(13.75%) publications and Spain is in 3<sup>rd</sup> place with 3947(10.28%) publications during the study period.

**Keywords:** Western Europe Countries, Library and Information Science, Scimago Journal and Country Rank, Citations, Self Citations, Citable Documents, H- Index

## I. INTRODUCTION

The true measurement of assessing the quality and quantity of a journal is the Citation Index. While discussing citation, one needs to know the citation. Simply, when another refers other works in his/her article, we describe the article referred is cited. In other words the citation is called as the prior work which is referred in the present work. The quality of a given work can precisely be deemed through the number of citations that it gets. Therefore, a firm piece of article or research paper is carrying more number of citations get more impact than the work carrying less citation. Therefore, we always refer to some indexing and abstracting databases like Web of Science, Scopus, or even Google Scholars to know the impact of a particular journal, an article or a particular author. Scimago Journal and Country Rank database developed by Scimago Lab and powered by Scopus

## II. REVIEW OF LITERATURE

Senthilkumar.R. *et al.*, (2017)<sup>1</sup> this research analyzes the Astrophysics research output in India during the period 1989 to 2014. The study revealed that the maximum number of publications is in the year 2013 with 913 records having a GCS of 4342 and LCS of 324. The major source of publication in Astrophysics research comes in the form of articles.

Rajneesh *et al.*, (2015)<sup>2</sup> have examine research output of Computer Science Literature, articles published in the "Journal of the ACM", for 10 years from 1999 to 2008.

The study shows that a total number of 336 papers comprise of 10799 citations. The highest average citations per article were 37.25 the overall average of the citations per article is 32.14. Journals and conference proceedings and both of them together have shared 77% of the total citations. 3926 (36.88%) citations authored by a single author, whereas 6719 citations (63.12%) were multiple authors. It is evident that Computer science is one of the emerging disciplines.

Krishnan, V., *et al.*, (2014)<sup>3</sup> have studied the Current science Publications research output, for the period of 2000 to 2013. Among 2357 records, the most productive author was Aswal V. K with 108 papers and the highest number of records 334 published in 2011 and 322 records in the year 2010. Total 73.8% of the literature was published records were articles. India was the top produced country with 1363 publications (57.8%) followed by USA with 293 publications (12.4%). Most productive Institution was Bhabha Atomic Research Center (BARC), which topped with 143 publications.

Seeman, T *et al.*, (2013)<sup>4</sup> have analyzed the growth rate of environmental science literature output in nineteen Universities of South India the period of 2000 – 2012 were retrieved from Web of Science database

Among total 6784 journal articles, the highest output was in the year 2012 that accounts for 13.97% and the 7694 journal articles occupy predominant position sharing 88.17% of total research output. A core set of 38 journals has covered about one third of the total publications made by the environmental science researchers in selected universities from South India.

Khatun, A., *et al.*, (2011)<sup>5</sup> have examined the periodical articles on diarrheal disease research in Bangladesh. The articles were derived from PubMed, Web of Science and Scopus databases from the period of 1971 to 2009 (38 Years). The total number of retrieved records was 1.521 ( PubMed 488; WoS 419; and Scopus 614).

The unique 711 records were retained for analysis. The literature growth increased with an average 18.23 articles published per year. The majority of journals 99 (65.55%) were published in the USA and UK.

### III. METHODOLOGY

This study aims to discuss about the Western Europe countries Library and Information Science publications and its citation available in the Scimago Journal and Country Rank data base<sup>6</sup> by the top 15 countries (15 out of 24 countries based on publications). The relevant data are collected from Scimago Journal and Country Rank database. Based on the available sources, the following discussions are made.

### IV. ANALYSIS AND INTERPRETATION

The distributions of the Western Europe countries Library and Information Science publications by the top 15 countries that is available in Scimago Journal and Country Rank data base which were analyzed in the table 1.

#### A. Western Europe Countries Library and Information Science Publications (Top 15 Countries)

TABLE I WESTERN EUROPE COUNTRIES LIBRARY AND INFORMATION SCIENCE PUBLICATIONS (TOP 15 COUNTRIES)

S. No.	Country	Library & Information Science Publication	%
1	United Kingdom	12664	32.98
2	Germany	5282	13.75
3	Spain	3947	10.28
4	France	3339	8.70
5	Netherlands	2426	6.32
6	Italy	1983	5.16
7	Sweden	1309	3.41
8	Switzerland	1287	3.35
9	Belgium	1062	2.77
10	Finland	1043	2.72
11	Austria	897	2.34
12	Denmark	870	2.27
13	Greece	858	2.24
14	Norway	789	2.05
15	Ireland	638	1.66
	Total	38394	100

The above Table shows that the country-wise distribution of Western Europe Countries Library and Information Science Publications From 1996 to 2016, totally 38394 articles were published which are indexed in Scimago database. Among the publications, maximum of 12664(32.98%) articles published by United Kingdom

and followed by Germany with 5282(13.75%) publications and Spain is in 3<sup>rd</sup> place with 3947(10.28%) publications.

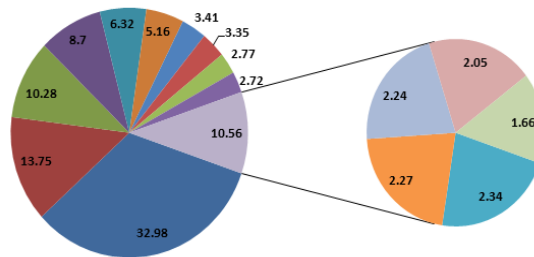


Fig 1 Western Europe Countries Library and Information Science Publications

#### B. Western Europe Countries Library and Information Science Citable Documents

TABLE II WESTERN EUROPE COUNTRIES LIBRARY AND INFORMATION SCIENCE CITABLE DOCUMENTS

S. No.	Country	Library & Information Science Citable Documents	%
1	United Kingdom	11526	31.93
2	Germany	5020	13.91
3	Spain	3838	10.63
4	France	3171	8.79
5	Netherlands	2296	6.36
6	Italy	1883	5.22
7	Sweden	1250	3.46
8	Switzerland	1255	3.48
9	Belgium	996	2.76
10	Finland	1017	2.82
11	Austria	802	2.22
12	Denmark	846	2.34
13	Greece	827	2.29
14	Norway	758	2.10
15	Ireland	610	1.69
	Total	36095	100

The above Table presents the country-wise distribution of Western Europe Countries Library and Information Science citable documents (includes articles, reviews and conferences papers), from top 15 countries from 1996 to 2016, 36095 citable documents were available which are indexed in Scimago database. Among the citable documents maximum of 11526(31.93%) by United Kingdom followed by Germany with 5020(13.91%) and Spain contributed 3838(10.63%) citable documents.

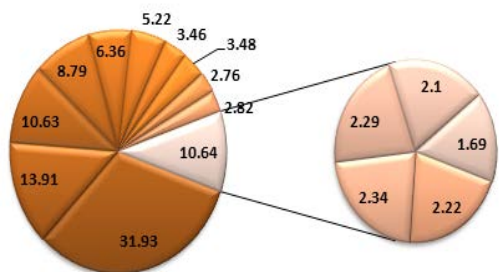


Fig. 2 Western Europe Countries Library and Information Science Citable Documents

*C. Western Europe Countries Library and Information Science Citations:*

TABLE III WESTERN EUROPE COUNTRIES LIBRARY AND INFORMATION SCIENCE CITATIONS

S. No.	Country	Library & Information Science Citations	%
1	United Kingdom	123548	28.13
2	Germany	52857	12.03
3	Spain	26436	6.02
4	France	37558	8.55
5	Netherlands	35805	8.15
6	Italy	29129	6.63
7	Sweden	18283	4.16
8	Switzerland	37237	8.48
9	Belgium	15546	3.54
10	Finland	14040	3.20
11	Austria	7581	1.73
12	Denmark	14219	3.24
13	Greece	8713	1.98
14	Norway	11228	2.56
15	Ireland	7046	1.60
	Total	439226	100

The above Table shows the distribution of Western Europe Countries Library and Information Science citations, from top 15 countries from 1996 to 2016. Among the citations maximum of 123548(28.13%) by United Kingdom followed by Germany with 52857(12.03%) and France contributed 37558(8.55%) Citations.

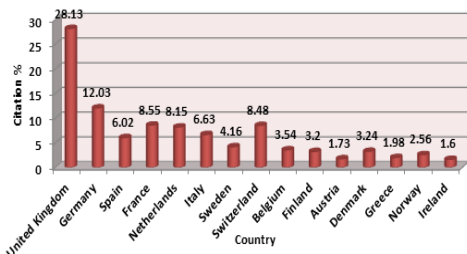


Fig. 3 Western Europe Countries Library and Information Science Citations

*D. Western Europe countries Library and Information Science Self Citations*

TABLE IV WESTERN EUROPE COUNTRIES LIBRARY AND INFORMATION SCIENCE SELF CITATIONS

S. No.	Country	Library & Information Science Self-Citations	%
1	United Kingdom	30132	36.73
2	Germany	10063	12.27
3	Spain	8673	10.57
4	France	6775	8.26
5	Netherlands	5227	6.37
6	Italy	5394	6.58
7	Sweden	2420	2.95
8	Switzerland	3200	3.90
9	Belgium	2263	2.76
10	Finland	2014	2.46
11	Austria	1103	1.34
12	Denmark	1344	1.64
13	Greece	1356	1.65
14	Norway	1363	1.66
15	Ireland	703	0.86
	Total	82030	100

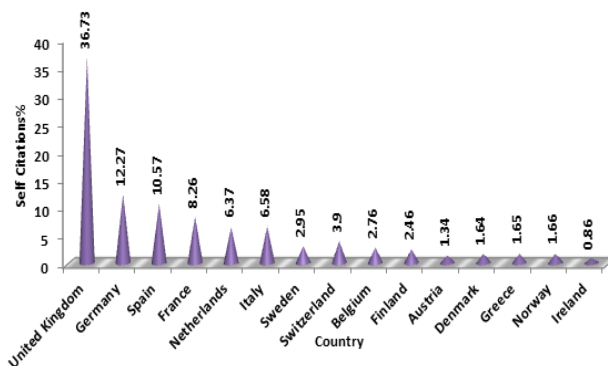


Fig. 4 Western Europe Countries Library and Information Science Self Citations

*E. Ranking of Western Europe Countries Library and Information Science Citations per Document*

The below Table depicts that the ranking of Western Europe Countries Library and Information Science Citations per Document (Average citations to documents published during 1996-2016), from top 15 countries. Among the Ranking of citations per document study Switzerland is in first rank with 28.93 followed by Denmark with 16.34 in second ranks and Netherlands is in third rank with 114.76 citations per document used.

TABLE V RANKING OF WESTERN EUROPE COUNTRIES LIBRARY AND INFORMATION SCIENCE CITATIONS PER DOCUMENT

S. No.	Country	Citations Per Document	Ranking
1	United Kingdom	9.76	XIII
2	Germany	10.01	XII
3	Spain	6.7	XV
4	France	11.25	IX
5	Netherlands	14.76	III
6	Italy	14.69	IV
7	Sweden	13.97	VII
8	Switzerland	28.93	I
9	Belgium	14.64	V
10	Finland	13.46	VIII
11	Austria	8.45	XIV
12	Denmark	16.34	II
13	Greece	10.16	XI
14	Norway	14.23	VI
15	Ireland	11.04	X

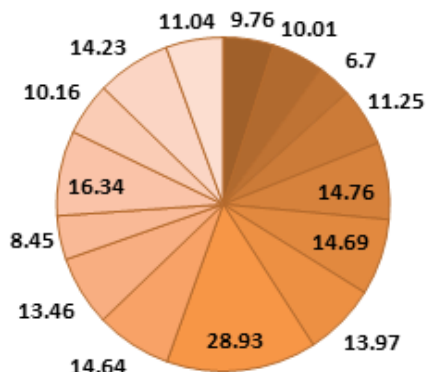


Fig. 5 Western Europe Countries Library and Information Science Citations per Document

*F. Ranking of Western Europe Countries Library and Information Science H Index:*

TABLE VI RANKING OF WESTERN EUROPE COUNTRIES LIBRARY AND INFORMATION SCIENCE H INDEX

S. No.	Country	H Index	Ranking
1	United Kingdom	123	I
2	Germany	83	II
3	Spain	59	VII
4	France	76	IV
5	Netherlands	76	IV
6	Italy	66	V
7	Sweden	57	VIII
8	Switzerland	79	III
9	Belgium	56	IX
10	Finland	60	VI
11	Austria	41	XIII
12	Denmark	54	X
13	Greece	42	XII
14	Norway	51	XI
15	Ireland	36	XIV

The data presented in the above table shows that the ranking of Western Europe Countries Library and Information Science distribution of H Index (country's number of articles (h) that have received at least h citations) the United Kingdom is in the first rank with 123 H indexes followed by Germany with 83 H indexes respectively and Switzerland is in third rank with 79H indexes.

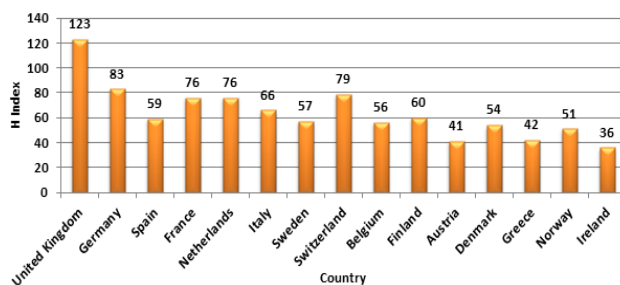


Fig. 6 Western Europe Countries Library and Information Science H Index

**V. CONCLUSION**

The supremacy and enormity of research are made obtainable through indexing journals with citations of various articles. There is wanting, for providing citations to other articles which authors cite. For reviewing the prior articles which are very much important for behind your article value added point for publishing. It is a good practice to give self-citation for their prior works and it follows up of the previous one and improved one. During the study period from 1996 to 2016, among the publications, maximum of 12664(32.98%) articles published by United Kingdom and followed by Germany with 5282(13.75%) publications and Spain is in 3<sup>rd</sup> place with 3947(10.28%) publications. The present study proves that the maximum of 11526(31.93%) by United Kingdom followed by Germany with 5020(13.91%) and Spain contributed 3838(10.63%) citable documents. The above study shows that maximum of 123548(28.13%) by United Kingdom followed by Germany with 23967(14.81%) 52857(12.03%) and France contributed 37558(8.55%) Citations. The above study reveals that maximum of 30132(36.73%) by United Kingdom followed by Germany with 10063(12.27%) and Spain's self-citation is 8673(10.57%). Among the citations per document study, Switzerland is in first rank with 28.93 followed by Denmark with 16.34 in second rank and Netherlands is in third rank with 14.76 citations per document used. The H Index study shows that United Kingdom is in the first rank with 123 H indexes followed by Germany with 83 H indexes respectively and Switzerland is in third rank with 79H indexes. It is concluded that the maximum number of Western Europe Countries Library and Information Science publications, Citable documents, citations, self-citations are in the rank of United Kingdom, Germany, and Spain respectively.

## REFERENCES

- [1] R. Senthilkumar, and G. Ulaganathan, "A Scientometric analysis of astrophysics research output in India: Study based on Web of science", *Asian Journal of Information Science and Technology*, Vol. 7, No.1, pp. 5-13, 2017.
- [2] Rajneesh and M. S. Rana, "Citation Analysis of Computer Science Literature. Rankings of Indian Universities: An Analysis", *International CALIBER-2015*, pp. 41 – 54, 2015.
- [3] V. Krishnan and S. Raja, "Citation Analysis on Current Science Publications: A Global Perspective", *International Journal of Current Research and Academic Review*, Vol. 2, No. 1, pp. 76-87, 2014.
- [4] T. Seeman, P. Sivaraman and R. Sevukan, "Bradford's law and the research productivity of environmental science researchers in selected universities of south India", *International Journal of Library and Information Science*, Vol. 2, No. 2, pp. 1-12, 2013.
- [5] A. Khatun and Ahmed S.M. Zayed, "A bibliometrical analysis of diarrheal research in Bangladesh", *Annals of Library and Information Studies*, Vol. 58, pp. 109-117, 2011.
- [6] SC Imago, "SJR SCImago Journal & Country Rank", 2007. Retrieved December 23<sup>rd</sup> 2017, from <http://www.scimagojr.com>.