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Journal of Informetrics: Bibliometric Study of Papers Published During 2007-2021

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ABSTRACT

The study examines the change in pattern of impact factor and SCImago Journal Ranking (SJR) of the journal under study from 2008 to 2021 besides examining the pattern of growth of the number of papers. The study identified the most prolific actors (authors, institutions, and countries), besides examining their citation impact in terms of citation per paper & relative citation impact. The pattern of citation and highly cited papers have also been identified. Based on the analysis of data it is observed that the number of articles published was highest and almost equal in the years 2013, 2016, and 2017. Using the methodology of the complete count of records, it is observed that 56 countries contributed 2,939 articles. China followed by the USA published the highest number of papers. The value of CPP was highest for Universidad de Granada (Spain) and Leiden University (the Netherlands). Among the authors, Nees Jan van Eck and Ludo Waltman of the Leiden University had the highest CPP. Only a minuscule number of published articles remained uncited. Article authored by Aria, M. and Cuccurullo, C. published in issue 11(4), 2017, 959-975 of the journal received the highest number of citations. The pattern of authorship indicates that during the first ten years, more papers were single and two-authored while during 2017-2021 more number of papers were multi-authored.

Keywords: Bibliometrics; Scientometrics; Citation analysis; Journal evaluation, Journal of informetrics

1. INTRODUCTION

Elsevier, Oxford, UK, launched the Journal of Informetrics (JOI) in the year 2007. "The journal publishes high-quality research articles on different aspects of research evaluation including informetrics, bibliometrics, scientometrics, and webometrics. It publishes both theoretical and empirical work containing good models and/or fundamental data sets[1]". Egghe[2], the founding editor-in-chief of the journal published a short communication on the completion of five years of the journal at the end of 2011 elucidating topics of the published articles, the pattern of co-authorship, country of authors using the first author count. Based on the study it was observed that "the journal has become a well-established journal in five years of its existence". Based on the data of co-authors, it was found "that JOI is an international journal covering the developed parts of the world. The data also show the high interest of Asian institutes in the JOI articles, however in terms of publication of papers, Europe is a bit over-represented". The journal is indexed and abstracted in several international abstracting and indexing services. The details of these are available on the website of the journal[1].

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2. LITERATURE REVIEW

During the last few years, numerous bibliometric studies related to different journals in different disciplines including library and information science have been published in the literature. For instance, Gaviria-Marin, Merigo, and Popa[3] made a bibliometric analysis of 1,068 documents published in the Journal of Knowledge Management from 1997 to 2016. The results of the study found that "the USA and the UK had the highest productivity and influence. However, the productivity of both countries decreased in recent years and the publication productivity of France, Italy, Malaysia, and China increased. At the continental level, Europe had the most productive and influential universities and authors". For other bibliometric studies related to individual library and information science journals, readers can refer to studies by Mukherjee[4] for bibliometric analysis of 975 articles published in the Journal of the American Society for Information Science

and Technology from 2000 to 2007, Patil and Lihitkar[5] for 1,005 articles published in Library Herald from 1958 to 2014, Garg, Lamba, and Singh[6] for bibliometric analysis of papers published in DESIDOC Journal of Library and Information Technology during 1992-2019, and Garg and Singh[7] for papers published from 1994 to 2020 in Library & Information Science Research (USA). Two more bibliometric studies in addition to the study by Egghe related to the Journal of Informetrics have also been published in the literature. These studies are by Das and Naseer, *et al.* Das[8] examined papers published from 2007 to 2011 in JOI. The study found "that single-authored contributions were 30 % and two authored contributions were 36 % with an average authorship of 2.3 per paper. The publications were contributed by 199 institutions of higher learning scattered globally in 32 nations. The study also revealed that it takes an average of four months for a paper to get published in the journal". Naseer[9], *et al.* examined 459 papers published in JOI from 2012 to 2016. The study found that "the highest number of articles was published in 2013. China followed by USA and Italy topped the list of prolific countries. Max Plank Society (Germany) topped the list of most prolific institutions and Lutz Bornmann also from the Max Plank Society (Germany) topped the list of prolific authors". Das and Naseer, *et al.* have analysed papers only for five years and they also did not examine the citation impact of the published papers for countries, institutions, and authors. The present bibliometric study uses a longer period of 15 years from 2007 to 2021. In addition, it also examines the citation influence of countries, institutions, and authors and identifies highly cited papers. Thus, the present study is an extended and improved version of the studies by Das and Naseer, *et al*. Authors hope that the present study might be useful to library professionals as it uses a much larger data set and also examines trends in terms of publication output, impact factor, SJR, countries, institutions, and authors along with their citation influence.

3. OBJECTIVES

The current paper examines articles published from 2007 to 2021 in 15 volumes of the Journal of Informetrics. The following are the broad objectives of the study:

- Identification of document types used for dissemination of results of the study.
- To examine the pattern of productivity of papers from 2007 to 2021.
- The impact factor and SCImago ranking of the journal from 2007 to 2021 based on data in Journal Citation Reports for impact factor and SCImago ranking list.
- To identify the most prolific countries, institutions, and authors and their citation influence using CPP and RCI.
- To examine the pattern of citations and identification of highly cited papers published in the journal.
- To examine the change in the pattern of authorship from 2007 to 2021 in three blocks of five years each.

4. METHODOLOGY

Scopus database was used to extract bibliometric data for the study. The extracted data comprised the names of contributing authors with their country and institution of work. Citations obtained by each paper were also noted. The extracted data were analyzed using MS Excel in November 2021. The data retrieved 1,135 records published between 2007 and 2021 in the journal under study. The data included research articles, review articles, correspondence, letters, etc. The analysis of data is based on the complete count of records for countries, institutions, and authors, which results in the inflation of output and citation data due to multiple counting of collaborating countries and institutions. In the present study also 1,135 papers have inflated to 2,939 papers. Downloaded data consisted details about the type of documents, name and institutional affiliation of authors, and the number of citations obtained by each publication.

Bibliometric indicators used in the study are papers published from 2001-2007 citations obtained by these papers till November 2021, Citation per Paper (CPP) and Relative Citation Impact (RCI). These indicators have been used for comparing the output and impact of countries, institutions, and authors. CPP is the average number of citations per publications, i.e. (Total Papers/ Total Citations). RCI was first used by May[10]. It is expressed by the formula (Citation % / Publications %).

5. RESULTS AND DISCUSSION

In the under mentioned paragraphs, the authors present the findings of the study on different parameters as stated under the objectives.

5.1 Type of Documents

From 2007 to 2021, the journal published 1,135 records. These were articles (1008, 88.8 %), reviews (6, 0.5 %) and other type of documents which numbered 121 (10.7 %). The highest share among the other document types was correspondence 57 (5 %) followed by the letter to the editor 34 (3 %) and short communication 30 (2.6 %). The highest number of articles (249) was published in the three years of 2013-2015 closely followed by the number of articles in the three years block of 2016-2018 (245) and 2019-2021 with 243 articles. The highest share of other types of documents was published in the three years of 2016-2018.

5.2 Chronological Pattern of Output

The chronological distribution records the number of papers published every year from 2007 (inception of the journal) to 2021, i.e. 15 years. Hence average papers published per year or in each volume = (total papers/total years) = (1135/15) = 75.6. Data presented in Figure 1 indicates that in the first five volumes of the publication, the journal published articles less than the average number per volume, the lowest in the launch year 2007 of the journal and in the remaining

nine years (2013-2021) the journal published more number of articles than the average number of articles per year. The number of papers published in the journal started increasing from 2010 onwards reaching a peak in the year 2013. The output shows a declining trend after 2013 except in the years 2016 and 2017. During the years 2013, 2016, and 2017, the number of papers published was almost equal. The authors also examined the growth rate of papers from 2007 to 2021. It is observed that the highest rate of growth was in the year 2010 (94.3 %) where the number of papers almost doubled to the number of papers published in 2009. In the years 2011, 2014, 2015, 2018, and 2019 the journal had a negative growth rate of papers. Data depicted in Figure 1 indicates a highly inconsistent pattern of growth rate. This is similar to the findings of Garg and Singh[7] for the journal "Library and Information Science Research".

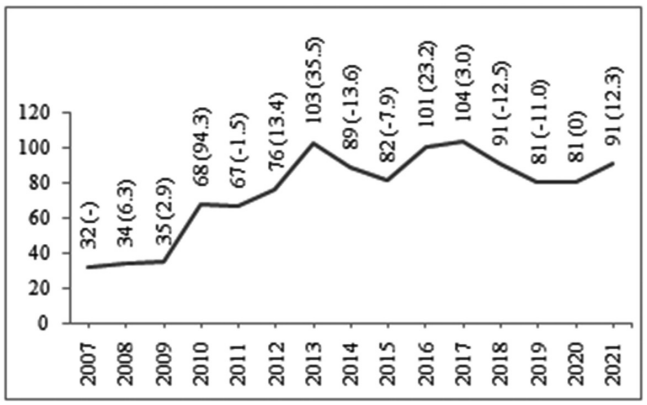

Figure 1. Pattern of growth and (growth rate %) of papers from 2007-2021.

5.3 Impact Factor and SCImago Journal Ranking (SJR) from 2008-2021

5.3.1 Impact Factor (IF)

Impact Factor was suggested by Garfield[11]. Figure 2 depicts the variation of impact factor of the journal from 2008 to 2021. The data depicted in Figure 2 indicates a highly fluctuating trend of impact factor from 2008 to 2021 with an increasing trend of impact factor after 2015 onwards till 2020. With the lowest value of 2.373 in the year 2015, it reached at a peak of 5.107 in the year 2020.

5.3.2 SCImago Journal Rank (SJR)

The SJR[12] indicator is a measure of the prestige of scholarly journals that accounts for both the number of citations received by a journal and the prestige of the journals where the citations come from. SJR has been suggested as an alternative to the journal impact factor of the Web of Science. However, it is not as popular as the journal impact factor. The SJR also shows a fluctuating trend like the impact factor. The highest value of SJR was in the year 2012, after which it started declining and reached at a lowest value in 2021. However, the journal remained in quartile one (Q1) during 2008-2021.

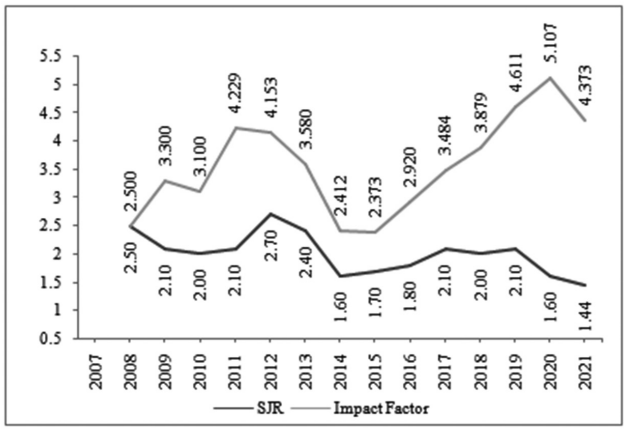

Figure 2. Trend of Impact Factor and SJR during 2008-2021.

5.4 Most Productive Countries and Impact of Their Output

Analysis of data indicates that 56 countries contributed 2,939 articles which received 128,157 citations. Table 1 lists 19 countries that contributed one percent or more papers, contributing about 88.4 % of the over-all publication output, and the other 37 countries contributed about 11.6 % of the total output. Among the 19 prolific countries listed in Table 1, China contributed the highest number of papers with 19.3 % publications followed by the USA (11.2 %), Italy (9 %), and Spain (8.1 %). These findings are similar to the findings of Das[8] and Naseer[9], *et al*. These four countries contributed about 47.6 % of the total publication output. "The publication output by different countries is highly skewed" and the findings are similar to the findings of Garg, Lamba, and Singh[6] and Garg and Singh[7] for DESIDOC Journal of Library and Information Technology and Library and Information Science Research respectively.

The authors examined the impact of the output of these prolific countries using CPP and RCI. CPP for the entire output is 43.6. It is the maximum for the Netherlands (106.7), followed by the UK (75.9), Spain (73.9), the USA (61.4), and Finland (59.9). The values of RCI follow a comparable trend. CPP is less than average for 11 countries. These are China, Italy, Belgium, Taiwan, South Korea, Brazil, Canada, Poland, France, Denmark, and India. Among the listed countries CPP is the lowest for India. The low value of RCI for these countries indicates low impact of the output for these countries.

5.5 Most Prolific Institutions and Impact of Their Output

Total research output was contributed by 632 institutions located in different parts of the globe. We have included institutions as prolific which contributed one percent or more of the output. Of the 632 institutions, only 21 institutions contributed one percent or more of the research output. These 21 prolific institutions contributed more than one-third (36.5 %) of the over-all publication output and received 45.8 % of total citations (Table 2). Of the 21 prolific institutions, four

Table 1. Most prolific countries for *JOI* during 2007-2021

Country	TP	TP(%)	TC	TC(%)	CPP	RCI
China	568	19.3	11531	9.0	20.3	0.5
USA	329	11.2	20188	15.8	61.4	1.4
Italy	264	9.0	10150	7.9	38.4	0.9
Spain	238	8.1	17588	13.7	73.9	1.7
Netherlands	175	6.0	18670	14.6	106.7	2.4
Germany	153	5.2	7012	5.5	45.8	1.1
UK	132	4.5	10015	7.8	75.9	1.7
Belgium	123	4.2	3053	2.4	24.8	0.6
Taiwan	86	2.9	2223	1.7	25.8	0.6
South Korea	81	2.8	1955	1.5	24.1	0.6
Switzerland	76	2.6	4372	3.4	57.5	1.3
Brazil	73	2.5	1847	1.4	25.3	0.6
Canada	65	2.2	2577	2.0	39.6	0.9
Australia	61	2.1	3130	2.4	51.3	1.2
Poland	43	1.5	675	0.5	15.7	0.4
France	32	1.1	782	0.6	24.4	0.6
Denmark	32	1.1	800	0.6	25.0	0.6
Sweden	31	1.1	1564	1.2	50.5	1.2
India	30	1.0	179	0.1	6.0	0.1
Sub total	2592	88.4	118,311	92.1	45.6	1.1
Other 37 countries	347	11.6	9846	7.9	28.4	0.7
Total	**2939**	**100.0**	**128157**	**100.0**	**43.6**	**1.0**

TP=Total number of papers; TC=Total number of citations; CPP=Citations per paper; RCI=Relative citation impact

were from China, three each from Italy and Spain, two each from Belgium and the Netherlands, and one each from the USA, UK, Germany, South Korea, Switzerland, Taiwan, and Brazil. Among these 21 institutions, the output is mainly concentrated in seven institutions. These are Indiana University Bloomington, USA; Max Planck Society, Germany; University of Rome "Tor Vergata", Italy; University of Wolverhampton, UK; Leiden University, the Netherlands; Dalian University of Technology, China; and the Wuhan University, China. These seven institutions contributed two percent or more papers.

The CPP value for nine institutions was more than the overall value of 43.6 and for the remaining 12 it was less than the overall value. The RCI value for these 12 institutions was also less than one indicating that the impact of output for these institutions does not commensurate to their output. The highest value of CPP was for Universidad de Granada, Spain (215.0) followed by Leiden University, the Netherlands (179.0).

The lowest CPP was for Nanjing University, China (17.0). RCI also followed a trend similar to CPP. The productivity of institutions is also highly skewed like the productivity of countries.

5.6 Most Prolific Authors and Impact of Their Output

One thousand six hundred and fifty one (1,651) authors contributed the total output. Thus, the average number of authors per paper is 1.7. Sixteen authors who published 15 or more papers from 2007 to 2021 have been depicted in Table 3.

These 16 authors contributed 622 (21.2 %) papers. Rest 78.8 % papers were contributed by 1,029 authors indicating a highly skewed distribution of output amongst the authors like countries and institutions. Of these 1,651 authors, one paper was contributed by 263 (23.2 %) authors and two or more papers were contributed by the remaining 1372 (83.1 %) authors. Of the 16 prolific authors, three authors were from the Netherlands, two each from Belgium, Italy, Switzerland, Taiwan, and the USA. One author each was from Germany, South Korea, and the UK. Among the prolific authors, Lutz Bornmann of the Max Planck Society (Germany) topped the list with 77 (2.6 %) papers. However, CPP and RCI were highest for Nees Jan van Eck and Ludo Waltman both from Leiden University, Netherlands. All the prolific authors belonged to prolific institutions.

Table 2. Most prolific institutions for *JOI* during 2007-2021

Institution	TP	TP (%)	TC	TC (%)	CPP	RCI
Indiana University Bloomington, USA	84	2.9	4302	3.4	51.2	1.2
Max Planck Society, Germany	68	2.3	3632	2.8	53.4	1.2
University of Rome "Tor Vergata", Italy	68	2.3	2324	1.8	34.2	0.8
University of Wolverhampton, UK	68	2.3	4647	3.6	68.3	1.6
Leiden University, Netherlands	67	2.3	11995	9.4	179.0	4.1
Dalian University of Technology, China	63	2.1	2279	1.8	36.2	0.8
Wuhan University, China	61	2.1	1205	0.9	19.8	0.5
KU Leuven, Belgium	54	1.8	1680	1.3	31.1	0.7
National Research Council, Italy	50	1.7	1484	1.2	29.7	0.7
Nanjing University, China	49	1.7	835	0.7	17.0	0.4
University of Amsterdam, Netherlands	48	1.6	3629	2.8	75.6	1.7
The Spanish National Research Council, Spain	46	1.6	3765	2.9	81.8	1.9
Yonsei University, South Korea	46	1.6	920	0.7	20.0	0.5
ETH Zurich, Switzerland	45	1.5	3257	2.5	72.4	1.7
National Taiwan University, Taiwan	41	1.4	1073	0.8	26.2	0.6
Chinese Academy of Sciences, China	40	1.4	720	0.6	18.0	0.4
University of Antwerp, Belgium	40	1.4	755	0.6	18.9	0.4
Politecnico di Milano, Italy	34	1.2	955	0.7	28.1	0.6
Universidad Carlos III de Madrid, Spain	34	1.2	1233	1.0	36.3	0.8
Universidad de Granada, Spain	33	1.1	7094	5.5	215.0	4.9
University of Sao Paulo, Brazil	30	1.0	999	0.8	33.3	0.8
Sub total	1069	36.5	58783	45.8	55.0	1.5
Other 611 institutions	1870	63.5	69374	54.2	37.1	0.6
Total	**2939**	**100.0**	**128157**	**100.0**	**43.6**	**1.0**

Table 3. Most prolific authors for *JOI* during 2007-2021

Author	Institution	TP	TP (%)	TC	TC (%)	CPP	RCI
Lutz Bornmann	Max Planck Society, Germany	77	2.6	4330	3.4	56.2	1.3
Giovanni Abramo	National Research Council, Italy	48	1.6	1510	1.2	31.5	0.7
Ciriaco Andrea D'Angelo	University of Rome "Tor Vergata", Italy	46	1.6	1412	1.1	30.7	0.7
Loet Leydesdorff	University of Amsterdam, Netherlands	43	1.5	3385	2.6	78.7	1.8
Ronald Rousseau	KU Leuven, Belgium	43	1.5	882	0.7	20.5	0.5
Mike Thelwall	University of Wolverhampton, UK	39	1.3	2780	2.2	71.3	1.6
Ludo Waltman	Leiden University, Netherlands	24	0.8	4301	3.4	179.2	4.1
Ying Ding	The University of Texas at Austin, USA	22	0.7	1182	0.9	53.7	1.2
Leo Egghe	Universiteit Hasselt, Belgium	19	0.6	254	0.2	13.4	0.3
Min Song	Yonsei University, South Korea	18	0.6	420	0.3	23.3	0.5
Rudiger Mutz	ETH Zurich, Switzerland	18	0.6	1215	0.9	67.5	1.5
Erjia Yan	Drexel University, USA	17	0.6	468	0.4	27.5	0.6
Hans-Dieter Daniel	ETH Zurich, Switzerland	17	0.6	1311	1.0	77.1	1.8
Dar-Zen Chen	National Taiwan University, Taiwan	16	0.5	395	0.3	24.7	0.6
Nees Jan van Eck	Leiden University, Netherlands	16	0.5	3028	2.4	189.3	4.3
Mu-Hsuan Huang	National Taiwan University, Taiwan	15	0.5	395	0.3	26.3	0.6
	Sub total	478	16.3	27268	21.3	57.0	1.3
	Other authors contributing papers in the range of 1-14	2461	83.9	100889	78.7	41.0	0.9
Total		**2939**	**100.0**	**128157**	**100.0**	**43.6**	**1.0**

Table 4. Pattern of authorship

Year	Single authored papers	Two authored papers	Multi authored papers	Total
2007-2011	71 (130)	84 (118)	81 (74)	236
2012-2016	123 (118)	138 (102)	190 (90)	451
2017-2021	69 (66)	120 (89)	259 (124)	448
Total	**263 (23.2%)**	**342 (30.1%)**	**530 (46.7%)**	**1135**

5.7 Pattern of Co-authorship

The pattern of authorship of the journal during 15 years in three different blocks of five years each has been depicted in Table 4. The authorship pattern has been divided into three categories. These are single-authored, two-authored, and multi-authored papers. Papers written by three or more authors have been denoted as multi-authored papers. Among the different categories of authorship, the proportion of multi-authored papers was the highest (46.7 %) followed by two-authored papers (30.1 %). To study the shift in the pattern of co-authorship during different five-year blocks, authors used CAI, which normalises the authorship data. Data presented in Table 4 indicates that the proportion of single-authored and two-authored papers was highest in the first block of (2007-2011) and it declined in the latter two blocks. The proportion of two authored papers was also highest during 2010-2012 and declined in the last two blocks of 2012-2016 and 2017-2021. The proportion of multi-authored papers was low during the first two blocks of 2007-2011 and 2012-2016 but it peaked in the last block of 2017-2021.

5.8 Pattern of Citations

The citations refer to the number of times a research paper has been cited in other publications. The number of times a publication has been referred in another publication indicates its impact. The greater the number of times a paper is cited, the greater its impact. Citation analysis is used to examine the impact of the publication output on world science. A paper is considered more important if it gets more citations in the literature. Citation influence is measured by count of times these have been referred by other articles. More number of citation to a publication specify more scientific impact, and influence of a paper. Table 5 shows the distribution of citations of papers published in JOI during 2007-2021 (November 2021). During this period, 2,939 papers obtained 128,157 citations. Of the 2,939 papers only 88 (7.8 %) were not cited and remaining papers were cited one or more times. The proportion of papers cited more than 100 times was 8.8 %. Only 13 papers were cited more than 500 times. Table 6 lists papers that were cited 500 or more times.

Table 5. Pattern of citations

Number of citations	Number of papers (%)	Total citations
Uncited	88 (7.8)	0
1	39 (3.4)	39
2	53 (4.7)	106
3	28 (2.5)	84
4	26 (2.3)	104
5	27 (2.4)	135
6	31 (2.7)	186
7	33 (2.9)	231
8	23 (2.0)	184
9	28 (2.5)	252
10	32 (2.8)	320
11-15	115 (10.1)	1477
16-20	86 (7.6)	1538
21-25	57 (5.0)	1303
26-30	74 (6.5)	2069
31-35	51 (4.5)	1699
36-40	39 (3.4)	1479
41-45	39 (3.4)	1672
46-50	29 (2.6)	1393
51-100	136 (12.0)	9325
101-300	74 (6.5)	11144
301-500	14 (1.2)	5256
>500	13 (1.1)	9017
Total	**1135 (100.0)**	**49013**

5.9 Highly Cited Papers

Table 6 lists 13 papers that were cited 500 or more times. These 13 papers attracted 9,017 (7.0 %) of all citations. Six countries namely Spain (5), the Netherlands (3) and the UK (3), the USA (2), and one each from Italy and Israel contributed these 13 papers. The top most highly cited paper which attracted 1,263 citations originated in the domestic collaboration of Universita Degli Studi di Napoli Federico II, Italy; and Universita Della Campania Luigi Vanvitelli, Italy. The number of citations received differs according to the time period. The authors calculated Citations per Year (CPY) to normalize this variation in citations. Analysis of data based on CPY indicates that a variation in the rank of authors occurs when arranged by total citations and by CPY. Only the rank of first author does not change and for the remaining authors the rank changes. Readers can see the rank based on CPY in last column of Table 6. Of the 13 highly cited papers three papers were authored in domestic collaboration and two in international collaboration.

Table 6. Highly cited papers

S. no.	Author	Affiliation	Bibliographic details	TNC	CPY (*)
1.	**Aria, M[#]&Cuccurullo, C.[##]	[#]Universita Degli Studi di Napoli Federico II, Italy; & [##]Universita Della Campania Luigi Vanvitelli, Italy	*JOI*, *11*(4), 2017, 959-975	1263	316 (1)*
2.	Waltman, L.;Van Eck, N. J.&Noyons, E. C.	Leiden University, Netherlands	*JOI*, *4*(4), 2010, 629-635	907	82 (4)*
3.	Prabowo, R. &Thelwall, M.	University of Wolverhampton, UK	*JOI*, *3*(2), 2009, 143-157	837	70 (5)*
4.	Moed, H. F.	Leiden University, Netherlands	*JOI*, *4*(3), 2010, 265-277	722	66 (6)*
5.	**Alonso, S.[#]; Cabrerizo, F. J. [##]; Herrera-Viedma, E. & Herrera, F.[#]	[#]University of Granada, Spain; & [##]University of Spain, Spain)	*JOI*, *3*(4), 2009, 273-289	729	61 (8)*
6.	Waltman, L.	Leiden University, Netherlands	*JOI*, *10*(2), 2016, 365-391	648	130(3)*
7.	***Wagner, C. S.; Roessner, J. D.; Bobb, K.[#]; Klein, J. T.[##]; Boyack, K. W.[###]; Keyton, J.[####]; Rafols, I.[#####]& Börner, K.[######]	[#]SRI International, USA; [##]Wayne State University, USA; [###]SciTech Strategies, Inc., USA; [####]North Carolina State University, USA; [#####]University of Sussex, UK; & [######]Indiana University, Bloomington, USA	*JOI*, *5*(1), 2011, 14-26	642	64 (7)*
8.	**González-Pereira, B.[#]; Guerrero-Bote, V. P. [##]&Moya-Anegón, F. [###]	[#]SRG SCImago Research Group, Spain; [##]University of Extremadura, Spain; & [###]CSIC-Consejo Superior de Investigaciones Científicas, Spain	*JOI*, *4*(3), 2010, 379-391	635	58 (10)*
9.	Cobo, M. J.; López-Herrera, A. G.; Herrera-Viedma, E. & Herrera, F.	University of Granada, Spain	*JOI*, *5*(1), 2011, 146-166	602	60 (9)*
10.	**Chen, P.[#]; Xie, H.[##]; Maslov, S.[###]& Redner, S.[#]	[#]Boston University, USA; [##]The City University of New York, USA; & [###]Brookhaven National Laboratory, USA	*JOI*, *1*(1), 2007, 8-15	512	37 (12)*
11.	***Martín-Martín, A.[#]; Orduna-Malea, E.[##]; Thelwall, M.[###]& López-Cózar, E. D.[#]	[#]Universidad de Granada, Spain; [##]Universitat Politècnica de València, Spain; & [###]University of Wolverhampton, UK	*JOI*, *12*(4), 2018, 1160-1177	508	169 (2)*
12.	Bar-Ilan, J.	Bar-Ilan University, Israel	*JOI*, *2*(1), 2008, 1-52	507	39 (11)*-
13.	Costas, R.&Bordons, M.	CSIC-Consejo Superior de Investigaciones Científicas, Spain	*JOI*, *1*(3), 2007, 193-203	505	36 (13)*
	Total			**9017**	

***Rank based on CPY, **Papers authored in domestic collaboration, ***Papers authored in international collaboration**

6. DISCUSSION

The study examined different bibliometric aspects of publications published in the Journal of Informetrics from 2007 to 2021. It examined the pattern of growth, variations in impact factor and SCImago journal ranking (SJR) of the journal during 2008-2021. It also examined the output and citation influence of most productive nations, institutions, and authors using CPP and RCI. The study also identified the highly cited papers based on the number of citations. The study found an inconsistent pattern of growth rate during 2007-2021. It also found a highly skewed distribution of output for most productive nations, institutions, and authors. For example, the 19 most prolific countries mostly from the developed world produced more than three-fourths of records and the remaining 37 countries contributed only 12 % of output. China was found to be the most productive country; however, the value of citation impact in terms of CPP and RCI for China is considerably low as compared to other prolific countries. The highest value of CPP is for the Netherlands (106.7). The highest number of prolific institutions were from China (4), followed by three each from Italy and Spain, two each from Belgium and the Netherlands, and one each from the USA, UK, Germany, South Korea, Switzerland, Taiwan, and Brazil. The value of CPP was highest for Universidad de Granada, Spain followed by Leiden University, the Netherlands. Pattern of citations indicates that only 88 papers were not cited

and the remaining papers were cited one or more times. The pattern of authorship indicates that the proportion of single and two-authored papers was highest in the first two blocks of 2007-2011 and 2012-2016, while the proportion of multi-authored papers was highest during the last block of 2017-2021. Paper authored by Aria, M., and Cuccurullo, C. from Universita Degli Studi di Napoli Federico II, Italy, and Universita Della Campania Luigi Vanvitelli, Italy received the highest number of citations.

7. CONCLUSION

Based on the study it can be stated that the Journal of Informetrics is an important channel of communication for scholars working in the field of scientometrics and informetrics. "It is an international journal covering the developed and developing countries of the world. However, in terms of publications, Europe is a bit over-represented"[2].

Based on the analysis of output data, it is observed that the rate of growth of published articles during 2007-2021 is highly inconsistent. Most of the prolific institutions and authors are from Europe except some from China. Most of the highly cited papers were from European countries having high values of CPP as well as RCI. The Journal of Informetrics is a vehicle for high-quality research as only a minuscule number of papers of the total output remained uncited with a very high value of CPP. This suggests that papers published in the journal are highly relevant to their readers. It is expected that the present study might be useful to scholars working in the area of bibliometrics and scientometrics.

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Dr K.C. Garg holds a PhD in Library and Information Science with specialisation in Scientometrics. He superannuated as Chief Scientist in January 2012 from CSIR-NIScPR. He is one of the most prolific and highly cited author in the field of bibliometrics and scientometrics from India. He is the recipient of the lifetime achievement award of DLA for 2020. He is a reviewer of several domestic and international journals.
In the current study, he prepared the final manuscript of the paper.