An Analytical Study of Indian Open Access Social Science Journals

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ABSTRACT: this study tries to highlight the analytical study of Indian open access social science journals. Journals details as well as their cited and uncited papers, citations, author productivity has been examined for the quantitative assessment of Indian social science research in open access environment. Fifteen open access social science journals have been selected for the present study indexed in Social Science Citation Index, SCImago and Directory of Open Access Journals. Citations of the articles have been recorded form Google Scholar with the help of Publish or Perish 6 software. The study founds 5827 articles have been published by fifteen open access journals, out of them 3632 articles have cited. Correlation Coefficient of cited and uncited articles and Rank Correlation of articles and their Citations have showed the positive trend. This original research article could be helpful to the social sciences as well as library and information science professionals.

KEYWORDS: Open Access, Social Science Journals, Google Scholar, Publish or Perish, India.

INTRODUCTION:

Scholarly journalis always considered as primary source to create the interest of the authors and researchers in regard to generate the new ideas and to disseminate the research publication among any disciplines for further development. After the publication of first English periodical in the year 1665 i.e. Philosophical Transactions of The Royal Society of London (Ratcliffe, 2015), scholarly journals has completed more than three hundred fifty with many significant research contribution in the society. Electronic journals have started their journey first time in the year 1980 (Shackel, 1983) and spread world widely after 90s and flourish at 21st century. The introduction and development of computer, internet and information communication technology have played a very important role to create electronic resources globally. But the main problem of scholarly communication was funding for publishing as well as the access with commercial journal or publisher. The introduction of the concept of Open Access in the year 2002, helped to increase the scholarly communication more wisely throughout the world. Open-access (OA)

literature is digital, online, free of charge, and free of most copyright and licensing restrictions (Suber, 2004). Presently a large number of open access initiatives are available throughout the world to provide open access literatures.

In India the first Indian scientific periodical was 'Asiatick Researches' published by the Asiatic Society in the year 1788 (Sen, 2002). Previous studies have been showed that India contributed large number of journals both subscribe and open access journals in various subject field. Government has also taken number of initiative to promote open access in science, technology, medical science as well as the social science. Social science research is very must essential in Indian context because the multidimensional and diverse cultural, political and socio-economical background of the peoples. Some related well documented works (Goel & Garg, 1993; Goel, 2001, Tyagi & Johri, 2004; Arunachalam, 2008; Papola, 2010; Gupta, Kumbar & Gupta, 2013; Gupta & Mahesh, 2013; Gupta, Tiwari & Gupta, 2014; Dhawan, Gupta & Gupta, 2015) on Indian social science research showed that India has contributed a significant impact. But the present study has tried to attempt to analysis the open access social science journals in India.

OBJECTIVES: The main objectives of this study are:

    I.   to find out the open access social science journals published in India and analyzed them based on different feature of scholarly communication.

   II.   to find out their quantitative research impact reflected in Google Scholar.

REVIEW OF RELATED LITERATURES:

Number of studies has carried out by researchers in different area of social science research, journals and other important areas. Nederhof (2006) stated the research performance monitoring of social sciences and humanities indexed in SCI and A&HCI using citation analysis. The study finds various bibliometric monitoring of social science and humanities like research performance, citation analysis and citation behavior etc. Kousha and Thelwall (2007) investigated whether the web can helpful to find out the research performance of social science publications through monitoring of the web citations behavior. Somaira Nabi (2012) studied on the open access journals in social science globally during 1991 to 2011. The study found that 72 countries have been contributed 1506 online open access journals out of them highest number was contributed by United States of America.Kennison and Norberg (2014) proposed a dramatically new model for open access (OA) publishing and archiving for humanities and social sciences.Vimala (2015) presented a bibliometric study on open access journals in social science.

The study covers 3091 articles of ten open access journals indexed in social science during the time covered 2002 to 2014.Bhattacharyya (2017) presented a paper on open access publishing in social science journals in the SAARC countries indexed in DOAJ. This study covers 14 open access social science journals and has been analyzed on the basis of different parameter including citation count.Padmavathi (2017) conducted a bibliometric study on 470 open access journals index in directory of open access Journals and focused on year wise growth, language and country etc. Besides that other key related works includes the works of Journal Ranking (Gordon, 1982; Nisonger, 1994; Brown, 2003; Martín-Martín, Orduna-Malea & López-Cózar, 2017), citation analysis (Mingers & Lipitakis, 2010; Bergman, 2012; Harzing, 2016), highly cited papers (Stern, 2014; Green, 2016), research evaluations (Leeuwen, 2013; Stern, 2013; Prins, 2016; Bornmann et al, 2016, Maity & Hatua, 2016).

METHODOLOGY:

Scope & Coverage: Present study covers the open access social science journals published form India and Social science citation index (Web of Science), Scimago (Scopus) and Directory of Open Access Journals (DOAJ). The study covers fifteen open access journals published in English language has been considered for the study, described as follows.

Name	Publisher	ISSN
Annals of Library and Information Studies	NISCAIR	0972-5423 (P) / 0975-2404
Conservation and society	Ashoka Trust for Research in Ecology and the Environment	0972-4923 (P)/ 0975-3133
IIMB Management Review	Indian Institute of Management Bangalore	0970-3896
Indian Journal of Psychiatry	WoltersKluwer Medknow Publications	0971-9962 (P)/ 2454-8316
International Journal of Criminal Justice Sciences	Dr. K. Jaishankar	0973-5089
International Journal of Cyber Criminology	International Journal of Cyber Criminology	0974 – 2891
International Journal of Educational and Psychological Researches	WoltersKluwer Medknow Publications	2395-2296
International Review of Social Sciences and Humanities	Interdisciplinary Research Group in Social Sciences and Humanities	2250–0715 (P) / 2248–9010
Journal of Education and Health Promotion	WoltersKluwer Medknow Publications	2277-9531 (P)/ 2319-6440
Journal of Extension Education	Extension Education Society	0971-3123 (P)

		/ 2456-1282
Journal of Mid-Life Health	WoltersKluwer Medknow Publications	0976-7800 (P)/ 0976-7819
Journal of Social Work Education and Practice	Social Workers in India	2456-2068
Journal of Intellectual Property Rights	NISCAIR	0971-7544 (P) / 0975-1076
Mens Sana Monographs	Medknow Publications	0973-1229 (P) / 1994-4014
Social Science Spectrum	Society for Scientific Aptitude	2454-2806

Method used: For the present study, at the first step open access journals on social science published from India were listed from Social Sciences Citation Index (Web of Science), SCImago Journal and Country Rank (Scopus) and Directory of Open Access Journals (DOAJ) with database search mechanism. Finally 15 journals have been considered for the study which was earlier mention in the above list. Necessary data for this present study have collected through individual journal and DOAJ. The licensing and self archiving policies of the journals were obtained from SHERPA/RoMEO (www.sherpa.ac.uk/romeo/index.php) database. For the citation analysis of these journals, data were collected form Google scholar with the help of Publish or Perish 6 software. Publish or Perish is citation analysis tool (Anne-Wil Harzing, 2016). which retrieves and analyses scholarly citations form Google Scholar as well as Scopus or Web of Science. Every individual collected record have been stored, organized and presented in MS Excel followed by tabulation, analysis and interpretation for the fulfillment of the objectives.

DATA ANALYSIS & FINDINGS

Table 1: Details of the journals

Name	Frequency	Platform	License	Format	Copyright	Archive
Annals of Library and Information Studies	quarterly	OJS	CC BY NC ND	Pdf	No	65
Conservation and society	quarterly		CC BY NC SA	html, mobile, pdf, epub	Green	16
IIMB Management Review	quarterly	Science direct	CC BY-NC-ND	PDF, HTML	Green	30
Indian Journal of Psychiatry	quarterly		CC BY NC-SA	html, mobile, pdf, epub	Green	60
International Journal of Criminal Justice Sciences	Bi-Anual		CC BY NC-SA	Pdf	Blue	13
International Journal of Cyber Criminology	Bi-Anual	.com	CC BY NC-SA	Pdf	Blue	11
International Journal of Educational and Psychological Researches	Quarterly	.org	CC BY-NC-SA	PDF, HTML, ePUB	Green	4
International Review of Social Sciences and Humanities	Quarterly	.com	CC BY	Pdf	Ungraded	14
Journal of Education and Health Promotion	Monthly	.net	CC BY-NC-SA	PDF, HTML, ePUB	Green	7
Journal of Extension Education	Quarterly	OJS	CC BY-NC-SA	Pdf	Ungraded	4
Journal of Mid-Life Health	Quarterly	.org	CC BY-NC-SA	PDF, HTML, ePUB	Green	9
Journal of Social Work Education and Practice	Quarterly	.in	CC BY	Pdf	Ungraded	3
Journal of Intellectual Property Rights	Bi-monthly	OJS	CC BY NC-ND	Pdf	No	23
Mens Sana Monographs	Annual	.org		PDF, HTML, ePUB	Green	14
Social Science Spectrum	Quarterly	OJS	CC BY	PDF	Ungraded	4

Table 1 describes the details information of fifteen journals which have considered for the study. Out of these journals highest number of journals published under CC BY-NC-SA license and green as a copyright policy. Publication frequency is an important feature in scholarly communication and in that case maximum journals have published their issues quarterly i.e. four in a year, followed by bi-annual. Among the file formats of the articles pdfhave been found as common format. Medknow publisher have provided some other format such as html, mobile and epub version in their journals which indicates that these journals have adopted the new technology. In case of the archive Annals of Library and Information Studies have highest number of volumes followed by Indian Journal of Psychiatry and IIMB Management Review.

Table 2: Overview of paper and citations of the journals

Names	Citation year	Papers	Citations	Cites / paper	Cites/ Year
Annals of Library and Information Studies	64	1000	4202	4.2	65.66
Conservation and society	15	628	12384	19.72	825.6
IIMB Management Review	30	447	4084	9.14	136.13
Indian Journal of Psychiatry	66	999	4285	4.29	64.92
International Journal of Criminal Justice Sciences	12	185	1142	6.17	95.17
International Journal of Cyber Criminology	11	226	2969	13.14	269.91
International Journal of Educational and Psychological Researches	3	159	108	0.68	36
International Review of Social Sciences and Humanities	7	192	1385	7.21	197.86
Journal of Education and Health Promotion	6	605	2870	4.74	478.33
Journal of Extension Education	3	106	32	0.30	10.67
Journal of Mid-Life Health	8	347	2570	7.41	321.25
Journal of Social Work Education and Practice	2	41	1	0.02	0.5
Journal of Intellectual Property Rights	23	560	1589	2.84	34.54
Mens Sana Monographs	15	254	1930	7.6	128.67
Social Science Spectrum	3	78	10	0.13	3.33
Total	**-**	**5827**	**39561**	**6.79**	**-**

Table 2 describes the distribution of the journals according to their citation. The table shows that 39561 citations have been cited by 5827 articles with 6.79 cites per paper rate. In case of individual journal Annals of Library and Information Studies have contributed highest number of papers and Conservation and society have contributed highest number of citations, cites per paper and year per citation rate. Among the journals 8 journals have below ten year of total publication time trend, however they have also contributed significant citations which is good sign for Indian social science research,

Table 3: Author productivity of the journals

Names	Papers	Cites/ Author	Paper/ Author	Author/ Paper
Annals of Library and Information Studies	1000	2824.48	764.35	1.56
Conservation and society	628	7678.37	447.95	1.88
IIMB Management Review	447	2733.77	320.93	1.72
Indian Journal of Psychiatry	999	2319.59	556.88	2.33
International Journal of Criminal Justice Sciences	185	844.42	139.7	1.66
International Journal of Cyber Criminology	226	2057.48	163.4	1.76
International Journal of Educational and Psychological Researches	159	39.53	67.62	2.77
International Review of Social Sciences and Humanities	192	819.63	120.78	2.04
Journal of Education and Health Promotion	605	928.4	194.27	3.46
Journal of Extension Education	106	15.25	49.50	2.35
Journal of Mid-Life Health	347	1021.73	152.35	3
Journal of Social Work Education and Practice	41	0.5	31.53	1.59
Journal of Intellectual Property Rights	560	1171.65	448.73	1.54
Mens Sana Monographs	254	1498	207.533	1.43
Social Science Spectrum	78	5	49.33	1.88

Table 3 describes the author productivity of these journal articles. Author productivity of these journals has showed the positive trend. In case of individual journal Paper / Author is highest by Conservation and society and Author / Paper is highest by Journal of Education and Health Promotion followed by Journal of Mid-Life Health.

Table 4: Cited and uncited papers of the journals

Journal	Total Papers	Cited		Uncited	
		No	**%**	**No**	**%**
Annals of Library and Information Studies	1000	650	65	350	35
Conservation and society	628	470	74.84	158	25.16
IIMB Management Review	447	333	74.50	114	25.50
Indian Journal of Psychiatry	999	472	47.25	527	52.75
International Journal of Criminal Justice Sciences	185	131	70.81	54	29.19
International Journal of Cyber Criminology	226	182	80.53	44	19.47
International Journal of Educational and Psychological Researches	159	44	27.67	115	72.33
International Review of Social Sciences and Humanities	192	179	93.23	13	6.77
Journal of Education and Health Promotion	605	391	64.63	214	35.37
Journal of Extension Education	106	24	22.64	82	77.36
Journal of Mid-Life Health	347	241	69.45	106	30.55
Journal of Social Work Education and Practice	41	1	2.44	40	97.56
Journals of Intellectual Property Rights	560	348	62.14	212	37.86
Mens Sana Monographs	254	157	61.81	97	38.19
Social Science Spectrum	78	9	11.54	69	88.46
Total	**5827**	**3632**	**62.33**	**2195**	**37.67**

Tables 4 describe the distribution of cited and uncited status of the articles which have retrieve from Google Scholar. Among the papers it has been observed that overall 62.33% articles have cited, which have a similarity with previous studies (Kirtania, 2018; Kirtania & Chakrabarti, 2018). Based on the citation trend it has been observed that out of fifteen journals ten journals have more than 50% cited papers which reveals the quality of Indian social science journals. International Review of Social Sciences and Humanities and International Journal of Cyber Criminology have contributed more than 80% of their total paper.

Statistical equation relating Indian open access social science journals

Following three equations have conducted to find out different relationship of the published articles and their citations in quantitative aspect.

Equation 1: Correlation Coefficient of cited and uncited articles

X	Y	x= X-243	y= Y-146	x2	y2	xy
650	350	407	204	165649	41616	83028
470	158	227	12	51529	144	2724
333	114	90	-32	8100	1024	-2880
472	527	229	381	52441	145161	87249
131	54	-112	-92	12544	8464	10304
182	44	-61	-102	3721	10404	6222
44	115	-199	-31	39601	961	6169
179	13	-64	-133	4096	17689	8512
391	214	148	68	21904	4624	10064
24	82	-219	-64	47961	4096	14016
241	106	-2	-40	4	1600	80
1	40	-242	-106	58564	11236	25652
348	212	105	66	11025	4356	6930
157	97	-86	-49	7396	2401	4214
9	69	-234	-77	54756	5929	18018
$\sum$ 3632	$\sum$ 2195	$\sum$ -13	$\sum$ 5	$\sum$ 539291	$\sum$ 259705	$\sum$ 280302

$$\sigma_x{}^2 = \frac{\sum x^2}{N} - \left(\frac{x}{N}\right)^2 = \frac{539291}{15} - \left(\frac{-13}{15}\right)^2$$

$$\sigma_y{}^2 = \frac{\sum y^2}{N} - \left(\frac{y}{N}\right)^2 = \frac{259705}{15} - \left(\frac{5}{15}\right)^2$$

$$\text{Cov (x, y)} = \frac{\Sigma xy}{N} - \left(\frac{\Sigma x}{N}\right)\left(\frac{\Sigma y}{N}\right) = \frac{280302}{15} - \left(\frac{-13}{15}\right)\left(\frac{5}{15}\right)$$
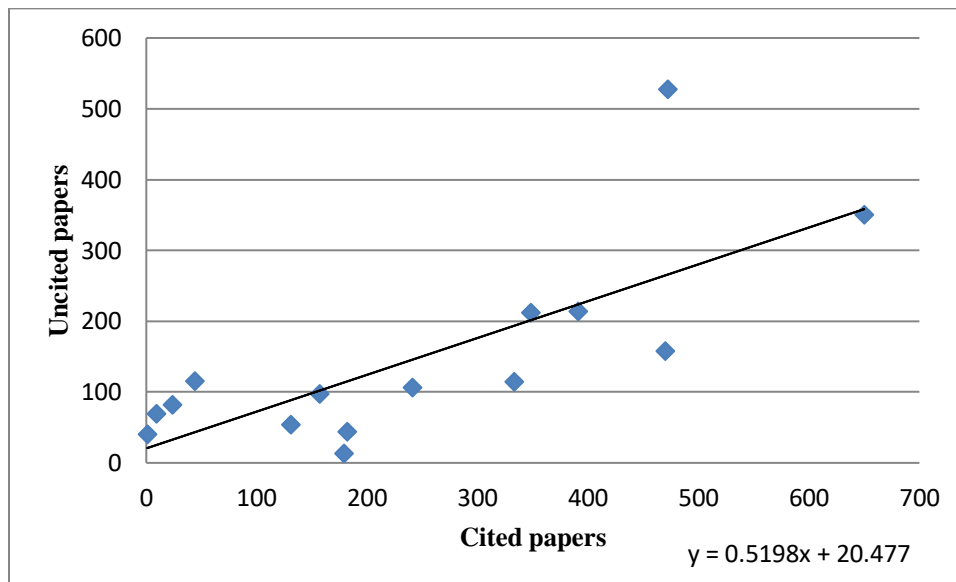
$$r_{xy} = \frac{Cov\ (x,\ y)}{\sigma x\ \sigma y} = \frac{18687.09}{\sqrt{35951.98}\ \sqrt{17313.56}} = \frac{18687.09}{189.61 * 131.58} = 0.75$$

Therefore the required Correlation Coefficient is $r_{xy}= 0.75$ (Positive)

Equation 2: P Value from Pearson (R) $= \frac{R\ Score}{N} = \frac{0.75}{15} = 0.001281$

The P-Value is 0.001281. The result is significant at $P< 0.05$

Correlation Coefficient of cited and uncited articles and the regression trend line

Above chart showed the Correlation Coefficient of cited and uncited articles and the regression trend line. The Correlation Coefficient stated a perfect and positive trend ($r_{xy}= 0.75$) which indicated the strong relationship between cited and uncited papers. The equation of regression trend line of this analysis is $y = 0.519x + 20.47$ which also build a strong positive relationship between cited and uncited papers. From the analysis it has been found that statistically

Equation 3: Rank Correlation of articles and their Citations

x	y	X	Y	d=x-y	d²
1000	4202	1	3	-2	4
628	12384	3	1	2	4
447	4084	6	4	2	4
999	4285	2	2	0	0
185	1142	11	11	0	0
226	2969	9	5	4	16
159	108	12	12	0	0
192	1385	10	10	0	0
605	2870	4	6	-2	4
106	32	13	13	0	0
347	2570	7	7	0	0
41	1	15	15	0	0
560	1589	5	9	-4	16
254	1930	8	8	0	0
78	10	14	14	0	0

From the table, n = 15 and $\sum d^2 = 48$

The equation of Rank Correlation is describes as follows:

$$R = 1 - \frac{6\sum d^2}{n^3 - n} = 1 - \frac{6 \times 48}{15^3 - 15} = 1 - \frac{288}{3360} = 0.91$$

Value of Rank Correlation is between $-1 \leq R \leq +1$, so in this case the result is

$-1 \leq 0.91 \leq +1$

From the equation it was observed that Rank Correlation of articles and their Citations fit the Rank Correlation equation (Das, 1991).

Table 5: Present publication trend of the journals

Names	H 5 Index	H 5 Median	Top Cited	Year
Annals of Library and Information Studies	11	14	25	2014
Conservation and society	19	26	146	2013
IIMB Management Review	17	35	51	2015
Indian Journal of Psychiatry	27	40	117	2013
International Journal of Criminal Justice Sciences				
International Journal of Cyber Criminology				
International Journal of Educational and Psychological Researches	4	7	9	2015
International Review of Social Sciences and Humanities				
Journal of Education and Health Promotion	20	27	75	2014
Journal of Extension Education				
Journal of Mid-Life Health	19	29	79	2013
Journal of Social Work Education and Practice				
Journals of Intellectual Property Rights				
Mens Sana Monographs				
Social Science Spectrum				

Table 5 describes the present situation of these articles. Out of the fifteen journals seven journals have indexed in Google Scholar top publication matrix. Among the individual journal Indian Journal of Psychiatry have highest H5 Index followed by Journal of Education and Health Promotion. Within last five year two journals have crossed more than 100 citations in two individual articles which is a remarkable achievement.

CONCLUSIONS:

Indian researchers have started to contribute scientific communication to the different disciplinesfrom the nineteenth century onwards. Social science researches develop presupposesfreedom of intellectual choice and opinion in the society. So far Indian open access social science journals have published 5827 articles, out of them 62.33% have cited, which reveals the acceptance of the quality of the research. Author productivity such as Cites per Author, Paper per Author and Author per Paper of the articles has a positive value. Statistical analysis such as correlation coefficient of cited and uncited paper and rank correlation of articles and their citationshave fit the equation with positive result 0.75 and 0.91 respectively. The P value of correlation has proved significant at 0.05 percent level of significance. The findings of the study have strongly revealed the quantitative research impact of Indian open access social science journals. Finally India has great prospective in sustaining the higher publication and research outputgrowth in social sciences in the coming years.

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