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Analytical Study of the Most Cited International Research Journals of Library and Information Science

Dr. Saeed Ullah Jan¹, Abid Hussain², Muhammad Ibrahim³ and Abdus Salam⁴

Abstract

The focus of this paper is on the research productivity and their relevant parameters of top twenty international journals of Library and Information Science from 2015 to 2019. The analysis of data revealed that Journal of the Association for Information Science and Technology (JAIST) is the top cited journal followed by Scientometrics and Journal of Informetric during the mentioned period. The year 2015 was reported as the most productive year with 45% citations from the top twenty LIS journals. The average citation rate of Scholar Google is at the top followed by Scopus. “The sharing economy” was declared as the most cited research paper with 2391 citations followed by “The journal coverage of Web of Science and Scopus” with 688 citations.

Keyword: Most cited Journal- LIS, Library Science Research, Top LIS Journals, Quantification LIS, Research Productivity-LIS

Introduction and Previous Studies

A good number of attempts have been made to assess the literature produced in the field of Library and Information Science. The tendency of library professionals towards research has been increasing day by day since few decades. The role of LIS journals could not be ignored in this connection. The increasing rate of LIS literature has opened new dimensions and avenues for the researchers. Nixon, J. M. (2014) ranked the core of Library and Information Sciences (LIS) journals published from the United States of America (USA). The author claimed that there is no proper list or verified sources of information for the scholar of the library sciences to check out the quality of journal and selected among the group for publication of research article. The literature survey and expert opinion methods were used in this research paper. A list of twelve top research journals was prepared after evaluating 28 research journals. They studied form

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different aspects included Citations, Frequency of Publication, Subject and Impact Factor (IF) in Journal Citations Report (JCR). The results shows that Top journals can be identified or ranked by compiling journals that was peer-reviewed and have strong citation ratings as indicated in JCR as IF(impact factor) or high h-index in the field of LIS.

Siddique, N., Rehman, S. U., Khan, M. A., & Altaf, A. (2020) reviewed the research in the field of LIS (LIS) conducted by Pakistani authors. The authors used bibliometric tools for this comprehensive study of sixty two years till end of 2018. The data was collected from Scopus, LISA (Library and Information Science Abstracts), and LISTA (Library, Information Science and Technology Abstracts), and Web of Science. An increase in library resrech was noted and positive upward trend founds by the authors in Pakistan. The major contributors were belonged to University of Punjab. About 40% LIS literature has been published din two LIS journals published from Pakistan. This study recommended that Baluchistan and Khyber Pakhtunkhwa provinces require more focus and funding for LIS research. Ibrahim, M, et.al., (2018) analysed the citation of the Dialogue using principle of citations from to 2012 to 2016 were studied. The basic aim of this study was to calculate the proposed Impact Factor and CiteScore of The journal on the basic of Google Scholar data. The quantitative approach was adopted for this study. The data was obtained from the official website of the journal under study. Google Scholar citation instead of Journal Citation Report was used for the calculation of proposed Impact Factor (IF). The findings of the study reflected that the proposed CiteScore 0.14 and self-calculated Impact Factor were 0.22. The citation rate in 2014 was high as compared to the rest of the period. Jan, S. U., Hussain, A., Ibrahim, M., & Khan, I. (2016), examined the citation patterns of The Dialogue - A leading multidisciplinary research journal published form Pakistan in print & online form. A Total of 269 original articles were evaluated for this purpose. Books (54.40 %) were highly cited sources followed by journal resrech articles (18 %) in the all original articles published during the selected period. Ullah, M., & Farooq Butt, I. (2008), conducted a detailed study of 567 articles published by three leading medical journals of Pakistan. The main purpose of this resrech work was to quantify the impact of Pakistani medical research journals using the principles of citations analysis. A total of 9069 citations were extracted and analysed published by the selected journals during 2006. Authors ranked the all three journals under study in three steps, first by number of citations, second by impact factor of 2006, and third on five-year impact factor of the respective selected journals.

Bornmann, L., Butz, A., & Wohlrabe, K. (2018) ranked the top research journals by applying principle of citation in the subject of economics they constructed a meta-ranking of 277 economics research journals based on 22 different rankings. The data was obtained from four databases known as: *Web of Science, Scopus, Google Scholar, and RePEc*, for this ranking. The ranking incorporates bibliometric indicators for each journal. Xia, J. (2012) ranked the open access journals of LIS between 2004 and 2008. The h-index data from Google scholar were used for this ranking. Some selected open access research journals were included in the ranking to assess current development in open access publishing. The results have convinced the scholars to make more contributions Open access journal publications, and also encourage librarians and information professionals to make continuous efforts for library publishing using Open access policies. Smith, K., & Middleton, M. (2009) described the process and outcomes of the LIS journal for ranking in the year 2007, 2008 by the authors from Australia. The journals titles ranked first by RQF (Research Quality Framework)- A process of Australian Federal Government and then using ERA (Excellence in Research for Australia) scheme. Discussion method used. The impact factor as tool of measures quality and influence maybe not work for stoical science disciplines like LIS. Although The LIS others related research journals increasingly appearing in the Web of Science (Journal Citations Reports) listed rankings. Abrizah, A., Zainab, A. N., Kiran, K., & Raj, R. G. (2013) compared the ranking, coverage, impact factor and subjects of the LIS journals using the Journal Citation Reports (JCR) and SCImago Journal Rank (SCIJR) 2010. Data were obtained from the web of science (WoS) and Scopus for the LIS journals titles. The impact factor and Library of Congress Classification System were used to compare impact rankings and subject categorization. There was high degree of similarity in rank normalized impact factor of titles in both WoS and Scopus. It was found that 162 research journals, with 45 journals appearing in both sources. The results revealed the changes in journal title rankings when normalized, and some titles in these databases might be incorrect.

Hussain, A. (2020) investigated the contribution of Professor Hamid Rahman to the LIS. The author found that during 38 years of professional life he has produced 28 items includes award winning papers in Urdu, English and Hindko language. The results show that good amount of the literature has been produced in 1990 and major area targeted includes Academic Libraries, Library Science Education and LIS Research in Pakistan. Professor devoted in his professional

career and significantly contributed to the LIS literature in Pakistan. Ibrahim, M et.al (2018) examined citation analysis of the Dialogue was conducted to get knowledge about the citation pattern; the most cited documents; references per article; references per year and proposed quantification for the documents published from 2014 to 2016. The quantitative approach was adopted for this study. The website of Dialogue was used for obtaining metadata about the research papers published during 2014-2016. Google Scholar citation instead of Journal Citation Report was used for the calculation of proposed Impact Factor (IF). The major findings of the study reflect that the proposed calculated Cite Score of the Dialogue for the mentioned period is 0.14 whereas the proposed self-calculated Impact Factor is 0.22. The citation rate of documents published in 2014 was recorded more as compared to the rest of the years. The citation rate should be improved by the inclusion of Dialogue in indexing databases of international repute. This practice will enhance quality of the Journal and will be able to create room in world of Thomson Router and other renowned research databases.

Objective

The main objective of this study is to present a list of the top 20 most cited international research journals of Library & Information Science (LIS) however following objective was also setup.

- To list the top 20 most cited international research journals of LIS
- To study the most cited articles of LIS of top Journals
- To learn about the year of publication of the most cited research papers
- To examine the theme of 20 top cited articles
- To present the h5-index, Impact Factor and Cite score of the top LIS journals.

Methods and Materials

The quantitative method was used for this research paper. The study aimed to present a comprehensive list of the twenty highly cited international research journals of Library and Information Science (LIS). The secondary data was collected from the top indexing and abstracting databases such as SCOPUS, ISI (Institute of Scientific Information) and Google Scholar Journal Matrix. The top publications were categorized under the eight main headings by Google Scholar & SCOPUS. The Library & Information Science fall under the subcategory of Social Science which was further divided into fifty-two categories. The Top twenty most cited

publications of LIS were retrieved from the Google Scholar Matrix on the basis of citations. The journal titles placed on the basis of h5-index first, followed by Cite Score and Impact factor when equally cited. Each research journal was search individually using Google Scholar and topmost cited papers were brought into the Microsoft Excel Sheets for sorting and filtering purpose. The Bibliographical database (ISI Web of Science and SCOPUS) were consulted for finding the Impact factor by Thomson Router from Journal Citation Report (JCR) and Cite Score from the SCOPUS database for each journal respectively. The data were entered into SPSS for analysis and tabulation. The final data were presented using tables in the section of analysis. The results were drawn, and recommendations were made as per framed objectives of the study.

Analysis and Results

The data presented in this section was obtained from the leading bibliographic database. It has been recorded in this section using SPSS (Software Package for Social Sciences) for descriptive statistical analysis. The sources consulted for the study in hand includes; Scholar Google (SG), SCOPUS, and ISI web of Science.

Table 1; Citations Frequency of Top Twenty LIS Journals in SG & Scopus

<i>Citations</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Skewness</i>	
	<i>Statistic</i>	<i>Statistic</i>	<i>Statistic</i>	<i>Statistic</i>	<i>Statistic</i>	<i>Std. Error</i>
Scholar Google	20	673	9703	1987.90	2.775	.512
Scopus	20	253	7388	1272.45	2.742	.512
Valid N (listwise)	20					

Table 1 shows the results of the topmost cited international research journals of LIS. The sources revealed that average citation rate of SG was (1988) and Scopus (1272) with the Std. Error 0.512 of each bibliographical database. The skewness of the GS was recorded 0.033 greater than Scopus.

Table 2; Scholar Google Citations Matrixes (h5-Index & h5- Median)

<i>Scholar Google Citations Matrix</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Skewness</i>	
	<i>Statistic</i>	<i>Statistic</i>	<i>Statistic</i>	<i>Statistic</i>	<i>Statistic</i>	<i>Std. Error</i>

h5-Index	20	21	58	29.30	1.918	.512
h5-Median	20	27	98	43.15	2.009	.512
Valid N (listwise)	20					

The analysis of Table 2 shows the SG citations matrixes of twenty top international LIS journals.

The analysis of data reflected that average h5-median was 43.15 and h5-index 29.30. The Skewness between h5-index & median was 1.918 and 2.009 respectively.

Table 3; Frequency of the last Five Years Citations

<i>S. No</i>	<i>Research Journals</i>	<i>Annual Cited Frequency</i>						
		<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>Total</i>	<i>Percent</i>
1	Journal of the Association for Information Science and Technology	4648	4121	934	-	-	9703	24.41
2	Scientometrics	2750	2747	760	78	66	6401	16.10
3	Journal of Informetric	1096	1410	757	438	-	3701	9.31
4	The Journal of Academic Librarianship	1241	366	219	-	-	1826	4.59
5	Journal of Information Science	507	678	333	242	-	1760	4.43
6	Online Information Review	778	715	253	-	-	1746	4.39
7	Information Development	365	991	98	59	31	1544	3.88
8	Journal of the Medical Library Association	660	428	166	185	37	1476	3.71
9	College & Research Libraries	695	188	203	169	-	1255	3.16
10	Learned Publishing	431	281	426	84	29	1251	3.15
11	Journal of Documentation	644	323	154	116	-	1237	3.11
12	Aslib Journal of Information Management	598	215	280	26	-	1119	2.81
13	The Electronic Library	821	206	43	-	-	1070	2.69
14	International Journal on Digital Libraries	225	501	167	87	53	1033	2.60
15	Portal: Libraries and the Academy	562	294	46	-	-	902	2.27
16	Library & Information Science Research	368	388	125	-	-	881	2.22
17	Library Hi Tech	468	157	110	-	23	758	1.91
18	Information Research-An International Electronic Journal	437	193	86	-	-	716	1.80
19	Journal of Librarianship and Information Science	134	180	143	92	157	706	1.78
20	New Library World	495	178	-	-	-	673	1.69
Total		17923	14560	5303	1576	396	39758	100.00
Percentage		45.08	36.62	13.34	3.96	1.00	100.00	

The analysis of the Table 3 depicted the number of occurrence of citations per annum. The citations of last five years revealed that 2015 was the most productively year with (45%) citations from the all top twenty LIS journals of the world followed by 2017 with (37%)

citations. The year 2019 was at the bottom in citations count with 1% per annum. Top (24.41%) cited research journal of the LIS was “Journal of the Association for Information Science and Technology (JAIST)”, followed by “Scientometrics” (16.10%), “Journal of Informetric” (9.31%), and Less 1.69% was “New Library World (NLW)” as per the available recorded data.

Table 4; Top cited articles, citations count from each LIS journal

S.No	Title of the Most Cited Articles	Citation Count	Year of Publication
1	The sharing economy: Why people participate in collaborative consumption	2391	2016
2	The journal coverage of Web of Science and Scopus: a comparative analysis	688	2016
3	A review of the literature on citation impact indicators	458	2016
4	paper recommender systems: a literature survey	422	2016
5	Bloom's taxonomy of cognitive learning objectives.	383	2015
6	Influence of Facebook brand-page posts on online engagement	200	2015
7	A growing fear: Prevalence of nomophobia among Turkish college students	156	2016
8	Applications of Mobile Social Media: WeChat Among Academic Libraries in China	138	2015
9	Publish or impoverish An investigation of the monetary reward system of science in China (1999-2016)	122	2017
10	Beyond authorship: attribution, contribution, collaboration, and credit	120	2015
11	Transformational and Transactional Leadership: An Exploration of Gender, Experience, and Institution Type	117	2015
12	Research methods in library and information science: A content analysis	112	2015
13	The effects of online service quality of e-commerce Websites on user satisfaction	108	2015
14	Interpretative phenomenological analysis for LIS research	104	2015
15	Towards searching as a learning process: A review of current perspectives and future directions	98	2016
16	A systematic literature review informing library and information professionals' emerging roles	94	2015
17	Data literacy for researchers and data librarians	80	2017
18	Fake news: belief in post-truth	76	2017
19	Quantified academic selves: the gamification of research through social networking services.	74	2016
20	The McDonaldization of Academic Libraries and the Values of Transformational Change	65	2015

The analysis of Table 4 shows the frequency of citations of most cited article from each research journal under study. The results revealed that article titled “*The sharing economy*” cited 2391 times which was published in 2016, followed by article titled “*The journal coverage of Web of Science and Scopus*” cited 688 times published in 2016. The article titled “*The McDonaldization*

of *Academic Libraries and the Values of Transformational Change*” was cited 66 times and was reported as the least cited research paper. Interesting is to note that the top cited articles were published in 2015, 2016 and 2017 respectively.

Table 5; h5 Index, Cite Score and Impact Factor of Top LIS Journals

<i>S.No</i>	<i>Top Cited International Research Journals</i>	<i>h5-index</i>	<i>Cite Score</i>	<i>Impact factor</i>
1	Journal of the Association for Information Science and Technology	58	7.9	2.41
2	Scientometrics	58	5.6	2.867
3	Journal of Informetric	41	8.4	4.611
4	Journal of Information Science	32	5	2.41
5	The Journal of Academic Librarianship	32	3	1.235
6	Online Information Review	31	3.5	2.59
7	College & Research Libraries	30	3.5	2.431
8	Information Development	29	3.5	1.44
9	Journal of Documentation	27	2.5	1.573
10	Journal of the Medical Library Association	25	2.8	2.01
11	The Electronic Library	25	1.9	1.17
12	Learned Publishing	25	N/A	2.93
13	Aslib Journal of Information Management	24	3.2	2.222
14	Library & Information Science Research	22	3	1.485
15	Portal: Libraries and the Academy	22	2.3	0.783
16	International Journal on Digital Libraries	21	5.4	2.98
17	Journal of Librarianship and Information Science	21	2.6	1.479
18	Library Hi Tech	21	2.3	1.218
19	Information Research-An International Electronic Journal	21	1.7	0.799
20	New Library World	21	N/A	N/A

Note: N/A= Not Available on the official Website.

The analysis of the Table 5 shows the h5-index, impact factor and Cite Scour of the top cited international research journals of the Library and Information Sciences worldwide. The results of the quantifications performed by different international famous bibliographical databases includes: Scholar Google, ISI web of Sciences and SCOPUS. The results revealed that highest h5-index (58) secured by the journal at serial 1 & 2 equally. On the other hand, the highest Cite Score (8.4) was chilled by Serial No 3, and (7.9) by the journal on Serial No 1, followed by the higher (4.611) impact factor among all by the “*Journal of Informetric*” in the top cited twenty journals of the world.

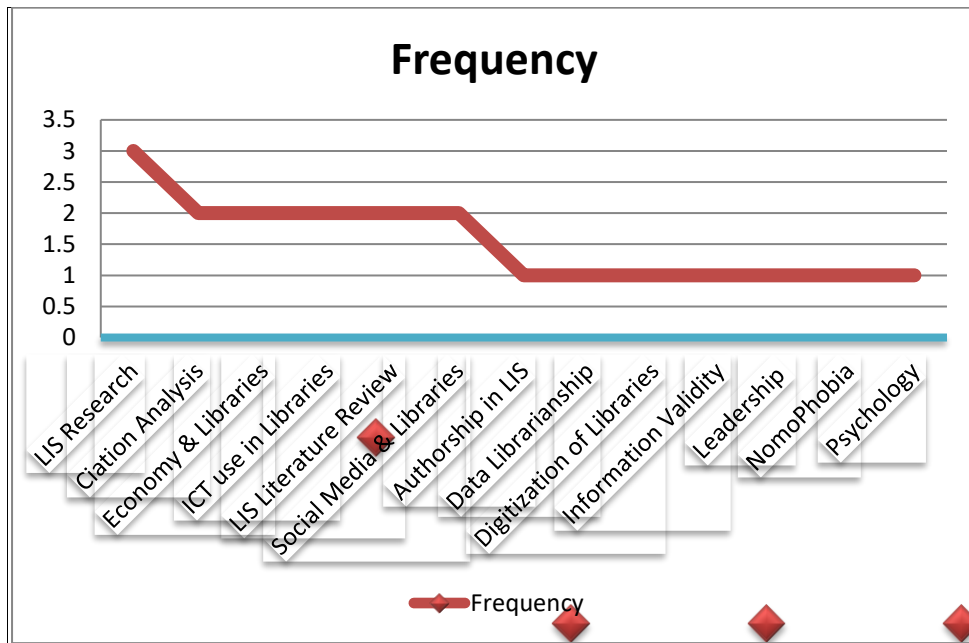


Figure 1 Theme of the Top Cited Article of Each Journal

The theme of the top cited articles depicted that the majority of the Library & Information Sciences research has been conducted on the 13 majored areas of LIS internationally. The figure 1 presents the theme of the top twenty most cited research papers form the worldwide LIS journals. The analysis shows that LIS research was the top on the list with 15 percent, followed by Citation Analysis, Economy & Libraries, Information and Communication Technologies (ICT) used in Libraries, LIS Literature Review, and Social Media & Libraries all were covered 10 percent each. Some good (5%) of each theme was discussed in the top cited articles includes: Nomo-Phobia, Psychology, Leadership, and Information-Validity.

Table 6; Top Twenty International LIS Journals (2020)

Position	Top cited International Journals	Publisher
1st	Journal of the Association for Information Science and Technology	Wiley-Blackwell
2nd	Scientometrics	Springer Nature
3rd	Journal of Informetrics	Elsevier
4th	Journal of Information Science	SAGE
5th	The Journal of Academic Librarianship	Elsevier
6th	Online Information Review	Emerald
7th	College & Research Libraries	Association of College and Research Libraries
8th	Information Development	SAGE

9th	Journal of Documentation	Emerald
10th	Journal of the Medical Library Association	Medical Library Association
11th	The Electronic Library	Emerald
12th	Learned Publishing	Wiley-Blackwell
13th	Aslib Journal of Information Management	Emerald
14th	Library & Information Science Research	Elsevier
15th	Portal: Libraries and the Academy	Johns Hopkins University Press
16th	International Journal on Digital Libraries	Springer Nature
17th	Journal of Librarianship and Information Science	SAGE
18th	Library Hi Tech	Emerald
19th	Information Research-An International Electronic Journal	University of Boras
20th	New Library World	Emerald

Table 6 presents the final position of each journal in the top twenty international journals of Library and Information Sciences on the base of citations and quantification made by different leading indexes and abstracts includes: SCOUPS, Scholar Google and ISI Web of Science. The 1st position was secured by “Journal of the Association for Information Science and Technology” published by “Wiley-Blackwell”, 2nd by “Scientometrics” published from “Springer Nature” and 3rd by “Journal of Informetric” published by “Elsevier”. The Journal titled “New Library World” was on 20th position in this quantitative analysis.

Discussion & Conclusion

The scrutiny of secondary data retrieved from various leading scholarly databases of the world reflected that a reasonable bulk of literature is available on Library and Information Science during the period 2015-2019. Google Scholar, Scopus and web of Science were the leading databases publishing LIS research in the world. The analysis shows that LIS research was the top on the list with 15 percent, followed by Citation Analysis, Economy & Libraries, Information and Communication Technologies (ICT) used in Libraries, LIS Literature Review, and Social Media & Libraries. Bornmann, L., Butz, A., & Wohlrabe, K. (2018) ranked the top research journals by applying principle of citation in the subject of economics they constructed a meta ranking of 277 economics research journals based on 22 different rankings. The data was obtained from four databases knows as: *Web of Science, Scopus, Google Scholar*. Xia, J. (2012) ranked the open access journals of LIS between 2004 and 2008. The h-index data from Google scholar was used for this ranking. Some selected open access research journals included in the

ranking to assess current development in open access publishing.

The “Journal of the Association for Information Science and Technology” published by “Wiley-Blackwell”, is at the top of the list followed by “Scientometrics” published from “Springer Nature” and 3rd by “Journal of Informetric” published by “Elsevier”. The Journal “New Library World” is at last serial number of the given top twenty list in the given quantitative analysis.

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