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Research Trends in Evidence based Library and Information Practice (EBLIP) from 2011-2020: A Citation analysis

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Abstract

This journal contributes a citation network interpretation of papers from the Evidence-based Library and Information Practice, in the domain of library and information science. Our research incorporates all papers in the journal from 2011-2020. The paper analyses the most published authors, Average growth ratio of publications. Degree of collaboration, most collaborative counties. An analysis of 1660 citations were transported out applying the Scopus online analytics medium, Excel VOS viewer, evidence visualization and guidance software, was applied to implement a perceptible design of the citation networks. Conclusions designate that the infinite proclaimed critics inside EBLIP during the journal's history is Wilson, V.

Keywords: Citation, VOSviewer, AAPP, PPA, ARoG, RCI, h-Index

1. Introduction

For researchers, knowing the current status and developments of research in their domain of research is beneficial to their careers and academic publications (Lee, Wu & Tsai, 2009). One of the most important jobs for researchers is to write for publication (Tsai & Lydia Wen, 2005). Primary journals are an important source of knowledge and are widely regarded as the primary vehicle for spreading research findings and new ideas within a discipline (Garg, Lamba & Singh, 2020). Journals are responsible for refining and defining information and acting as scientific filters (Singh et al., 2021).

The University of Alberta Library uses the OJS Software to publish Evidence based Library and Information Practice (EBLIP), a peer-reviewed, open-access journal published quarterly. In March 2006, a quarterly publication schedule was established. Issues are released on the 15th of March, June, September, and December. The journal's goal is to provide a place for librarians and other information professionals to find research that might help them make better decisions in their work. EBLIP provides fresh research and comments on evidence-based library and information practise, as well as reviews of previously published research (evidence summaries) on a variety of issues (<https://journals.library.ualberta.ca/eblip/index.php/EBLIP/about>).

2. Literature Review

Singh, Varma & Singh (2021) examined the Research Productivity and Performance of Journals of Informetrics. The report of the examination revealed that a total number of 978 published documents were found. A total of 252 publications (25.77%) have been contributed by a single author. Patel et al. (2021) Visualized the Publication Trends in Webology Journal. The study pointed out that the maximum AGR was recorded with a value of 228.6 in the year 2020. highest relative growth rate with a value of 0.69 in 2007. Parida et al. (2020) evaluated the Research Productivity and Visualization of AIIMS, Bhubaneswar during 2012-2019. The results of the study revealed that a total of 734 publications were received during the study period. Journal of Clinical and Diagnostic Research is the highly Preferred Journals with 67 articles. Nayak (2018) studied the Research Output of DESIDOC Journal of Library and Information Technology and the study analysis reported that maximum number of contributions 69 were published in the year 2012. B. M. Gupta has positioned top rank in the list of most Prolific Authors by contributing 11 articles. Singh, Nayak & Varma (2017) analysed the Partnership: The Canadian Journal of Library and Information Practice and Research. The study analysis revealed that maximum number of contributions 52(18.98%) were published in the year 2011. Single authors 187 have made major contribution to the journal in the list of Authorship pattern. Singh & Varma (2017) found in their study that India contributed the highest number of articles 229 of total contributions. Co-authors' contribution 119 is more predominant than the single authors. Velmurugan & Radhakrishnan (2016) has studied the Malaysian journals of library and information science. Different bibliometric tools like DC, collaborative index, annual growth rate, relative growth rate are used in the study. Parameshwar (2016) studied the bibliometric Analysis of IASLIC Bulletin. The study analysis

found that total 204 articles were contributed by 334 authors to the journal with average of 1.61 authors per article.

3. Objectives

The primary aspirations are as succeeds:

- ✓ To identify the year-wise distribution of papers, average authors per paper (AAPP) and productivity of authors (PPA)
- ✓ To identify the different document type
- ✓ To estimate the annual ratio of growth (ARoG) of articles
- ✓ To calculate the degree of collaboration
- ✓ To find out the global wise distribution
- ✓ To identify the relative citation impact of most prolific authors

4. Methodology

Data worked in the contemporary study has been downloaded from Scopus, a well-renowned and secure data expert usually practiced for citation inquiry. The search string appeared was (SRCTITLE (Evidence Based Library and Information Practice) AND (EXCLUDE (PUBYEAR,2021)))” All the retrieved data were rigorously investigated applying Microsoft excel to provide the details. Data visualization using Vos viewer software is also used to obtain a more immeasurable opinion.

5. Data Collection and Preparation

(a) Section-wise analysis of articles

Table 1 converges that the category-wise analysis of the documents proclaimed throughout the period. The research reveals that the highest fraction of articles announced as following section, Article i.e., 533 (70.04%), 141 (18.53%) published under the Note followed by Review 43(5.65%) and Editorial 43 (5.65%).

Table 1:

Doc. Type	TP	%TP	TC	%TC
Article	533	70.04	1339	80.66
Note	141	18.53	202	12.17
Review	44	5.78	93	5.60
Editorial	43	5.65	26	1.57
Total	761	100	1660	100

(b) Year wise Growth Trends'

Table 2 represents the year wise authors with their average authorship with productivity. In the year 2016, there are highest of author contribution i.e. 150, followed by 129 in 2020. The AAPP is varies from 1.20 to 1.77 over the periods. The highest no of AAPP score is 1.77 and less is over 2014, 0.18. The overall mean of AAPP is 13.98. The overall mean of author productivity of paper is 7.25 of time interval given.

Table 2:

YEAR	TP	Total Authors	AAPP*	PPA*
2020	73	129	1.77	0.57
2019	59	88	1.49	0.67
2018	53	67	1.26	0.79
2017	82	124	1.51	0.66
2016	111	150	1.35	0.74
2015	83	124	1.49	0.67
2014	67	79	1.18	0.85
2013	86	120	1.40	0.72
2012	67	89	1.33	0.75
2011	80	96	1.20	0.83
Total	761	1066	13.98	7.25

AAPP* Average authors per paper, PPA* Productive per author

(c) Annual growth rates of research outcomes

Table 3 exhibits the yearly growth rate of research outcomes in the given period. The growth trend fluctuated from 2011-2020. In the year 2017 has maximum no of ARoG scores followed by 1.35 in the year 2016. In the year 2015 has very less value compared to other years.

$$\text{Annual ratio growth} = \frac{\text{Current year output}}{\text{Last year output}}$$

Table 3:

YEAR	Vol. No.	TP	TC	ARoG
2020	15	73	32	
2019	14	59	62	0.81
2018	13	53	47	0.90
2017	12	82	169	1.55
2016	11	111	172	1.35
2015	10	83	168	0.75
2014	9	67	199	0.81
2013	8	86	280	1.28
2012	7	67	317	0.78
2011	6	80	214	1.19

(d) Degree of collaboration

Subramanyam (1983) formula was used to calculate the degree of collaboration (DC). The degree of collaboration can be mathematically expressed as:

$$\text{Degree of collaboration } DC = \frac{Nm}{(Nm+Ns)}$$

wherever,

DC = Degree of collaboration.

Nm = No. of multiple-authored articles

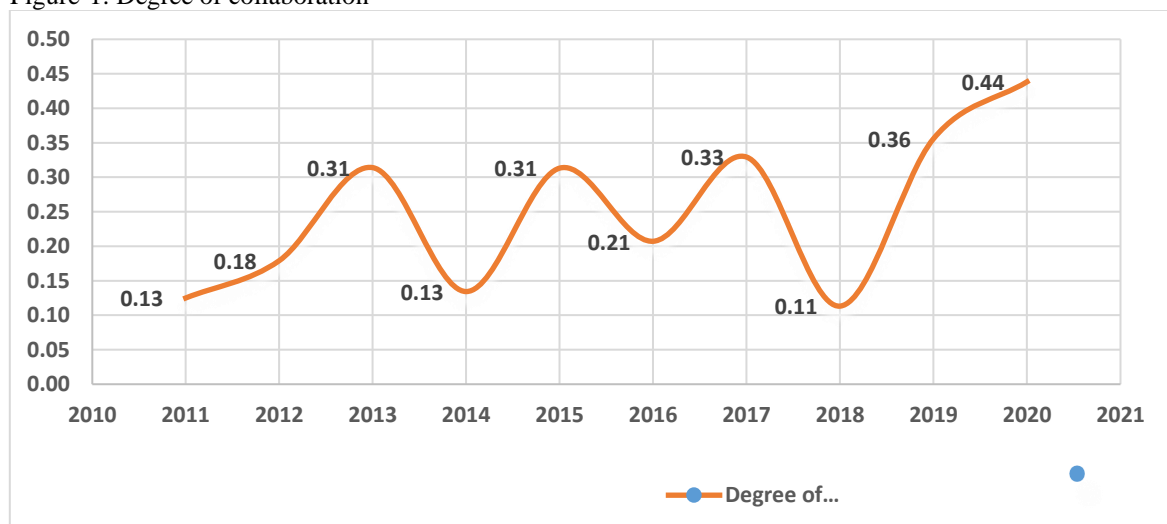
Ns = No of Single-authored articles

The table 4 and figure-1 outcomes explain that 568 authors implied as a primary author while 193 obtained as whole authors. Overall, 761 publications were produced during the last 10 years. The degree of collaboration is varying from 0.11 to 0.44. The year 2020 has highest no of degree of collaboration followed by 2018 has the least. The overall DC is 0.25.

Table 4:

Year	Ns	Nm	Nm+Ns	DC
2020	41	32	73	0.44
2019	38	21	59	0.36
2018	47	6	53	0.11
2017	55	27	82	0.33
2016	88	23	111	0.21
2015	57	26	83	0.31
2014	58	9	67	0.13
2013	59	27	86	0.31
2012	55	12	67	0.18
2011	70	10	80	0.13
Total	568	193	761	0.25

Figure-1: Degree of collaboration



(e) Country wise research trends

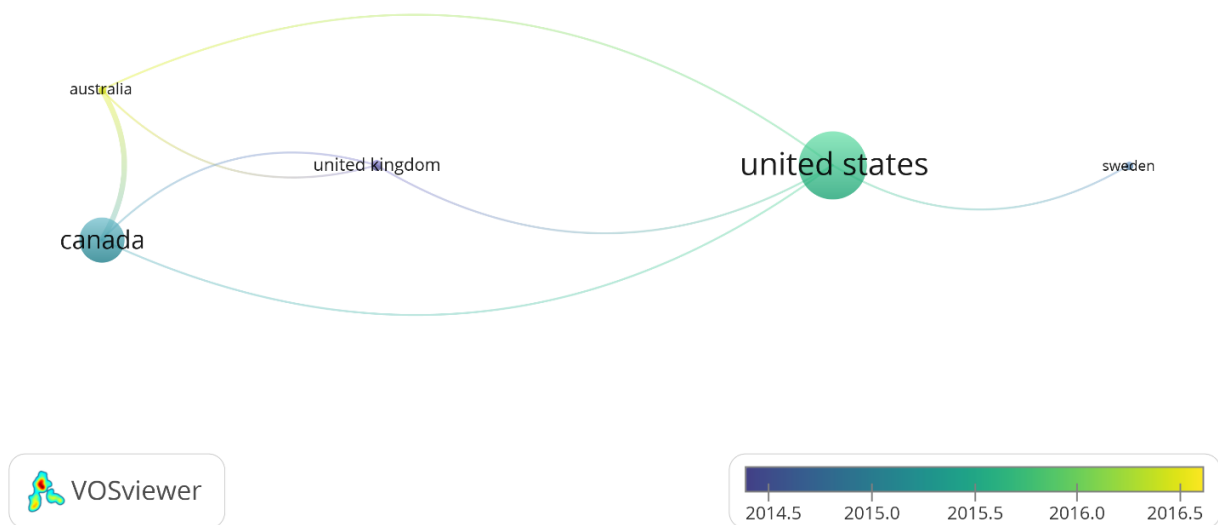
The table 5 shows that outcomes of given interval in top countries. It represents that the United states placed the top rank in publication, citation, h-index followed by Canada. The Sweden is the only country , which has very less no of publication as citations , but the in the average citation, it is placed 2nf rank followed by Australia has publication 31, citation 106 and ACPD ranked top. In figure2 shows the overlay visualization of co-authorship collaboration with countries. The United states has highest no of occurrence and relevance.

$$\text{Average Citation Per Paper (ACPP)} = \frac{\text{Total no of citation}}{\text{Total no of publications}}$$

Table 5:

Country	TP	TC	h-index	ACPP
United States	369	908	11	2.46
Canada	243	480	11	1.98
United Kingdom	60	129	6	2.15
Australia	31	106	6	3.42
Ireland	17	14	2	0.82
Nigeria	7	8	2	1.14
Netherlands	6	10	2	1.67
New Zealand	6	3	1	0.50
Czech Republic	5	6	2	1.20
Sweden	5	15	2	3.00
Iran	2	3	1	1.50

Figure-2: Overlay visualization of Co-authorship collaboration with Countries



(f) Relative Citation Impact (RCI) of Authors

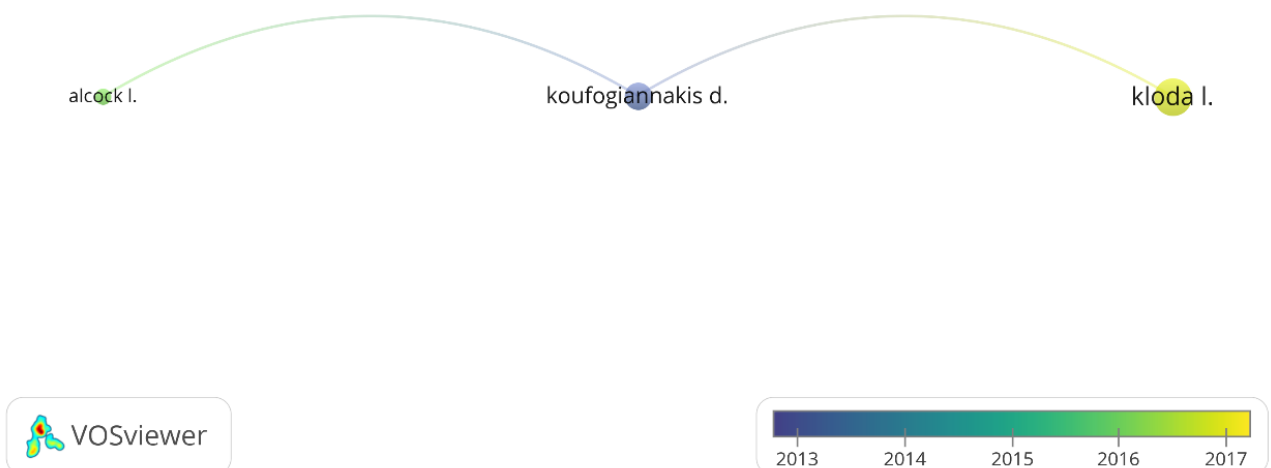
The below table 6 and figure 3 represents the most prolific authors and relative citation impact of top 5 authors based on their publication and **Overlay visualization of Co-authorship collaboration with authors** respectively. The author Wilson, V. has highest no of publication and heist no of citation as well as h-index. The author Koufogiannakis, D has placed 4th rank based on publication, but 2nd placed on citation and h-index both but ranked top on relative citation impact.

$$\text{Relative Citation Impact (RCI)} = \frac{\text{No of citations of single author} / \text{Total citations of all authors}}{\text{No of papers of single author} / \text{Total papers of all authors}}$$

Table 6:

Author	Affiliation	Papers	Citations	h-index	RCI
Wilson, V.	University of Saskatchewan, Saskatoon, Canada	51	129	7	1.16
Kloda, L.	Concordia University, Library, Montreal, Canada	18	5	1	0.13
Brettle, A.	University of Salford, School of Health and Society, Salford, United Kingdom	15	6	2	0.18
Koufogiannakis, D.	The University of Western Ontario, London, Canada	13	64	4	2.26
Costello, L.	Rutgers University, New Jersey, United States	12	4	1	0.15
Merkley, C.	Mount Royal University, Calgary, Canada	12	9	2	0.34

Figure-3- Overlay visualization of Co-authorship collaboration with authors



(g) Keywords Clustering

Figure 4 and 5 represents the network visualization based on the total link strength and overlay visualization based on total link strength over average no. of citations respectively. Minimum no of occurrence in a term is 10 out of the 1959 with 25 meet the threshold. For each of the 25 terms of relevance score will be calculated. The term evidence has highest no of occurrence and relevance with another terms.

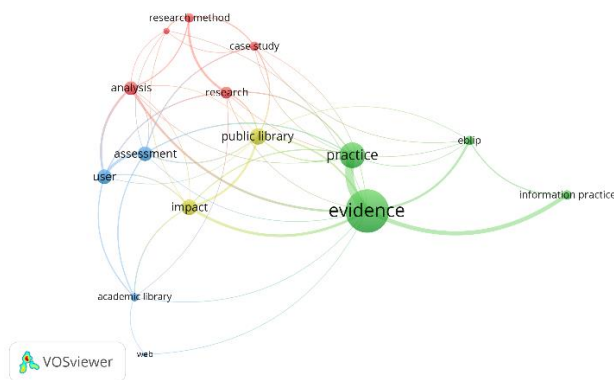


Figure-4: Keywords network visualization of Total Link strength

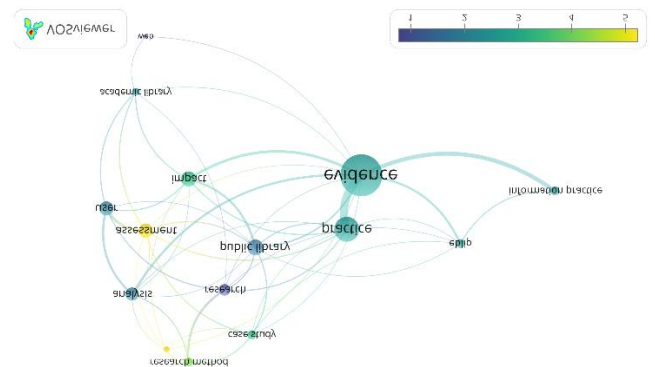


Figure-5: Keyword network overlay visualization of total link strength over average no of citation

(6) Findings

The following outputs are constituted based on research interpretation.

1. The results show that the Evidence based Library and Information Practice journal, 2011-2020 has 761 no of publications including articles, notes, review and editorial and 1660 no of citations.
2. In the year 2017, Annual ratio growth rate is maximum i.e., 1.55.
3. It is found that United States ,369 and Canada, 243 highest collaboration with the respective analysed title. Evidence based Library and Information Practice journal
4. It found that Wilson, V. has the most productive author from University of Saskatchewan, Saskatoon, Canada, 51 no of publication.
5. It is found that the term evidence is highest occurrence and relevance.

(7) Conclusions

Evidence based Library and Information Practice journal is a reputed journal in the field of Library and Information science. Analysis of contributions of 10 and the increasing trend in the number of contributions in the journal from year to year Though the number of articles published each year shows variations, the increasing number of citations. It is implanted that the journal should perform to entice benefactions from authors working overseas. It may assist in intensifying the reputation of the journal moreover. It is assumed that the contemporary study will be of significant consequence to LIS experts in India and elsewhere.

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