

Bibliometric Study of Publications of CALIBER Convention 2008

* Oliver Lalthlengliana and ** Akhandanand Shukla[#]

*Research Scholar, Department of Library & Information Science, Mizoram University, Aizawl (Mizoram) INDIA; Email: oliver_mapuia@yahoo.com

**Assistant Professor, Department of Library & Information Science, Mizoram University, Aizawl (Mizoram) INDIA; Email: akhandanandshukla@gmail.com;

<http://orcid.org/0000-0001-7157-5600>

[#] Corresponding author.

Abstract

Paper discusses the bibliometric aspects of publications of CALIBER convention 2008 held at Allahabad. Paper covers 76 articles published in the proceedings of CALIBER 2008. The study comprises to evaluate the themes and sub-themes of the conference, authorship pattern, degree of collaboration, state-wise and country-wise geographical distribution of papers, average references per paper, bibliographic forms of documents used in references and top cited LIS journals. The study found multiple authorship patterns with the good degree of collaboration, Uttar Pradesh as the highest paper contributing state and India as the highest contributing country, more than 10 references per article, Journal papers as the prevalent form of documents, and Library Hi-Tech News as the top cited journal of the field.

Keywords: Bibliometric Study, Authorship Pattern, Degree of Collaboration, CALIBER Convention, Geographical Distribution, Forms of Documents.

1. Introduction

The modern society is gradually transforming into a knowledge society and information and communication technology (ICT) is the chief factor for this change. ICT has become an important part of every aspect of life. Advancement in ICT has brought a multi-dimensional change in Libraries and Librarianship. Many libraries around the world employed ICT facilities to improve its service. Computers are introduced in libraries around the world to perform the task which was earlier executed manually by the human being, this process is called "library automation". Library automation promotes efficiency in library services. In the meantime "library automation" call for skills in handling the new method of carrying out the task at hand so it is important to make the workforce of the libraries aware of these technologies and give them knowledge on working with them so that they can cope with this serious transition. Imparting this knowledge can be carried out through formal education and informal education. There are several institutions across the country where students are enrolled to learn lessons on modern technology and several organizations and universities organized workshops and seminars at state, national and international level to impart knowledge on "library automation".

Conventions on Automation of Libraries in Education and Research (CALIBER), is such a convention in India which is organized bi-annually by the INFLIBNET centre, Gandhinagar, Gujarat. This convention had helped many library workforces and LIS professionals to be

acquainted with the modern technologies and help them implement such advance service in their libraries. CALIBER convention is organized under a specified theme which pertains to the development of information services and embraces the modern technology in information dissemination. Meanwhile, the outcome of any such seminars or conference can be drawn from mere assumptions, but it is very important to identify the impact of these seminars or conference with a critical scientific measurement. Till now twenty (20) CALIBER conventions have been organized in different parts of the country. INFLIBNET organized the CALIBER 2008 at the Allahabad city in association with University of Allahabad from 28th February to 1st March 2008. CALIBER 2008 was the 6th International CALIBER. It was attended by more than 400 delegates including 14 delegates from overseas. The main theme of the convention was, “From Automation to Transformation”.

Bibliometric study of the CALIBER convention proceedings will assist in identification of the impact of the convention, the study stressed on its authorship pattern, geographical distribution of the authors, citation analysis, etc. will bring numerous facts into the limelight and unveil a realistic concept on the acceptance of this convention.

2. Literature review

The relevant literature has been reviewed in bibliometric studies are mentioned below:

Alam & Shukla (2016) studied the growth of Solar Physics research in India and it is identified that a total of 2066 works of literature have been published in the area, and quantum of citations received by these works of literature all together is 22254. **Chowdhury & Chowdhury (2016)** studied the research output of Netaji Subhas Institute of Technology, Delhi and found that the institute has a great potential to maximize the levels of its publication output. It is identified that publications have increased over a given time but INDEST-AICTE consortium does not play a hand on the growth of publication at the institute. **Gogoi (2016)** studied the bibliometric study of articles and references provided at the end of each article contributed in *Indian Journal of Chemistry Section B*, Vol. 52B, 2013. It reveals that journal articles are dominantly cited which confirms that scientific journals played an important role in scientific communication. The year-wise distribution of journals indicated that journals published from 2000-09 are highly preferred. In the field of Chemistry as a whole, it was also established that researchers mostly cites earlier works of 10-20 years. **Madhirasalam (2016)** conducted a study on the research output of PSG College of Technology, Coimbatore and found that 2357 papers were produced by the institute over a span of 44 years. Majority of the authors preferred Journals as a platform to publish their works. **Biradar & Tadasad (2015)** measures the authorship pattern of literature in the field of Economics, it is found that the majority of the papers were single authored.

Dash (2015) analyzed the papers published in the Library Assessment Conference proceedings (2006-2014). It showed that the numbers of contributors are increasing over time and the contributors are handsomely restricted to the theme of LAC and the University of Washington contributed most papers in the LAC from 2006 to 2014. **Doraswamy (2013)** analyzed 300 conference papers that were published in the National Convention on Knowledge Library and Information Networking (NACLIN) from 2001 to 2008. It reveals that contribution is highest in NACLIN 2007 (54 papers) and lowest in NACLIN 2008 (23 papers) and the average number of articles per conference volume is 37.5. This study also reveals that out of 300 contributions the highest number i.e. 57 papers are submitted from New Delhi, followed by 42 from Maharashtra, 32 from Tamil Nadu and 26 each from Andhra

Pradesh and Karnataka and 17 from Kerala. **Panda et al. (2013)** analyzed publications and citation patterns in the *Journal of Information Literacy* from 2007-2012. It is found that the number of papers is not consistent and varies from volume to volume. Single author papers are largely dominant (68.70%) followed by two author papers (17.55%) and three author papers constitute 9.16 %. Majority of the papers are submitted from the United Kingdom which can hamper the image of this journal as an international journal. **Deshmukh (2011)** studied the nature of information source cited by contributors of *Annals of Library and Information Studies*, and also tend to establish a rank list of core journals in the fields of Library and Information Science. It is found that journals are dominantly cited followed by books. The contributors of *Annals of Library and Information Studies* cited the same chiefly.

3. Scope of study

The study was confined to assess the research contributions of LIS professionals published as full text in conference proceeding of CALIBER Convention 2008 organized by INFLIBNET Centre, Gandhinagar. There are 76 published articles belongs to CALIBER Convention 2008.

4. Objectives of the study

The objectives of the study were to:

- a) Identify the themes and sub-themes which gain the attention of the contributors.
- b) Find the authorship pattern of contributors.
- c) Assess the degree of collaboration among authors.
- d) Find out geographical distribution of authors.
- e) Assess the number of references and an average number of references per article.
- f) Identify the bibliographic forms of document used as a reference in articles.
- g) Prepare the list of top 10 journals referred by paper contributors.

5. Research methodology

The study has been designed to investigate the research contributions in the conference proceeding of CALIBER Convention 2008 through the bibliometric analysis. The survey was conducted for retrieving 76 full-text articles from CALIBER Convention's available under INFLIBNET Centre's website. The unavailable published articles were downloaded from the Institutional Repository of INFLIBNET Centre. The obtained data were tabulated, organized, and analyzed by the use of MS-Excel as statistical tool and technique.

6. Data analysis

a) Themes and Sub-themes of CALIBER convention 2008

Like other conferences, CALIBER convention 2008 also had main themes and sub-themes for authors. Themes and sub-themes of the conference draw an outline of the conference. The main theme of the CALIBER convention 2008 was "From Automation to Transformation". The following table displays the sub-themes of CALIBER convention 2008 and a total number of published contributions towards them.

Table -1 shows the distribution of articles among the various sub-themes of CALIBER convention 2008. The analysis reveals that the sub-theme, "*Impact of ICT in LIS: Major*

Shifts and Practices” attracted the highest number of papers (23 papers, 30%) out of total 76 papers published in its proceeding. The sub-theme, “*Use of E-resource and UGC-Infonet Digital Library Consortium*” has attracted 28% papers (21 papers) whereas the sub-theme “*Evolving Technologies: RSS Feeds, Blogs, Web 2.0, Lib 2.0*” has attracted only 13% papers (10 papers). Other sub-themes have less number of papers comparatively.

Table 1: Distribution of articles among the sub-themes of CALIBER 2008

SN	Title of Sub-Themes	No. of Papers	%
1	Impact of ICT in LIS: Major Shifts and Practices	23	30%
2	Use of E-resource and UGC-Infonet Digital Library Consortium	21	28%
3	Evolving Technologies: RSS Feeds, Blogs, Web 2.0, Lib 2.0	10	13%
4	Content Aggregation and Content Presentations	8	10.5%
5	Digital Libraries: Federated Search and Metadata Harvesting	8	10.5%
6	Standards and Protocols in LIS	6	8%
Total		76	

(Source: CALIBER Convention Website)

b) Authorship Pattern & Degree of Collaboration in CALIBER Convention

Table 2: Authorship Pattern in the CALIBER convention 2008

No. of Authors				Total No. of Authors	Total No. of Papers
One	Two	Three	Four		
24 (31.57%)	37 (48.68%)	13 (17.1%)	2 (2.63%)	145	76

(Source: Primary Data)

Table -2 shows the authorship pattern of articles accepted for full-text publication in CALIBER convention 2008. From the analysis, CALIBER convention 2008 is dominated by the Two Authorship Pattern which constitutes 48.68% followed by Single Authorship Pattern (31.57%), and Three Authorship Pattern (17.1%).

Table 3: Degree of Collaboration in CALIBER convention 2008

Single Author (Ns)	Multiple Authors (Nm)	Total (Ns+Nm)	Degree of Collaboration
24	52	76	0.68

(Source: Primary Data)

The Degree of Collaboration (C) of the contributors has been calculated using the Subramanyam (1983) formula.

$$\text{Degree of Collaboration (C)} = \frac{Nm}{Nm+Ns}$$

Where,

C = Degree of Collaboration

Nm = Number of Multiple authors

Ns = Number of Single authors

Table -3 shows the Degree of Collaboration among authors. The Degree of Collaboration for CALIBER 2008 is 0.68. The higher degree of collaboration tends to the higher level of collaborative works and vice-versa.

c) Geographic Distribution of Authors

Table 4: State-wise distribution of the Indian authors in CALIBER 2008

SN	Name of State	Number of Authors	Percentage
1	Uttar Pradesh	29	20%
2	Karnataka	21	15%
3	West Bengal	13	9%
4	Maharashtra	12	8%
5	Delhi	12	8%
6	Assam	9	6%
7	Manipur	8	6%
8	Madhya Pradesh	7	5%
9	Rajasthan	5	4%
10	Gujarat	5	4%
11	Odisha	4	3%
12	Kerala	3	2%
13	Jammu and Kashmir	3	2%
14	Uttarakhand	3	2%
15	Punjab	3	2%
16	Tamil Nadu	3	2%
17	Chhattisgarh	1	1%
18	Mizoram	1	1%
Total		142	100

(Source: Primary Data)

Table -4 shows the state-wise distribution of authors in CALIBER 2008. Uttar Pradesh has the highest number of contributors (20%), followed by Karnataka (15%), West Bengal (9%), Maharashtra (8%), and Delhi (8%) etc. In CALIBER 2008, total contributions came from 18 different States and Union Territories of India.

Table 5: Country-wise distribution of authors in CALIBER 2008

SN	Country	No. of Authors	Percentage
1	India	142	98%
2	Bangladesh	3	2%
Total		145	100

(Source: Primary Data)

Table -5 shows the country-wise distribution of authors in CALIBER 2008. Except for India, only Bangladesh has contributed research papers to CALIBER 2008. The total contribution of authors of Bangladesh was 2% only.

d) Reference Study of CALIBER Convention 2008

Table 6: References per article in CALIBER convention 2008

Total No. of References	No. of Papers	References per Article
773	76	10.17

(Source: Primary Data)

Table -6 shows the number of references per article in CALIBER convention 2008. There are total 773 references found for 76 published papers. On the observation of table 6, it has been found that CALIBER 2008 has the 10.17 references per article.

e) Forms of Document used as Reference in CALIBER 2008

Table 7: Forms of document used as a reference in CALIBER 2008

Forms of Document	No. of References	%
Web Resources	185	24%
Journal articles	221	29%
Books	135	17%
Conference Papers	78	10%
Miscellaneous	70	9%
News Items	60	8%
Theses and Dissertations	13	2%
Reports	11	1%
Total	773	100

(Source: Primary Data)

Table -7 reveals the number of references for a given form of documents in CALIBER 2008. In CALIBER 2008, there is a total of 773 references. Journal articles have been cited most frequently (29%) followed by Web Resources (24%), Books (17%), Conference Papers (10%), Miscellaneous (9%), News Items (8%), Theses and Dissertations (2%) and Reports (1%).

f) List of Top 10 Journals cited in CALIBER 2008

Table 8: List of Top 10 Journals cited in CALIBER 2008

SN	Name of Journal	Frequency of Citations
1	Library Hi-Tech News	14
2	Library Trends	10
3	IASLIC Bulletin	8
4	University News	8
5	Library Herald	7
6	SRELS Journal of Information Management	7
7	DESIDOC Bulletin of Information Technology	6
8	D-Lib Magazine	6
9	ILA Bulletin	6
10	The Electronic Library	6

(Source: Primary Data)

Table -8 shows the list of top 10 journals cited by the authors in their articles appeared in CALIBER 2008. A total of 92 journals have been cited among which ‘Library Hi-Tech News’ is the most frequently cited journal (14 citations) followed by ‘Library Trends’ (10 citations) etc.

7. Findings of the study

- a) CALIBER 2008 published 76 papers related to themes and sub-themes. The highest number of papers (30%) published under the sub-theme “Impact of ICT in LIS: Major Shifts and Practices”.
- b) Majority of papers (48.68%) published in joint authorship pattern followed by single authorship.
- c) Multiple authorship patterns found prevalent in CALIBER 2008 papers and thus higher the degree of collaboration observed for CALIBER 2008.
- d) Authors belong to 18 States & Union Territories took part in the CALIBER 2008 and out of which the highest number of authors (20%) belongs to Uttar Pradesh followed by Karnataka and West Bengal. The least number of authors belongs to Chhattisgarh and Mizoram.
- e) The highest number of authors (98%) belongs to India in terms of global share of authors.
- f) A total of 773 references received from 76 articles, and thus more than 10 references per article observed in the study.
- g) From the study of 773 references, it has been found that “Journal Articles” are the most prevalent source of information for writing the research papers followed by “Web Resources”.
- h) From the 221 references belongs to “Journal Articles”, it has been found that “*Library Hi Tech News*” has been cited the maximum followed by “*Library Trends*”, and “*IASLIC Bulletin*”.

8. Conclusion

The bibliometric study measures the growth and recent trends of literature in the field of concern. Conference proceedings, by its publications, add recent concepts and research findings in the literature. CALIBER conventions are one of the prestigious conference event held in every alternate year by INFLIBNET Center, Gandhinagar, Gujarat. With regard to themes and sub-themes of the CALIBER conventions, it has been observed that distribution of papers is more for simpler as well as popular sub-themes. The multiple authorship patterns were found prevalent with strong degree of collaboration. Since the CALIBER convention belongs to Indian origin, so the highest number of contributions submitted and published by India only. CALIBER 2008 lacks international contributions in terms of papers which need to be improved in future CALIBER conventions. Within India, it covers authors from 18 States and Union Territories of India and the representation of authors are not uniform. Majority of the authors belong to Uttar Pradesh only. There is the practice of using less number of references for writing a conference paper. The authors tend to use more number of “Journal Articles” and “Web Resources” for writing a conference paper. The majority of “Journal Articles” cited from “*Library Hi Tech News*”, “*Library Trends*”, “*IASLIC Bulletin*”, and “*University News*” and thus regarded as the top three core journals of the field cited for writing a paper.

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