Publications of CALIBER Convention 2009: Bibliometric Study

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Abstract

The study analyzes conference papers of CALIBER 2009 by using bibliometric approaches including authorship pattern, degree of collaboration, geographical distribution. It examines state-wise and country –wise contribution in references of articles and it particularly focuses on the top-cited journals and forms of documents appeared in references of conference papers. It examines 73 conference papers in which single authorship emerged as the most prevalent pattern with a great degree of collaboration among authors. While Karnataka emerged as the top contributing state, India stood at the top in the country -wise contribution in terms of authorship. The study found that each article of the conference cited more than 10 references in which "Journal Articles" appeared to be the most cited document and the "Journal of the American Society for Information Science and Technology" emerged as the highly cited journal.

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

Introduction

Information and Communication Technology (ICT) play a very vital role in the development of libraries and information centers. Applications of ICT affect every walk of life and thus brought multi-dimensional change in the society. The society is transforming into a knowledge society due to advancements in ICT. Nowadays, the majority of library services are based on ICT applications. Computerization of libraries and automated services are the demand of the current scenario. The increased user demand motivates for library automation as well as skill development of library professionals to handle the situation. Automated services of libraries promote its efficiency. To meet the present day requirement, imparting of such knowledge and skill is mandatory and conferences provide the platform to discuss such challenging issues together at one place with one theme. There are several organizations across the country which organize such training as well as knowledge imparting events such as conferences, workshops, seminars etc to

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learn the lessons on modern tools and techniques.

Conventions on Automation of Libraries in Education and Research (CALIBER) are conventions in India which provide such kind of platform bi-annually. Such conventions are organized by the INFLIBNET Centre, Gandhinagar, and Gujarat to prepare library workforce acquainted with modern tools and techniques. CALIBER conventions are organized under a specified theme supported by various sub-themes to meet the needs of library professionals at large. Till today, twenty (20) CALIBER conventions have been organized by INFLIBNET Centre in different parts of the country. CALIBER 2009 was held from 25th to 27th February 2009 at Pondicherry University. The convention received 240 papers out of which 73 papers and 110 abstracts were selected for publication in the proceedings. A total of 275 delegates registered for the convention. The main theme of the convention was, "E-Content Management: Challenge and Strategies" (CALIBER, 2009).

Bibliometrics quantitatively analyze the properties and behavior of recorded knowledge. It assists in the identification of the impact of the convention in terms of authorship patterns, state-wise and country-wise distribution of the authors, referencing pattern, citation analysis, collaboration among authors etc.

Review of Literature

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. **Nagarkar et al. (2015)** studied the productivity level of the faculty members of Life Science department at the Savitribai Phule Pune University. This book intended to understand the authorship pattern and identify the most preferred journals by the faculty members. **Dash (2015)** analyzed the papers published in the Library Assessment Conference proceedings (2006-2014). His study shows that the numbers of contributors are increasing over time and the contributors are considerably 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. The 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 varied 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 and Library and Information Studies cited the same chiefly. **Dixit (2007)** analyzed the patterns in the article published in the Journal of Indian Society for Cotton Improvement in terms of authorship, bibliographic forms, citations, contributing institutions, and subjects. The study shows that the number of citation is increasing per year. **Gupta (2007)** investigated the growth of literature in LIS

marketing, its publishing pattern and the type of information source is LIS marketing. It is found that literature on LIS marketing is growing and the most of the literatures are in the form of journal articles. **Rajendiran & Parihar (2007)** identified various bibliometric indicators of articles published by the Indian Researchers in the field of LASER Science. This study reveals the slow growth of literature in LASER Science during 1995-2005. The Indian contribution to the world in the same literature has also witnessed a slow increase from 0.71 to 1.67%. **Sudhier Pillai (2007)** studied the authorship pattern in Physics by taking a sample of 11,412 journals and 1,328 book citation in the Physics doctoral dissertations awarded by the Indian Institute of Science. \inference drawn out of this study reveals that single author contributions are 56.4% and multi-author contributors constitute 43.6%.

Scope of Study

The study is confined to assess the research contributions of LIS professionals published as full-text in conference proceeding of CALIBER Convention 2009 organized by INFLIBNET Centre, Gandhinagar. There are 73 published articles which belong to CALIBER Convention 2009.

Objectives of the Study

The objectives of the study are 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.

Research Methodology

The conference proceeding of CALIBER Convention 2009 was surveyed for retrieving 73 full-text articles available under INFLIBNET Centre's website. The same published articles can be downloaded from the Institutional Repository of INFLIBNET Centre also. The obtained data were tabulated, organized (collaged), and analyzed by the use of MS-Excel as statistical tool and technique.

Data Analysis

a) Themes and Sub-themes of CALIBER 2009

CALIBER 2009 had the main theme "E-Content Management: Challenge and Strategies" and four sub-themes for authors. The following table displays the sub-themes of CALIBER 2009 and a total number of published contributions towards them.

Table 1: Distribution of articles among the sub-themes of CALIBER 2009

SN	Title of the sub-themes	No. of Papers	%
1	E-Publishing	26	36%
2	Digital Preservation and Digital Persistence	16	22%
3	Web 2.0/Library 2.0	16	22%
4	Web-Content Management	15	20%
Total		73	

(Source: CALIBER Convention Websites)

Table 1 highlights the distribution of papers among the different sub-themes of CALIBER 2009. Among the four sub-themes, "E-Publishing" received the highest number of papers (26) i.e. 36% followed by "Digital Preservation and Digital Persistence" (22%), "Web 2.0/ Library 2.0" (22%), and "Web-Content Management" (20%). Except for "E-Publishing", other sub-themes have almost an equal number of articles.

b)   Authorship Pattern & Degree of Collaboration in CALIBER 2009

Table 2: Authorship Pattern in the CALIBER 2009

	No. of Authors				Total No. of Papers
One	**Two**	**Three**	**Four**		
31	21	16	3		73
(42.46%)	-28.76	(21.9%)	-4.1%		

(Source: Primary Data)

Table 2 shows the authorship pattern of articles accepted for full-text publication in CALIBER 2009. In CALIBER 2009, single authorship pattern is found to be most prevalent with 42.46% which is succeeded by two authorship pattern (28.76%), three authorship patterns (21.9%) and so on.

Table 3: Degree of Collaboration in CALIBER convention 2008

Single Author (Ns)	Multiple Authors (Nm)	Total (Ns+Nm)	Degree of Collaboration
31	42	73	0.57

(Source: Primary Data)

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

$$\text{Degree of Collaboration (C)} = \frac{n}{-Ns}$$

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 2009 is 0.57. The higher degree of collaboration tends to the higher level of collaborative works and vice-versa.

c)   Geographic Distribution of Authors

Table 4 shows the state-wise distribution of authors in CALIBER 2009. Karnataka has the highest number of contributors (28%) followed by Maharashtra (14.4%), West

Bengal (13.7%), Delhi (9%), and Tamil Nadu (7%) etc. In CALIBER 2009, 138 authors from 19 different States of India contributed research articles.

Table 4: State-wise distribution of the Indian authors in CALIBER 2009

(Source: Primary Data)

Table 5: Country-wise distribution of authors in CALIBER 2009

(Source: Primary Data)

Table 5 shows the country-wise distribution of authors in CALIBER 2009. The total contributions came from 6 countries around the globe. India has the highest number of contributors (96%) followed by United Kingdom (1.3%), Iraq, Taiwan, Wales, and the USA with 0.69% each.

Forms of Document	No. of References	%	
			0.68%
Web Resources	213	27%	0%
Journal articles	235	30%	5%
Books	73	9%	0%
Conference Papers	91	12%	0%
Miscellaneous	71	9%	0%
6 USA	1	0.69%	
Total	144		

CALIBER 2009

references per article in CALIBER 2009. There are total published papers. On the observation of table 6, it has has the 10.68 references per article.

ences per article in CALIBER 2009

(Source: Primary Data)

e)   Forms of Document used as Reference in CALIBER 2009

Table 7: Forms of document used as a reference in CALIBER 2009

Reports	55	7%
News Items	13	2%
Theses and Dissertations	29	4%
Total	780	

(Source: Primary Data)

Table 7 shows the analysis of forms of document used as references in CALIBER 2009. Among the various forms of document, Journal Articles (30%) are most preferred source for references followed by Web-based Resources (27%), Conference Papers (12%), Books (9%), Miscellaneous (9%), Reports (7%), Theses/Dissertations (4%) and News Items (2%).

f)   List of Top 10 Journals cited in CALIBER 2009

Table 8: List of Top 10 Journals cited in CALIBER 2009

(Source: Primary Data)

Table 8 shows the list of top 10 journals cited by the authors in their articles appeared in CALIBER 2009. A total of 138 journals have been cited among which 'Journal of the American Society for Information Science and Technology' is the most frequently cited journal (10 citations) followed by 'D-Lib Magazine' (8 citations) etc.

Conclusion

The study analyzes the bibliometric aspects of CALIBER 2009 conference held at Pondicherry University. The recent growth dynamics of the field can be observed by conducting conferences and evaluated by the bibliometric studies of such conferences. CALIBER conventions are organized every alternate year by the INFLIBNET Center, Gandhinagar and Gujarat. The main theme of the conference was "E-Content Management: Challenge and Strategies" supported by four sub-themes. Except for sub-theme "E-publishing", almost all the sub-themes have an equal distribution of articles. The most prevalent form of paper presentation was single authorship followed by two and three authorships in which there was a considerable degree of collaboration among authors. The highest number of authors belongs to India as the CALIBER convention was originated in India. Authors belonging to 19 States and Union Territories of India took part in the conference. Karnataka, Maharashtra and West Bengal become the top three contributors in the conference. Besides these, authors from five overseas countries also took part in the conference. The study found that there were more than 10 references in each article of 73 papers presented at the conference.

The sources of reference have been categorized into eight different bibliographic forms in which "Journal Articles" are the most prevalent form of the document followed by "Web Resources". The "Journal of the American Society for Information Science and Technology" has been emerged as the highly cited journal followed by "D-Lib Magazine" in the study.

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