

**CONTINUING EDUCATION AND PROFESSIONAL
DEVELOPMENT (CEPD) PROGRAMMES FOR LIBRARY
AND INFORMATION SCIENCE PROFESSIONALS
IN INDIA: AN EXPLORATORY STUDY**

**DISSERTATION
SUBMITTED FOR AWARD OF THE DEGREE OF**

Master of Philosophy

**IN
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UNDER THE SUPERVISION OF

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SUBMITTED BY

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DECLARATION

I hereby declare that this dissertation entitled “**CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT (CEPD) PROGRAMMES FOR LIBRARY AND INFORMATION SCIENCE PROFESSIONALS IN INDIA: AN EXPLORATORY STUDY**” submitted by me for the award of Degree of Master of Philosophy in Library and Information Science, Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow is an outcome of my own efforts and is an original work. The Contents of this dissertation did not form a basis for the award of any previous degree to anyone else.

I hereby also undertake that the Dissertation submitted by me to Babasaheb Bhimrao Ambedkar University Lucknow satisfies the entire requirement as stipulated in the Master of Philosophy (M.Phil.) Regulations- 2019 and it is fit for submission and evaluation for the award of the Master of Philosophy of the University.

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CERTIFICATE

This is to certify that the dissertation titled “**CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT (CEPD) PROGRAMMES FOR LIBRARY AND INFORMATION SCIENCE PROFESSIONALS IN INDIA: AN EXPLORATORY STUDY**” submitted by **Mr. Kunal Gautam** is an original research work and has not been previously submitted in part or full for the award of any other degree or diploma to this or any other university.

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Abbreviations

Avg	Average
CEPD	Continuing Education and Professional Development
CEPs	Continuing Education Programme
CPD	Continuing Professionals Development
DLIS	Department of Library and Information Science
MOOCs	Massive Open Online Courses
PG	Post Graduate
LIS	Library and Information Science
IPR	Intellectual Property Rights
ICT	Information and Communication Technology
IoT	Internet of Things
IFLA	International Federation of Library Associations and Institutions
ICSSR	Indian Council of Social Science Research
RFID	Radio Frequency Identification
S. No.	Serial Number
UP	Uttar Pradesh
UG	Under Graduate
UGC	University Grants Commission

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Chapter 1

Introduction

1.1 Introduction

Library and information science professional associations, institutions, schools and educators play a major role in the growth and development of innovative ideas and awareness levels of professionals in the present knowledge society. For this purpose, professional associations and institutions organize different Continuing Education and Professional Development Programmes like conferences, workshops, seminars, training, webinars, etc. through which LIS professionals enhance their skills, advanced knowledge, attitude and techniques. Library and information science is one of the fields which earliest adopt the changes and aware the professionals about the latest management skills.

The term Continuing Education and Professional Development (CEPD) Programmes is very popular and widely used in library and information science field. It includes all the activities and efforts for the growth and development of professional's skills and helps in implementing this knowledge in the profession. (Rafiq, Jabeen, & Arif, 2017).

Broadbent and Grosser (1987) elaborated the concept of CEPD in a deligate manner as: "advanced degree seeking (beyond the first professional degree) and management and communication training and incorporates all activities and efforts, formal and informal, by the individual to upgrade his knowledge, abilities and competencies and understanding in his field of work or specialization so that he can become a more effective professional and be able to handle responsibilities of greater scope and accountability".

Feather and Sturges (2003) defined CEPD as: "Continuing professional development is the acquisitions of professional skills and knowledge beyond those required for initial qualification and learned in formal programs of education. It is an activity strongly promoted by library and information associations, which typically make provision for it by providing seminars and workshops, and perhaps through their publications. It involves a systematic approach to staff development and continuing education, usually consisting of a program of learning opportunities made available over a period of time. The intention is to ensure that information workers continue to

acquire and adapt their skills and knowledge to a swiftly changing professional environment. Increasingly, professionals are expected to take responsibility for their own CPD as they plan the enhancement of their skills and the development of their careers”.

LIS Continuing Education and Professional Development (CEPD) Programmes have a significant role in the communication of information among professionals. It is the primary and secondary source of information. Conferences, workshops and seminars provide a platform for LIS professionals to interact with each other, discuss the issues and challenges, share their views and present papers. These programmes are organized at different levels and an effective form of research communication. Analysis and interpretation of brochures and conference proceedings are one of the important research activities for measuring the recent trends, authorship pattern, etc. in the library and information science field.

1.2 Need for the Study

Organising Continuing Education and Professional Development (CEPD) Programmes are fully intellectual and lifelong learning activities. So, this study is being conducted for finding the paper pattern and behaviour in the national and international LIS conferences as well as analysing the LIS CEPD Programmes findings.

1.3 Objectives of the Study

This study aims to measure the following objectives:

1. To classify the CEPD Programmes organised during the study period into their level of organisation, viz, National and International;
2. To classify the CEPD Programmes like Conferences, Workshops and Seminars organised during study period for LIS professionals;
3. To compare the series wise or individual organisation of CEPD Programmes in India during the study period;
4. To identify the prominent themes of CEPD Programmes;
5. To calculate the page length of the brochures of LIS CEPD Programmes;

6. To enumerate the institutions/associations hosted CEPD Programmes during the study period for LIS professionals;
7. To identify the types of CEPD Programmes organising institutions/associations, viz, Government or Non-government;
8. To investigate the geographical locations of CEPD Programmes hosting institutions/associations;
9. To calculate the gender wise ratio of organising secretary of CEPD Programmes;
10. To find out the average registration fees required to be deposited by the professionals to attend the CEPD Programmes;
11. To know the average duration (in days) of CEPD Programmes;
12. To determine the designation wise organisation of CEPD Programmes by organising secretary;
13. To find out major funding agencies that financially support in organising CEPD Programmes for LIS professionals;
14. To calculate the topic wise contribution of papers in the conferences organised;
15. To find out the average length (page wise) of papers published in the conference proceedings for conferences organised during the study period;
16. To analyse the average number of references per paper published in the conference proceedings for conferences during the study period;
17. To identify the authorship pattern of contributed papers in the conferences organised during the study period;
18. To access the gender wise contribution of paper contributors in the conferences organised during the study period;
19. To understand the designation wise distribution of paper contributors in the conferences organised during the study period;

20.To investigate geographical affiliation of the paper contributors in the conferences organised during the study period; and

21.To identify the types of institutional affiliation of contributed papers as Government or Non-government.

1.4 Hypotheses of the Study

The following hypotheses were formulated based on the objectives of the study:

H1: More CEPD Programmes are organized by male professionals than female professionals.

H2: More papers are contributed by authors from the same state where the conference has organised.

H3: Government organizations or institutions organize more national and international LIS CEPD Programmes than Non-government institutions.

H4: Single authored papers are preferred more than Collaborative papers in conferences.

1.5 Research Methodology

For this study, the data is collected in three phases. In first phase, a list of all the 136 LIS CEPD Programmes organised during 1st January, 2019 to 31st December 2019 is prepared from various sources like ICSSR Conference alerts; IFLA-News from Asia and Oceania; websites of individual LIS associations, institutions and organizations; LIS forum, Library Science Professionals Portal; Web forum i.e. social networking sites-LIS links, Facebook groups(like World of Library and Information Science),WhatsApp groups, so forth.

In the second phase, the brochures of national and international LIS conferences, workshops and seminars are collected and data related to the study is tabulated.

In the third phase, total 899 papers have been collected from 18 conference proceedings out of 43 conference proceedings. Since conference proceedings of all conferences were not available on the website or in softcopy form, therefore it was very difficult to collect all conference proceedings in hard copy form physically during the Corona Pandemic period. Still 899 papers have been collected but each

paper has not included all types of research related information. So, the number of papers taken for analysis and interpretation have not been the same in each case.

1.6 Scope and Limitation of the Study

The scope of the study is limited to national and international CEPD Programmes, covering conferences, workshops and seminars organized in India by LIS professionals or LIS schools during 1st January, 2019 to 31st December, 2019 (i.e., One-year period). Other CEPD Programmes such as Webinars, invited lectures, online videos, invited talks, colloquia etc. are not included.

1.7 Chapterization

Continuing Education and Professional Development (CEPD) Programmes are the most prominent platform for library and information science professionals. These programmes enhance the knowledge of LIS Professionals and make them up-to-date through sharing and gaining of information. The main motto of organising the CEPD Programmes is to fulfil the needs of LIS professionals according to the scenario. This dissertation explores the CEPD Programmes for LIS professionals organised in India.

There are five chapters in the dissertation and chapters are arranged under following subtitles-

Chapter 1: Introduction: - This chapter gives a brief introduction to the Continuing Education and Professional Development (CEPD) Programmes for library and information science professionals.

Chapter 2: Review of Literature: - This chapter describes the review of literature on the topic related to Continuing Education and Professional Development (CEPD) Programmes for library and information science professionals.

Chapter 3: Research Methodology: - This chapter includes the all the methods, tools and technique applied for the data collection, analysis and interpretation.

Chapter 4: Data Analysis and Interpretation: -This chapter includes the analysis and interpretations of data related to the research study. For these purposes many tables and figures have been constructed.

Chapter 5: Findings, Suggestions and Conclusion: - This chapter describes the hypotheses of the study, findings of the research study, suggestions and conclusion for

the improvement of Continuing Education and Professional Development (CEPD) Programmes for library and information science professionals.

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Chapter 2

Review of Literature

Introduction

The review of literature is one of the most essential primary and prominent activities of research study. It helps the researchers in many ways for making their research work so easy and efficient. The review helps

- To develop broad understanding about the earlier research which strengthens the thinking and working skills of researchers towards their research;
- To identify the research methodology and techniques;
- To prevent the duplicity of research; and
- To design and develop research study properly.

For review of literature relevant papers, journal articles and books were critically analysed that were downloaded or accessed from Google Scholar, Academia.edu, Project Gutenberg, pdf drive, ResearchGate, Web of Science, Taylor & Francis, so forth.

The literature review of this study has been studied and categorised in different groups on the basis of target audience like for librarians, LIS Professionals, whole LIS community, so on and few others on the basis of types of programmes like trainings, conferences, workshops, seminars, so forth. Some other studies also reviewed on the basis of their themes and professionals needs while remaining studies have been reviewed individually.

Goulding (2019) in the paper tried to find out the impact of continuing professionals' development programmes in LIS fields for library professionals and saw their reactions, views, use of skills and new knowledge. In the study, results showed that CPD programmes were very beneficial and useful for LIS professionals which was learned from the workshops for their jobs events.

Moonasar and Underwood (2018) conducted a study on continuing professional development programmes for academic librarians. For this study, questionnaires were sent to twenty-five academic librarians and interviews were taken with five

respondents from Durban University of Technology library. On the basis of collected information, it was concluded that academic librarians and respondents were aware about the continuous learning activities and use of information and communication technology in libraries and they enhanced their knowledge through these programmes.

Chiware and Becker (2018) conducted a study on conference papers and analysed that this is the 4th biggest cited materials in dissertations and theses and provides a framework for fulfilling the needs of PG students. It was discussed that conference proceedings are one of the biggest sources of research literature.

Rafiq, Jabeen and Arif (2017) discussed the continuing education (CE) in library and information science to explore the opinion of library and information science professionals to fulfill the needs of this discipline. This paper also highlighted the role of LIS schools in enhancing the skills of professionals. The findings of this research study showed that computer application in LIS subject area is more preferred than computer application in other area by respondents.

Soroya (2017) in the article explained that there is a need of CEPs for library professionals for their development and it showed +ve effect in their life. This study also showed that most of the respondents (44) had working experience of 1-5 years and only one has an experience of 22 years or more.

Sinha (2016) in his paper pointed out that organising conferences, workshops and seminars is fully intellectual research activities as well as a part of teaching-learning activities for any educational institutions. In the study it is found that most of the LIS events have been conducted on recent trends and there is a need to aware and update faculty, researchers and students.

Harake and Hadagali (2015) examined in the paper about the continuing education programmes for LIS professionals in India and identified all CEPs for the LIS conducting body like INFLIBNET, DESIDOC, NASSDOC, ILA, IASLIC, NISCAIR, etc and explained in details about their role and contribution in the field of library and information science. Conduction continuing education programmes like workshops, seminars, conferences, webinars, training programmes, etc are prominent and intellectual activities which increase and upgrade the professional's skills and knowledge as well as help them to keep up-to-date according to the scenario.

Ajeemsha and Madhusudhan (2014) focused on continuing professional development (CPD) programmes for LIS Semi-Professionals in central university libraries in India. The results of the study showed that CPD training programmes improved the performance of LIS Semi-Professionals in their jobs as well as in their career. The paper also suggested to organise more CPD programmes to aware the LIS Semi-Professionals about emerging technologies because present Semi-Professionals are future professionals.

Rattan and Gupta (2012) discussed that in the Malaysian Journal of Library and Information Science a total of 100 papers are published in 5 years. Solo author contribution is 27% and multiple author collaboration is 73%.

Alimohammadi and Jamali (2012) enumerated in the paper about common problems of LIS education in developing countries of Asia and proposed their similar solutions and suggested to establish new independent LIS schools and departments, recruit skillful faculties and staffs, more concentrate on research activity, promote continuing professionals development programmes and regularly updated and well-designed syllabi for the development of LIS discipline.

Kumar and Sharma (2010) discussed in the paper about the historical perspective of LIS education in India and identified the growth pattern and development as well as courses started by different universities at different levels in library and information science discipline. This paper also analyzed the role of Baroda School, Punjab University, Library Association, UNESCO etc. in the development of LIS education in India.

Joshi (2010) explained in his paper about the progress of library and information science discipline in India during the last hundred years. This paper also emphasized the role of various government's initiatives like Radhakrishnan Commission, Ranganathan's Report, Kothari Commission, NAPLIS, NKC, UGC, NAAC, CDC, Kaula Committee etc. for the growth and development of this field.

Dasgupta (2009) presented a paper in World Library and Information Congress: 75th IFLA General Conference and Council, 2009 on the topic preparing future librarians in India and discussed in details about the libraries and library professionals in India, their growth pattern during pre and post-independent era, role of LIS schools and departments in the development of this profession, current trends in LIS education in

India, problems and their solutions in LIS. He also included that continuing education programmes and orientations are very important not only for faculty members but also for librarians for updating knowledge and increasing skills.

Chandrashekara and Ramasesh (2009) conducted a study on LIS doctoral research in India and emphasized the perspective of the research activities in form of doctoral theses and their chronological growth, state-wise and university-wise award of degree and the most predominant subject area in LIS research as well as guide wise output of doctoral research.

Babu and Ramesha (2007) in the paper described the technological revolution that paved the challenges for LIS schools in India as well as in European countries. The paper showed the importance of producing the best LIS professionals who can lead the profession globally in the 21st century. For this, LIS schools, departments and teachers improved themselves according to the scenario and started different educational programmes and activities and use of ICT in the LIS field during the past 10 years. They identified the universities in India who offer LIS courses through distance education.

Dasgupta and Satpathi (2006) in the paper discussed from the study of eight universities of West Bengal that five out of eight are actively participating in Continuing Education Programme for increasing the awareness of their library professionals. It is a good sign as this trend was not present before 2000. Even the University of Calcutta, which is observing its one hundred and fifty years of existence, hardly encouraged professional development during the last decade of the twentieth century. Another observation is that despite inadequate grants in a few libraries they are not hesitating to start with Continuing Education Programmes. The Jadavpur University gets a maximum grant (3 crores) for purchasing books and periodicals, which is even more than University of Calcutta.

Smith (2005) highlighted in the paper about the CPDWL and people aspect of organisational change and found out the nature and impact of these changes as well as compulsory factors in successful organisational renewal.

Mahapatra and Sahoo (2004) in their jointly written article analyzed the doctoral dissertations of LIS from 1997 to 2003 and showed the growth pattern, trends, productivity and area of research in the LIS field. In the study of 7 years period, it can

be clearly seen in the paper that maximum productivity of theses (37) in the year 2003 and minimum (16) in 2000 as well as showed that the highest number of theses produced in the Southern Region in India during the period.

Karisiddappa (2004) presented a paper in 'World Library and Information Congress: 70th IFLA General Conference and Council' and examined the library and information science professionals' competencies, LIS education scenario, skills and model curriculum for developing countries. This paper also focused on the role of LIS education and training programmes as well as on the importance of new technology for the growth and development of LIS professionals' skills according to future demands.

Singh (2003) carried out a study and identified the library and information science emerging trends, current status, different continuing education and research programmes facilitated by various universities in India during the pre and post independent era. In the paper, he also emphasized the LIS standards, problems, suggestions as well as approach to produce LIS professionals according to global demands in the LIS profession. Results showed that most of the students did not take admission in library and information science courses as a first-choice profession.

Ramaiah and Moorthy (2002) carried out a survey study and expressed in detail about the need and impact of continuing education programmes and orientation programmes for the growth and development of LIS professionals' skills and knowledge in India. For this study 40 participants, mostly librarian, were taken from the different colleges of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad and analyzed them according to their age, years of experience, LIS training agencies where they have taken training, important topics for CEPs courses so forth.

White (2001) carried a study on professional development of reference librarians to measure the impact of research and publication, conference participation and presentation, and all service activities which was needed for professional development. The results of this study showed that research, publication, and service are three major activities which are important for any librarians but it is more important for reference librarians.

Broadbent and Grosser (1987) conducted a study to find out continuing educational development activities and needs of 85 special librarians and information centre

managers in Melbourne. This study focused to find out the nature and extent of organisational support for CPD, needs and activities related to LIS professionals. The results of this study showed that special library and information centres managers were working on dynamic environments.

The literature review shows that a lot has been written on similar topic in other countries with different audience but such research study was not found in India during the given period and same audiences. So, Furthermore, no study found to be comprehensively covering the CEPD programmes in India having the objectives the present study has, the researcher decided to conduct this study.

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Chapter 3

Research Methodology

This study follows descriptive method of research with content analysis of brochures and conference proceedings of different CEPD Programmes organised during the study period. For this study, the data was collected in three phases. In the first phase, a source list of all the programmes organised during the study period (1st January, 2019 to 31st December, 2019) was required. Due to unavailability of a single source or database having a list of all various sources like ICSSR Conference alerts; IFLA-News from Asia and Oceania; websites of individual LIS associations, institutions and organizations; LIS forum, Library Science Professionals Portal; Web forum i.e. social networking sites-LIS links, Facebook groups(like World of Library and Information Science),WhatsApp groups, so forth and verifying each programme details from respective websites of organising institutions/associations have been visited during the month of January, 2020 to March, 2020. After the list was finalised, a total 136 LIS CEPD Programmes organised during the study period were found.

In the second phase, the brochures of national and international LIS conferences, workshops and seminars were collected and data related to the study was tabulated in a spreadsheet using Google Sheets. The variables were included in the excel sheet as name of the programme, types, duration, dates, series, organising institutes, host institutes, host institute location, organising secretary details, sponsoring agencies, registration fee of the programme, so forth. In case the brochures were not available the data found on the respective websites of the programmes were considered and fed in the spreadsheet.

In the third phase, conference proceedings of national and international LIS conferences have been collected from Indian LIS CEPD Programme organising schools, departments, associations, institutions, so forth. Since conference proceedings of all conferences were not available on the website or in softcopy form, that's why, it was very difficult to collect all conference proceedings in hard copy form physically during the Corona Pandemic period. So, for these purposes, a contact was set up to all organising bodies, secretaries or participants of the programme physically or via email or direct phone calls. Then data related to eighteen (18) conference proceedings out of forty-three (43) was collected fully or partially and

these data was tabulated in another spreadsheet. The variables included in the spreadsheet were namely, title of the paper, length of the paper, number of authors, gender of author(s), geographical location of programme, number of references, so forth. For the analysis 899 papers have been collected but each paper has not included all types of research related information. So, the number of papers taken for analysis and interpretation have not been the same in each case.

For the purpose of analysis, frequency distribution table, pivot table and various charts were prepared using Google Sheets.

Chapter 4

Data Analysis and Interpretation

This research study has been conducted using the contents available in the brochures of 136 LIS Continuing Education and Professional Development (CEPD) Programmes (conferences, workshops and seminars) as well as analyses the contents available in the 899 contributed papers of 43 conference proceedings of national and international conferences which were organised in India in the study periods 1st January, 2019 to 31st December 2019.

On the basis of collected information following objectives have been analyzed and interpreted in the form of tables and figures.

4.1 Level of CEPD Programmes as National and International

The table-4.1 and Fig. 4.1 show the level of LIS CEPD Programmes as national or international which were organised in India during the study period.

Table-4.1

Level of CEPD Programmes (n=136)

S. No.	Types of Programmes	No. of Conferences	No. of Workshops	No. of Seminars	Total No. of Programmes	% age of Programmes
1	National	21	70	21	112	82.35
2	International	22	1	1	24	17.65
	Total Sum	43	71	22	136	100

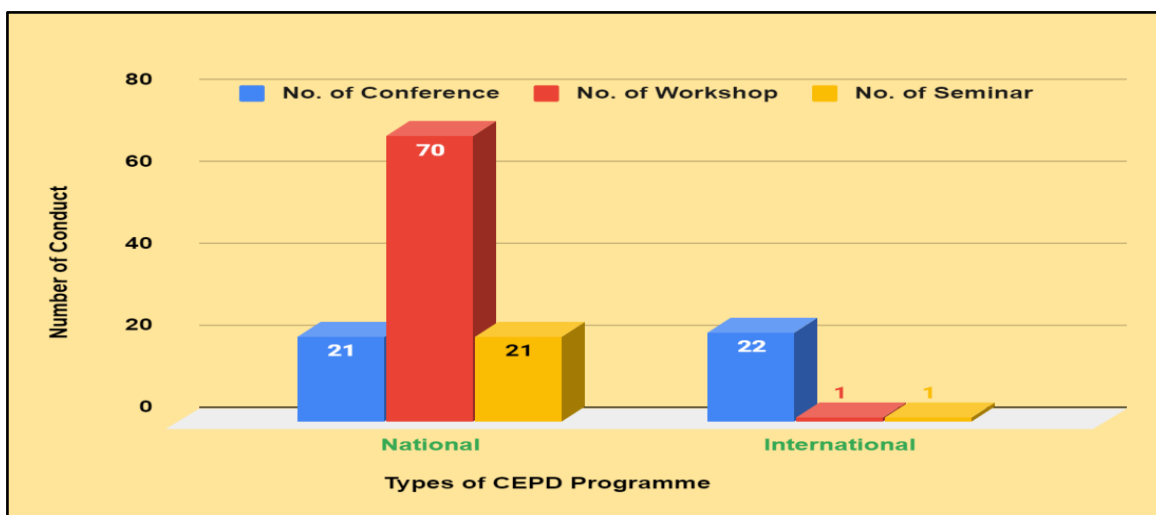


Fig. 4.1: Level of CEPD Programmes (n=136)

Above table and figure reveal that out of 136 LIS CEPD Programmes 112 (82.35%) such programmes were organised at national level while 24 (17.65%) such programmes were organised at international level in India.

4.2 Types of CEPD Programmes as Conferences, Workshops and Seminars

Fig.4.2 shows the distribution of LIS CEPD Programmes as conferences, workshops and seminars which were held in India during the study period. Out of 136 LIS CEPD Programmes 71 (52.20%) programmes are workshops (in which 70 are national and single is international), 43 (31.60%) programmes are conferences (in which 21 are national and 22 are international) and remaining 22 (16.20%) programmes are seminars (in which 21 are national and single is international). It is noted that only one workshop and one seminar were organised at international level in India during the study period.

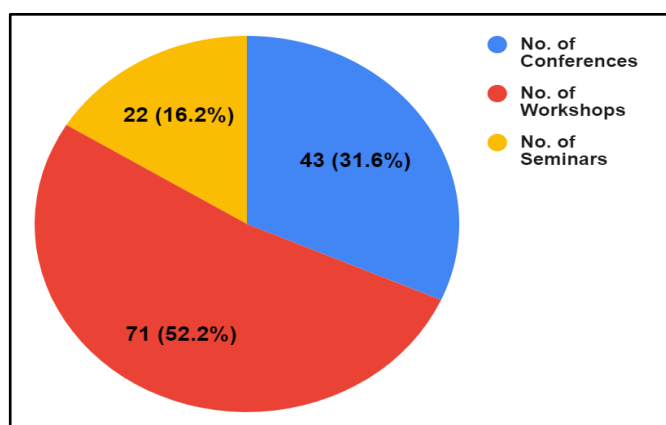


Fig. 4.2: Types of CEPD programmes (n=136)

4.3 Series Wise or Individual Organisation of LIS CEPD Programmes

Table-4.2 or Fig.4.3 shows the series wise or individual organisation of national and international LIS CEPD Programmes. Some institutions/organisations/associations organise such programmes in frequency while others organise the programmes irregularly.

Table-4.2

Series Wise or Individual Organisation of CEPD Programmes (n=136)

Types of CEPD Programmes organised	Total No. of Programmes	Total % age of Programmes
Series	17	12.50
Individual	119	87.50
Total Sum	136	100

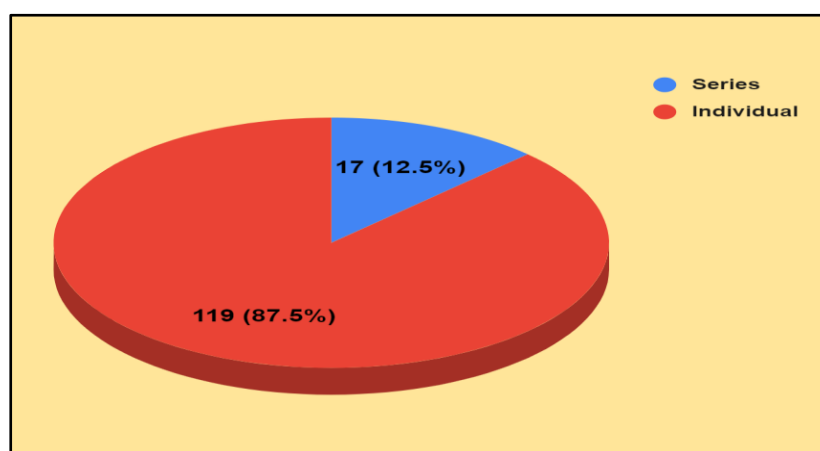


Fig. 4.3 Series Wise or Individual Organisation of CEPD Programmes (n=136)

Based on above Table-4.2 or Fig.4.3 it has been found that 119(87.50%) LIS CEPD Programmes were organised individually or irregularly while 17(12.50%) such programmes were organised in series out of 136 such programmes.

4.4 Prominent Themes of CEPD Programmes

Table-4.3 or Fig. 4.4 reveals the most preferred theme of 136 CEPD programmes organised in library and information science discipline in India. All thematic information has been categorized into 28 topics/themes on the basis of data collected from the brochures of programmes. Each programme may have one or more theme(s), so the total number of themes was 180.

Table-4.3

Most Preferred Theme of CEPD Programmes (N=180)

S.No.	Main Theme	Total	% age	Rank
1	Koha	13	7.22	1st
2	Digital Library	12	6.67	2nd
3	Library and Information Services	12	6.67	2nd
4	Electronic & Digital Resources	11	6.11	3rd
5	Plagiarism	11	6.11	3rd
6	ICT	10	5.56	4th
7	Academic Library	9	5.00	5th
8	Library Automation	9	5.00	5th
9	Digital Transformation	8	4.44	6th
10	Emerging Trends & Technology in LIS	8	4.44	6th
11	Research Methodology	7	3.89	7th
12	Role of Libraries	7	3.89	7th
13	Research Publication	7	3.89	7th
14	Public Library	6	3.33	8th
15	User Education	6	3.33	8th
16	IPR and Copyright	5	2.78	9th
17	Reference Management Tools	5	2.78	9th
18	Preserving, Conserving & Archiving Library Collections	4	2.22	10th
19	Utilization of Learning Resources	4	2.22	10th

20	Research Data Management	4	2.22	10th
21	Knowledge management	4	2.22	10th
22	DSpace	4	2.22	10th
23	Social Media & Networking	3	1.67	11th
24	Innovation in Library	3	1.67	11th
25	LIS Education	3	1.67	11th
26	Information Literacy	2	1.11	12th
27	Bibliometrics & Research Output Analysis	2	1.11	12th
28	Special Library	1	0.56	13th
	Total Sum	180	100	

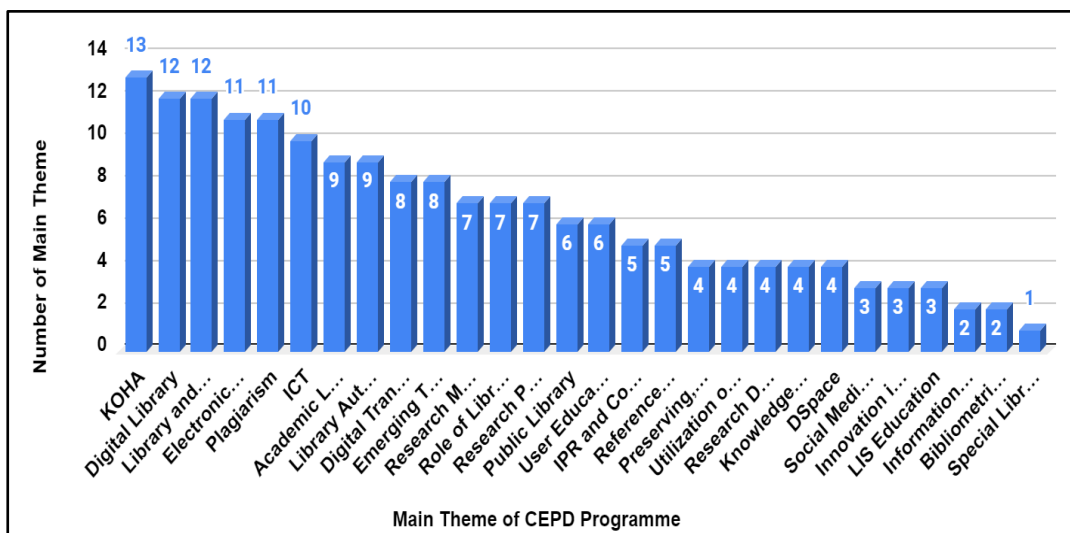


Fig. 4.4: Most Preferred Theme of CEPD Programmes (N=180)

From above Table-4.3 and Fig. 4.4, it is clear that Open source software Koha was the most preferred theme of programmes and placed first rank (13=7.22%), Digital Library, Library and Information Services both were second most preferred theme (12=6.67%), Electronic and Digital Library, Plagiarism each placed the third rank (11=6.11%), ICT placed the fourth rank(10=5.56%), Academic Library, Library Automation each placed the fifth rank (9=5%), Digital Transformation, Emerging Trends & Technology in LIS each placed the sixth rank (8=4.4%), Research Methodology, Role of Libraries, Research Publication each placed the seventh rank (7=3.89%), Public Library, User Education each placed the eighth rank (6=3.3%), IPR

and Copyright, Reference Management Tools each placed the ninth rank (5=2.78%), Preserving, Conserving & Archiving Library Collections, Utilization of Learning Resources, Research Data Management, Knowledge management, DSpace each placed the tenth rank (4=2.22%), Social Media & Networking, Innovation in Library, LIS Education each placed the eleventh rank (3=1.67%), Information Literacy, Bibliometrics & Research Output Analysis each placed the twelfth rank (2=1.11%) and Special Library placed the thirteenth and last rank (1=0.56%).

4.5 Page Length of the Brochure of LIS CEPD Programme

Table-4.4 shows the page length of brochures released by the national and international LIS CEPD Programmes organised in India during the study period.

Table-4.4
Page Length of the Brochure of LIS CEPD Programmes

S.No.	Page Length of Brochure	Total No. of Brochures	% of Brochures
1	1	7	5.15
2	2	23	16.91
3	3	19	13.97
4	4	30	22.06
5	5	4	2.94
6	6	35	25.74
7	7	6	4.41
8	8	8	5.88
9	10	1	0.74
10	12	1	0.74
11	16	2	1.47
	Total	136	100

Table-4.4 indicates that the highest (35=25.74%) number of brochures had page length six followed by 30 (22.06%) brochures with page length of four and 23(16.91%) brochures had page length of two. The median page length of released information brochures was found to be of six pages long.

4.6 LIS CEPD Programmes Hosting Institutions/Associations

Table-4.5 indicates the 136 LIS CEPD Programmes hosting institutions/associations of India. All such programmes were organised by 98 universities, institutions, and associations during the study period.

Table 4.5

LIS CEPD Programmes Hosting Institutions/Associations (n=136)

S.No.	Name of CEPD Programmes hosting institutions	No. of Programmes hosted	%age of Programmes hosted
1	INFLIBNET	7	5.15
2	University of Mumbai	5	3.68
3	Manonmaniam Sundaranar University	5	3.68
4	CSIR- NISCAIR	5	3.68
5	Anna University, Coimbatore	3	2.21
6	University of Kolkata	3	2.21
7	The Gandhigram Rural Institute	3	2.21
8	Alagappa University	2	1.47
9	Aligarh Muslim University	2	1.47
10	Babasaheb Bhimrao Ambedkar University, Lucknow	2	1.47
11	BIMTECH Greater Noida	2	1.47
12	Goa University	2	1.47
13	IIM Bangalore	2	1.47
14	NIT Rourkela	2	1.47

15	Mahatma Gandhi University, Kottayam	2	1.47
16	Savitribai Phule Pune University	2	1.47
17	Shivaji University Kolhapur	2	1.47
18	Sri Balaji Vidyapeeth Pondicherry	2	1.47
19	TERI	2	1.47
20	University of Delhi	2	1.47
21	University of Madras	2	1.47
22	Ambedkar University Delhi	1	0.74
23	Anna Centenary Library	1	0.74
24	Annamalai University	1	0.74
25	Aryabhatta Knowledge University, Patna	1	0.74
26	Assam University, Silchar	1	0.74
27	Assam Women's University	1	0.74
28	B.S. Abdur Rahman Crescent Institute of Science & Technology	1	0.74
29	Bangalore University	1	0.74
30	Bennett University	1	0.74
31	Bhabha Atomic Research Centre	1	0.74
32	Bharathidasan University	1	0.74
33	Biju Patnaik University of Technology, Orissa	1	0.74
34	Birla Global University	1	0.74
35	Birla Institute of Management Technology	1	0.74
36	Central University of Tamil Nadu	1	0.74
37	Cochin University of Science and Technology	1	0.74
38	DELNET	1	0.74

39	Don Bosco Institute of Technology, Bangalore	1	0.74
40	Dr. Ram Manohar Lohiya National Law University, Lucknow	1	0.74
41	DRTC, Bangalore	1	0.74
42	Gujarat Power Engineering and Research Institute	1	0.74
43	Guru Nanak Dev University	1	0.74
44	Guwahati University	1	0.74
45	ICAR-National Academy of Agricultural Research Management	1	0.74
46	IIHMR University	1	0.74
47	IIT Bombay	1	0.74
48	IIT Gandhinagar	1	0.74
49	IIT Jammu	1	0.74
50	IIT Ropar	1	0.74
51	INMANTEC	1	0.74
52	Institute of Public Enterprise, Hyderabad	1	0.74
53	Jadavpur University, Kolkata	1	0.74
54	Jain University, Bangalore	1	0.74
55	JNU	1	0.74
56	Kerala University and KLA	1	0.74
57	Kerala University of Fisheries and Ocean Studies	1	0.74
58	Kerala Library Professionals' Organisation (KELPRO)	1	0.74
59	Khallikote University	1	0.74
60	KIIT Bhubaneswar	1	0.74

61	KVS Zonal Institute of Education and training, Chandigarh	1	0.74
62	M. P. Bhoj University	1	0.74
63	Madurai Kamaraj University	1	0.74
64	Manav Rachna International Institute of Research and Studies	1	0.74
65	Maulana Abul Kalam Azad University of Technology	1	0.74
66	Medi-Caps University	1	0.74
67	Model Finishing School, Science & Technology Museum	1	0.74
68	National Brain Research Centre Manesar	1	0.74
69	National Institute for Locomotor Disabilities (Divyangjan), Kolkata	1	0.74
70	National Law University, Delhi	1	0.74
71	North Maharashtra University	1	0.74
72	O. P. Jindal Global University	1	0.74
73	Palamuru University	1	0.74
74	Panjab University	1	0.74
75	Parul University	1	0.74
76	Rajiv Gandhi National University of Law	1	0.74
77	Ranchi University	1	0.74
78	Sambalpur Public Library	1	0.74
79	Sardar Patel University	1	0.74
80	Satyajit Ray Film and Television Institute Kolkata	1	0.74
81	Saurashtra University, Rajkot	1	0.74
82	Shri Vaishnav Vidyapeeth	1	0.74

	Vishwavidyalaya		
83	Sree Balaji Medical College and Hospital	1	0.74
84	Sri Venkateswara University	1	0.74
85	SVKM'S NMIMS	1	0.74
86	Tamilnadu Teachers Education University, Chennai	1	0.74
87	The Central Government Library Association	1	0.74
88	Thiruvalluvar University	1	0.74
89	Tumkur University	1	0.74
90	U P Rajarshi Tandon Open University	1	0.74
91	University of Calicut	1	0.74
92	University of Gour Banga	1	0.74
93	University of Hyderabad	1	0.74
94	University of Kalyani	1	0.74
95	University of Petroleum and Energy Studies	1	0.74
96	University of Rajasthan	1	0.74
97	Vignana Jyothi Institute of Management	1	0.74
98	Visvesvaraya Technological University	1	0.74
	Total	136	100.00

The above Table-4.5 clearly indicates that INFLIBNET hosted the highest (7=5.15%) number of CEPD Programmes and placed the 1st rank, University of Mumbai, CSIR-NISCAIR and Manonmaniam Sundaranar University placed the 2nd position (5=3.68%). At the same time, University of Kolkata, Anna University Coimbatore and The Gandhigram Rural Institute got the 3rd rank (3=2.21%) in hosting the LIS CEPD Programmes in India.

4.7 Types of Host Institutions

This section indicates the types of host institutions. In this research study, all LIS CEPD Programme organising institutions/associations have been grouped into two broad categories- first one government and non-government second one central university, state university, deemed university, central funded institutes, state funded institutes so on.

4.7.1 Types of host institution as government and non-government

Table-4.6

Types of Host Institutions (n=136)

S.No.	Types of Host Institute	Total	% age
1	Government	82	60.29
2	Non-Government	54	39.71
	Total Sum	136	100

The above table shows that government institutions organised 82 (60.29%) such programmes while non-government institutions organised 54 (39.71%) such programmes in India during the study period.

4.7.2 Types of host institution on the basis of status

This section categories the host institution on basis of status as central university, state public university, centrally funded institutions, library associations, deemed-to-be-university, private institute, library network, state public library.

Table- 4.7

Types of Host Institution on basis of Status (n=136)

S.No.	Types of host institutions	No. of Programmes host	% age of Programmes host
1	Public State University	61	44.85
2	Centrally Funded Institute	21	15.44
3	Library Association	12	8.82

4	Central University	11	8.09
5	Deemed- to- be-University	10	7.35
6	Private Institute	9	6.62
7	Library Network	8	5.88
8	State Public Library	4	2.94
	Total Sum	136	100

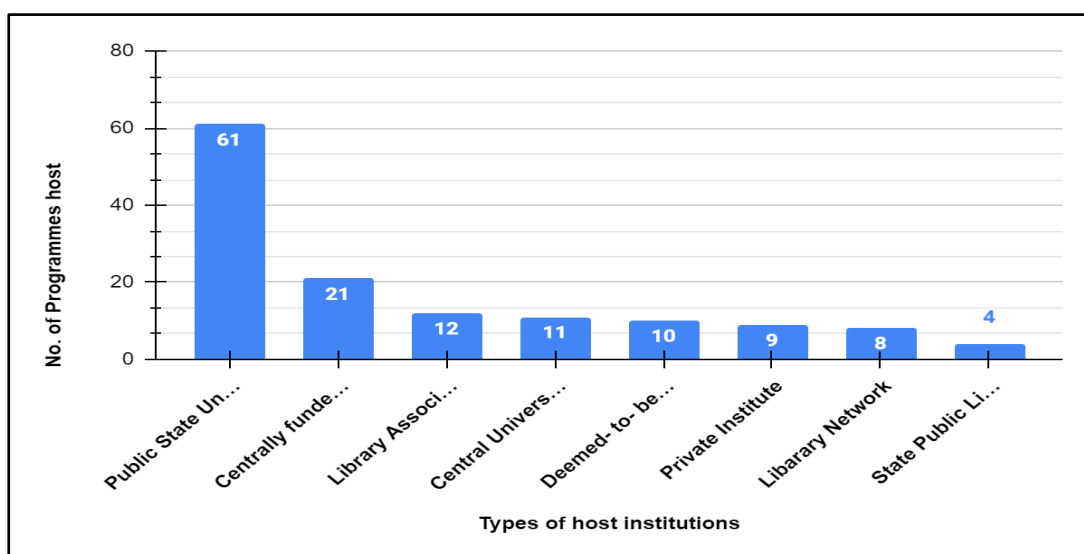


Fig. 4.5 Types of Host Institution on basis of Status (n=136)

Above table and figure clearly reveal that public state university hosted the highest (61=44.85%) number of programmes in India, centrally funded institutions hosted 21(15.44%) number of such programmes and got the second rank while library associations hosted 12 (8.82%) number of programmes and achieved the third position in India during the study period.

4.8 Geographical Locations of CEPD Programmes

This section shows the geographical location of state wise and zone wise LIS CEPD Programmes hosting institutions/associations in India.

4.8.1 State wise geographical locations

This section analyses the state wise geographical location of such programmes in India during the study period.

Table- 4.8

State Wise Geographical Locations of CEPD Programmes (n=136)

S.N.	Host Institute State	No. of Programme Organised	% age
1	Tamil Nadu	25	18.38
2	Maharashtra	13	9.56
3	Delhi	12	8.82
4	Gujarat	12	8.82
5	UP	11	8.09
6	West Bengal	9	6.62
7	Karnataka	8	5.88
8	Kerala	8	5.88
9	Odisha	7	5.15
10	Telangana	5	3.68
11	MP	3	2.21
12	Assam	3	2.21
13	Rajasthan	3	2.21
14	Haryana	3	2.21
15	Panjab	3	2.21
16	Puducherry	2	1.47
17	Chandigarh	2	1.47
18	Goa	2	1.47
19	Bihar	1	0.74
20	Jharkhand	1	0.74
21	Andra Pradesh	1	0.74

22	Jammu & Kashmir	1	0.74
23	Uttarakhand	1	0.74
	Total Sum	136	100

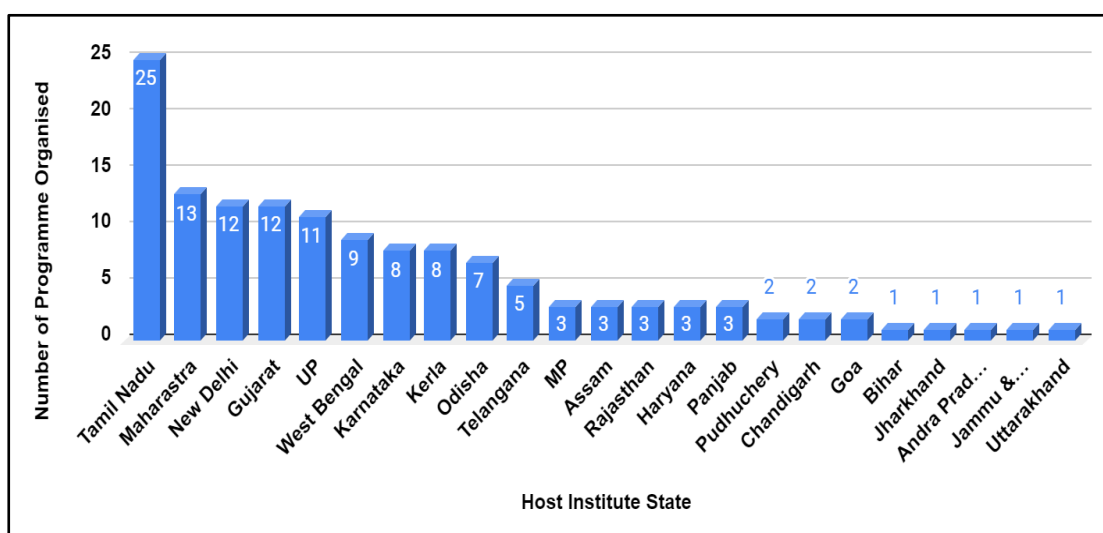


Fig. 4.6: Geographical Locations of CEPD Programmes (n=136)

The above table and figure show that out of 136 such programmes, the highest 25 (18.40%) number of programmes were organised in Tamil Nadu state and placed the first rank, the second highest 13 (9.56%) number of programmes were hosted in Maharashtra state, Delhi, Gujarat each state placed the third rank (12=8.82%), UP, West Bengal both achieved the fourth rank (11=8.10%), Karnataka, Kerala each state got the fifth rank (8=5.89%), Odisha placed the sixth rank (7=5.15%), Telangana placed the seventh rank (5=3.68%), MP, Assam, Rajasthan, Haryana, Panjab each state got the eighth rank (3=2.20%), Puducherry, Chandigarh, Goa each state got the ninth rank (2=1.47%) and Bihar, Jharkhand, Andra Pradesh, Jammu & Kashmir, Uttarakhand each state got the last and tenth rank (1=0.73%) in organising LIS CEPD programmes during the study period.

4.8.2 Zone Wise Geographical Locations of CEPD Programmes

The zone or region wise geographical distribution of national and international LIS CEPD Programmes in India is depicted in Table 3. For this research study, India has been categorised into six zones, and all Indian states and territories have kept under these zones.

Table- 4.9

Zone Wise Geographical Location of CEPD Programmes (n=136)

S.No.	Name of Zone	No. of CEPD Programmes Organised	% age of CEPD Programmes Organised
1	Southern Zone	49	36.03
2	Northern Zone	36	26.47
3	Western Zone	27	19.85
4	Eastern Zone	18	13.24
5	Central Zone	3	2.21
6	North Eastern Zone	3	2.21
	Total Sum	136	100.00

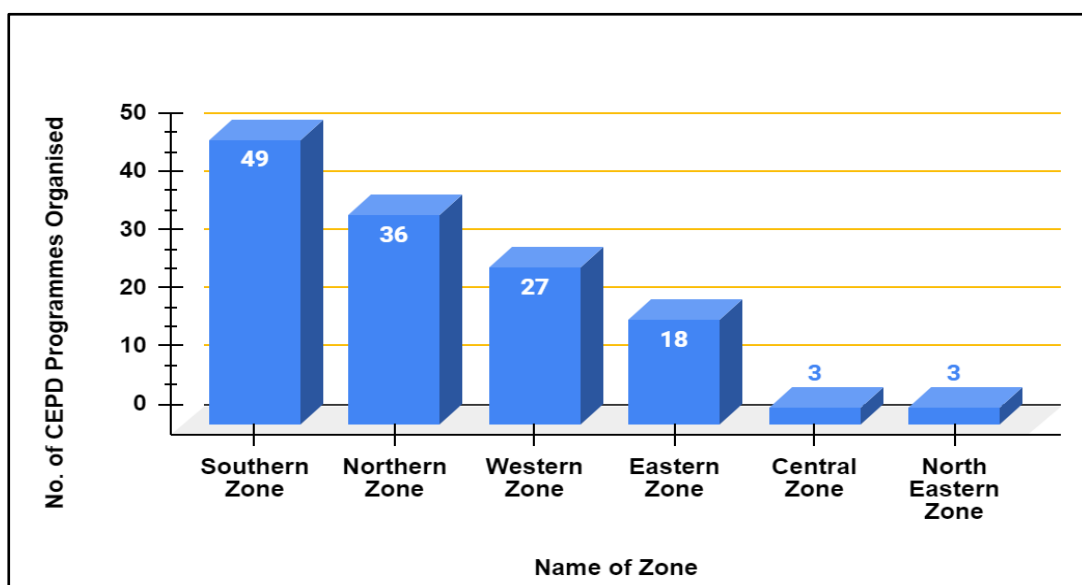
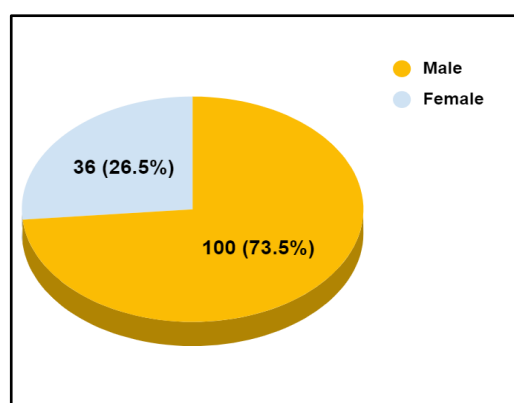


Fig.4.7: Zone Wise Geographical Location of CEPD Programmes (n=136)

Table-4.9 or Fig.4.7 reveals that out of 136 LIS CEPD Programmes, the highest (49=36.03%) number of such programmes were organised in Southern Zone and placed the 1st rank, Northern Zone organised 36 (26.47%) such programmes and got the 2nd position, Western Zone organised 27 (19.85%) such programmes and placed the 3rd rank, Eastern Zone organised 18 (13.24%) such programmes and placed the 4th rank while Central Zone and North Eastern Zone both organised the 3 (2.21%) such programmes and got the 5th and last position.

4.9 Gender-Wise Distribution of Organising Secretary of CEPD Programmes

Fig.4.8 indicates the gender-wise distribution of the organising secretary of LIS CEPD Programmes. Out of 136 such programmes 100 (73.5%) programmes were organised by male professionals and 36 (26.5%) programmes were organised by female professionals. Result shows that most of the programmes were organised by



male professionals in India.

Fig. 4.8: Gender Wise Distribution of Organising Secretary (n=136)

4.10 Average Registration Fee for Students and Non-students in LIS CEPD Programmes

Table-4.10 and Table-4.11 show the fee structure and average registration fee to be paid by the professionals to participate in the LIS CEPD Programmes. In this study, all professionals have broadly categorized into two groups viz, students (UG, PG and Research Scholars) professionals and non-students (other than UG, PG and Research Scholars) professionals. Also, fee structures of 134 such programmes have classified into different groups on the basis of range of registration fee.

Table-4.10**Registration Fee Structure of LIS CEPD Programmes (n=134)**

S.No.	Range of Reg. Fee Structure (In ₹)	No. of Prog. for Students in the Range	% age of Prog. for Students in the Range	No. of Prog. for Non-Students in the Range	% age of Prog. for Non-Students in the Range
1	Free	16	11.94	16	11.94
2	001-500	44	32.84	37	27.61
3	501-1000	31	23.13	20	14.93
4	1001-1500	12	8.96	16	11.94
5	1501-2000	7	5.22	13	9.70
6	2001-2500	4	2.99	4	2.99
7	2501-3000	3	2.24	6	4.48
8	3001-3500	1	0.75	3	2.24
9	3501-4000	1	0.75	1	0.75
10	4001-4500	1	0.75	3	2.24
11	4501-5000	3	2.24	2	1.49
12	5001-5500	1	0.75	3	2.24
13	5501-6000	1	0.75	1	0.75
14	6001-6500	0	0.00	0	0.00
15	6501-7000	0	0.00	0	0.00
16	7001-7500	6	4.48	6	4.48
17	7501-8000	0	0.00	0	0.00
18	8001-8500	0	0.00	0	0.00
19	8501-9000	1	0.75	1	0.75
20	9001-9500	0	0.00	0	0.00
21	9501-10000	1	0.75	1	0.75
22	20000	1	0.75	1	0.75

	Total Sum	134	100	134	100
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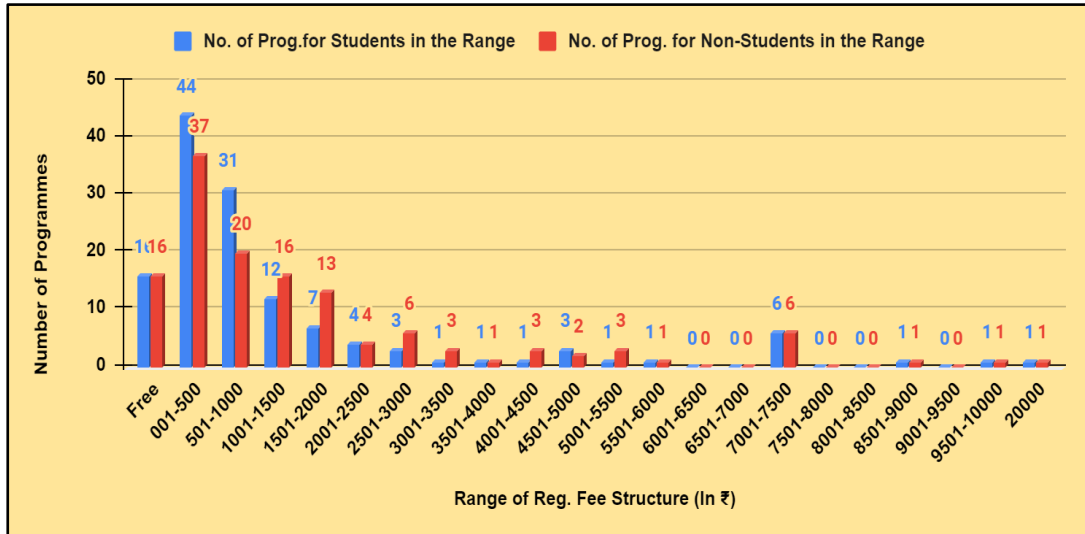


Fig. 4.9: Average Registration Fee of LIS CEPD Programmes (n=134)

It is clear from the above Table-4.10 and Fig.4.9 that 16 (11.94%) LIS CEPD programmes were organised for each group of professionals (students and non-students) with free registration charge, highest 44 (32.84%) and 37 (27.61%) such programmes were organised for students and non-students professionals respectively in the fee range of ₹ 001-500, second highest 31 (23.13%) and 20 (14.92%) such programmes were organised for students and non-students professionals respectively in the fee range of ₹ 501-1000 and so on.

Table 4.11

Average Registration Fee of LIS CEPD Programmes (n=134)

No. of Prog. for Students	No. of Prog. for Non-Students	Total Reg. Fee for Students	Total Reg. Fee for Non-Students	Avg. Reg. Fee for Students	Avg. Reg. Fee for Non-Students	Avg. Reg. Fee for All
134	134	209470	244440	1563.21	1824.18	1693.69

Table-4.11 shows the average registration fee of ₹ 1563.20 and ₹ 1824.17 to be paid by students and non-students professionals respectively in each CEPD Programme.

4.11 LIS CEPD Programme Duration (in days)

Table-4.12 shows the LIS CEPD programme's duration organised by the Indian institutions/associations. The highest 55 (40.44%) programmes had duration of one day, 38 (27.94%) programmes had duration of two days, 24 (17.65%) programmes had duration of three days, 6 (4.4%) programmes had duration of five days, 8 (5.88%) programmes had duration of six days, 1-1 (0.73%) programme were organised in the duration of 4 days, 7 days, 11 days, 12 days and 26 days.

Table 4.12

LIS CEPD Programme Duration (n=136)

S.No.	CEPD Programme Duration (In days)	No. of Programme	Programme %
1	1	55	40.44
2	2	38	27.94
3	3	24	17.65
4	4	1	0.74
5	5	6	4.41
6	6	8	5.88
7	7	1	0.74
8	11	1	0.74
9	12	1	0.74
10	26	1	0.74
	Total Sum	136	100

4.12 Designation Wise Distribution of Organising Secretary of LIS CEPD Programmes

Below Table-4.13 or Fig.-4.10 shows the designation wise distribution of organising secretary of CEPD programmes. The librarians organised maximum 59 (43.38%) such programmes as an organising secretary, deputy librarians organised 11 (8.08%) such programmes, Assistant Librarians and professors of DLIS both organised 8-8 (5.88%) such programmes, Associate Professors of DLIS organised 5 (3.67%) such programmes, Assistant Professors of DLIS organised 6 (4.41%) such programmes, directors of institutes organised 9 (6.61%) such programmes and others i.e. other than above designation organised 30 (22.05%) such programmes as an organising secretary.

Table-4.13

Designation Wise Conduction of Organising Secretary (n=136)

S.No.	Designation of Org. Secretary	No. of Prog. Organised	Percentage (%)
1	Librarian	59	43.38
2	Deputy Librarian	11	8.09
3	Assistant Librarian	8	5.88
4	Professor, DLIS	8	5.88
5	Associate Professor, DLIS	5	3.68
6	Assistant Professor, DLIS	6	4.41
7	Director	9	6.62
8	Others	30	22.06
	Total Sum	136	100

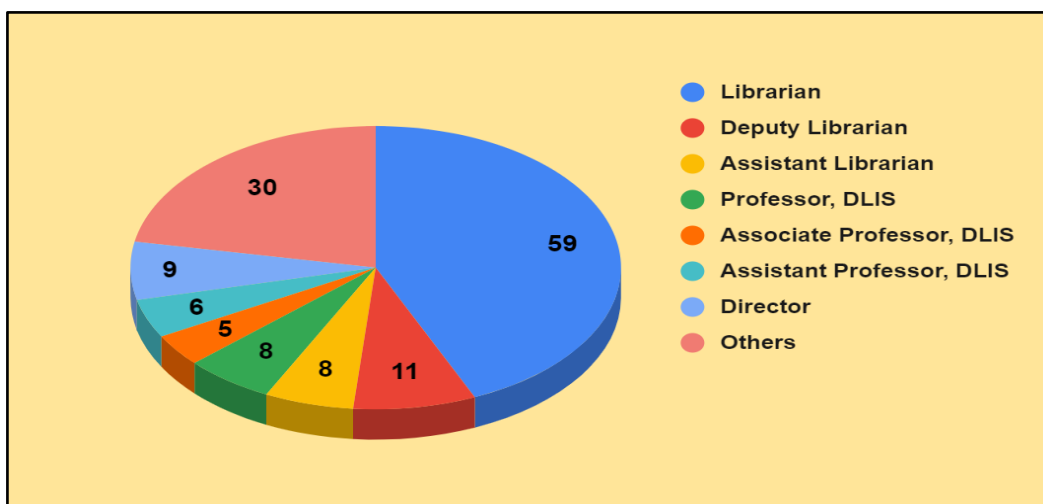


Fig. 4.10: Designation Wise Conduction of Organising Secretary (n=136)

4.13 Major Funding Agencies that Financially Support in Organising CEPD Programmes

Below table reveals the major funding agencies of national and international LIS CEPD Programmes organised in India during the study period. Out of 136 such programmes organising institutions/associations only 32 have included the name of funding agencies in their brochures. So, this section analyses the major funding agencies of 32 programmes only.

Table-4.14

Major Funding Agencies

S.No.	Name of sponsoring agencies	No. of CEPD Programmes sponsored
1	RRRLF, Kolkata	8
2	ICSSR	6
3	Ministry of Culture, GoI	4
4	INFLIBNET	4
5	UGC	3
6	Emerald Publishing	3

7	MHRD, GoI	3
8	ProQuest	3
9	NAAC	2
10	RUSA	2
11	IEEE	2
12	SAGE Publishing	2
13	SPRINGER NATURE	2
14	WILEY	2
15	Clarivate Analytics	2
16	IASLIC	2
17	Cengage	2
18	National Mission for Manuscript	2
19	McGraw Hill Education	2
20	Ministry of Higher Education, GoI	2
21	Elsevier	2
22	DELNET	1
23	Ministry of Culture, GoI	1
24	CIVOM	1
25	Banani Group of Companies	1
26	Ranganathan Society for Social Welfare and Library Development	1
27	Best Book Buddies Technologies Pvt. Ltd.	1
28	WILEY	1
29	APSA	1
30	BENTHAM SCIENCE	1

31	DrillBit	1
32	Echat	1
33	edutech	1
34	jove	1
35	Gujarat Council on Social Science and Technology	1
36	NITI Aayog	1
37	DRDO	1
38	Ministry of Electronics and Information Technology, GoI	1
39	Ministry of Science and Technology, GoI	1
40	TATA	1
41	National Digital Library of India	1
42	Madras Library Association	1
43	Taylor & Francis Group	1
44	JSTOR	1
45	American Mathematical Society	1
46	EBSCO	1
	Total Sum	85

Above table-4.14 shows that RRRLF, Kolkata sponsored the highest (8) number of programmes, ICSSR sponsored six programmes and got the second position while Ministry of Culture, GoI and INFLIBNET sponsored four programmes & achieved the third rank in India.

4.14 Topic Wise Contribution of Paper

Table- 4.15 describes the most preferred LIS topic on which papers contributed in the national and international conferences held in India. All contributed papers have been categorized under 61 LIS topics. Same paper may come under one or more topic(s), that's why the total number of papers (1072) categorized under different topics is greater than the actual number of papers (764) contributed.

Table 4.15

Topic Wise Contribution of Papers (n=1072)

S.No.	Topic wise Contribution of Papers	Frequency of Topic (in Papers)	% age Frequency of Topics (in Papers)	Rank
1	Metrics Study	90	8.40	1st
2	ICT	78	7.28	2nd
3	Digital Library	65	6.06	3rd
4	Systems & Services of Library	63	5.88	4th
5	Social Media & Networking	60	5.60	5th
6	IPR & Copyright	60	5.60	5th
7	E-Learning & MOOCs	46	4.29	6th
8	Academic Library	45	4.20	7th
9	Plagiarism	34	3.17	8th
10	Data, Information & Knowledge Management	32	2.99	9th
11	Internet Privacy	23	2.15	10th
12	Public Library	22	2.05	11th
13	Web Technology	22	2.05	11th
14	Open Access Resources	22	2.05	11th
15	Information Seeking Behaviour	22	2.05	11th

16	Information Literacy	22	2.05	11th
17	Cloud Computing	18	1.68	12th
18	E-Resources	18	1.68	12th
19	Role of LIS Professionals	17	1.59	13th
20	Library Softwares	17	1.59	13th
21	Library Automation	17	1.59	13th
22	Library Management	17	1.59	13th
23	Internet of Things	15	1.40	14th
24	User Studies & User Education	14	1.31	15th
25	Content Analysis	13	1.21	16th
26	Digitization	13	1.21	16th
27	Application of Mobile Technology in Library	13	1.21	16th
28	Big Data	12	1.12	17th
29	Data Mining	10	0.93	18th
30	Cyber Security	10	0.93	18th
31	Institutional Repositories	9	0.84	19th
32	KOHA	9	0.84	19th
33	Research Publication	9	0.84	19th
34	Reading Habits	8	0.75	20th
35	Information Services	8	0.75	20th
36	Preservation, Conservation & Archiving	8	0.75	20th
37	Teaching & Learning	7	0.65	21st
38	Marketing of Information	7	0.65	21st
39	LIS Education	7	0.65	21st

40	Library Consortia	6	0.56	22nd
41	History of Library	6	0.56	22nd
42	Artificial Intelligence	6	0.56	22nd
43	Electronic Library	5	0.47	23rd
44	Creation of Library Website	5	0.47	23rd
45	LIS Emerging Trends & Technology	5	0.47	23rd
46	Ontology	5	0.47	23rd
47	Reference Management Tools	5	0.47	23rd
48	Knowledge Organisation	4	0.37	24th
49	Metadata Standards	4	0.37	24th
50	Green Library	4	0.37	24th
51	Machine Learning	4	0.37	24th
52	All India Radio	4	0.37	24th
53	Institutional Ranking	4	0.37	24th
54	Cataloguing	3	0.28	25th
55	National Education Policy	3	0.28	25th
56	Library Legislation	3	0.28	25th
57	Library Standards & Policies	3	0.28	25th
58	Use of Internet	3	0.28	25th
59	LIS Research & Innovation	3	0.28	25th
60	Library Security	3	0.28	25th
61	DSpace	2	0.19	26th
	Total Sum	1072	100	

It is clear from the above table that the highest number (90=8.4%) of papers contributed on Metrics Study and placed 1st rank, papers on ICT got the 2nd rank (78=7.3%) while papers on Digital Library got the 3rd rank (65=6.1%).

4.15 Length Wise Contribution of Papers

This includes the average length of contributed papers (page wise) and number of contributed papers having page length in the given range.

Table 4.16
Length wise contribution of papers (n=764)

S.No.	Range (Length of Paper)	No. of Papers in the Range	% age of Papers in the Range
1	01-05	216	28.27
2	06-10	393	51.44
3	11-15	110	14.40
4	16-20	35	4.58
5	21-25	5	0.65
6	26-30	2	0.26
7	31-35	3	0.39
	Total Sum	764	100

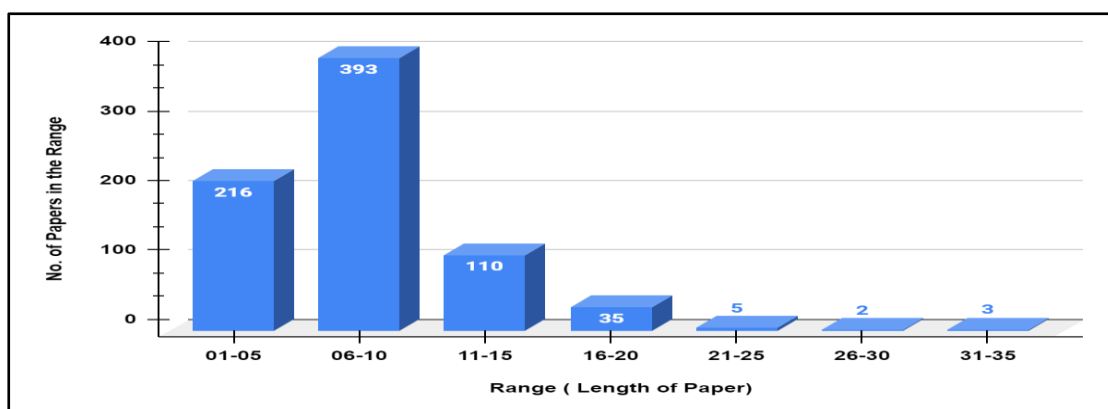


Fig. 4.11: Length Wise Contribution of Papers (n=764)

Table-4.16 or Fig.4.11 reveals that highest 393(51.4%) contributed papers have page length in the range 06-10, 2nd highest 216 (28.3%) contributed papers have page length in the range 01-05 while 110 (14.4%) contributed papers have page length in the range 11-15 and got 3rd position.

Table 4.17

Average Length of Contributed Papers (n=764)

Total No. of Papers	Sum of Length of all Papers	Average Length of Paper
764	6124	8.016

The above Table-4.17 shows the average page length of 764 contributed papers which is nearly equal to 8 pages per paper.

4.16 Reference Pattern of Contributed Papers

This section describes the average number of references per paper as well as number of papers having references in the given range.

Table 4.18

Reference Wise Contribution of Papers (n=711)

S.No.	Range of No. of Ref.	Paper Frequency in the Range	% age of No. of Ref.
1	0	27	3.80
2	01-10	401	56.40
3	11-20	214	30.10
4	21-30	39	5.49
5	31-40	19	2.67
6	41-50	7	0.98
7	51-60	2	0.28
8	61-70	1	0.14
9	71-80	0	0.00
10	81-90	0	0.00
11	91-100	0	0.00
12	101-110	1	0.14
	Total Sum	711	100

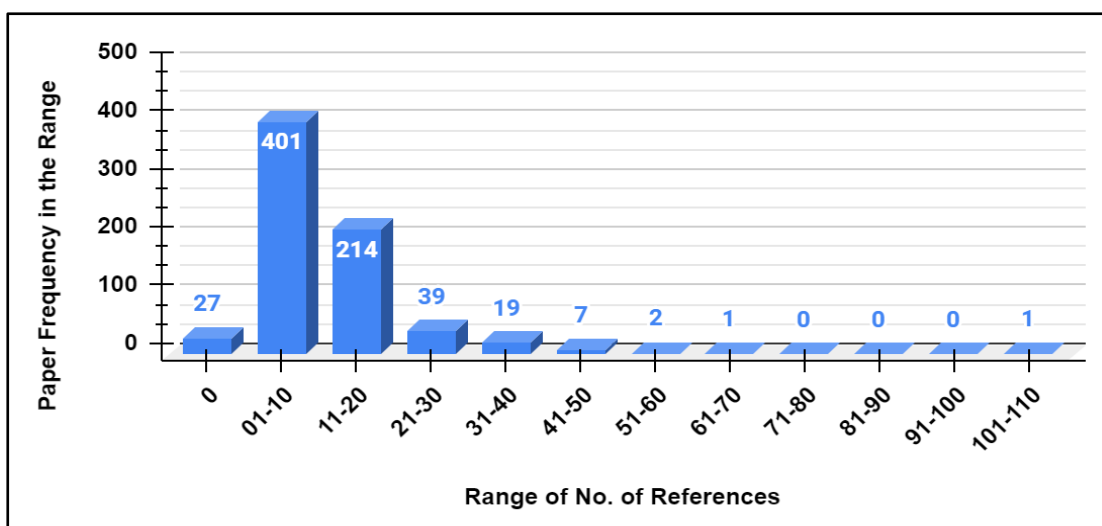


Fig. 4.12: Reference Wise Contribution of Papers (n=711)

Table-4.18 or Fig.-4.12 clearly shows that highest 401 (56.4%) number of papers which have references in the range 01-10, on 2nd position 214 (30.1%) number of papers which have references in the range 11-20 while in 3rd position 39 (5.5%) number of papers which have references in the range 21-30. It is noted that 27 (3.8%) papers have contributed without any references.

Table 4.19

Average Number of References

Total No. of Papers	Sum of Ref. of all Papers	Average No. of Ref. Per Paper
711	7919	11.14

Table-4.19 shows that an average 11 number of references per paper had included in the paper out of 711 contributed papers.

4.17 Authorship Pattern of Contributed Papers

Table-4.17 or Fig.-4.17 visualizes the authorship pattern of papers. Out of 899 contributed papers highest 382 (42.5%) papers have solo authored, 367 (40.8%) papers have contributed in collaboration of two authors and got the 2nd position while 125 (13.9%) papers have contributed in collaboration of three authors and got the 3rd position.

This table also shows that the highest 517 (57.5%) number of papers contributed in collaboration while 382 (42.5%) papers contributed by solo authors in the programmes.

Table 4.20

Authorship Pattern of Contributed Papers (n=899)

S.No.	No. of Author(s)	No. of Papers in the Range	% age of Paper in the Range
1	1	367	40.82
2	2	382	42.49
3	3	125	13.90
4	4	14	1.56
5	5	9	1.00
6	6	1	0.11
7	7	1	0.11
	Total Sum	899	100

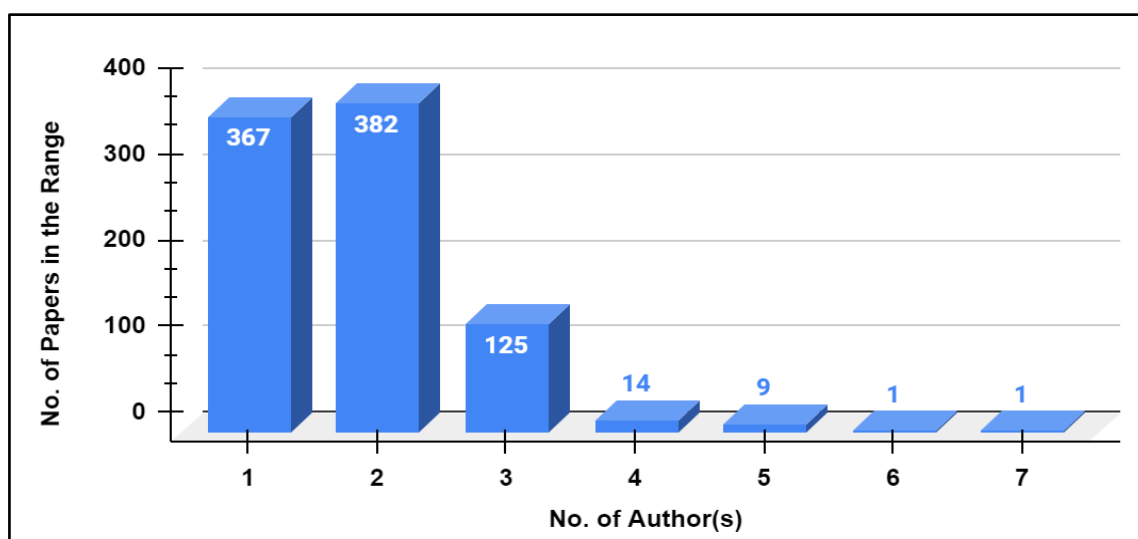


Fig. 4.13: Authorship Pattern of Contributed Papers (n=899)

4.18 Gender Wise Contribution of Papers

Table-4.21 or Fig.4.14 shows the gender wise papers contribution of 1st authors and collaborative authors separately in the national and international conferences held in India during the study period. Out of 900 papers contribution, male and female contributed 563 (62.56%) and 337 (38.45%) papers respectively as 1st author, 369 (69.36%) and 163 (30.64%) papers respectively as 2nd author while 110 (73.83%) and 39 (26.17%) papers respectively as 3rd author.

Table 4.21

Gender Wise Contribution of Papers (n=900)

S.No.	Types of Author	No. of Male	% age of Male	No. of Female	% age of Female	Total
1	1st Author	563	62.56	337	37.44	900
2	2nd Author	369	69.36	163	30.64	532
3	3rd Author	110	73.83	39	26.17	149
4	4th Author	16	59.26	11	40.74	27
5	5th Author	9	81.82	2	18.18	11
6	6th Author	1	50.00	1	50.00	2
7	7th Author	1	100.00	0	0.00	1

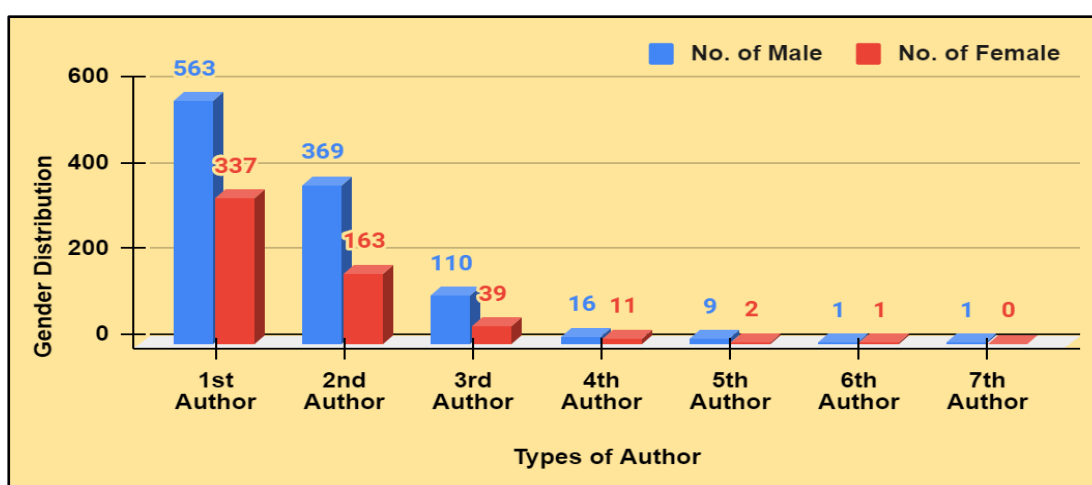


Fig. 4.14: Gender Wise Contribution of Papers (n=900)

4.19 Designation Wise Distribution of Paper Contributors

Table-4.22 reveals the designation wise paper contribution of 1st authors and collaborative authors. In Fig. 4.19 out of 806 number of papers, the highest (222) number of papers contributed by librarians as 1st author, then research scholars got the 2nd position in contributing the papers (180) as 1st author while assistant librarians contributed 3rd highest number of papers (75) as 1st author in the national and international conferences organised in India in the study period.

Table 4.22

Designation Wise Paper Contribution (n=806)

S.No.	Designation of Paper Contributor	1st Author	2nd Author	3rd Author	4th Author	5th Author	6th Author	7th Author
1	Librarian	222	112	36	3	2	0	0
2	Deputy Librarian	9	9	4	2	0	0	0
3	Assistant Librarian	75	26	10	2	4	0	1
4	Professor, DLIS	28	55	13	2	0	0	0
5	Associate Professor, DLIS	25	46	5	2	0	0	0
6	Assistant Professor, DLIS	37	46	6	1	0	0	0
7	Director	8	4	2	0	1	0	0
8	HOD	14	3	1	0	0	0	0
9	Lecturer	14	17	2	2	0	0	0
10	Information Scientist	18	3	7	5	1	0	0
11	Information Officer	13	12	1	1	0	0	0
12	Research Scholar	180	56	16	3	1	1	0
13	Technical Assistant	14	6	2	0	0	0	0

14	Library Assistant	40	26	8	3	1	1	0
15	Student (UG & PG)	64	49	14	0	0	0	0
16	Others	45	8	3	0	1	0	0
	Total Sum	806	478	130	26	11	2	1

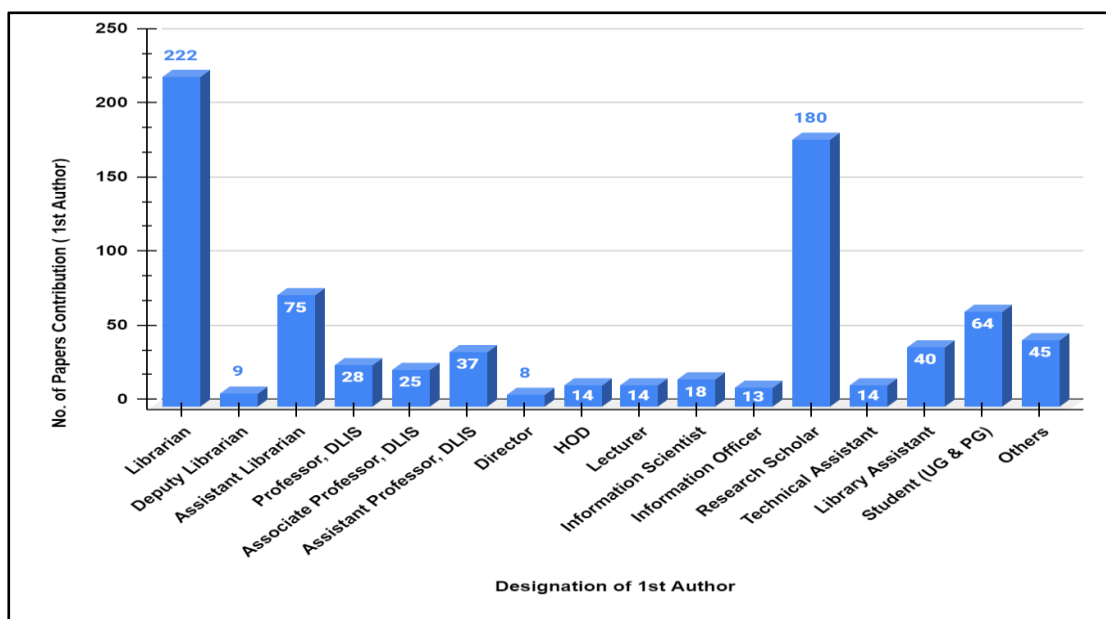


Fig. 4.15: Designation Wise Paper Contribution as 1st Author (n=806)

4.20 Geographical Affiliation of the Papers

This section describes the geographical affiliation of paper contributors (1st author only) viz., state wise, country wise and within the state or outside the state wise.

(a) State Wise

Table-4.23 or Fig.4.16 shows the contribution of Indian states in contributing papers in LIS conferences. It is clear from the table that Karnataka contributed the highest number of papers and got the 1st rank (127=16.67%), UP placed the 2nd rank (126=16.53%), New Delhi placed the 3rd rank (95=12.47%) in contributing the papers.

Table 4.23**State Wise Contribution of Papers (n=762)**

S.No.	Name of State	No. of Papers Contribution (State Wise)	% age of Papers Contribution (State Wise)	State Rank
1	Karnataka	127	16.67	1st
2	UP	126	16.54	2nd
3	New Delhi	95	12.47	3rd
4	Gujarat	83	10.89	4th
5	Maharashtra	46	6.04	5th
6	MP	30	3.94	6th
7	Goa	28	3.67	7th
8	West Bengal	28	3.67	7th
9	Rajasthan	27	3.54	8th
10	Haryana	27	3.54	8th
11	Bihar	25	3.28	9th
12	Odisha	19	2.49	10th
13	Tamil Nadu	13	1.71	11th
14	J & K	12	1.57	12th
15	Uttarakhand	12	1.57	12th
16	Panjab	11	1.44	13th
17	Assam	9	1.18	14th
18	Andhra Pradesh	7	0.92	15th
19	Mizoram	7	0.92	15th
20	Kerala	6	0.79	16th
21	HP	4	0.52	17th

22	Chhattisgarh	4	0.52	17th
23	Jharkhand	3	0.39	18th
24	Telangana	3	0.39	18th
25	Tripura	2	0.26	19th
26	Sikkim	2	0.26	19th
27	Meghalaya	2	0.26	19th
28	Daman & Deep	2	0.26	19th
29	Arunachal Pradesh	1	0.13	20th
30	Chandigarh	1	0.13	20th
	Total Sum	762	100	

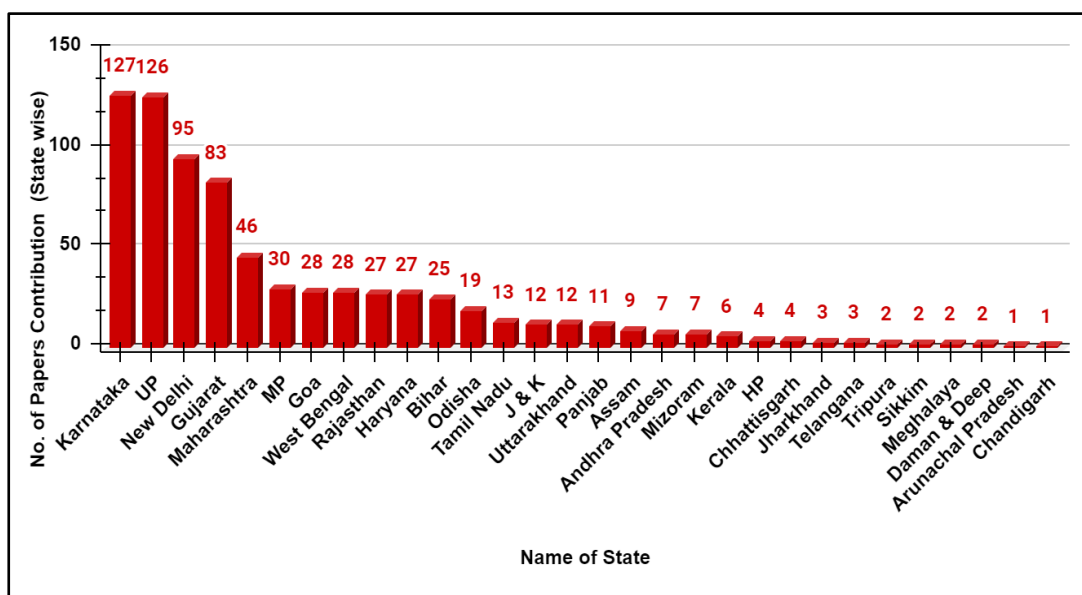


Fig. 4.16: State Wise Contribution of Papers (n=762)

(b) Country wise

Table-4.24 or Fig. 4.17 describes the country wise contribution of papers in the conferences. Only 16 countries, including India, have contributed papers in LIS national and international conferences held in India in 2019. This table clearly visualizes that India contributed the highest number of papers and got the 1st rank

(762=93.61%), Nigeria placed the 2nd rank (15=1.84%), Bangladesh got the 3rd rank (14=1.71%) in contributing papers out of 814 contributed papers.

Table 4.24
Country Wise Contribution of Papers (n=814)

S.No.	Name of Country	No. of Papers Contribution (Country Wise)	% age of Papers Contribution (Country Wise)	Rank
1	India	762	93.61	1st
2	Nigeria	15	1.84	2nd
3	Bangladesh	14	1.72	3rd
4	Germany	4	0.49	4th
5	Canada	3	0.37	5th
6	Belgium	2	0.25	6th
7	South Africa	2	0.25	6th
8	Sri Lanka	2	0.25	6th
9	USA	2	0.25	6th
10	UAE	2	0.25	6th
11	Japan	1	0.12	7th
12	Ethiopia	1	0.12	7th
13	Indonesia	1	0.12	7th
14	Kenya	1	0.12	7th
15	Argentina	1	0.12	7th
16	Hong Kong	1	0.12	7th
	Total Sum	814	100	

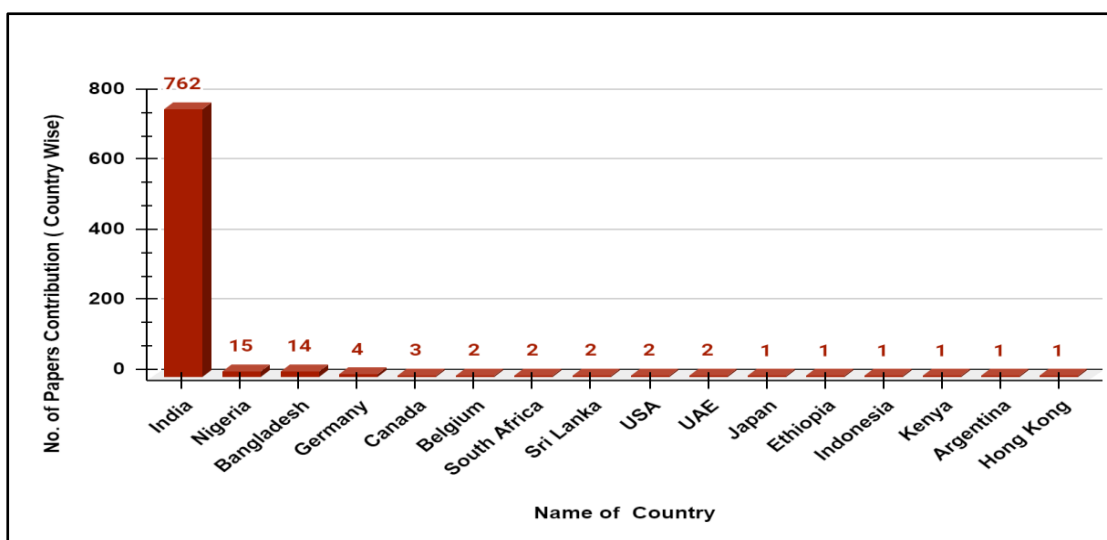


Fig. 4.17: Country Wise Contribution of Papers (n=814)

(c) Within the State or Outside the State

Table-4.25 or Fig.4.18 shows the number of papers contributed from the same state where the conference was organised (relatively closer location) and outside the state. Out of 814 contributed papers, 368 (45.21%) papers have contributed from the state while 446 (54.79%) papers have contributed from outside the state.

Table 4.25

Papers Contribution from Same State or Outside the State (n=814)

S.No.	Papers Contribution	No. of Papers Contribution	% age of Papers Contribution
1	Within the State	368	45.21
2	Outside the State	446	54.79
	Total Sum	814	100

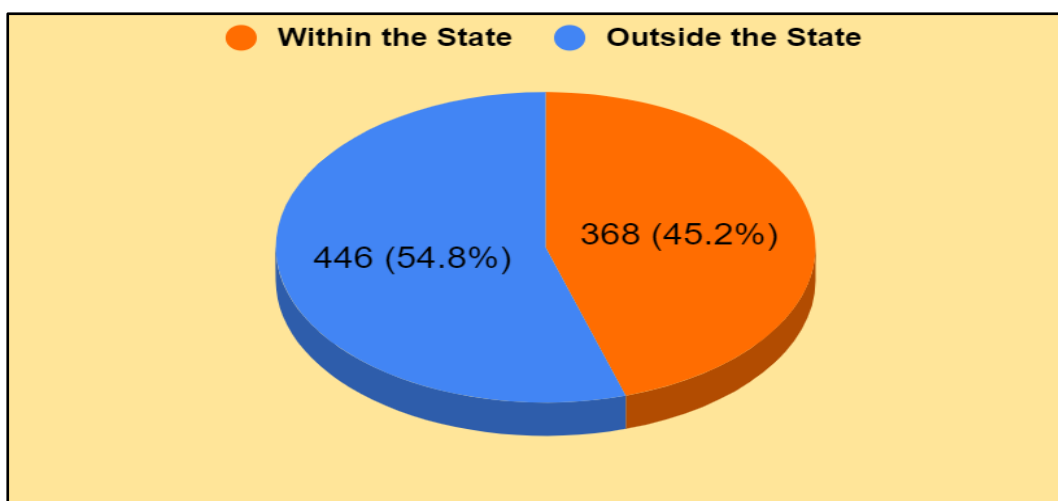


Fig. 4.18: Papers Contribution from Same State or Outside the State (n=814)

3.21 Types of Institutional Affiliation of Contributed Papers as Government or Non-government

Table-4.26 or Fig. 4.19 shows the types of institutional affiliation of contributed papers on the basis of the 1st author of that paper. For this, all the paper contributed institutions have categories into two groups viz., Government and Non-government.

Table-4.26

Types of Institutional Affiliation of Contributed Papers

S.No.	Types of Institution	No. of Institutions	% age of Institution
1	Government	588	72.24
2	Non-government	226	27.76
	Total Sum	814	100

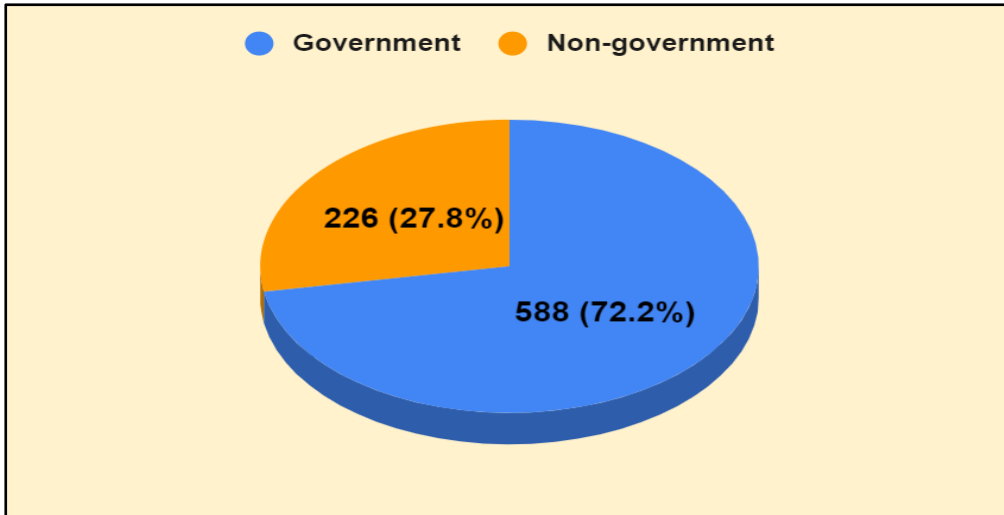


Fig. 4.19: Types of Institutional Affiliation of Contributed Papers

Above table and figure indicate that out of 814 contributed papers, the highest 588 (72.24%) number of papers contributed by Government institutions while 226 (27.76%) number of papers contributed by Non-government institutions.

Chapter 5

Findings, Suggestions and Conclusion

5.1 Testing of Hypotheses

- **H1: More CEPD Programmes are organized by male professionals than female professionals.**

It is clear from the result of this study that more CEPD Programmes were organised by male professionals than female professionals. (*see* Figure No.-3.8)

So, **Hypothesis is accepted.**

- **H2: More papers are contributed by authors from the same state where the conference has organised.**

The result of this study shows that more papers were contributed by authors from the same state where the conference had organised. (*see* Table No.-3.25 and Figure No.3.18)

So, this **Hypothesis is accepted.**

- **H3: Government organizations or institutions organize more national and international CEPD programmes than Non-government institutions.**

It is clear from the result of this study that Government organizations or institutions organize more national and international CEPD Programmes than Non-government institutions. (*see* Table No.-3.26 and Figure No.-3.19)

So, this **Hypothesis is accepted.**

- **H4: Single authored papers are preferred more than Collaborative papers in conferences.**

The result of this study shows that single authored papers have not preferred more than the collaborative papers in the conferences. (*see* Table No.-3.20 and Figure No.-3.13)

So, this **Hypothesis is rejected.**

5.2 Findings of the Study

Following findings of the study have generated on the basis of data analysis and interpretation -

1. This study found that a greater number of national level LIS CEPD Programmes were organised in India than international level programmes. (*see* Table No.-3.1)
2. This study also found that a greater number of workshops were organised in India in comparison to conferences and seminars. (*see* Table No.-3.1 and Figure No.-3.1)
3. Another important finding of the study is related to the theme of LIS CEPD Programmes. More number of such programmes were organised on the theme Koha. (*see* Table No.-3.3 and Figure No.-3.4)
4. This study also found that the majority of such programmes were organised by government institutions/associations than non-government institutions/associations. (*see* Table No.-3.6)
5. This study revealed that Tamil Nadu organised the highest number of LIS CEPD Programmes in comparison to the other states of India. (*see* Table No.-3.8 and Figure No.-3.6)
6. This study found that the majority of such programmes were organised by male LIS professionals. (*see* Figure No.-3.8)
7. An important finding of the study is related to the average registration fee of such programmes. Average registration fee is ₹1563 per programme for students while for other professionals it is ₹1824 per programme. (*see* Table No.-3.11)
8. Another finding of the study is related to LIS CEPD Programmes duration. Majority of such programmes were organised for a single day and 90% programmes had duration upto 3 days. (*see* Table No.-3.12)

9. One of the important findings of the study is related to designation of organising secretaries. Majority of such programmes were organised by librarians. (*see* Table No.-3.13 and Figure No.-3.10)
10. 'Metrics Study' is the most interesting area for LIS professionals to contribute papers in the conferences. (*see* Table No.-3.15)
11. Most of the contributed papers were found to be of the length of 6-10 pages while the average length of the paper was 8 pages per paper. (*see* Table No.-3.16, Table No.-3.17 and Figure No.-3.11)
12. This study found that the majority of contributed papers in the conferences had a number of references up to 10 while the average number of references was 11 per paper. (*see* Table No.-3.18, Table No.-3.19 and Figure No.-3.12)
13. This study found that the highest number of papers contributed in the conferences by two authors followed by solo authored contributed papers. (*see* Table No.-3.20)
14. Male authors contributed more papers than female authors in the conference either as solo authors or in collaboration. (*see* Table No.-3.21)
15. This study found that the designation wise Librarians contributed the highest number of papers in the national and international conferences organised in India. (*see* Table No.-3.22)
16. One of the most important results of this study is related to the geographical affiliation of the papers. Karnataka and UP contributed the highest number of papers in the conferences among the Indian states. (*see* Table No.-3.23)
17. Majority of contributed papers affiliated from government institutions than non-government institutions. (*see* Table No.-3.26)

5.3 Suggestions

Following suggestions/recommendations may help in building better CEPD Programmes for LIS Professionals-

- I. Conference organising institutions/associations should upload the soft copy of conference proceedings of each conference on their website and provide free access.
- II. There is a need to organise more international level LIS CEPD Programmes in India due to which Indian LIS professionals may enhance their knowledge through the interaction of international fame foreign professionals.
- III. Registration fee of CEPD Programmes should be reduced for LIS students so that a greater number of students may take the benefits of such programmes.
- IV. LIS CEPD Programmes organising institutions/associations should mention the information related to sponsoring agencies.
- V. There should be given more opportunity to female LIS professionals in organising the LIS CEPD Programmes.

5.4 Scope for Future Research

- This study is limited to one-year period so other investigators/researchers may delimit the study periods taking longer period.
- Since study is limited to national and international LIS CEPD Programmes organised in India only, so other investigators may delimit the scope of the study.
- This study is limited to CEPD Programmes like conferences, workshops and seminars only, so other investigators may include webinars, invited lectures, online videos, invited talks, colloquia etc. Seeing the surge in the number of Webinars and virtual events during the lockdown and pandemic period, such programmes may also be taken to get better insights.

5.5 Conclusion

Continuing Education and Professional Development (CEDP) Programmes are the soul of learning institutions. These programmes play a major significant role in providing continuing education among library and information science professionals. To fulfil the global demands and develop the skills of LIS professionals, many Indian

institutions/associations organise a lot of CEPD Programmes at national and international level in India.

From the analysis of contributed papers, it is seen that a greater number of papers are contributing on Metrics Studies, ICT, Digital Library, so forth and librarians contribute the maximum number of papers in the conferences.

Therefore, CEPD Programmes are very essential for LIS Professionals and students to the real existence in their profession and career. This inculcates the moral values, disseminate up-to-date information and knowledge as well as develop the skills of LIS professionals and ultimately these programmes will help LIS students to lead the organisations in future and will have a key role in future society.

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