Doctoral Research output of the Punjabi University, Patiala in Library and Information Science-2017: A Census

PRABHJOT KAUR*

The purpose of this paper is to determine the type of cited literature, prolific authors, and interest of researchers in citing Indian or foreign authors in doctoral theses submitted to the Department of Library and Information Science, Punjabi University, Patiala during 1994-2017. The study presents the year wise distribution of theses, supervisor wise research output, subject wise analysis and gender wise distribution. As theses provide a convenient source of bibliographies for examination, the authors conducted a citation analysis of all doctoral theses completed during the period 1994 to 2017. Bibliographic data was extracted from each citation in the reference list(s), bibliographies and analyzed using Microsoft Excel and SPSS. The findings show that students use a significantly greater number of scholarly journal articles than any other type of source. The study finds that 26 theses have been awarded during the time period and most of the research has been conducted on information seeking behavior and information literacy. Out of total, 53.84% theses have been awarded during the period 2010-2017.This paper's findings will prove useful to develop lists of core journals for Punjabi University Library. The findings will help managing existing collections and provide a base for informed decision-making as regards journal subscriptions and cancellations.

Keywords: *LIS research, Doctoral theses, Punjabi University, Citation management software*

0   INTRODUCTION

Punjab Assembly established Punjabi University, Patiala under the Punjab

*   Research Scholar, RIMT University, Mandi Gobindgarh, Punjab, India.

Act No. 35 of 1961. Dr. S. Radhakrishnan, the then President of India laid foundation of Punjabi University on June 24, 1962. It started functioning on April 30, 1962 in the erstwhile princely state of Patiala with the main objective of furthering the cause of Punjabi language, art and literature. This is the first university in India and second in the world to be named after a language, the first being Hebrew University of Israel. Its vision is to establish and incorporate a university for the advancement of Punjabi studies and development of Punjabi language as a medium of instruction or otherwise for providing instruction in humanistic and scientific subjects and generally for the promotion of education and research. Apart from usual department of Punjabi studies it has an international bureau of Punjabi planning and development. It has evolved into a multi-faculty university imparting knowledge and conducting research in all modern disciplines of knowledge. The university moved to its present lush green, pollution free, and 316 acres campus in1965.

Initially University's jurisdiction area was fixed as the 16 km radius having only 9 colleges. In 1969, it was maiden affiliating university, with 43 colleges affiliated to it. Now the university caters to the educational needs of nine districts of Punjab. Over the time since its inception, the university has evolved into a multi-faceted and multi-faculty educational institution for the promotion of higher education and research in Humanities, Arts, Sciences, Engineering, Languages, Technology and many more. Spread over 600 acres of land, its 1500+ teachers are imparting instruction and guidance to nearly 14,000+ students in a multi-faceted, multi-pronged and multi-faculty environment comprising 70+ Teaching and Research Departments/Chairs on its Campus, 27 Regional Centre/ Neighborhood Campuses/Constituent Colleges and 278 colleges affiliated to it[1].

1   SOURCE OF THE STUDY

The Department of Library Science was established in 1969, with Bachelor of Library Science Programme. In the beginning, the department was part of University Library. The Head of the University Library was looking after the department in addition to his duties. In the due course of time the department bifurcated and got its independent identity. It made a humble beginning with only two lecturers named Sh. S. P. Narang and Miss K. Navalani. It was placed under the charge of Ms. K. Navalani, Reader and Head of the Department w.e.f. November, 1978.

The department took a leap in 1986 to initiate the Ph.D. programme in Library and Information Science. A year later in 1987 Master of Library and Information Science (MLIS) was also introduced. The department has its

own departmental library. It is in fact a special library on Library and Information Science, and it caters to its students as a workshop. It has a collection of more than 2305 monographs, which include reference books, text books, advanced treatises, standards and general interest books, etc.[2] the department have good number of researchers who have completed and are pursuing their doctoral research. A large number of researchers are pursuing their research on leading areas of LIS[3].

2   LIBRARY AND INFORMATION SCIENCE RESEARCH IN INDIA

The credit for commencement of library and information science research in India goes to Dr. S.R. Ranganathan (1892–1972). In late 1940s, he started providing post-graduate library science education at the University of Delhi, surmounting many difficulties and facing personal ridicule. The University of Delhi awarded the first *de jure* degree in library science in 1957 to D.B. Krishana Rao who worked on "faceted classification for agriculture". In the 1960s and 1970s some doctorates on library-related topics were earned by library professionals under the guidance and supervision of faculties belonging to the disciplines such as sociology, history, law, economics, management, and the like. The further doctoral research facilities were assumed by J. S. Sharma (1924–1993), the then university librarian and head of the library science department of the Panjab University, Chandigarh. Under his guidance, the second *de jure* Ph.D. in library science was awarded in 1977 after a gap of full two decades. Thereafter, there was no looking back. Many universities followed with mostly individual efforts and enthusiasm. Doctoral research got a fillip in the 1980s and gradual improvement in facilities paved ways for India to maintain its Third World leadership in library research and library literature. Ph.D. programmes thereafter, mushroomed even despite the lack of facilities or adherence to standards[4].

Undertaking research at the doctoral level is a common practice among the researchers all across the globe so it is important to evaluate research output to reflect the strengths and weaknesses of the research activities undertaken by the research scholars of any given institutions, in any given subject disciplines or in any given country. The doctoral dissertations have their own significance in creating new scholarly information[5].

Outside the traditional higher education institutes ; two establishments of national significance offer research and education in the field of LIS, namely, Documentation Research and Training Centre (DRTC), Bangalore, and erstwhile Indian National Scientific Documentation Centre (INSDOC) presently National Institute of Science Communication and Information Resources.(NISCAIR),

New Delhi. So, the past of library and information science in India has been rich and viewed as an important discipline and presently appears fully developed[6].

Earlier the National Social Science Documentation Centre (NASSDOC) of the Indian Council for Social Science Research(ICSSR) New Delhi) systematically procured one copy of each research dissertation in social sciences to preserve and make them available to researchers for consultation within the premises of its library. Retrospective bibliographies of LIS dissertations in India are available[7].

The latest information on these awarded, Ph.D. degrees and Ph.D. research in progress is available in the featured column of the weekly University News (1962+) of the Association of Indian Universities, New Delhi. It is a major source to keep track of the dissertations awarded Ph.D. degrees by Indian universities in all disciplines. Now e-Shodhganga of the INFLIBNET is the ultimate source of full text doctoral dissertations.

India has witnessed a slow and steady growth of library and information science (LIS) education. The foundation of LIS education in India dates back to 1911 when W. A. Borden started a short-term training program in Library Science. Since then, more than a hundred years have been passed. And LIS education at the university level has progressed for more than six decades and built strong roots. More than a hundred universities in India are currently offering LIS education at the university level. However, the growth and development in terms of quality research output by Indian LIS researchers is quite low[8].

3   OBJECTIVES OF THE STUDY

- To collect and analyze the data related to Ph. D research in LIS awarded by Punjabi University, Patiala form 1994-2017;
- To assess the guide/supervisor research output;
- To examine the subject mapping of research output;
- To identify highly used type of literature
- To identify the core journal
- To compile the bibliography of theses awarded by Punjabi University, Patiala in the field of Library and Information Science since 1994-2017.

4   METHODOLOGY

Data regarding the Ph.D research for the study was collected from the Bhai Kahn Singh Nabha Library, Punjabi University, Patiala and from the

Department of Library and Information Science, library itself. The website of the department and e- repository 'Shodhganga'has been consulted also to get the required information about theses. Then, citations were retrieved directly from the electronic copies of the theses available on e-Shodhganga and photocopies have been procured for those not available on e-Shodhganaga. For every thesis, bibliographic information (title, author, year of publication, document type) was gathered for each individual citation in the reference list(s). Citations were analyzed using Microsoft Excel and SPSS.

The format of the cited source was recorded as books, e-Books, journal, e-Journals monograph, web resources, book chapters conference/seminar proceedings, theses/dissertations, reports, Magazines/Newspapers. Other sources like meetings,speeches, diaries, letters and format of resources not identified are noted under miscellaneous/unidentified.

5   ANALYSIS OF DATA

Total 6086 citations were recorded from all 26 theses.

The collected data has been systematically organized and presented into the following tables with interpretations.

5.1 CHRONOLOGICAL DISTRIBUTION OF THESES

The year wise analysis of theses submitted to Department of Library and Information Science, Punjabi University, Patiala presented in Table 5.1.

Table 5.1: Year wise Distribution of Theses

Sr. No.	Year	Number of Theses	Percentage	Cumulative Number of Theses	Cumulative Percentage
1.	1994	01	3.85	01	3.85
2.	1996	01	3.85	02	7.69
3.	1998	02	7.69	04	15.38
4.	2001	01	3.85	05	19.23
5.	2004	01	3.85	06	23.08
6.	2005	01	3.85	07	26.93
7.	2006	01	3.85	08	30.78
8.	2007	02	7.69	10	38.47
9.	2008	01	3.85	11	42.32
10	2009	01	3.85	12	46.17
11	2010	01	3.85	13	50.02
12	2012	02	7.69	15	57.71
13	2013	01	3.85	16	61.53
14	2014	05	19.23	21	80.76
15	2015	02	7.69	23	88.45
16	2016	02	7.69	25	96.14
17	2017	01	3.85	26	100
	Total	26	100		

Table 5.1 presents the year wise output of the Ph.D. research in the department. A total number of 26 candidates have been awarded during the span of 23 years from 1994-2017.The annual average comes out to be approximately 1.1candidate. It maybe dueto the small faculty strength and shortage eligible guides. The years 2014 marked as maximum output of doctoral research i.e. 5 theses in the year. It is due to the fact that the young faculty members after obtaining their Ph.Ds had become eligible to guide research.Of the total of 26 theses, 53.84% were awarded during the decades 2010-2017. Now on the joining of new and trained faculty the pace of Ph.D. research has taken a quick pace.

5.2 SUPERVISOR WISE ANALYSIS

Research productivity of faculty in terms of research guide is given in Table 5.2.

Table 5.2: Supervisor wise Distribution of Theses

Sr. No.	Name of the Supervisor	Number of Theses Supervised	Percentage	Rank
1.	Prof. Jagtar Singh	10	38.46	1
2.	Prof. H.P.S. Kalra	06	23.07	2
3.	Prof. Trishanjit Kaur	05	19.23	3
4.	Prof. K. Navalani	04	15.38	4
5.	Dr. S. P. Narang	01	3.85	5
	Total	**26**	**100**	

Table 5.2 highlights the data related to the distribution of research at Ph.D in ranked order. It is shown from the table that out of 26 doctoral researches, highest rank is obtained by Prof. Jagtar Singh by supervising 10 numbers of PhD individually. Prof. H.P.S. Kalra secured second rank by supervising 06 numbers of PhD and Prof. Trishanjit Kaur and Prof. K. Navalani obtained third and fourth rank respectively by supervising 05 and 04 numbers of PhD scholars.

5.3 MAPPING OF RESEARCH SUBJECTS

Table 5.3 depicts the mapping of different subjects of citations given in all the theses.

Table 5.3: Mapping of Research Areas

Sr No.	Subject Name	No. of Citations	Citations %	Cumulative Citations	Cumulative %
1.	Information Seeking Behaviour	912	14.98	2436	40.02
2.	Information Literacy	743	12.21	3179	52.23
3.	Library Management	730	11.99	730	11.99
4.	Information and Communication Technologies	578	9.49	1524	25.04
5.	E-resources/Journals	540	8.87	5291	86.92
6.	Collection Management	421	6.91	4751	78.05
7.	Preservation and Conservation	326	5.37	5617	92.29
8.	University libraries	302	4.96	3710	60.96
9.	Bibliographic Control	276	4.53	5893	96.82
10	Academic Libraries	236	3.88	4121	67.71
11	LIS Education & Research	229	3.77	3408	56.00
12	Library Services	216	3.56	946	15.55
13	Digital Libraries/Digitization	193	3.18	6086	100
14	Public Libraries	175	2.87	3885	63.83
15	Bibliometric/Scientometrics	111	1.82	4330	71.14
16	Library Networking	98	1.61	4219	69.32
	Total	**6086**	**100**		

   Table 5.3 shows the subject-wise distribution of citations which identifies that the highest number of citations i.e. 912 (14.98%) are on the topic of Information seeking behavior, the other two areas information literacy 743 (12.21%), and library management 730 (11.99%) are quite similar. The subject information and communication technology is cited 578 (9.49%) times, followed by E-resources/journals with 540 (8.87%) citations, collection management with 421 (6.91%) citations, preservation and conservation 326 with (5.37%) citations, and university libraries having 302 (4.96%) citations. bibliographical control, academic libraries, LIS education and research, library services, digital libraries/digitization, public libraries, bibliometric/scientometrics and Library networks were other subjects of citations.

5.4 TYPES OF DOCUMENT CITED

The analysis of different types of documents cited as citations given in Table 5.4.

Table 5.4: Types of Documents Cited (PUP)

Sr. No.	Types of Documents	No. of Citations	Percentage (%)
1.	Journals	2797	45.95
2.	Books	994	16.33
3.	E Journals	886	14.56
4.	Web Resources	409	6.72
5.	Book Chapters	334	5.49
6.	Conference/Seminar Proceedings	208	3.42
7.	Theses/Dissertations	196	3.22
8.	Miscellaneous/Unidentified	114	1.87
9.	Reports	67	1.10
10	E Books	64	1.05
11	Magazines/Newspapers	17	0.29
12	**Total**	**6086**	**100**

Table 5.4 illustrates the frequency of material types cited. Journal articles were cited most frequently. Out of total 6086 citations the highest number, comprising both print and e journals, i.e. 3683 (60.51%) cited as journal articles, followed by 994 (16.33%) books and 6.72% web resources. A total of 334 (5.49%) documents cited are book chapters, followed by 208 (3.42%) conference/seminar documents, 3.22% theses/dissertations, 1.10% reports and 1.87% citations are from miscellaneous sources Table 4 indicates that immense emphasis is on citations from the journal literature and books will in turn help library administrators to use this information in collection development.

5.5 RANKING OF JOURNALS

While determining the criteria for core journals in the present study those are treated as core journals in which minimum 20 citations occur on a topic.

Table 5.5: Ranking of Journals

Sr. No.	Name of Journal	No. of Citations	Percentage	Rank
1	College & Research Libraries	190	5.16	1
2	Annals of Library & Information Studies	117	3.18	2
3	Library Trends	101	2.74	3
4	SRELS Journal of Information Management	81	2.20	4
5	Library Management	75	2.03	5
6	DESIDOC Journal of Library & Information Technology	61	1.65	6
7	Library Herald	61	1.65	6
8	Scientometrics	60	1.63	7
9	Journal of Academic Librarianship	58	1.57	8
10	IASLIC Bulletin	57	1.54	9
11	ILA Bulletin	55	1.49	10
12	Herald of Library Science	52	1.41	11

13	Journal of Library Administration	52	1.41	11
14	Collection Building	43	1.16	12
15	Library Quarterly	43	1.16	12
16	Academy of Management Journal	41	1.11	13
17	The Electronic Library	41	1.11	13
18	Law Library Journal	40	1.08	14
19	Library and Information Science Research	38	1.03	15
20	University News	38	1.03	15
21	Aslib Proceedings	35	0.95	16
22	Journal of Documentation	35	0.95	16
23	Journal of Librarianship and Information Science	34	0.92	17
24	Reference Service Review.	34	0.92	17
25	Library Resources & Technical Services	33	0.89	18
26	IFLA Journal	32	0.87	19
27	Library Review	28	0.76	20
28	New Library World	28	0.76	20
29	Bulletin of Medical Library Association	27	0.73	21
30	The Journal of Academic Librarianship	26	0.70	22
31	Australian Academic and Research Libraries.	25	0.68	23
32	Information Research	25	0.68	23
33	Library Hi Tech	25	0.68	23
34	Serial Review	25	0.68	23
35	Journal of Vocational Behavior	24	0.65	24

36	Library Journal	24	0.65	24
37	The Serials Librarian.	24	0.65	24
38	Journal of Information Science	23	0.62	25
39	Library Philosophy and Practice	23	0.62	25
40	Journal of Applied Psychology	22	0.60	26
41	Journal of the American Society for Information Science and Technology.	22	0.60	26
42	Libri	22	0.60	26
43	International Library Movement.	21	0.57	27
44	Indian Journal of Industrial Relation	20	0.54	28
45	Library Collections, Acquisitions & Technical Services.	20	0.54	28

   Of these only three are non-LIS journal, while one is a newsletter giving news about Indian universities. The ranked list of journals with citations is displayed in Table 5.5. The data shows that 3683 citations appeared as both print and online journal articles. The journal *College and Research Libraries* has majority of citations i.e. 190 (5.16%) putting it at the first rank, followed by *Annals of Library & Information Studies* with 117 (3.18%) citations at second rank, and *Library Trends*, with 101 (2.74%) citations, obtained third rank among other journals. *SRELS Journal of Information Management* has 81 (2.20%) citations, followed by *Library Management* with 75 (2.03%) citations, *DESIDOC Journal of Library & Information Technology* and *Library Herald* with 61 (1.65%) citations each are on the fourth, fifth and sixth rank respectively. The journal *Scientometrics* received 60 (1.63%) citations, followed by *Journal of Academic Librarianship* (58 citations), *IASLIC Bulletin* (57 citations) and *ILA Bulletin* (55 citations).

6   MAJOR FINDINGS

Based on the above analysis and discussion the following findings have been drawn:

- A total 26 doctoral research has been produced in a span of 23 years during1994-2017.
- The study finds that 53.84% theses were awarded degree during 2010-2017.
- The study finds that most of doctoral research guided by Prof. Jagtar Singh (10) and Prof. H.P.S. Kalra (06) in the department.
- The study concludes that Information seeking behavior, Information literacy Library management, collection development, University libraries, public libraries, e journals were the major research areas.

7   CONCLUSION

Research is very vital activity in the development of any nation. The study on research productivity on a particular subject or a case study of department is very important in order to assess the research output dimensions and explore the research trends. This particular study is an attempt to present a comprehensive overview on the research output and whatis being used and cited by researchers in the discipline library and information science, Punjabi University, Patiala. The facts which are presented in the study are based on the data collected through the authentic sources and due care is given to make this study authentic and reliable.

The findings confirm that serials are of paramount importance to all research scholars and list of core journals can help librarians in deciding the subscription of journals. On the other hand, books are found to be comparatively less-frequently cited. While analyzing the study sample, the author came across various inaccuracies in the bibliography and reference listings, like typing mistakes, incorrectly-cited title volume number for articles and journals, omitted or incorrect publication year, etc. It is evident that research scholars need more help and guidance in creating their bibliography according to a selected format and properly formatting their citations.

Suggestions for future research might include analyzing discrepancies in doctoral theses to develop skills to produce complete, accurate, and error-free citations. This study has further implications for instruction and promoting bibliography managers such as RefWorks and EndNote. A future study might involve a comparison between PhD students in two or more specific disciplines. A comparative study may be carried out among the universities of a state in one discipline.

REFERENCES

1. http://www.punjabiuniversity.ac.in/Pages/FacultyDepartments.aspx
2. http://www.lispunjabiuniversity.ac.in
3. BRAR (K.S.) & NAVKIRAN KAUR. Doctoral research in library and information science: A case study of Punjabi University, Patiala, In JAGTAR SINGH and TRISHNAJIT KAUR Ed. LIS Education Research and Training: Vision 2020, IATLIS 2011, 2011. IATLIS; Patiala.Pp.313-321.
4. SATIJA(M.P).Doctoral research in Library and Information Science in India: Some observations and comments. Libri,49, 1999; 236–242.
5. DELLGRAN (P)&HÖJER (S). The politics of social work research—PhD Theses in Sweden. Eur. J. Soc. Work. 15(4), 2012; 581-597. doi:10.1080/13691457.2012.710875.
6. SINGH (M P). Library and information education in India: Issues and trends.*Malaysian Journal of Library and Information Science,* 8 (2), 2003; 1-17.
7. SATIJA (M.P). Sources of Indian library and information science dissertations. *Libri.* 39, 1; 1989; 71–78.
8. ALI (N) & BAKSHI (S I). Problems and prospects of LIS education in India with special reference to distance mode. Retrieved from http://www.bibliotheksportal.de/fileadmin/user_upload/content/bibliotheken/international/dateien/_ ind4_indien_1.pdf

APPENDIX

Doctoral Research, DLIS, Punjabi University, Patiala

Sr. No.	Researcher	Title of Thesis	Supervisor	Year
1.	Trishanjit Kaur	Development and Growth of University Libraries and their Services in Punjab	Prof. K. Navalani	1994
2.	Ajit Singh	Organizational Role Stress: A Comparative Study of Job Involvement and Job Satisfaction of Library Professionals in Libraries of Agricultural and other Universities of Punjab, Haryana and Himachal Pradesh	Prof. K. Navalani	1996
3.	Prem Chand Sehgal	Financial Management of University Libraries in India	Prof. K. Navalani	1998
4.	Rama Verma	Collection Evaluation of Engineering and Technology Libraries: A study of University of Roorkee (UOR), Roorkee, Indian Institute of Technology (IIT), Delhi and Thapar Institute of Engineering & Technology (TIET), Patiala	Prof. K. Navalani	1998
5.	Devinder Kaur	Effectiveness of University Libraries in Education and Research - A Case Study of Punjab and Punjabi Universities	Dr. S. P. Narang	2001
6.	Pritpal Kaur	Work Values of Library Professionals of Universities of Punjab, Haryana & Himachal Pradesh	Prof. Jgatar Singh	2004
7.	Harinder Pal Singh Kalra	Use of Networks by Library & Information Science faculty in India, the UK & the USA : A Study	Prof. Jgatar Singh	2005
8.	Rajiv	Contribution of IFLA and UNESCO to the Preservation and Conservation of World's Documentary Heritage : A Critical Study	Prof. Jgatar Singh	2006
9.	Iqbal Singh	A Study of Resource Sharing and Networking of North West Indian University Libraries	Prof. Jgatar Singh	2007
10	Kulwinder Singh	Use of Books in Panjab, Punjabi & Guru Nanak Dev University Libraries: An Evaluative Study of Collections in Physics, Botany, History & Punjab	Prof. Trishanjit Kaur	2007

1.	Gursharan Kaur	District Libraries in Punjab and Haryana: A Comparative Study	Prof. Jgatar Singh	2008
2.	Susanta Kumar Senapati	Bibliographic Control of Periodical Literature on Building Materials Published in India - A Sceintometric Study	Prof. Jgatar Singh	2009
3.	Nirmal Singh	A Study of the Use of Libraries of Colleges of Education in Punjab	Prof. Trishanjit Kaur	2010
4.	Jaspal Kaur	Information Technology Application and Level of User Satisfaction in Degree College Libraries in Chandigarh: An Analytical Study	Prof. Jgatar Singh	2012
5.	Seema Dhingra	Organizational and Management of Electronic Journals in Technical University Libraries in Punjab, Himachal Pradesh, Jammu & Kashmir, Haryana and Chandigarh	Prof. H.P.S. Kalra	2012
6.	Khushpreet Singh	Electronic Journals on Library & Information Science Available via the Internet: A Critical Study	Prof. Jgatar Singh	2013
7.	Amit Kumar Mittal	Change Management In University Libraries of North-West Region of India	Prof. H.P.S. Kalra	2014
8.	Bhupinder Singh	Information Literacy for Resource-Based Student-Centred Learning in India: A case study	Prof. H.P.S. Kalra	2014
9.	Dilara Begum	Awareness and Application of Information Literacy in Select Private Universities of Bangladesh- A Comparative Study	Prof. Jgatar Singh	2014
10	Navkiran Kaur	Role of Medical College Libraries in Health Information Literacy in Punjab and Chandigarh: An Analytical Study	Prof. Trishanjit Kaur	2014
11	Sukhjagneet Singh Nagi	Electronic Journals in Library and Information Science : A Bibliometric Study	Prof. H.P.S. Kalra	2014
12	Gian Singh	Growth, Development and Use of Dr. Ganda Singh Punjabi Reference Library: A Study	Prof. H.P.S. Kalra	2015
13	Harjinder Kaur	Use of Law College Libraries in Punjab: A Comparative Study	Prof. Trishanjit Kaur	2015
14	Ritu Walia	Collection Management in Select College Libraries in Delhi: A Study	Prof. H.P.S. Kalra	2016
15	Sarbjot Kaur	Integration of Learning Objects in the Select Open Universities in South Asia - A Comparative Study	Prof. Jgatar Singh	2016
16	Pooja Bhandari	Use of Libraries in Deemed Universities of Engineering and Technology in Punjab and Chandigarh : An Analytical Study	Prof. Trishanjit Kaur	2017