

RESEARCH PAPER

TRENDS IN LIBRARY AND INFORMATION SCIENCE DOCTORAL RESEARCH AT UTKAL UNIVERSITY, BHUBANESWAR : A BIBLIOMETRIC OVERVIEW

¹Nilaranjan Barik* and ²Puspanjali Jena

¹Assistant Librarian, Central Library,

²Professor, PG Dept. of Library & Information Science,

¹KIIT University, Bhubaneswar, Odisha, INDIA.

²Utkal University, Bhubaneswar, Odisha, INDIA.

*Corresponding Author's Email ID: nil.shyamanjana@gmail.com

ABSTRACT

The present study deals with the doctoral research productivity trends of Utkal University, Bhubaneswar in the field of Library and Information Science from the year of its inception to as on 2015. During this long run of 26 years of journey in delivering Ph. D course, the university has produced a total number of 41 Doctoral research and 1 D. Litt research in Library and Information Science. The study has analyzed the 41 numbers of doctoral theses in Library and Information Science to identify the doctoral research trends of the university and found a fluctuate growth rate in publication of doctoral theses at an average 13.14 annual growth rate. In the year 2014 and 2015 highest 4 numbers of theses in each years have been published in a row of year wise productivity. Dr. Puspanjali Jena has been identified as top research guide with highest 9 numbers of research theses guiding followed by Dr. M. Mahapatra with 6 numbers of theses guiding. The average citation pattern has been identified at 278.9 per theses and highest 60.53% documents are referred from journals.

Keywords: *Bibliometric Analysis, Doctoral Theses, Library and Information Science.*

1. INTRODUCTION

The Utkal University of Odisha is the 7th oldest university in the country and 1st university in the state, which was established in the year 1943. During the British India rule a few numbers of Universities were founded in the country and Utkal University was one among these which was founded with an objective of educational and cultural development of the state. During its inception, the university adopted all emerging courses of pure sciences, social sciences and humanities but of its very late in the year 1981, the Post Graduate Department of Library and Information Science (DLIS) was introduced in a full swing.

By now the department has completed 35 years of its existence and providing full fledged courses like MLISc, M.Phil, Pre-Phd and Ph.D degree. Doctoral research in Library and Information Science was introduced in the year 1989 after a long back of 8 years of inception. During this long run of 26 years of journey in delivering Ph. D course, the university has produced a total number of 41 Doctoral research and 1 D.Litt. research. The department has a special identity among the LIS course offering universities in India that it is the first university to award a D.Litt. in Library and Information Science in eastern India.

In the present study an attempt has been made to identify the year wise publications of theses, periodic publications growth, guide wise publications, prominent research area of theses, research entitling trends, sources of documents referred and pagination pattern of these published by Utkal

University in the field of Library and Information Science.

2. LITERATURE REVIEW

A few numbers of related and relevant literatures were review for the present study. It was found that James, Sreekumar and Nair (2008), revealed in their study that distribution and frequencies of theses of the Faculties of Science in Mahatma Gandhi University during the period shows a steady growth. Even though concerned school/department were established only recently, university has produced doctors in high relevant and emerging areas of science like biotechnology, genetics engineering, biodiversity studies and environmental conservations. Kavitha, Sivaraj and Gopalakrishnan (2012) in their study bibliometric study of commerce PhD theses submitted at Periyar University and stated that highest number of theses submitted in the year 2009 (20 theses) and lowest in the year of 1989, 1993, 2002, 2004 (1 theses). Again they revealed that the books are the most preferred forms by research scholars in commerce, while journals are consider as the primary sources of information. Suma and Sudhier (2013) studied a total 137 Ph. D. theses submitted to the CSIR-NIIST, Thiruvananthapuram and found that during the period of study 2001 to 2010, a total of 107 numbers of theses were submitted to the institute in the field of chemistry. Whereas, the average reference pattern of the theses were at 242.79. Dr. G Vijay Nair has guided highest 21 theses out of these 137 theses. Mishra, Gawde and Solanki (2014) stated in the study Bibliometric study of Ph.D Theses in English that the highest number of Theses were submitted in the year 1991, 1996 and 2002 (i.e.5

Ph.D. Theses) and lowest in so many year (i.e.1 Ph.D. Theses). The male and female ratio of scholars is 6:5, whereas the study reveals that books are the most preferred of documents by research scholars with 80.47% citation taken from books. Similarly, Ravichandran, Sivaprasad, and Manoharan (2014), in their study analyze the preferences and usage of different types of information resources used by the research scholars to write PhD theses in the discipline of Library and Information Science and opinioned that nearly 69 % of journals are used for their research and the researchers have cited more foreign journals.

3. OBJECTIVES OF THE STUDY

The main objectives of the present study are;

- To gain an idea about the year wise and periodic productivity of the LIS Doctoral Theses submitted to Utkal University,
- To examine the ongoing research trends and identify the prolific research area of the Theses published,
- To ascertain the productivity of the Research Guides in terms of number of research scholar guided,
- To identify the prolific source of documents consulted by the doctoral researchers for carrying out their research, and
- To show up the reference pattern and page range of the LIS Doctoral Theses published by the university.

4. METHODOLOGY & DATA COLLECTION

The required data were collected from the individual LIS doctoral Theses submitted to the Prof. P. Parija Central Library of the university. A total numbers of 38 doctoral theses were consulted for the period 1989 to 2015. All required data like title of the Theses, scholar’s information, guide’s information, year of publication, page information, bibliographic information etc. were recorded in an excel spreadsheet and analyzed using some statistical methods like average, mean, percentage etc. and tabulated

for final presentation of the results.

5. DATA ANALYSIS & INTERPRETATION

Year wise productivity and growth of LIS Doctoral Theses: The first Doctoral Degree in Library and Information Science was awarded in the year 1989 in which year the university introduced Ph.D. course in Library and Information Science, and the awardee was R. K. Baliarsingh under the research supervision of Dr. M. Mahapatra. During its 26 years of journey in delivering Ph. D courses, the department has published a total numbers of 41 Ph. D Theses including 1 D. Litt theses. The university is the 1st ever university in eastern India to award such a D. Litt award in Library and Information Science and the awardee is Dr. B B Sukla.

It is observed in table 1 that the university has published a total number of 41 theses during 1989 to 2015 with an average 13.14 annual growth rates. By year wise productivity it is found that highest 4(9.8%) Theses have been published in the years 2014 and 2015 respectively. Again it has been observed that, the university has published not single theses in the years 1994, 1996, 1997 2009 and 2012. The cumulative growth rate trend also shows a fluctuate growth rate in publication of doctoral theses.

The annual growth rate of LIS doctoral theses of Utkal University has been calculated using the method;

$$R = \left(\left(\frac{P_p}{P_o} \right)^{1/n} - 1 \right) * 100$$

Where;

- R= Annual Research Growth in %
- Pp= Publication Present
- Po = Publication Original
- N = Interval between Pp and Po

Table 1: Year wise productivity and growth of Doctoral Theses

Year	Productivity	Percentage	Cumulative		Annual Growth
			Productivity	Percentage	
1989	1	2.4	1	2.4	-
1990	1	2.4	2	4.9	0.0
1991	1	2.4	3	7.3	0.0
1992	3	7.3	6	14.6	73.2
1993	2	4.9	8	19.5	41.4
1994	0	0.0	8	19.5	-100.0
1995	2	4.9	10	24.4	41.4
1996	0	0.0	10	24.4	-100.0
1997	0	0.0	10	24.4	-100.0
1998	2	4.9	12	29.3	41.4
1999	2	4.9	14	34.1	41.4
2000	1	2.4	15	36.6	0.0
2001	2	4.9	17	41.5	41.4
2002	1	2.4	18	43.9	0.0
2003	2	4.9	20	48.8	41.4
2004	2	4.9	22	53.7	41.4
2005	2	4.9	24	58.5	41.4
2006	2	4.9	26	63.4	41.4

2007	2	4.9	28	68.3	41.4
2008	1	2.4	29	70.7	0.0
2009	0	0.0	29	70.7	-100.0
2010	1	2.4	30	73.2	0.0
2011	2	4.9	32	78.0	41.4
2012	0	0.0	32	78.0	-100.0
2013	1	2.4	33	80.5	0.0
2014	4	9.8	37	90.2	100.0
2015	4	9.8	41	100.0	100.0
TOTAL	41	100.0			13.14 (mean)

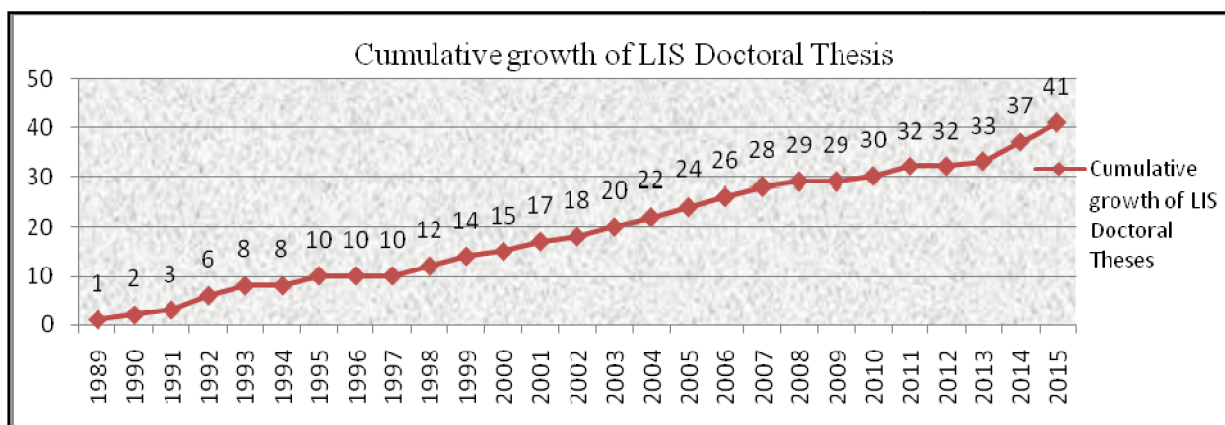


Figure: 1 Cumulative growth of LIS Doctoral Theses

Periodic Growth of Theses: A year gap of 5 years difference has been framed to analyze the periodic growth of LIS Doctoral Theses published in Utkal University. Study reveals a negative research publication trend of the university with growth rate at -10.4 mean values. In the first 5 years period from 1989-1993 the university has published 8 theses, where as in the second 5 years period 1994-1998 it has published only 4 theses at -29.2 growth rate. Only in fourth 5 years period from 2004-2008, the university has shown a positive growth in publication of theses at 6.0 rate.

Table 2: Periodic Growth of These

Period	Productivity	Percentage	Cumulative		Annual Growth
			Productivity	Percentage	
1989-1993	8	19.51	8	19.51	-
1994-1998	4	9.76	12	29.27	-29.2
1999-2003	8	19.51	20	48.78	0.0
2004-2008	9	21.95	29	70.73	6.0
2009-2013	4	9.76	33	80.49	-29.2
2014-2015	8	19.51	41	100.00	0.0
TOTAL	41	100.00			-10.4 (mean)

Prolific Research Area of the Theses: Table 3 depicts the major research areas of the LIS theses published by the university. In the areas of information needs, users' survey, users' motivation, highest 9(22.0%) numbers of theses has been published followed by ICT applications, Library automation, Digitization and Digital library system with 8(19.5%) theses publications. Likewise, in the sub areas of Bibliometric study/ Scientometric/ citation analysis, 7(17.1%) theses have been published. A least number of 1 (2.4%) theses have been published in the field of library budgeting and finance system.

Table 3: Prolific Research Areas of the Theses

Sl. No.	Covered Research Area	Theses Published (n=41)	Percentage
1	Bibliometric Study/ Scientometric / Citation analysis	7	17.1
2	Content management and content personalization, subject gateway	2	4.9
3	Decision making, participative management, Total Quality Management	3	7.3
4	ICT applications, Library automation, Digitization and Digital library system	8	19.5

5	Information needs, users' survey, users' motivation	9	22.0
6	Library budgeting and finance system	1	2.4
7	Library resources, services, collection management and development, resource sharing & networking	3	7.3
8	Public, special and academic library system, organizational structure and development	6	14.6
9	Preservation, conservation and organization of library documents,	2	4.9

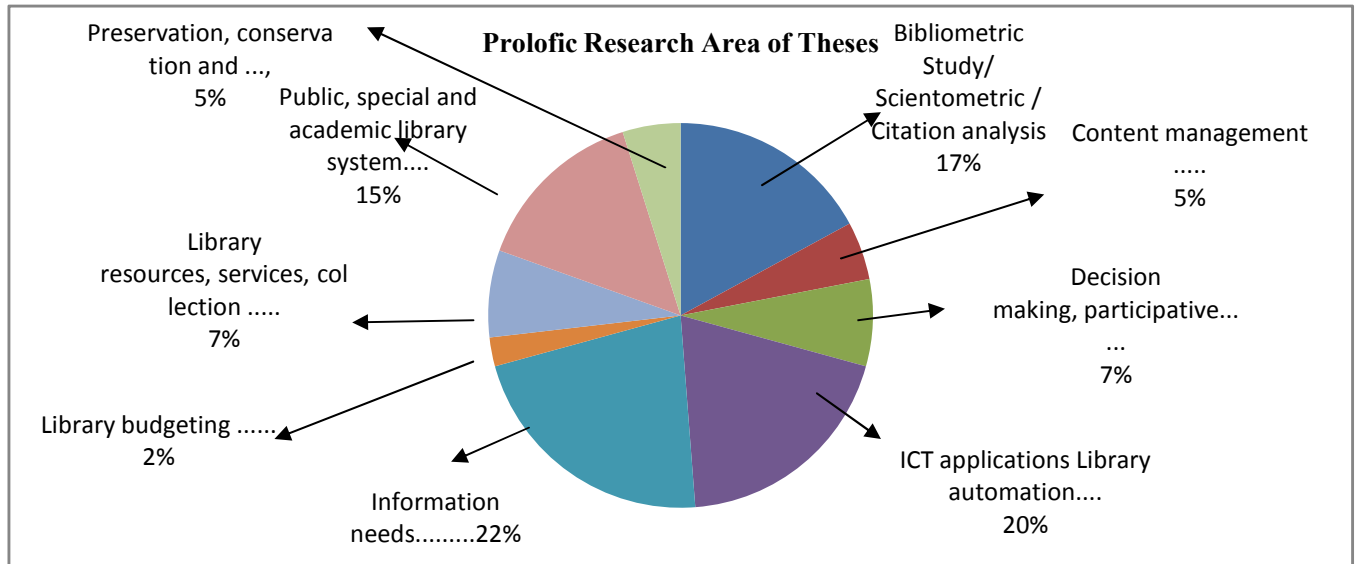


Figure: Prolific Research Areas of the Theses

Ranking of Ph.D. Guides in terms of Ph.D. Scholar guided: During the period of 1989 to 2015, a total numbers of 41 doctoral theses has been published and guided by 12 numbers of registered guides. Dr. Puspanjali Jena has guided highest 9 Ph.D. scholars and rank top among the 12 numbers of guides, whereas, Dr. Manoranjan Mahapatra has guided 6 numbers of Ph.D. scholar and ranks second top among the guides. Only one D. Lit has been awarded to Dr. B. B. Sukla.

Table 4: Ranking of Ph.D. Guides in terms of Ph. D Scholar Guides

Rank	Name of Guide	No. of Theses Guided	Percentage
1	Pushpanjali Jena	9	21.95
2	M. Mahapatra	6	14.63
3	B. B. Sukla	4	9.76
3	Baman Parida	4	9.76
3	Gayatri Mahapaatra	4	9.76
4	C. R. Karisiddappa	3	7.32
4	D. B. Ramesh	3	7.32
4	Pitambar Padhi	3	7.32
5	K. Siva Reddy	2	4.88
6	K. C. Das	1	2.44
6	K.C. Panda	1	2.44
6	S. R. Gunjal	1	2.44
TOTAL		41	100.00

Citation pattern and Sources of Literature in Theses: Table 5 deals with the citation pattern and sources of literature in LIS Theses published by Utkal University, Bhubaneswar. It has been observed that journals are the highly referred sources of documents with 6923 (86.69%) documents followed by books 2187 (27.39%) documents. Proceedings and Reports are less referred sources of documents with 275(3.44%) and 363(4.55%) documents respectively. The theses are published with an average 278.9 citations per theses.

Table 5: Citation pattern and Sources of Literature in Theses

Bibliographic form of document	No. of Citations (n=11437)	Percentage (%)
Book	2187	19.12
Journal	6923	60.53
Proceedings	275	2.40

Reports	363	3.17
Thesis/Dissertation	690	6.03
Web Resources	897	7.84
Other	102	0.89
<i>Average citations per theses</i>	<i>(11437/41)= 278.9</i>	

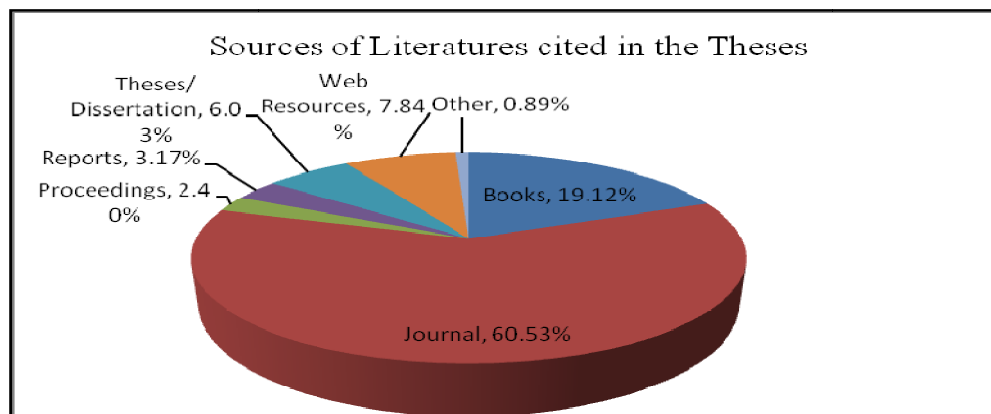


Figure 3: Sources of Literature Cited in the Theses

Average page Length of Ph.D. Theses: Table 6 reveals the paging pattern of the theses published by the Utkal University in the field of Library and Information Science. Highest 19(46.34%) theses were published within the page range of 201 to 300 followed by 13(31.71%) numbers of theses within the page range of 301 to 400.

Table 6: Average page length of Ph.D. Theses

Page Range	No. of Theses (<i>n=41</i>)	Percentage (%)
0-100	0	0.00
101-200	3	7.32
201-300	19	46.34
301-400	13	31.71
401-500	4	9.76
501-600	1	2.44
601-700	1	2.44
701-800	0	0.00
801 -<	0	0.00

6. FINDINGS & CONCLUSION

- During the long run of 26 years of delivering Ph.D. courses, Utkal University has produced total 41 numbers of Ph. D. Theses in the field of Library and Information Science.
- The cumulative growth rate of Ph.D productivity shows a fluctuate growth trend with an average 13.14 annual growth rates.
- Highest 4 (9.8%) numbers of theses were published in the years 2014 & 2015 respectively.
- Periodic productivity growth of Theses shows a negative trend with growth rate at -10.4 mean values.
- In the areas of information needs, users' survey, users' motivation, highest 9(22.0%) numbers of theses has been published followed by ICT applications, Library automation, Digitization and Digital library system with 8(19.5%) theses publications.
- Out of 41 Theses, Dr. Puspanjali Jena has guided highest 9 Ph.D. theses and ranks top among the 12 numbers of guides, whereas, Dr. Manoranjan Mahapatra has guided 6 numbers of Ph.D. theses and ranks second top among the guides.
- It has been observed that journals are the highly

referred sources of documents with 6923 (86.69%) documents followed by books 2187 (27.39%) documents.

- Highest 19(46.34%) theses were published within the page range of 201 to 300 followed by 13(31.71%) numbers of theses within the page range of 301 to 400.

7. REFERENCES

- [1] James, J.; Sreekumar, G. and Nair, R. Raman (2008). Doctoral Research at Mahatma Gandhi University 1983-2008: A Bibliometric Analysis, University News, 46(51), 1-10.
- [2] Kavitha, E.S.; Sivaraj, K. and Gopalakrishnan, S. (2012). Bibliometric study of Commerce Ph.D Theses submitted in Periyar University during the year 1989 to 2012. Retrieved from <http://www.liscom.org/postContent/fullPaper/pdf/paper%20presented>.
- [3] Mishra, D. K.; Gawde, M. and Solanki, M. S. (2014). Bibliometric Study of Ph.D Theses in English. Global Journal of Academic Librarianship, 1(1), 19-36.
- [4] Ravichandran, M.; Sivaprasad, G. and Manoharan, K. (2014). Bibliometric Citations in Ph.D. Theses in Library and Information Science at Bharathidasan University,

- Tiruchi. *International Journal of Digital Library Services*, 4(3), 218-230.
- [5] Suma, S. and Sudhier, K. G. Pillai (2013). Doctoral Dissertation of CSIR- National Institute for Interdisciplinary Science & Technology (NIIST), Thiruvananthapuram: A study. *Annals of Library and Information Studies*, 60(June), 71-77.

