



## Library and information science theses in Shodhganga repository: a study

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Received: 24 March 2020; revised: 01 April 2021; accepted: 03 April 2021

The study aims to analyse the availability, visibility, impact, and trend of LIS PhD theses deposited in Shodhganga. Data for the study were obtained from Shodhganga ETD repository (<http://shodhganga.inflibnet.ac.in/>) and Google Scholar till December 2019. Ninety six Indian universities have deposited 1767 LIS theses in the Shodhganga repository. Detailed analysis of the top five universities contributing to Shodhganga reveals that only 15.68% of the theses were cited. Theses from Savitribai Phule Pune University received the maximum number of citations. Most productive research guides in LIS research based on e-theses in Shodhganga have also been identified.

**Keywords:** Grey literature; LIS research; LIS theses; Shodhganga

### Introduction

Theses are important primary sources of information. PhD theses constitute an important part of postgraduate education and are an indispensable source of scientific publications in universities<sup>1</sup>. According to the ISO definition, a thesis is an original research work that presents the author's research and findings submitted by him/her to support his/her candidature for a degree or professional qualification<sup>2</sup>. PhD thesis is mainly meant for the scholarly community as it is objective, well documented, and a detailed report of the research and the findings of which others in the field are likely to utilize<sup>3</sup>. A PhD thesis's importance lies in increasing and/or enhancing the critical power of thinking, developing attitudes to understand the research problem, and generating new knowledge<sup>4</sup>. The doctoral thesis is one of the most important sources of knowledge creation, where authors play an important part in developing international alliance<sup>5</sup>.

A significant part of academic publications is represented by electronic theses and dissertations (ETD), especially doctoral or PhD theses containing the results of at least three years of individual scientific work, accomplished in a laboratory by a research team, an institute, school, or company. Universities produce them as part of academic grey literature and are considered library material, produced in limited numbers, with a specific legal

status<sup>6</sup>. Theses and dissertations are the rich and unique sources of information, often the only source of research work that does not find its way into various publication channels. Theses and dissertations remain an untapped and under-utilized asset, leading to unnecessary duplication and repetition that, in effect, is the anti-theses of research and wastage of huge resources, both human and financial<sup>7</sup>.

E-theses, or at least part of them, gets published in journal articles or published as congress materials and books. Still, most of the theses and their contents remain a part of grey literature, becoming the corresponding obstacle for users relative to its availability and usability<sup>8</sup>. A thesis is an important and primary resource of information to the research purpose in any university. Still, in our country, access to these resources is generally limited to the university community. However, some institutions have created repositories for their theses.

Shodhganga (digital repository of Indian Electronic Theses and Dissertation) is a centrally administered repository to manage theses<sup>9</sup>. It is an effort of the Information and Library Network (INFLIBNET), facilitating open access to Indian theses dissertations to the academic community worldwide. Online availability of electronic theses through Shodhganga ensures easy access and archiving of Indian doctoral theses and helps raise the standard and quality of research. It overcomes the serious problem of

duplication of research and poor quality resulting from the poor visibility and the unseen factor in research output<sup>10</sup>.

The present study aims to analyse the availability, visibility, impact, and trend of LIS PhD theses deposited in Shodhganga.

### Review of literature

The nature of grey literature is changing, and in an increasingly electronic environment, there is still a need and demand for organizations to collect, preserve and make this material accessible<sup>11</sup>. There are issues, challenges, and possibilities associated with grey literature, and these have also been discussed<sup>12</sup>. Applicability of the concept of grey literature to electronic theses and dissertations (ETDs) was a challenging issue that could be resolved by applying FAIR (find ability, accessibility, interoperability, reusability) principles<sup>13</sup>. However, empirical cognizance was provided for using the term and concept of grey literature in scientific papers and revealed that the percentage of papers on grey literature was low but continuously rising<sup>14</sup>. It is evident that grey literature is an increasingly popular topic in collection development at academic libraries and finds its promising usage by scholars in women's studies<sup>15</sup>.

The impact of the open archive initiative on the document supply of grey literature revealed that major document suppliers were deeply involved in the open archive movement. This involvement had an obvious impact on the policy of acquisition, archiving and supply of grey literature<sup>16</sup>. The recent developments in the services of Indian electronic theses and dissertations (ETD) repositories emphasized the significance of an integrated platform for preserving, searching and retrieving Indian theses and described the features and functions of Indian ETD repositories<sup>17</sup>. One study reported that PhD e-theses deposited in repositories have greater visibility and optimum use and produce a significant citation rate<sup>18</sup>. However, another study contended that citations and the impact of many theses are very low<sup>19</sup>.

Nonetheless, major grey literature found in Indian open access repositories was reports, theses, dissertations, and data sets. The presence of theses and dissertations in Indian repositories led to the overwhelming growth of grey literature that was found to be above the world's average<sup>20</sup>. Aligarh Muslim University in 2015 uploaded the maximum number of LIS theses awarded under the supervision

of Dr Mehtab Alam Ansari<sup>21</sup>. Similarly, out of many state universities in Maharashtra, eight universities, including Savitribai Phule Pune University (Pune), Dr Babasaheb Ambedkar Marathwada University (Aurangabad), and SNDT University (Mumbai) contributed the highest number of theses (181)<sup>22</sup> and Karnatak University, Dharwad also contributed a considerable number of theses to Shodhganga repository including the theses of well-known LIS personalities namely Ganesh Bhattacharya, M A Gopinath, I R N Goudar and many more<sup>23</sup>. The review shows that there are hardly any national-level studies reported on the impact of LIS theses deposited in the Shodhganga ETD repository.

### Objectives of the study

- To examine the university-wise and state-wise LIS Ph.D. theses deposited to Shodhganga;
- To study the visibility and impact of LIS theses of selected universities deposited in Shodhganga;
- To identify the most productive research guides in LIS research in selected universities based on e-theses contribution to Shodhganga.

### Methodology

The data up to December 2019 were collected from the Shodhganga website (<http://shodhganga.inflibnet.ac.in/>). Out of 422 universities participating in the Shodhganga repository, 96 universities have LIS departments. The 96 universities contributed 1767 LIS theses to Shodhganga. The top 5 universities contributed 422 theses. But out of the 422 theses, 14 theses have been uploaded twice or wrongly indexed. These were excluded resulting in 408 theses for study. Data on research guides were obtained from the metadata or title page of the theses. To check the visibility and impact of e-theses on citation rates, each thesis was individually checked in Google Scholar to gather the information regarding the number of citations received.

### Analysis

#### *State-wise universities contributing LIS PhD theses to Shodhganga*

Ninety six universities from 20 states of India deposited 1767 PhD theses related to LIS subject in Shodhganga. Among these 20 states, Tamil Nadu is the leading state having the highest number of universities offering PhD in LIS subject and have deposited the highest number of theses (24.61%),

followed by Karnataka (15.05%), Maharashtra (14.99%), Uttar Pradesh (6.79%) and Andhra Pradesh (6.11%) respectively (Table 1).

**Top five universities contributing to Shodhganga by LIS departments**

As shown in Table 2, among the five of the universities that have contributed the most number of LIS PhD theses to Shodhganga, four are from India's southern states. Out of 1767 theses deposited by 96 universities (Table 1), a total of 422 theses (23.88%) have been uploaded by five universities. Manonmaniam Sundaranar University and Karnatak University are the leading universities that have uploaded the highest number of theses. A fair share of theses is contributed by Savitribai Phule Pune University (18.95%), Sri Venkateswara University (17.29%), and the University of Mysore (16.11%), respectively.

**Cited/uncited Theses**

The number of citations received by the LIS theses deposited in Shodhganga was examined. Out of 408 theses deposited by the top five universities, only 64(15.68%) theses have been cited. The remaining 334(84.31%) theses have not received any citation during the study period (Table 3).

In terms of the percentage of theses cited, Karnatak University (27%) is marginally ahead of Savitribai Phule Pune University (25.64%). Karnatak University also leads in terms of the number of theses that received citations as compared to other universities.

In all 131 citations have been received by 408 theses deposited by selected universities in Shodhganga. Out of 131 citations, the highest number of citations was received by the theses from Savitribai Phule Pune University (51), with an average of

Table 1 — Indian states contributing LIS PhD theses to Shodhganga

Sl. no.	State	No. of universities	No. of theses	Average no. of theses deposited	Percentage (out of total 1767)	Rank
1	Tamil Nadu	16	435	27	24.61	1
2	Karnataka	8	266	33	15.05	2
3	Maharashtra	12	265	22	14.99	3
4	Uttar Pradesh	10	120	12	6.79	4
5	Andhra Pradesh	3	108	36	6.11	5
6	Gujarat	11	83	35	4.69	6
7	West Bengal	4	77	19	4.35	7
8	Punjab	3	68	23	3.84	8
9	Odisha	2	68	34	3.84	
10	Assam	1	56	56	3.16	9
11	Meghalaya	1	38	38	2.15	10
12	Rajasthan	9	30	3	1.69	11
13	Manipur	1	27	27	1.52	12
14	Kerala	2	25	12	1.41	13
15	Madhya Pradesh	5	24	5	1.35	
16	Mizoram	1	24	24	1.35	14
17	Chhattisgarh	2	23	11	1.30	15
18	Jammu & Kashmir	2	19	10	1.07	16
19	Delhi	2	9	4	0.50	17
20	Pondicherry	1	2	2	0.11	18
	Total	96	1767		99.88	

(Note: Average theses deposited rounded off to two decimal places)

Table 2 — Top five universities contributing to Shodhganga

Rank	Name of university	No. of LIS theses deposited	Percentage (out of total 422)
1	Manonmaniam Sundaranar University	101	23.93
2	Karnatak University	100	23.69
3	Savitribai Phule Pune University	80	18.95
4	Sri Venkateswara University	73	17.29
5	University of Mysore	68	16.11
	Total	422	99.97

Table 3 — Distribution of the number of cited/uncited theses and citations received by theses

Sl. no.	University	Total number of theses	Theses with citations	Theses without citations	No. of citations	Average citations per thesis
1	Manonmaniam Sundaranar University	95	5(5.26)	90(94.73)	8	0.08
2	Karnatak University	100	27(27)	73(73)	49	0.49
3	Savitribai Phule Pune University	78	20(25.64)	58(74.35)	51	0.65
4	Sri Venkateswara University	68	5(7.35)	63(92.64)	8	0.11
5	University of Mysore	67	7(10.44)	60(89.55)	15	0.22
	Total	408	64(15.68)	344(84.31)	131	0.32

Note: Figures in parentheses indicate the percentage

0.65 citations per thesis, followed by Karnatak University (49) with an average of 0.49 citations per thesis (Table 3).

#### Leading research guides in LIS subject from selected universities

From Manonmaniam Sundaranar University, Balasubramanian P and Lawernce Mary were found to be the two leading research guides under whose guidance 28 (14 each) theses have been awarded. From Karnatak University, Karisiddappa CR is the leading guide with 27 theses awarded under his supervision, followed by Sangam SL (20), Kumbar BD (12), Kumbhar MR (9), and Ijari SR (7), respectively. As far as Savitribai Phule Pune University is concerned, Suresh K Patil is the leading guide with a score of 13 theses awarded under his supervision, followed by Surya Nath Singh (10), Neela J Deshpande (8), Konnur M B (8) and ARD Prasad (8) respectively (Table 4).

#### Suggestions

Considering the outcomes of the study, the authors suggest that universities and particularly the founding universities/institutions of library and information science must contribute theses and dissertations to Shodhganga for visibility, accessibility, and possible impact. The university authorities, librarians, and repository administrators must make efforts to upload the theses to Shodhganga. Repository administrators should be careful while uploading the theses because some theses have been uploaded twice or wrongly indexed. Researchers should actively promote their theses by providing links through different social media platforms and academic networks (e.g., Facebook, Twitter, Academia.edu, ResearchGate, LinkedIn, and Mendeley.) so that the accessibility and visibility of theses could be enhanced.

Table 4 — Contribution of the top five research guides from selected universities

S.No.	Manonmaniam Sundaranar University Name of Supervisor/Guide	No. of theses awarded under his/her supervision	Rank
1	Balasubramanian P	14	1
2	Lawernce Mary A	14	
3	Kanthimathi S	9	3
4	Thirumagal A	7	4
5	Kannan K	6	5
Karnatak University			
1	Karisiddappa C R	27	1
2	Sangam S L	20	2
3	Kumbar B D	12	3
4	Kumbhar M R	9	4
5	Ijari S R	7	5
Savitribai Phule Pune University			
1	Patil Suresh K	13	1
2	Singh Surya Nath	10	2
3	Deshpande Neela J	8	3
4	Konnur M B	8	4
5	Prasad A R D	8	5
Sri Venkateswara University			
1	Pulla Reddy V	14	1
2	Chandran D	11	2
3	Chandraiah I	8	3
4	Padmini K	8	4
5	Guruswamy Naidu N	7	5
University of Mysore			
1	Ramasesh C P	11	1
2	Chandrashekara M	8	2
3	Kumbar M	8	3
4	Sarasvathy P	8	4
5	Adithya Kumari H	7	5

Note: Only those theses were counted which are available at Shodhganga

#### Conclusion

It is observed that a few highly contributing universities to Shodhganga in the past are lagging in the top-ranked universities according to the results of the current study. For instance, Aligarh Muslim

University<sup>21</sup>, which uploaded the maximum number of theses in 2015, has not currently figured among the top-ranked universities. Similarly, a few state universities, except for Savitribai Phule Pune University, that contributed the highest number of theses<sup>22</sup> could not be seen among the top-ranked universities.

On the other hand, Manonmaniam Sundaranar University, which started offering a Ph.D. programme in 2009 is an active contributor to Shodhganga. Karnatak University, Dharwad, and Savitribai Phule Pune University are also consistent contributors to Shodhganga. None of the central universities figured among the top contributing universities to Shodhganga. Many universities are not contributing LIS theses to Shodhganga. University authorities including the University Grants Commission should put in place more stringent guidelines and drive the universities to deposit the theses in Shodhganga.

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