Biswajit Bhattacharya
Bidhan Chandra College
Shibdas Ghatak Sarani
Asansol, West Bengal, India

Contribution of library and information science theses in Shodhganga repository by the universities of Odisha: A study

Biswajit Bhattacharya

Abstract
Theses and dissertations are the primary and important source of information for the researchers which is valuable for the flourishing of a subject. With the advent of ICT every university use to maintain their own repository to preserve their work. Shodhganga project by INFLIBNET solved this issue of maintaining individual repository and come up with a project so that all universities in India can upload and preserve their research work in this repository so that it can be openly accessed by the entire researcher community. This study attempts to analyse the uploaded theses by the universities of Odisha state in Shodhganga repository and also put some light about the uploaded theses in the field of Library and Information Science (LIS). It is found from the study that 21 universities have uploaded a total of 10918 theses in the repository so far and the number of theses in the field of LIS is 96. The results indicated that in 2018 most of the LIS theses were uploaded in the repository, whereas Utkal university contributed maximum number of theses in Shodhganga.

Keywords: Shodhganga, Institutional repository, National repository, INFLIBNET, Universities of Odisha, Library and information science (LIS), Theses and dissertations

1. Introduction
Theses and dissertations are the primary source of information to explore the plethora of information on a particular field. It is unique in its character because this information is the most updated form of information on a particular field for exploring new things. Information Communication Technology (ICT) have completely changed the perspective and arena of exploring new horizons so that future generations can have a clear idea of what work have been done on a particular field by making it easier to access old materials. Availability of theses and dissertations in open access platform is helping the education system to unearth the treasure of knowledge hidden in various universities and other educational institutions. INFLIBNET centre set up an open access digital repository of Indian electronic theses and dissertations called Shodhganga to help the researcher for easy access of research work conducted in Indian academic institutions. But it could not get the necessary momentum until UGC mandates submission of electronic version of theses and dissertations by the researcher to the universities is compulsory to facilitate open access of it to the academic community world-wide. The regulation assigned the responsibility of hosting, maintaining and making digital repository of Indian electronic theses and dissertations accessible to all institutions through INFLIBNET centre called "Shodhganga". Till date more than five lakh sixty-one thousand theses are uploaded in the Shodhganga database which is easily accessible by researchers in open access platform.

2. Review of literature
A comprehensive study of related literature was done to understand the background of this work. Dhanavandan and Tamizhchelvan (2013) [3] discussed about how the idea of development of electronic repositories for research work is in early stage and we the library professionals should take initiative to spread awareness about the widespread use of it to the researcher to improve the quality of research.

Corresponding Author:
Biswajit Bhattacharya
Bidhan Chandra College
Shibdas Ghatak Sarani
Asansol, West Bengal, India

Chakravarty (2019) [1] analyzes the status of open access ETD repositories with the help of webometrics tools to get an overview and present status of our national repositories for effective storage and retrieval of original research work as it can be accessed by all to improve the quality of future research work.

Saloi (2021) [5] elaborated how very few universities of north east India are actively participating and contributing on the development of ETDs and urging all educational institutions to come forward so that all research work of the region can be accessed through Shodhganga repository.

Katagi and Kumar (2022) [4] emphasized about the gaining of rapidly developing digital library initiative towards ETD repositories. They are also concerned about the dealing of enormous number of resources received by INFLIBNET and proper organization of this data without duplication.

3. Objectives of the study
Objectives of this study are:
- To identify the universities in the state of Odisha which have signed MoU with INFLIBNET for Shodhganga project
- To find out the contribution of total number of theses in all subjects and in library and information science by the universities of Odisha to Shodhganga repository.

- To find out number of Library and Information Science (LIS) theses uploaded in the repository.
- To identify five most productive research supervisors in LIS from the state of Odisha.

4. Scope and coverage
In the state of Odisha 43 universities are there categorized as central university, state public university, state private university and deemed to be university. Out of these 43 universities only 25 universities have signed MoU for Shodhganga project till date. All these 25 universities are taken into consideration for this study.

5. Methodology
Primary source of data for this particular study is mainly collected from Shodhganga website (https://shodhganga.inflibnet.ac.in). To investigate and analyse the problem of this research and to accomplish the objectives data collected from the source were represented in tabular form using Microsoft Excel and Microsoft Word.

6. Data analysis
The data collected to complete the study has been analysed with the help of different tables to find out about present status of contribution of different universities towards the Shodhganga repository.

Table 1: Distribution of universities signed MoU for Shodhganga

SN	Name of the University	Year of MoU	Type of University
1	Sambalpur University	2012	State
2	Siksha 'O' Anusandhan	2014	Deemed
3	Central University of Odisha	2015	Central
4	Centurion University of Technology and Management	2015	Private
5	Veer Surendra Sai University of Technology	2015	State
6	Kalinga Institute of Industrial Technology	2016	Deemed
7	Utkal University	2016	State
8	Berhampur University	2020	State
9	Fakir Mohan University	2020	State
10	Khallikote Unitary University	2020	State
11	National Law University	2020	State
12	Ravenshaw University	2020	State
13	Birla Global University	2021	Private
14	C V Raman Global University	2021	Private
15	Gangadhar Meher University	2021	State
16	Kalinga Institute of Social Sciences	2021	Deemed
17	Maharaja Sriram Chandra Bhanja Deo University	2021	State
18	Odisha State Open University	2021	State
19	Rajendra University	2021	State
20	Rama Devi Women's University	2021	State
21	Sri Sri University	2021	Private
22	Madhusudan Law University	2022	State
23	Biju Patnaik University of Technology	2023	State
24	GIET University	2023	Private
25	Odisha University of Agriculture and Technology	2023	State

Table 1 describes about the year in which different universities of Odisha signed MoU with INFLIBNET to participate in Shodhganga project. It is clearly visible from the table that only two universities are associated almost with the beginning stage while most of the universities joined in the project in last four years. In 2021 maximum

number (Nine) of universities signed MoU to become a part of the project followed by in 2020 (Five). In 2015 only three universities and in 2016 two universities signed MoU for the project. Three universities signed MoU only in last year and are new in contributing their research work with Shodhganga.

Table 2: Contribution of theses in Shodhganga repository

SN	Name of the University	Total theses contributed	Percentage	Rank
1	Sambalpur University	1814	16.61	2
2	Siksha 'O' Anusandhan	568	5.20	4
3	Central University of Odisha	36	0.33	13
4	Centurion University of Technology and Management	95	0.87	10
5	Veer Surendra Sai University of Technology	189	1.73	7
6	Kalinga Institute of Industrial Technology	1138	10.42	3
7	Utkal University	5718	52.37	1
8	Berhampur University	261	2.39	6
9	Fakir Mohan University	184	1.69	8
10	Khallikote Unitary University	0	0.00	-
11	National Law University	16	0.15	18
12	Ravenshaw University	486	4.45	5
13	Birla Global University	3	0.03	21
14	C V Raman Global University	40	0.37	12
15	Gangadhar Meher University	88	0.81	11
16	Kalinga Institute of Social Sciences	13	0.12	20
17	Maharaja Sriram Chandra Bhanja Deo University	20	0.18	16
18	Odisha State Open University	0	0.00	-
19	Rajendra University	0	0.00	-
20	Rama Devi Women's University	15	0.14	19
21	Sri Sri University	17	0.16	17
22	Madhusudan Law University	0	0.00	-
23	Biju Patnaik University of Technology	30	0.27	14
24	GIET University	27	0.25	15
25	Odisha University of Agriculture and Technology	160	1.47	9
	Total theses contributed to Shodhganga repository	10918	100%	

From Table 2 it is found that though 25 universities signed MoU for the contribution to Shodhganga repository 4 universities are yet to start their contribution. Total 10918 theses are submitted to the repository by 21 universities. Utkal university with 5718 (52.37%) contributed maximum number of theses followed by Sambalpur university with 1814 (16.61%) theses to the repository. Kalinga Institute of Industrial Technology with 1138 (10.42%) theses comes in third position in contribution. Together these three universities contributed 79.4% theses in the repository while the representation of other universities into it is nominal.

Table 3: Contribution of LIS theses in Shodhganga repository

SN	Name of the University	LIS theses contributed	Percentage	Rank
1	Sambalpur University (SU)	45	46.88	1
2	Utkal University (UU)	42	43.75	2
3	Berhampur University (BU)	8	8.33	3
4	Gangadhar Meher University (GMU)	1	1.04	4
	Total LIS theses contributed to Shodhganga repository	96		

It is clearly noticeable from Table 3 that contribution of Library and Information Science (LIS) theses are few (only 96) comparing to the total theses contributed by various universities in the states of Odisha. Out of 21 universities which contributed theses to Shodhganga repository LIS theses contributed by only 4 universities. Among these 4 universities Sambalpur university with 45 theses (46.88%) comes in first position followed by Utkal university with 42 theses (43.75%) in the field of LIS. Berhampur university with 8 theses (8.33%) comes in third position while Gangadhar Mehar university with only 1 thesis (1.04%) comes at last position for contribution of LIS theses to Shodhganga repository.

Table 4: Year wise distribution of uploaded LIS theses in Shodhganga repository

SN	Year	Name of the University				Total (%)
		SU	UU	BU	GMU	
1	2024	2	1	1	-	4 (4.16%)
2	2023	4	1	1	-	6 (6.25%)
3	2022	-	11	6	1	18 (18.75%)
4	2018	32	7	-	-	39 (40.63%)
5	2017	-	3	-	-	3 (3.12%)
6	2016	2	19	-	-	21 (21.88%)
7	2015	5	-	-	-	5 (5.21%)
	Total (%)	45 (46.88%)	42 (43.75%)	8 (8.33%)	1 (1.04%)	96 (100%)

Table 4 describes about the number of theses uploaded in Shodhganga repository in the subject Library and Information Science (LIS) in every year. It is found that in 2018 a total number of 39 theses (40.63%) are uploaded in the repository which is maximum among all years, followed by 21 theses (21.88%) in the year 2016. In the year 2017 only 3 theses (3.12%) are uploaded in the repository.

Table 5: Distribution of most productive research supervisor in LIS

SN	Name of the University	Number of Research work Supervised	Rank
1	Krushna Chandra Panda	24	1
2	Bijay Kumar Choudhury	18	2
3	R. K. Rout	9	3
4	M. Mahapatra	7	4
5	Puspanjali Jena	7	4
6	Baman Parida	4	5
7	C. R. Karisiddappa	4	5

From Table 5 it is found that under the guidance of total 23 research guides a total of 96 research works were submitted and few research guides are associated with more than one university. In the table ranking of top five most productive research guides are done and it is found that Krushna Chandra Panda supervised maximum number (24) of research works among all followed by Bijay Kumar Choudhury with 18 works.

7. Findings
The key findings of this study are as follows:
- In the state of Odisha out of 43 universities 25 universities signed MoU till date with INFLIBNET for Shodhganga project to contribute their research work in the repository.
- 10918 theses uploaded in the Shodhganga repository by 21 universities in Odisha state and only three universities contributed 79.4% theses in the database out of all the uploaded theses. Utkal university with 5718 theses contributed the highest number of theses.
- Only four universities from Odisha contributed 96 theses in Library and Information Science (LIS) subject. Sambalpur university contributed maximum number of theses in LIS.
- It is found from the study that out of 96 theses in LIS field in the year 2018 maximum number of theses were uploaded in the Shodhganga repository.
- Research supervisor Krushna Chandra Panda becomes the most consistent research guide and helped maximum number of researchers to complete their work.

8. Recommendation
INFLIBNET took a great initiative for the entire research community to provide a repository of theses and dissertations called Shodhganga so that they can get the updated information about what research work is going on any particular field. Based on the above study if following recommendations are implemented the quality of the repository can be enriched:
- Active participation of all the universities in the state of Odisha is must so that all research work can be uploaded in the repository.
- Once the research work is completed it should be uploaded immediately so that other researchers can access it for reference and valuable time of researcher can be saved.
- Proper training programmes and awareness among the research community should be organized to inform them about the facilities available in Shodhganga.
- Proper monitoring of the repository should be done so that duplication of uploaded data can be eliminated and actual number of theses can be seen in the repository.
- Proper keywords should be mentioned with every uploaded thesis so that area of research work can be identified with ease.

9. Conclusion
In this era of information explosion, it is very difficult for the researcher to get authentic and updated information to produce quality research work. Shodhganga repository is a good platform for the researchers of state of Odisha to access latest research work but all universities in the region should take proper initiative to submit and upload it in the repository in time bound manner so that other new researchers can take advantage from this. In the state of Odisha some of the universities doing remarkable job by uploading their research work to the repository but other universities also should take proper steps and contribute their work then only the purpose will be served. In the field of LIS, the same status is seen which need to be improved so that the subject can flourish and quality research work can be produced for future generation.

10. References
1. Chakravarty R. National ETD repository evaluation using web analyzer: a webometric analysis of Shodhganga, India. Int J Web-Based Learn Teach Technol. 2019;14(1):54-68.
2. Chatterjee S. An analysis of contributed theses in library and information science by the state universities of West Bengal: a study from Shodhganga repository. College Libraries. 2023;38(3):88-97.
3. Dhanavandan S, Tamizhchelvan M. Development of Shodhganga repository for electronic theses and dissertations in Tamil Nadu: a study. J Libr Inf Sci. 2013;3(4):648-58.
4. Katagi S, Kumbar BD. Contribution to national repository of electronic theses and dissertations by the universities of Karnataka: a case study of Shodhganga. J Indian Libr Assoc. 2022;58(1):44-60.
5. Saloi A. Contribution of electronic theses and dissertations (ETDs) by the central universities of Northeast India to the Shodhganga project of INFLIBNET: an evaluative study. Lib Philos Pract. 2021;4825.
6. Shodhganga: a reservoir of Indian theses. (n.d.). Available from: https://shodhganga.inflibnet.ac.in [Accessed June 16, 2024].