

Mapping the Contribution of ETDs to Shodhganga by the North East Universities in LIS Research

Nilanjana Purkayastha¹ and Manoj Kumar Sinha²

¹Librarian, A K Chanda Law College, Silchar, Assam, India

²Professor and Head of the Department, Department of Library and Information Science & Dean, Swami Vivekananda School of Library Sciences, Assam University, Silchar, Assam, India

Abstract

Nowadays, ETDs stands for Electronic Thesis and Dissertation are widely used by the faculty and scholars' community. With the invention of open access, sharing and accessing information has become more frequent in digital environment. Every year institutions are generating lot of research report in various field of study across the world, but the access to those research report is limited. To solve this problem the concept of ETDs came into light, with the help of Open Access initiative nowadays, all the intuitions are supporting free access and dissemination of research output to end users. ETDs facilitates the scholars with new ideas of research and innovation. This study analyses the contribution of ETDs on Shodhganga made by the North East (NE) State and Central Universities. The study thoroughly examines the Shodhganga website to get clear picture of the status of ETDs in India. The study also focused on finding out the growth LIS-ETDs in North East State and Central Universities. The findings of the study revealed that total 16455 number of ETDs were contributed by the selected universities of NE as of 1 August 2023. It is important for University Authorities and Librarian to understand the potential of ETDs in growth and development of innovative ideas in research and to achieve academic success. The study also found out that the contribution of ETDs in the field of Library and Information Science (LIS) by the NE universities are very low. Furthermore, the study also depicts that research scholars of NE are very much aware of ETDs on Shodhganga and frequently use the ETDs available on Shodhganga for their research work. They are highly satisfied with the use of Shodhganga, however, a good number of research scholars mentioned insufficient terminal is a problem, they face while accessing Shodhganga.

Keywords: Electronic Theses and Dissertations (ETD), INFLIBNET, Institutional Repositories, IR@INFLIBNET, North East Universities, Research Scholars, Shodhganga

1. Introduction

To do research it is important to have required information, it is also considered that information is the key factor in research and development. Before internet it was very difficult for researcher to access information but with the advent of internet and technology, sharing and archiving information for future use has become very handy. In early days, the research reports were not available for all but now with the progress of Open Access movement the researchers can easily disseminate information in digital environment, to its users worldwide. Information Communication Technology (ICT) has fully changed the way of collecting, organizing and disseminating of information to the end users. At present electronic publishing are replacing the printed recorded of knowledge, information explosion is also the driving force behind the emergence of the electronic resources, it is difficult to keep the physical record of each document, the job is time consuming as well as demands lots of space. Hence, people are nowadays mostly transforming printed information into digital format and also using born digital documents to spread information, and to fulfill the need of information in academic education as well. With the advent of ETDs, it has become very easy for researcher to look for research output of institutions. It has emerged as a valuable asset for acquiring and disseminating research output. ETDs has gain lots of popularity in the academic field of study; nowadays, almost all the universities across India are involved in creating database of ETDs. In Digital Libraries across the world ETDs are considered as highly valuable e-resource for growth and development of academic institutions.

1.1 Background of the Study

ETDs databases are on developing stage in India, it is growing day by day, faculties and scholars are much facilitated by this system. The acceptance of Open Access among the scholarly community has made it easy for the researchers to access information. Supporting open access movement, various institutions and organizations have taken initiative to develop and make a database of ETDs on their collection. Most of the universities worldwide are accepting and encouraging the submission of theses and dissertations in electronic format. With database of ETDs researcher can easily avoid duplication in their research work as it gives quick access and retrieval of available research studies. ETDs also solve the problem of space in libraries for keeping the physical copies of the research output of an institute. In India lot of initiatives are taken on ETDs which has led to huge developments of ETDs at the national level. In India we have Shodhganga, a national repository of ETDs where universities submit their doctoral thesis/dissertation and make it available to the entire scholarly community across the world in open access. ETDs are not only helping the researchers to access information but also helps in maintaining the quality of research, it setting up the standards of research report. We also have many individual repositories of institutions developed for archiving their intellectual out and offering worldly exposure of their contents, these repositories are called Institutional Repository (IR). Furthermore, in India we also have another repository which is called Shodhgangotri, it is a repository of Research Synopsis, where approved synopsis of research scholars of Indian universities is uploaded.

1.2 Shodhganga



Figure 1: Homepage of Shodhganga

Shodhganga is the digital repository of Indian ETDs, developed and maintained by the INFLIBNET Centre and funded by the Government of India (GOI). UGC has mandate the submission of doctoral theses/ dissertations of universities fall under his umbrella into Shodhganga. Researchers are instructed to submit a softcopy of their doctoral theses/dissertations into the Library and it is the duty of universities Library to uploading these doctoral theses/dissertations into Shodhganga to facilitate open access of ETDs in India. Shodhganga ensures easy access to ETDs and also helps in maintaining the high standard of the contents. It helps in avoiding duplication of research and also solves the problem of poor visibility of research contents which mostly led to poor quality of research (Chakravarty, 2019). Shodhganga is designed using DSpace, an open-source software. DSpace can store all sorts of multimedia file and offers smooth organizing and disseminating of the contents among academic community. Shodhganga has gain milestone with the record of 478687 number of theses submitted from 729 universities of India, moreover 840 number of universities have signed MoU with Shodhganga as of 1st August 2023.

Table 1: Status of Top 10 Universities Contributing Electronic Theses and Dissertations to Shodhganga ETD Repository as on 1/08/2023

Sl. No.	States	Top Ten Universities	No. of ETDs Contributing
1	Tamil Nadu	Anna University	14520
2	Tamil Nadu	University of Madras	14359
3	West Bengal	University of Calcutta	13856
4	Maharashtra	Savitribai Phule Pune University	12309
5	Uttar Pradesh	Chhatrapati Sahuji Maharaj University	10133

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6	Bihar	Babasaheb Bhimrao Ambedkar Bihar University	9675
7	Uttar Pradesh	Aligarh Muslim University	9606
8	Andhra Pradesh	Andhra University	9186
9	Punjab	Panjab University	8837
10	Uttar Pradesh	V. B. S. Purvanchal University	8720

1.3 Institutional Repository (IR)

An Institutional Repository (IR) is the collection of intellectual output of a particular institute. In simple word, IR is an archive for collection, preservation and dissemination of research output of institution in a digital form. Universities mostly set up institutional repository to archive its intellectual output and to maintain the submission of ETDs on Shodhganga (Sankar, Sudha and Kavitha, 2015). Growing number of institutional repositories are helping universities to make their contents globally accessible, which resulted in generating great publicity among the academic community, digital libraries with the inclusion of institutional repositories are highly reputed institutions across the country. According to the report of OpenDOAR, India has 59 number of repositories which are disseminating scholarly contents including ETDs.

Table 2: List of Indian Open Access Repositories including ETDs as of 1st August 2023

Sl. No.	Institutional Repositories including ETDs	Type	Software
1	AMU Repository (Knowledge Repository)	Institutional	Eprints
2	ARIES, Digital Repository	Disciplinary	Dspace
3	BBAU Institutional Repository	Institutional	Dspace
4	Bhogawati Mahavidyalaya Institutional Repository	Institutional	Dspace
5	CSIR-NAL	Institutional	Eprints
6	CSIR-NCL Digital Repository	Institutional	Dspace
7	DIR@IMTECH	Institutional	Eprints
8	DRS at National Institute of Oceanography	Institutional	Dspace
9	DSpace @ GGSIPU	Institutional	Dspace
10	DSpace @ P.E.Society's Modern College of Arts, Science and Commerce (Autonomous)	Institutional	Dspace
11	DSpace at Indian Institute of Geomagnetism	Institutional	Dspace
12	DSpace at Indian Institute of Management Kozhikode	Institutional	Dspace
13	DSpace at M S University	Institutional	Dspace
14	DSpace at Vidyaniidhi	Institutional	Dspace
15	DSpace@SFIT	Institutional	Dspace
16	DSpace@TU	Institutional	Dspace

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17	Digital Repository@Indira Gandhi National Tribal University	Institutional	Dspace
18	DigitalLibrary@CUSAT	Institutional	Dspace
19	Dspace@NITR	Institutional	Dspace
20	Dyuthi	Institutional	Dspace
21	EPrints@IIT Delhi	Institutional	Dspace
22	Electronic Theses and Dissertations of Indian Institute of Science	Institutional	Dspace
23	Electronic Theses and Dissertations of The Tamil Nadu Dr. M.G.R. Medical University	Institutional	Eprints
24	Eprint@NML	Institutional	Eprints
25	Eprints @MDRF	Institutional	Eprints
26	Eprints@CMFRI	Institutional	Eprints
27	Eprints@IARI	Institutional	Eprints
28	Etheses - A Saurashtra University Library Service	Institutional	Eprints
29	Gyan Pravah	Institutional	Dspace
30	IACS Institutional Repository	Institutional	Dspace
31	IIT Gandhinagar Digital Repository	Institutional	Dspace
32	IR@Goa University	Institutional	Dspace
33	IR@NEERI	Institutional	Eprints
34	IR@NITK	Institutional	Dspace
35	Indian Institute of Astrophysics Repository	Institutional	Dspace
36	Institutional Repository - University of North Bengal	Institutional	Dspace
37	Institutional Repository of Intellectual Contributions of Delhi Technological University	Institutional	Dspace
38	Institutional Repository of Vidyasagar University	Institutional	Dspace
39	Institutional Repository@CSIO	Institutional	Eprints
40	Institutional repository@VSL	Institutional	Dspace
41	Kautilya Digital Repository at IGIDR	Institutional	Dspace
42	Knowledge Repository Open Network	Aggregating	Dspace
43	KrishiKosh	Aggregating	Dspace
44	Librarians' Digital Library	Disciplinary	Dspace
45	Mahatma Gandhi University Theses Online	Institutional	Other
46	NIRT Institutional Repository	Institutional	Eprints

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47	OneWorld South Asia Open Archive Initiative	Disciplinary	Eprints
49	RNLKWC Digital Repository	Institutional	Dspace
50	Research Archive of Indian Institute of Technology Hyderabad	Institutional	Eprints
51	SHIV DNYANSAGAR: Institutional Repository of Shivaji University	Institutional	Dspace
52	SSRN	Institutional	Unspecified
54	ShodhGanga: A reservoir of Indian theses	Aggregating	Dspace
55	Social Science Cyber Library	Disciplinary	Other
53	Zorotic Online Library	Aggregating	Open Repository
56	dspace @ sdmcet	Institutional	Dspace
57	ePrints@Azim Premji University	Institutional	Eprints
58	eprints@NIAS	Institutional	Eprints
59	ethesis@nitr	Institutional	Eprints

2. Review of Literature

ETDs are the bright spot in academic field, providing huge exposure to research output and opportunities for creative scholarship (Das and Saikia, 2014). Vidyanidhi, developed by University of Mysore is the first ETD repository of India, it is initiated to generate collection of ETDs and to provide network access to Indian theses and dissertation. With this the open access to the Indian theses has started widely across the country. Since then, many projects have come up for the development of ETDs, among them the biggest project is development of Shodhganga and Shodhgangothri, and maintained by INFLIBNET, Ahmadabad (Devi and Verma, 2017). ETDs databases are very flexible, it can store multimedia, sound, video, and hypertext links (Bhat and Mundhol, 2014). ETDs are very important as it holds the primary source of information which researchers can easily access as well as share their research work effectively and creatively among the scholarly community of all over the world through internet. Open Access ETDs also helps researcher in, increasing their citation count (Sengupta, 2019). There are many studies conducted by the researcher to know the status of ETDs in different states of India which showed great progress in the growth and development of ETDs in Indian Universities (Devi and Singh, 2021); (Sengupta, 2019); (Verma, Yadav and Singh, 2017); (Sivakumaren and Swaminathan, 2020) (Dey and Das, 2021). UGC has made it mandatory for the universities under his umbrella to deposit each copy of theses submitted by the scholar has to be uploaded in Shodhganga but many universities are not taking it seriously as the number of ETDs uploaded is very low in a few states of India (Gupta and Gupta, 2013). Shodhganga is the most resourceful repository of India which provide a platform to Indian universities to share ETDs and make it available for entire

scholarly community of world through open access (Devi & Verma, 2017). The study of Sankar, Sudha and Kavitha (2015) reported that popularity of Shodhganga is growing rapidly in the higher educational and research institutions are showing great enthusiasm in sharing newly emerged knowledge and expertise. Shodhganga repositories can expose the intellectual output of country to a wider audience with the help of internet. However, a few researchers mentioned that universities are not under the subjection of archiving ETDs, so the collecting work is not very smooth and some theses and dissertations are simply lost or accumulate dust. Therefore, many researchers suggested that there must be workshop, training and awareness program on ETDs for better improvement or better understanding of ETDs in India (Balasubramani, 2015); (Sivakumaren, 2015).

3. Objectives of the Study

1. The study tried to evaluate the status of ETDs contribution made by State and Central Universities of North East (NE) India;
2. To know the contribution of ETDs made by the Library and Information Science (LIS-ETDs) departments of selected universities;
3. To know the most productive LIS research supervisor based on the LIS-ETDs contribution in Shodhganga.
4. To examine the use of ETDs by the Research Scholars of selected universities.

4. Research Methodology

For the present study the researchers have selected State and Central Universities of North East India. At present we have 11 Central Universities and 27 State Universities in North East which are funded by the Government of India (GOI). All the data used for the present study was retrieved after thoroughly investigating the Shodhganga website. Also, a questionnaire prepared on Google Form was distributed among the Research Scholars of North East State and Central Universities, offering Ph.D. program in Library and Information Science through various social media platforms. The questionnaire received back, was carefully analysed using MS Excel and presented in tables and graphs.

Table 3: List of State and Central Universities in North East region as of 28th May 2023

Sl. No.	State	Universities	State/Central
1	Arunachal Pradesh	Arunachal Pradesh University, Pasighat	ST
2		Rajiv Gandhi University	CU
3	Assam	Assam University	CU
4		Tezpur University	CU
5		Assam Agricultural University	ST

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6		Assam Rajiv Gandhi University of Cooperative Management	ST
7		Assam Science and Technology University	ST
8		Bhattadev University	ST
9		Birangana Sati Sadhani Rajyik Vishwavidyalaya	ST
10		Bodoland University	ST
11		Cotton University	ST
12		Dibrugarh University	ST
13		Gauhati University	ST
14		Krishna Kanta Handiqui State Open University	ST
15		Kumar Bhaskar Varma Sanskrit and Ancient Studies University	ST
16		Madhabdev University	ST
17		Mahapurusha Srimanta Sankaradeva Viswavidyalaya	ST
18		Majuli University of Culture	ST
19		National Law University and Judicial Academy, Assam	ST
20		Rabindranath Tagore University, Hojai	ST
21		Sri Sri Aniruddhadeva Sports University	ST
22		Srimanta Sankaradeva University of Health Sciences	ST
23	Manipur	Central Agricultural University	CU
24		Manipur University	CU
25		National Sports University	CU
26		Dhanamanjuri University	ST
27		Manipur Technical University	ST
28		Manipur University of Culture	ST
29	Meghalaya	North-Eastern Hill University	CU
30	Mizoram	Mizoram University	CU
31	Nagaland	Nagaland University	CU
32	Sikkim	Sikkim University	CU
33		Khangchendzonga State University	ST
34		Sikkim National Law University	ST
35	Tripura	Maharaja Bir Bikram University	ST
36		National Law University, Tripura	ST
37		Tripura University	CU

5. Findings of the Study

5.1. Status of North East (NE) State and Central Universities Contributing ETDs to Shodhganga

The table-4 depicts that out of 11 Central Universities of NE 9 Universities are contributing ETDs in Shodhganga and out of 26 NE State Universities only 9 universities are contributing ETDs on Shodhganga.

The table-4 also revealed that out of total 37 NE State and Central Universities, maximum 19 (51.4%) universities have not contributed ETDs to Shodhganga. In contrast, only 18 (48.6%) NE State and Central Universities have contributed ETDs to Shodhganga.

Out of 18 contributing universities Gauhati University has scored 1st Rank with 6214 (37.8%) number of ETDs contributions followed by North-Eastern Hill University which has scored 2nd Rank with 2512 (15.3%) number of ETDs contribution and Assam University has scored 3rd Rank with 2150 (13.1%) number of ETDs contribution on Shodhganga.

However, from table-4 it is also clear that NE State and Central Universities overall have contributed total 16455 number of ETDs to Shodhganga.

Table 4: Number of ETDs Contributed by NE State and Central Universities to Shodhganga as of 1 August 2023.

Sl. No.	NE States	Name of the Central Universities	ETDs Contributing	Percentage (%)
1		Rajiv Gandhi University	534	5.8%
2	Assam	Assam University	2150	23.4%
3		Tezpur University	864	9.4%
4	Manipur	Manipur University	1404	15.3%
5		National Sports University	0	0.0%
6		Central Agricultural University	0	0.0%
7	Meghalaya	North-Eastern Hill University	2512	27.3%
8	Mizoram	Mizoram University	712	7.8%
9	Nagaland	Nagaland University	412	4.5%
10	Sikkim	Sikkim University	176	1.9%
11	Tripura	Tripura University	421	4.6%
		Total	9185	100.0%

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Sl. No.	NE States	Name of the State Universities	ETDs Contributing	Percentage (%)
1	Auranachal Pradesh	Arunachal Prdaesh University, Pasighat	0	0.0%
2	Assam	Assam Agricultural University	52	0.7%
3		Assam Rajiv Gandhi University of Cooperative Management	2	0.0%
4		Assam Science and Technology University	2	0.0%
5		Bhattadev University	0	0.0%
6		Birangana Sati Sadhani Rajyik Vishwavidyalaya	0	0.0%
7		Bodoland University	70	1.0%
8		Cotton University	15	0.2%
9		Dibrugarh University	894	12.3%
10		Gauhati University	6214	85.5%
11		Krishna Kanta Handiqui State Open University	12	0.2%
12		Kumar Bhaskar Varma Sanskrit and Ancient Studies University	0	0.0%
13		Madhabdev University	0	0.0%
14		Mahapurusha Srimanta Sankaradeva Viswavidyalaya	0	0.0%
15		Majuli University of Culture	0	0.0%
16		National Law University and Judicial Academy, Assam	9	0.1%
17		Rabindranath Tagore University, Hojai	0	0.0%
18		Sri Sri Aniruddhadeva Sports University	0	0.0%
19		Srimanta Sankaradeva University of Health Sciences	0	0.0%
20		Manipur	Dhanamanjuri University	0
21	Manipur Technical University		0	0.0%
22	Manipur University of Culture		0	0.0%
23	Sikkim	Khangchendzonga State University	0	0.0%
24		Sikkim National Law University	0	0.0%
25	Tripura	Maharaja Bir Bikram University	0	0.0%
26		National Law University, Tripura	0	0.0%
	Total	7270	100.0%	

5.2. NE State and Central Universities offering Ph.D. program in Library and Information Science

The table-5 depicts that out of 37 NE State and Central Universities only 6 universities are offering Ph.D. program in the field of Library and Information Science.

Table 5: NE Universities offering Ph.D. program in Library and Information Science

Sl. No.	University Name	Year of Establishment	No. of Faculties
1	Gauhati University	1966	5
2	North-Eastern Hill University	1985	6
3	Manipur University	1986	6
4	Mizoram University	2002	8
5	Assam University	2009	4
6	Tripura University	2016	4

5.3. NE State and Central University contributing LIS-ETDs in Shodhganga (N=185)

The present study revealed the ETDs' contribution in the field of Library and Information Science in figure-1. At present 5 universities contribution LIS-ETDs in Shodhganga and Gauhati University recorded highest 67 (36.2%) number of LIS-ETDs contribution on Shodhganga among selected universities of North East followed by 43 (23.2%) number of LIS-ETDs contribution, made by North-Eastern Hill University, 36 (19.5%) number of LIS-ETDs contributed by Mizoram University, 29 (15.7%) number of LIS-ETDs contributed by Manipur University and lastly 10 (5.4%) number of LIS-ETDs contribution recorded by Assam University in the field of Library and Information Science. LIS department of Tripura University has not submitted any LIS-ETDs as of 1st August 2023.

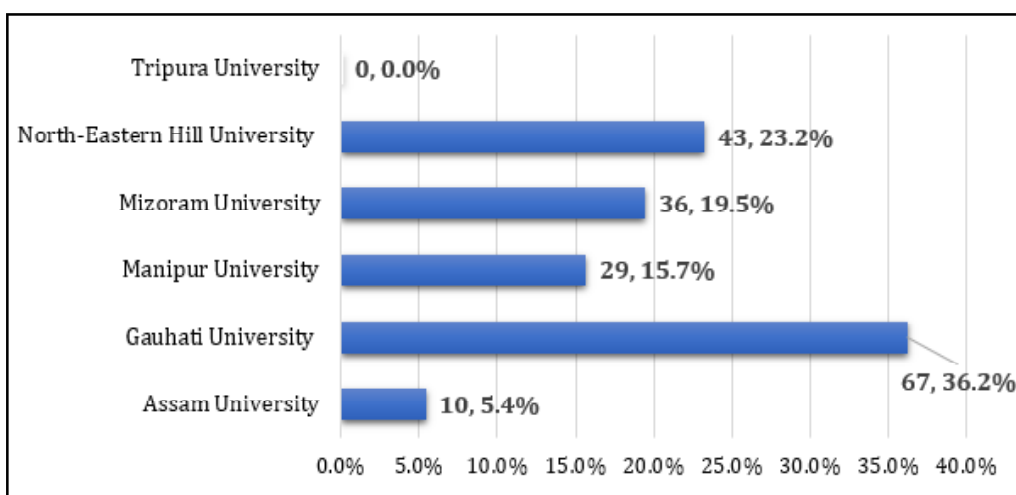


Figure 2: NE universities contributing LIS-ETDs in Shodhganga

5.4. University-wise Supervisors' Availability of LIS-ETDs on Shodhganga

The table-6 Showed the production of ETDS on Shodhganga in the Library and Information Science field by the supervisors of theses submitted by LIS research scholar. It is found that there is total 185 number of ETDS contributed by NE Universities in the field of Library and Information Science. Moreover, the study also revealed that out of all the supervisors of Ph.D., Narendra Lahkar has taken 1st Rank with contribution of 20 (10.8%) number LIS-ETDS among North East Universities.

Table 6: University-wise supervisors' availability of LIS-ETDs on Shodhganga (N=185)

State	Name of the Supervisors	No. of ETDS Uploaded	Percentage %
Assam University	Dr. Mukut Sarmah	5	2.7%
	Prof. Manoj Kumar Sinha	5	2.7%
Gauhati University	Narendra Lahkar	20	10.8%
	Tilak Hazarika	2	1.1%
	Narendra Nath Sharma	16	8.6%
	Dhrubajit Das	1	0.5%
	Sanjay Kumar Singh	9	4.9%
	Dipen Deka	2	1.1%
	Alaka Buragohain	8	4.3%
	Rajani Kanta Barman	9	4.9%
Manipur University	Dr. Ch. Ibohal Singh	6	3.2%
	Dr. Th. Madhuri Devi	6	3.2%
	Dr. Th. Purnima Devi	6	3.2%
	S L Sangam	1	0.5%
	Prof. M.R. Kumbhar	4	2.2%
	Dr. Ramansu Lahiri	4	2.2%
	Th. Khomdon Singh	2	1.1%
	Mizoram University	Prof. S.N. Singh	8
Lalngaizuali		2	1.1%
Amit Kumar		2	1.1%
Dr. Manoj Kumar Verma		7	3.8%
R.K.Ngurtinkhuma		5	2.7%
Prof.Pravarkar Rath		8	4.3%
Dr. R.N. Mishra		3	1.6%
Dr.Akhananda Shukla		1	0.5%

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North-Eastern Hill University	Dr.Bikika Laloo	7	3.8%
	S. Ravikumar	3	1.6%
	Dr. P. Hangsing	9	4.9%
	Prof. Moses Marg Naga	8	4.3%
	Dr. J.C. Binwal	6	3.2%
	Dr. A.S. Chandel	3	1.6%
	Akash Handique	1	0.5%
	N. M. Panda	1	0.5%
	Dr. Veena Saraf	5	2.7%
Total	185	100.0%	

5.5. Research Scholars' Awareness and Usage of ETDs on Shodhganga (N=77)

The researchers have distributed 17 number of questionnaires to each selected universities of North East, mentioned in Table-5. Therefore, total 102 number of questionnaires were distributed among 6 selected Universities of North East. Here, the result is drawn from the 77 number of questionnaires which were received back from the research scholars of selected universities. The empirical data of the present study showed that maximum 25 (32.5%) response received from Arts and Humanities discipline of study followed by Social Sciences 17 (22.1%); Science 14 (18.2%); Commerce and Management 12 (15.6%) and from Technology received 9 (11.7%) number of responses. Form the study it is also evident that 100% of the Research Scholars are aware of ETDs available on Shodhganga and using ETDs for their research works.

5.5.1. Usage Statistic of ETDs on Shodhganga by Research Scholar (N=77)

The figure-2 denotes that maximum number of research scholars 25 (32.5%) are Always using ETDs available on Shodhganga followed by 22 (28.6%) research scholar using Frequently, moreover, 17 (22.1%) research scholars mentioned, using ETDs Occasionally and lastly 13 (16.9%) research scholars stated that Usually they are using ETDs available on Shodhganga.

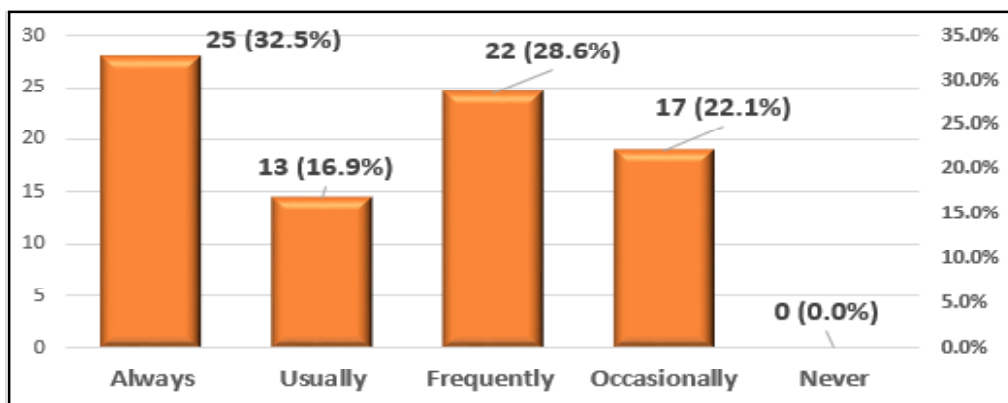


Figure 3: Usage of ETDs on Shodhganga by research scholars

5.5.2. Research Scholars Level of Satisfaction of Using ETDs available on Shodhganga (N=77)

Research Scholars showed satisfactory feelings towards using ETDs available on Shodhganga, as shown in figure-3. The figure-3 depicts that mostly 33 (42.9%) number of research scholars are Satisfied with ETDs available on Shodhganga and 21 (27.3%) respondents are very Satisfied. However, 14 (18.2%) respondents showed Neutral opinion and lastly 9 (11.7%) research scholar mentioned that they are Dissatisfied with ETDs on Shodhganga.

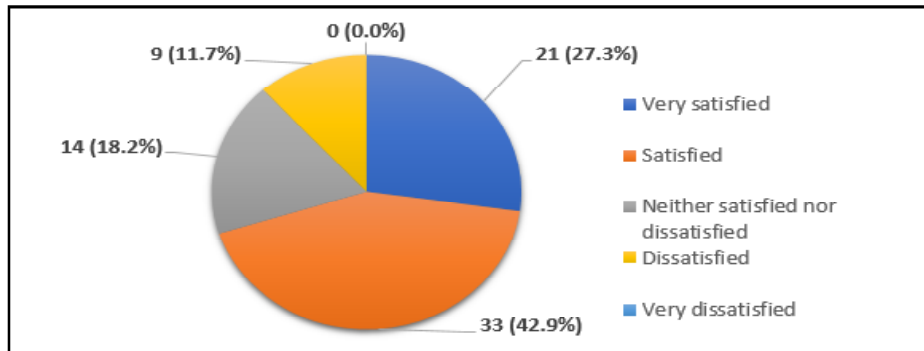


Figure 4: Research Scholars Level of Satisfaction of Using ETDs

5.5.3. Problems faced by the Respondents While Accessing in Shodhganga. (Multiple Answers Permitted)

Out of 77 respondents it can be seen from the table-7, Insufficient Terminal is the major problem faced by 50 (64.9%) number of research scholars while accessing Shodhganga. However, 37 (48.1%) stated that they faced no problem while accessing Shodhganga. Besides, 34 (44.2%) research scholar selected Not Easy to Understand followed by 31 (40.3%) research scholars said there is Less Training Program and Awareness, 27 (35.1%) number of research scholars selected Less Searching Options, 12 (15.6%) selected Slow Downloading, 9 (11.7%) selected Unwillingness of Library Staffs to help and lastly 5 (6.5%) said Slow Speed of Internet are the problems faced while accessing Shodhganga.

Table 7: Problems faced by the Respondents while accessing in Shodhganga (N=77)

Problems	No. of Respondents	Percentage (%)
Slow Downloading	12	15.6%
Less Searching Options	27	35.1%
Insufficient Terminal	50	64.9%
Not Easy to Understand	34	44.2%
Slow Speed of Internet	5	6.5%
Less Training Programs and Awareness	31	40.3%
Unwillingness of Library Staffs to Help	9	11.7%
No Problem	37	48.1%

6. Discussion

The present study gave us the clear picturesque of ETDs development in North East Universities. The NE universities are still growing their collection in Shodhganga, it is under the process of gradual evolution. However, it is very disappointing to note that 51.4% universities of NE are not contributing ETDs to Shodhganga. Furthermore, after consulting previous studies made by many researchers across the country, regarding ETDs contribution on Shodhganga, it was found that in NE universities have less number of ETDs contributed to Shodhganga comparing to other states of India (Dey and Das, 2021); (Sengupta, 2019); (Sivakumaren and Swaminathan, 2020). North East State and Central Universities altogether have contributed 16455 number of Electronic Theses and Dissertation, which is very less in number. Mostly through Shodhganga project, UGC initiated a solution to the problem of poor visibility of research beyond Library walls across the country. (Devi & Verma, 2017). Hence, the Libraries of NE universities have to work harder to make arrangement for uploading ETDs on Shodhganga as it is the duty of Library to upload ETDs on Shodhganga. The university Authorities and Librarians must look after the problems which are the reason for slow increase of ETDs on Shodhganga in NE region. However, NE Central Universities have made great progress over the year which can be noticed while comparing the previous studies conducted on status of ETDs in North East Central Universities by Devi and Verma (2017). The research output of universities in the form of theses and dissertations, is a very important scholarly publication and very useful for academic activities and for further research study. It helps researcher in maintaining the quality of research output. The Universities across the country must take this on serious note and fast forward the process of contributing ETDs on Shodhganga.

7. Conclusion

ETDs are a diamond in the academic field, providing broader exposure of available research reports as well as offering new opportunities for creative research scholarship. This paper will help reader to understand the present scenario of ETDs across North East, focusing on State and Central Universities of North East region. The study focused on evaluating the progress of ETDs contribution to Shodhganga in the field of Library and Information Science. The present study revealed that the current picturesque of North East State and Central Universities ETDs' contribution to Shodhganga is considerably low. The university authorities, librarians and repository administrators must take measures to solve issues and challenges related to the submission of theses into Shodhganga. Researchers are highly benefited by ETDs which helps them mostly in avoiding duplication in research work, ensure quick access and retrieval of information, encourage resource sharing, and also solve the biggest problem of space in Libraries. Although UGC has mandate the submission of ETDs on Shodhganga but most of the universities do not take it as serious matter of work, UGC must look after the progress of work at university level and make hard rules on submission of ETDs. It is suggested to have frequent ETDs awareness program and training program on submission and transformation of printed theses and dissertation into ETDs. Moreover, there should be discuss on improving the status ETDs in NE region and on understanding of the issues and options for the universities planning

to implement ETDs repository. Lastly, it is believed that the findings of the present study will bring the attention of higher authorities and necessary arrangements will be made to increase the contribution of ETDs to Shodhganga in NE region.

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