

AN ANALYSIS OF CONTRIBUTION OF UNIVERSITIES OF MADHYA PRADESH IN SHODHGANGA

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The present paper aims to provide the status of contributions made by the universities of Madhya Pradesh to the open access repository Shodhganga. According to the University Grants Commission website, there are total 907 Universities in India as on 31 March, 2019. Out of the 907 Universities, 470 Universities from 30 states have signed MoU with INFLIBNET to contribute their theses in Shodhganga. However, as on 17 July 2019 only 397 universities were contributed in Shodhganga. Out of 59 Universities in Madhya Pradesh, 29 universities have signed MoU with Shodhganga for contributing their ETDs in the Shodhganga. However, only 20 of the 29 universities have contributed their ETDs in Shodhganga. The highest number of 1847 (37.23%) theses have been contributed by Dr. Harisingh Gour Vishwavidyalaya, Sagar among universities of Madhya Pradesh.

Keywords: Shodhganga, Open Access Repository, Universities of Madhya Pradesh, Research Work, Theses and Dissertations, Open Access, Institutional Repositories .

INTRODUCTION

The research is an important activity of universities and academic institutions. The output of research in the form of theses and dissertations are valuable assets and resources of every universities and academic institutions. In the past, the research works submitted by researchers were available only in respective department library or university library in printed form of theses and dissertations and access was not publicly available. With the advent of open source digital library software and open access movement, universities and academic institutions have started to create open access digital repository/institutional repository to manage their academic resources and research output in digital form to visible outside the world in more effective way by making it open access. Open access institutional repository can improve citation of research works and researchers can search the research work already done on their discipline to avoid duplication of research work. The research works available on the internet as open access is read more widely used for research and educational purpose than research work published in print version. In India,

the Shodhganga and Shodgangotri were the useful open access digital repository for researchers to know about research works already submitted as well as proposed research works in various universities and educational institutions in India.

SHODHGANGA

Shodhganga: a reservoir of Indian theses is an open access digital repository of Indian Electronic Theses and Dissertations set-up by the INFLIBNET Centre using an open source digital repository software called DSpace. The repository has the ability to capture, index, store, disseminate and preserve ETDs (Electronic Theses and Dissertations) submitted by the researchers. Shodhganga provides open access to Indian Electronic Theses and Dissertations contributed by Indian Universities and academic Institutions to Shodhganga.

Online availability of electronic theses through centrally-maintained digital repositories, not only ensure easy access and archiving of Indian doctoral theses but will also help in raising the standard and quality of research. This would overcome serious problem of duplication of research and poor quality resulting from the “poor visibility” and the “unseen” factor in research output. As per the Regulation, the responsibility of hosting, maintaining and making the digital repository of Indian Electronic Theses and Dissertation (called “Shodhganga”), accessible to all institutions and universities, is assigned to the INFLIBNET Centre. As on 17 July 2019, 470 universities signed MoU with Inflibnet and total of 234591 theses have been deposited in the repository by 397 universities (<http://shodhganga.inflibnet.ac.in>).

REVIEW OF RELATED LITERATURE

Dhanavandan and Tamizhchelvan (2013) analyzed the electronic copy of the theses submitted to shodhganga from universities of Tamil Nadu. They found that Tamil Nadu state occupied the first position with 18 universities signed MoU in Shodhganga. Out of 18 Universities from Tamil Nadu, 9 universities are from state government and nine universities run by self supported or privates. Total number of theses submitted by these 18 universities is 488. Das and Saikia (2014) presented a comparative study among the universities of Assam about their status and contribution to Shodhganga and concluded that out of the 16 Universities of Assam, only 03 have joined Shodhganga and the number of ETDs submitted by the 03 Universities is very poor.

Sengupta (2015) in his study reported that out of the 45 different types of Universities in Maharashtra, 25 universities have signed MoU with Shodhganga for contributing their ETDs in the repository. However, only 19 of the 25 universities have contributed their ETDs in Shodhganga. The top three contributing universities came out to be Shivaji University, Kolhapur with 412 ETDs, followed by SantGadge Baba Amravati University (312) and Savitribai Phule Pune University (290). Among the subjects it was also found that Physics ranks highest with 188 ETDs, followed by Chemistry (186) and Business Administration & Management (159). Sivakumaren (2015) conducted a study on the Electronic Theses and Dissertations (ETDs) deposited at INFLIBNET Shodhganga project by Indian Universities and found that 32000+ theses have been deposited on various disciplines by 201 Universities. The study considered only top five

Universities ranked by INFLIBNET Shodhganga project. It is found that the top five Universities have contributed 3145 theses in the repository. Panda (2016) examined the progress and current status of Shodhganga: a reservoir Indian electronic thesis and further discussed the need and importance of a centrally maintained repository in the current age and the role and challenges of universities, libraries and researchers in development of institutional repositories at university levels. The study mentioned that as on 30 June 2015, a total of 40,175 theses have been deposited in the repository by 217 universities. Jawaharlal Nehru University has submitted the highest number of theses (4570, 11.37 per cent) and highest number of theses have been submitted from the state of Tamil Nadu. Number of theses and site visitors are gradually increasing (2010-2015).

Jeyapragash et al. (2016) examined the Electronic Theses and Dissertations (ETDs) deposited at INFLIBNET Shodhganga project by Indian Universities during 2010-2015 and found that 55390 theses have been deposited on various disciplines by 239 Universities. It is found that Aligarh Muslim University with 5319 (9.6%) records has contributed large number of theses to the Shodhganga and placed first rank among the Universities. It is also found that major contribution of theses in Shodhganga was made by Science, Engineering and Technology subject group. Jhamb and Samim (2017) conducted a case study on the contribution made by the central universities of India to the open access repository namely Shodhganga. The study found that there are total 46 Central universities in India out of

which only 27 universities are contributing to Shodhganga. Total number of theses submitted by these 27 central universities is 19187 as on 02 April 2017. Aligarh Muslim University (AMU) ranked first among the central universities. Its contribution was 6458 (33.7%). Biswas (2017) reported that there are 26 Universities in West Bengal, out of which only 8 universities have signed MoU and submitted electronic theses and dissertations to Shodhganga. Out of 8 Universities from West Bengal, the University of Burdwan was in the first position with 1845 theses.

Hasan et al. (2017) reported that total 280 Indian Universities have signed MoU with INFLIBNET Centre. However, 261 of them have contributed 99995 full text theses and dissertations to Shodhganga repository as on 4 October, 2016. Aligarh Muslim University (AMU) has been ranked no. 1 in terms of contribution to Shodhganga with 6138 full text theses and dissertations. Devi and Verma (2017) assessed the Contribution of Theses & Dissertations to Shodhganga by North Eastern Central Universities of India and observed that there are total 9 central universities in North East India but only 7 universities are contributing to Shodhganga. They further assessed that science departments are in leading position to contribute in shodhganga in central universities of North East States. It is found during review of literature that there are some studies conducted on contribution of different states in different years such as Tamil Nadu, Assam, Maharashtra and West Bengal in Shodhganga (Dhanavandan and Tamizhchelvan, 2013; Das and Saikia, 2014; Sengupta, 2015; Biswas, 2017). No study was conducted on the

contribution of universities of Madhya Pradesh to Shodhganga yet. Hence, the present study is conducted.

OBJECTIVES OF THE STUDY

The specific objectives of the study are to:

1. find out year wise distribution of Universities of India which have signed MoU with Shodhganga.
2. find out State wise distribution of Universities of India which have signed MoU with Shodhganga.
3. find out the number of universities with their total contributions and subject wise distribution of contribution from Madhya Pradesh which have signed MoU with Shodhganga.

METHODOLOGY

The data for the present study were collected from the website of Shodhganga: a reservoir of Indian theses (<http://shodhganga.inflibnet.ac.in>) maintained by INFLIBNET till 17 July 2019 and collected data were processed and analyzed according to the objectives of the present study.

DATA ANALYSIS AND INTERPRETATION

Year wise Distribution of Universities Singed MoU

The table 1 shows year wise distribution of Indian universities which have signed MoU with INFLIBNET to contribute full text theses in Shodhganga. It is seen from the table 1 that 470 universities have signed MoU with the INFLIBNET Centre to participate in the Shodhganga project during the period of 2010-2019. However, as on 17 July 2019 only 397

universities were contributed in Shodhganga. The highest numbers of MoU (77) were signed in the year 2018 and lowest numbers of MoU (21) were signed in the year 2010. The reasons for lesser contribution may be attributed to the fact that the establishment of large number of private universities during the last five years and their doctoral programmes results are yet to come. The lack of awareness and skilled staff is another reason for less contribution in Shodhganga.

Table 1: Year wise Distribution of Universities Singed MoU

Year	No. of Universities Singed MoU	Percentage (%)
2010	10	2.13
2011	38	8.09
2012	51	10.85
2013	54	11.49
2014	33	7.02
2015	60	12.77
2016	54	11.49
2017	59	12.55
2018	77	16.38
2019	34	7.23
Total	470	100.0

State Wise Distribution of Universities

According to the University Grants Commission website, there are 907 Universities in India as on 31 March, 2019. It is clear from the table 2 that out of the 907 Universities, 470 Universities from 30 states have signed MoU with INFLIBNET to contribute the theses in

Table 2: State Wise Distribution of Universities Singed MoU

Sl. No.	State	No. of Universities Singed MOU	Percentage (%)
1	Tamil Nadu	48	10.21
2	Uttar Pradesh	44	9.36
3	Rajasthan	43	9.15
4	Maharashtra	36	7.66
5	Gujarat	34	7.23
6	Karnataka	32	6.81
7	Madhya Pradesh	29	6.17
8	Haryana	23	4.89
9	Andhra Pradesh	20	4.26
10	New Delhi	18	3.83
11	Himachal Pradesh	17	3.62
12	Punjab	17	3.62
13	Uttarakhand	16	3.40
14	West Bengal	16	3.40
15	Chhattisgarh	10	2.13
16	Kerala	10	2.13
17	Assam	10	2.13
18	Bihar	9	1.91
19	Jammu and Kashmir	7	1.49
20	Odisha	7	1.49
21	Jharkhand	6	1.28
22	Meghalaya	4	0.85
23	Telangana	3	0.64
24	Tripura	2	0.43
25	Arunachal Pradesh	2	0.43
26	Goa	2	0.43
27	Manipur	2	0.43
28	Mizoram	1	0.21
29	Nagaland	1	0.21
30	Sikkim	1	0.21
	Total	470	100.00

Shodhganga. The table 2 shows the state wise distribution of universities which have signed MoU and the highest numbers of MoU signed by universities of Tamil Nadu (10.21%). Uttar Pradesh ranked second with 44 universities (9.36%) followed by Rajasthan (3rd rank) with 43 universities (9.15%). Maharashtra ranked fourth with 36 universities (7.66%), followed by Gujarat (5th rank) with 34 universities (7.23%), Madhya Pradesh ranked seventh with 29 universities (6.17%).

Top 25 Contributing Universities in Shodhganga

The table 3 shows the top 25 contributing universities in Shodhganga. From the table 3 it can be seen that out of 397 contributing universities, University of Calcutta ranked one as it has contributed the maximum number of 11914 theses in Shodhganga followed by Savitribai Phule Pune University whose contribution with 9837 theses. Further, it is found that Aligarh Muslim University ranked third with the contribution of 8047 theses, V. B. S. Purvanchal University ranked fourth with 8040 theses, followed by Anna University contributed 8000 theses. As on 17 July 2019, a total of 234591 theses have been deposited in the Shodhganga by 397 universities and it is clear from table 3 that about 56.47% of total contribution is only made by top 25 universities in Shodhganga.

No. of Universities of Madhya Pradesh Singed MoU

The table 4 shows the year wise distribution of universities of Madhya Pradesh which have signed MoU with shodhganga. It can be seen that a total 29 universities have signed MoU with

Table 3: Top 25 Contributing Universities in Shodhganga

Sl. No.	Name of University	Contribution
1	University of Calcutta	11914
2	Savitribai Phule Pune University	9837
3	Aligarh Muslim University	8047
4	V. B. S. Purvanchal University	8040
5	Anna University	8000
6	Panjab University	7323
7	University of Madras	6276
8	Bharathidasan University	5639
9	Dr. Babasaheb Ambedkar Marathwada University	5156
10	Gauhati University	5143
11	Manonmaniam Sundaranar University	5142
12	Jawaharlal Nehru University	4714
13	Sri Venkateswara University	4530
14	Bharathiar University	4360
15	Karnatak University	4345
16	Shivaji University	3642
17	Maharaja Sayajirao University of Baroda	3638
18	Dr. Rammanohar Lohia Avadh University, Faizabad	3624
19	Swami Ramanand Teerth Marathwada University	3585
20	Utkal University	3518
21	Gujarat University	3412
22	Maharshi Dayanand University	3347
23	Sri Krishnadevaraya University	3345
24	University of Kerala	2966
25	University of Mysore	2922
	Total	132465

Shodhganga from Madhya Pradesh and highest number of universities (8) were signed MoU in the year 2017, followed by 7 universities in 2018. No university signed MoU in 2010 and 2011.

Table 4: No. of Universities of Madhya Pradesh Signed MoU

Year	No. of Universities of MP signed MoU
2010	0
2011	0
2012	2
2013	2
2014	1
2015	3
2016	3
2017	8
2018	7
2019	3
Total	29

Contributions of Universities of Madhya Pradesh in Shodhganga

The table 5 shows that out of the 59 Universities of Madhya Pradesh, 29 universities have signed MoU with Shodhganga for contributing their theses in the repository. However, table 5 shows that only 20 universities of them have contributed their theses in Shodhganga. The 20 universities from Madhya Pradesh have contributed 4961 theses in the repository. The highest number i.e. 1847 (37.23%) theses were contributed by Dr. Harisingh Gour Vishwavidyalaya, Sagar followed by Devi Ahilya Vishwavidyalaya, Indore with 1734 (34.95%) and Jiwaji University, Gwalior with 1090 (21.97) theses. Vikram University, Ujjain ranked fourth position with 95 theses (1.91%), followed by Jaypee University of Engineering & Technology, Guna (5th rank) with 79 theses (1.59%). Remaining 15 universities contributed less than 50 theses in Shodhganga and 9 universities have no contribution in Shodhganga yet.

Table 5: Contributions of Universities of Madhya Pradesh in Shodhganga

Sl. No.	Name of University	No. of Theses	Percentage (%)
1	Dr. Harisingh Gour Vishwavidhyalaya	1847	37.23
2	Devi Ahilya Vishwavidyalaya	1734	34.95
3	Jiwaji University	1090	21.97
4	Vikram University	95	1.91
5	Jaypee University of Engineering & Technology, Guna	79	1.59
6	Rabindranath Tagore University, Bhopal	32	0.65
7	RKDF University	17	0.34
8	ITM University, Gwalior	16	0.32
9	Awadhesh Pratap Singh University	10	0.20
10	Swami Vivekanand University	10	0.20
11	Oriental University	8	0.16
12	Shri Vaishnav Vidyapeeth Vishwavidyalaya	6	0.12
13	Amity University, Madhya Pradesh	5	0.10
14	Mahatma Gandhi Chitrakoot Gramoday Vishwavidyalaya, Satna	3	0.06
15	Sri Satya Sai University of Technology and Medical Sciences, Sehore	3	0.06
16	National Law Institute University, Bhopal	2	0.04
17	Barkatullah University	1	0.02
18	Jagran Lake city University	1	0.02
19	Madhya Pradesh Bhoj (Open) University	1	0.02
20	Rani Durgavati Vishwavidyalaya	1	0.02
21	AKS University, Satna	0	0.00
22	Dr. B.R. Ambedkar University of Social Science, Indore	0	0.00
23	Indira Gandhi National Tribal University, Amarkatnak	0	0.00
24	Maharishi Mahesh Yogi Vedic Vishwavidyalaya, Katni	0	0.00
25	Makhanlal Chaturdevi National University of Journalism & Communication, Bhopal	0	0.00
26	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	0	0.00
27	SAGE University, Indore	0	0.00
28	Sanchi University of Buddhist-Indic Studies, Bhopal	0	0.00
29	Sarvepalli Radhakrishnan University, Bhopal	0	0.00
		4961	100

Subject wise Distribution of Theses

The table 6 provides the subject wise distribution of theses contributed by universities of Madhya Pradesh in Shodhganga. From the contribution of various universities of Madhya

Pradesh, it was found that Biology group ranked first with 813 (16.39%) theses. The Second most contributing subject was Chemistry with 589 (11.87%) theses, followed by the Management (524, 10.56%). The Physics is at fourth position

Table 6: Subject wise Distribution of Theses Contributed by Universities of Madhya Pradesh

Sl. No.	Subject	No. of Theses	Percentage (%)
1	Biology (Biochemistry, Biotechnology, Botany, Life Sciences, Microbiology, Zoology)	813	16.39
2	Chemistry, Chemical Science	589	11.87
3	Management	524	10.56
4	Physics	415	8.37
5	Commerce	378	7.62
6	Education, Adult Education, Physical Education	286	5.76
7	History	235	4.74
8	English	168	3.39
9	Mathematics	160	3.23
10	Economics	142	2.86
11	Social Sciences, Social Work, Sociology	135	2.72
12	Hindi	124	2.50
13	Engineering	121	2.44
14	Political Science	97	1.96
15	Geography	79	1.59
16	Home Science	78	1.57
17	Computer Science	72	1.45
18	Law	62	1.25
19	Geology	56	1.13
20	All other Subjects (<50 theses each)	427	8.61
	Total	4961	100.00

with 415 (8.37%) theses, followed by Commerce with 378 (7.62%) theses.

CONCLUSION AND SUGGESTIONS

The open access repositories are very useful especially for researchers in developing countries to get information about latest research and development in their field where researchers and many educational institutions cannot afford for the costly publications. The finding of this study revealed that overall contributions of theses in Shodhganga increasing satisfactory. Many universities though signed MoU with Shodhganga but not started contributing their theses yet. It was

found that the overall contribution of universities of Madhya Pradesh in Shodhganga is satisfactory but contribution on many subjects is very less and 9 universities of Madhya Pradesh have not yet contributed in Shodhganga. About 37.23% of the total contribution of universities of Madhya Pradesh is only made by Dr. Harisingh Gour Vishwavidyalaya, Sagar. The Shodhganga repository is very useful for those universities and educational institutions which cannot create their own digital repository. It is recommended that INFLIBNET should organize regular awareness and training programmes regarding Shodhganga outside their campus in every state

so that large number of professionals can participate from every state. The Universities should collaborate with INFLIBNET in organizing awareness and training programmes in their campus. The benefits should be given in NAAC accreditation to all those universities who deposit their theses in Shodhganga to encourage universities for providing facilities and staff to deposit their theses in Shodhganga.

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