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Shodhganga and Shodhshuddhi “2S” –Indian research Paragon: A Study

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ABSTRACT

This study examines and discusses the overview of the contributions made by the Indian Universities that signed MOU to the Open Access repository with INFLIBNET namely Shodhganga. 463 universities are contributing 247285 theses in Shodhganga in the INFLIBNET list as of 24.04.2020 where the State Universities contributed 195913 theses (79.22percent). Tamil Nadu contributed the highest number of theses 46416 where a maximum of 11908 theses was contributed by the individual university from Calcutta University, West Bengal. A total of 463 universities, 187 of the state universities, 140 of those are private universities, 88 of which are deemed universities and 3 of which are CFTI universities and the remaining 45 of which are central universities, that all keep e-theses in the Shodhganga repository. Tamil Nadu has the largest number (46) of universities depositing these into the repository. The investigator also examined that a total of 31 states use plagiarism detection software through the INFLIBNET-initiated Shodhshuddhi project with 1032 institutes/universities.

KEYWORDS: Shodhganga, Theses, PDS, Shodhshuddhi, Universities, INFLIBNET, Repository

INTRODUCTION

The UGC Notification (Minimum Standards & Award Procedure for M.Phil. /Ph. D. Degree, Regulation, 2009 and 2016) provides the directive for researchers at Indian universities to submit electronic theses and dissertations to the INFLIBNET-Shodhganga to host the same so that it is open to all Institutions / Colleges. The UGC's mandate to apply for evaluation in its 2016 regulation, the dissertation/thesis shall have an undertaking from the research scholar and a certificate from the Research Supervisor attesting to the originality of the work, swearing that there is no plagiarism.

The MHRD, Govt. of India since 1 September 2019, 'ShodhSuddi' program has been introduced in India that provides Plagiarism Detection software (PDS) to all universities/institutions in India. INFLIBNET has identified URKUND, Plagiarism Detection software by the global tender to be given to all users of the country's universities/intuitions. The PDS is identified for preventing plagiarism, better research outcomes and upholding the good reputation of the universities/institutions for promoting original research ideas. The UGC(University grant commission) has been promoting Indian research work from time to time and has taken various steps. They circulated a regulation on "Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educations Institutions" in July 2018 which mentions the level of plagiarism and penalties for that and clearly says that institutes/universities must submit electronic copies of all theses to the INFLIBNET-Shodhganga. As of 20 April 2020, they issued yet another public notice on self-plagiarism.Shodhganga program initiated by the INFLIBNET Centre which stands for the reservoir of Indian intellectual output stored in a repository. Shodhganga makes a forum for scholars to deposit their Ph.D. theses and make them freely accessible to the entire scholarly community. The repository can capture, index, store, disseminate and preserve ETDs (Electronic Theses and Dissertations) submitted by the researchers.

LITERATURE REVIEW

[1] Chakravarty, 2019attempted to evaluate the performance of India's national ETD repository through the use of the Site Analyzer Test Score. It highlights the status of Open Access repositories

regarding other OA materials, such as research papers, conference papers, etc. The webometric research general score was found to be 6.4.[2] Sandhya,2019 reviewed the electronic theses and dissertations which Indian universities have submitted to INFLIBNET's Shodhganga. It was pointed out that Osmania University (OU) stands in 71st place among 355 universities. This research aims to find out the contributions made by OU which are faculty-wise and department-wise.[3] Raiyan,2019 accumulated by analyzing the Knowledge Management (KM) theses submitted in Shodhganga. This study shows that Indian universities have developed a new research pattern at KM in time due to its multidisciplinary aspects. This study finds that the Department of Management Sciences and Business Administration has been the leading branch of Indian academic institutions for the last eight years researching KM. [4] Singh, 2018 discussed Ph.D. research patterns of DLIS, AMU theses for the past nineteen years. In this paper, they seek to find out the year-wise distribution, the prolific ranking, the length of the pages, the language medium of the thesis library and the area of study in information science with the data 91 Ph.D. Theses were collected from 1998–2016 on the Shodhganga Site. This paper accounts for the maximum thesis being submitted in 2009 at 20.98 percent.[5]Nanthini & Varghese, 2018Studied on quantitative analysis of Shodhganga's contributing universities to classify the major contributing institutions to the repository, contributed language of ETDs, departments contributing more research work and the amount of research work undertaken by Indian universities in the last decade. Results show that the University of Calcutta is the top contributor of all contributing universities with 11025 ETDs from which the Department of Science at the university has contributed 2205 ETDs. Shodhganga also includes other languages ETDs and most contributions by VBSPU are in languages other than English. Though, the one place where the registry needs to change is to make year-wise records accessible for all ETDs.[6] Garg & Duggal, 2018 analyzed 511 theses adopted by the University of Bangalore in the 1969–2015 disciplines of zoology, botany and physics suggesting that the number of theses approved during the study period follows an irregular pattern. During the five years from 1991–1995, the highest number of theses was accepted in zoology and botany while the highest number of theses in physics was accepted in the five years from 1996–2000. Of the 511 theses

approved, 203 were from female scholars and the remaining 308 were from male scholars.[7] Dutt, 2017 stated that, under the guidance of the University Grants Commission, INFLIBNET had established the electronic theses and dissertations-ETD Repository. It is Indian theses and dissertations online archive. They tried to elicit the fundamentals of the ETD repository so that academics could better grasp the definition and can contribute further as individuals and institutions.[8] Jhamb & Samim, 2017 tried to provide an overview of the contributions made by India's central universities to Shodhganga's open access repository. In India, there are a total of 46 central universities listed on the UGC website, of which only 25 share their work outputs with Shodhganga or are those that have signed MoU with Shodhganga. This article is an extensive case study of the contribution of wise and year-wise faculty theses from various central universities across India.[9] Ramesh, 2013 administered to research the Universities that joined Shodhganga and how much they contributed to Ph.D. theses and, in particular, to Ph.D. in Library and Information Science Universities.[10]Dhanavandan & Tamizhchelvan, 2013 studied some of the Tamil universities are signed MoU to submit electronic copies of their theses. Of Tamil Nadu's 18 universities, 9 are state-run universities and nine are self-supported or private universities

SIGNIFICANCE OF THE STUDY

In this present era, doctoral theses in digital format are an essential and valuable tool for study. The INFLIBNET Centre come forward and installed the repository in the name of “Shodhganga” where all e-copies of doctoral theses from various universities across India are depositing. The UGC circulated an order for academic integrity and prevention of plagiarism in higher educations institutions and distributed tools for plagiarism detection software to the institutions/universities. In this context, the investigator decided to conduct a study on the analysis of state-wise and universities' wise contributing theses trends as well as the analysis of PDS distribution among institutions/universities.

OBJECTIVES OF THE STUDY

The main objectives of the present study are as follows:

1. To find out the number of different types of Universities in Shodhganga contributing theses.
2. To find the trend of depositing theses from various types of universities in Shodhganga.
3. To find out the patterns in depositing theses for the period 2011 to 2019.
4. To identify the ranking of the top ten universities contributing to Shodhganga.
5. To discuss the PDS (Plagiarism distribution software) distribution.

SCOPE OF THE STUDY

The scope of the present study is based only on the projects of Shodhganga and Shodhshuddhi.

- The analysis is restricted only to the theses submitted to the Shodhganga repository.
- This study is based on the data available on the Shodhganga and Shodhshuddhi websites from 24.04.2020.

METHODOLOGY

In this study, part of the data is collected from the database of the Shodhganga website (dashboard section@ <http://14.139.13.45/shodhganga/index.php/home>), which lists out the doctoral theses. The data collected pertains to the name of central, state, deemed, CFITs universities wise and the name of the state of India wise. Another part of the data is collected from the ShodShudhi website (<https://pds.inflibnet.ac.in/statewise.php>) which is state-wise beneficiary Plagiarism detection software data containing state name, number of institutes, number of PDS users, number of uploaded documents for plagiarism check. The research was recorded and analyzed in the worksheets of MS-Excel.

DATA ANALYSIS

Table 1: State-wise, type of universities distribution

Sl. No.	State	University Type					Total	Rank
		Central	CFTI	Deemed	Private	State		
1	Andhra Pradesh	2 (11.8%)	0 (0.0%)	3(17.6%)	0 (0.0%)	12(70.6%)	17(100.0%)	10
2	Arunachal Pradesh	1 (50.0%)	0 (0.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	2 (100.0%)	20
3	Assam	2 (22.2%)	0 (0.0%)	0 (0.0%)	2 (22.2%)	5 (55.6%)	9 (100.0%)	15
4	Bihar	3 (37.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (62.5%)	8 (100.0%)	16
5	Chhattisgarh	1 (9.1%)	0 (0.0%)	0 (0.0%)	5 (45.5%)	5 (45.5%)	11(100.0%)	13
6	Delhi	5 (31.3%)	0 (0.0%)	6 (37.5%)	0 (0.0%)	5 (31.3%)	16(100.0%)	11
7	Goa	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1(100.0%)	1(100.0%)	21
8	Gujarat	1 (3.1%)	0 (0.0%)	2(6.3%)	15(46.9%)	14(43.8%)	32(100.0%)	6
9	Haryana	1(4.3%)	1(4.3%)	3(13.0%)	10(43.5%)	8(34.8%)	23(100.0%)	8
10	Himachal Pradesh	2(11.8%)	0(0.0%)	0(0.0%)	13(76.5%)	2(11.8%)	17(100.0%)	10
11	Jammu and Kashmir	2(28.6%)	0(0.0%)	0(0.0%)	0(0.0%)	5(71.4%)	7(100.0%)	16
12	Jharkhand	1(12.5%)	0(0.0%)	0(0.0%)	3(37.5%)	4(50.0%)	8(100.0%)	15
13	Karnataka	1(2.9%)	0(0.0%)	11(31.4%)	7(20.0%)	16(45.7%)	35(100.0%)	5
14	Kerala	1(10.0%)	0(0.0%)	1(10.0%)	0(0.0%)	8 (80.0%)	10(100.0%)	14
15	Madhya Pradesh	2(6.7%)	2(6.7%)	1(3.3%)	13(43.3%)	12(40.0%)	30(100.0%)	7
16	Maharashtra	1(2.8%)	0(0.0%)	16(44.4%)	3(8.3%)	16(44.4%)	36(100.0%)	4
17	Manipur	1(50.0%)	0(0.0%)	0(0.0%)	0(0.0%)	1(50.0%)	2(100.0%)	19
18	Meghalaya	1 (33.3%)	0(0.0%)	0(0.0%)	2(66.7%)	0(0.0%)	3(100.0%)	19
19	Mizoram	1(100.0%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	1(100.0%)	21
20	Nagaland	1(50.0%)	0(0.0%)	0(0.0%)	1(50.0%)	0(0.0%)	2(100.0%)	20
21	Odisha	1(14.3%)	0(0.0%)	2(28.6%)	1(14.3%)	3(42.9%)	7(100.0%)	17
22	Puducherry	1(50.0%)	0(0.0%)	1(50.0%)	0(0.0%)	0(0.0%)	2(100.0%)	20
23	Punjab	1(5.0%)	0(0.0%)	2(10.0%)	10(50.0%)	7(35.0%)	20(100.0%)	9
24	Rajasthan	1(2.4%)	0(0.0%)	6(14.6%)	28(68.3%)	6(14.6%)	41(100.0%)	2
25	Tamil Nadu	3(6.5%)	0(0.0%)	24(52.2%)	2(4.3%)	17(37.0%)	46(100.0%)	1
26	Telangana	1(25.0%)	0(0.0%)	1(25.0%)	0(0.0%)	2(50.0%)	4(100.0%)	18
27	Tripura	1(50.0%)	0(0.0%)	0(0.0%)	1(50.0%)	0(0.0%)	2(100.0%)	19
28	Uttar Pradesh	4(10.0%)	0(0.0%)	5(12.5%)	17(42.5%)	14(35.0%)	40(100.0%)	3
29	Uttarakhand	1(6.7%)	0(0.0%)	3(20.0%)	6(40.0%)	5(33.3%)	15(100.0%)	12
30	West Bengal	1(6.3%)	0(0.0%)	1(6.3%)	0(0.0%)	14(87.5%)	16(100.0%)	11

Total	45(9.7%)	3(0.6%)	88(19.0%)	140(30.2%)	187(40.4%)	463(100.0%)
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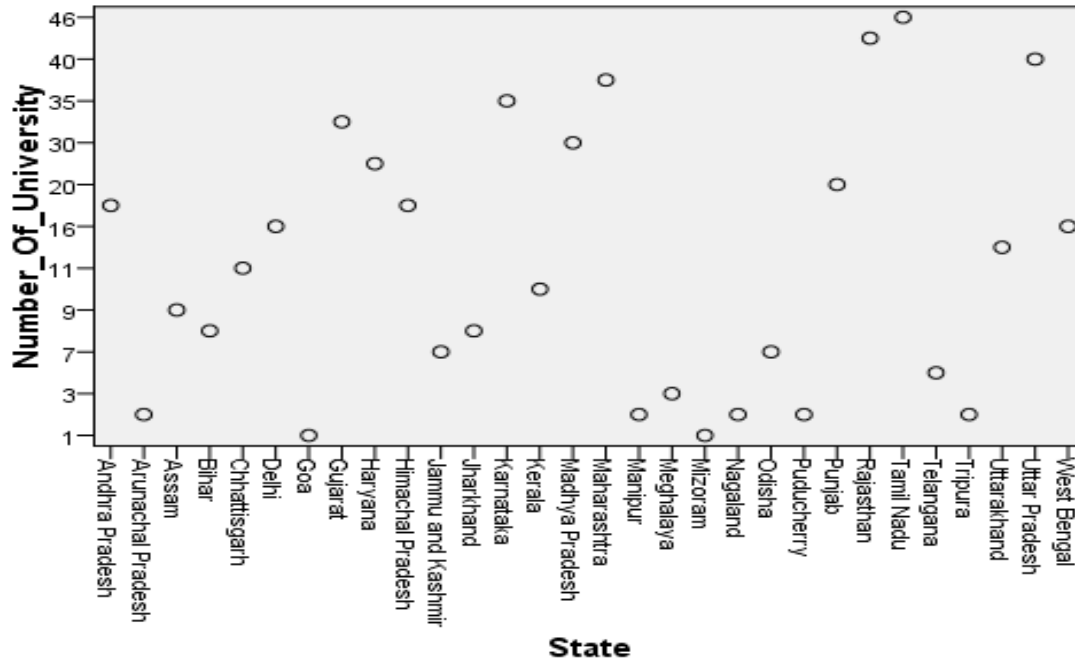


Figure 1: State Vs. Number of universities plotting

From this table 1, a total of 463 universities contributed these until dated 24/04/2020, where 187 (40.4%) are state universities, 140 are private universities, about 30.2% of India's total university contributors. 88 (19.0%) from deemed university and 3 (0.6%) from CFTI, remaining 45 (9.7%) from central university deposited these into the Shodhganga repository. It is observed that the highest number of universities contribution (46) are from the Tamil Nadu state. The second and third contributing state is Rajasthan (41) and Uttar Pradesh (40). The highest five number of central universities who are depositing these are from Delhi. Figure 1 shows bubble plots indicating state-wise contributing universities concerning the total number of universities in the state.

Table 2: Calculation of year-wise theses depositing

attribute	superColumn	rowName	V5
Coefficient	facet2column1	Year_transformed	27,157.350
Importance	facet2column3	Year_transformed	1.000

Sig	facet2column1	Year_transformed	.000
Coefficient	facet2column1	Intercept	-54,654,052.139
Importance	facet2column3	Intercept	
Sig	facet2column1	Intercept	.000

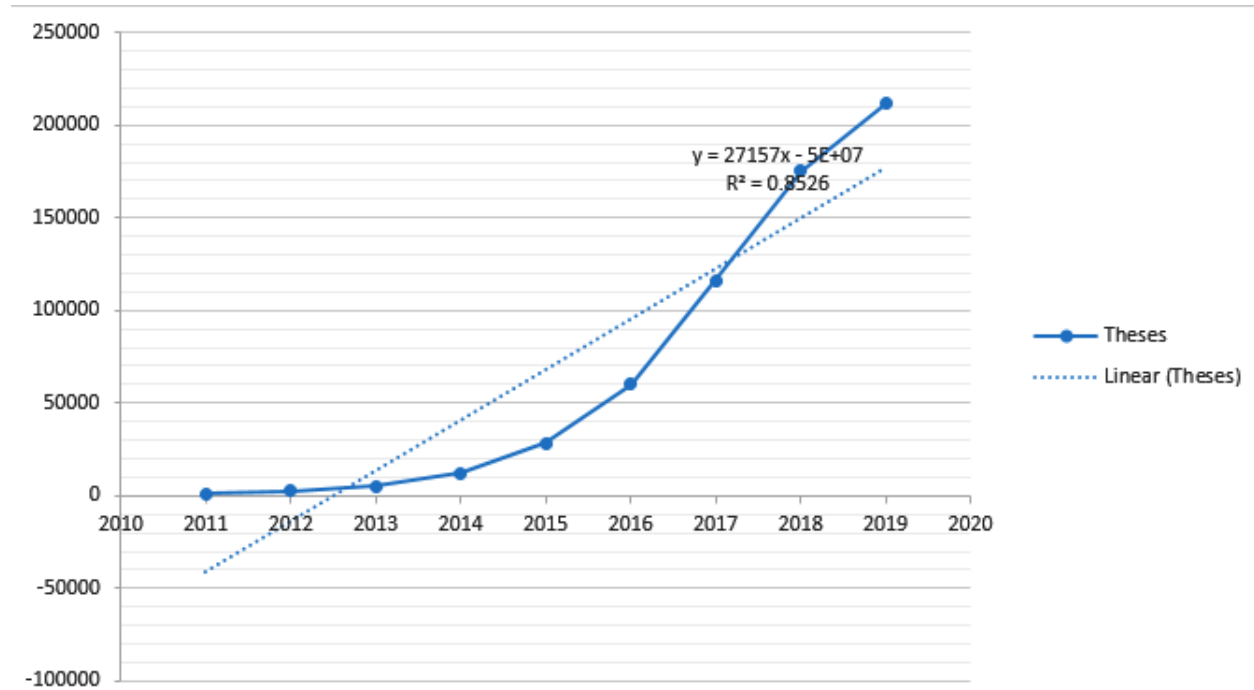


Figure 2: Year-wise these distribution linear graph

From figure 2, this is XY scatter diagram, X represents the year of submission and Y represents no. of contribution theses. In this example, the R-squared value equals 0.8526, which means that the trendline fits about 85% of data values. Additionally, the slope can be measured using the function LINEST. SLOPE(known y's, known x's), Known y's is a set of axis-plotted dependent data points, Known x's is a set of independent data points plotted on the x-axis. The coefficient is calculated at 27.157.350. I obtain the calculation results from table 2.

Table 3: State-wise, Universities type-wise number of theses contribution

SL No	State	Theses_Central_Univ.	Theses_State_Univ.	Private_Univ.	Deemed_Univ.	CFTIS	Total Theses	Rank
1	Andhra Pradesh	1705(6.18%)	12189(6.22%)	0(0%)	477(2.93%)	0(0%)	14371(5.81%)	6
2	Arunachal Pradesh	232(0.84%)	0(0%)	0(0%)	0(0%)	0(0%)	232(0.09%)	25
3	Assam	1488(5.39%)	5400(2.75%)	39(0.52%)	0(0%)	0(0%)	6927(2.80%)	11
4	Bihar	1(0.003%)	84(0.042%)	0(0%)	0(0%)	0(0%)	85(0.03%)	30
5	Chhattisgarh	92(0.33%)	2522(1.28%)	101(1.35%)	0(0%)	0(0%)	2715(1.10%)	17
6	Delhi	5870(21.28%)	360(0.18%)	0(0%)	1140(7.01%)	0(0%)	7370(2.98%)	10
7	Goa	00(0%)	708(0.36%)	0(0%)	0(0%)	0(0%)	708(0.29%)	23
8	Gujarat	81(0.29%)	13778(7.03%)	709(9.45%)	501(3.08%)	0(0%)	15069(6.09%)	5
9	Haryana	45(0.16%)	4395(2.24%)	626(8.35%)	385(2.37%)	1(2.63%)	5452(2.20%)	13
10	Himachal Pradesh	71(0.26%)	3034(1.55%)	441(5.88%)	0(0%)	0(0%)	3549(1.44%)	16
11	Jammu and Kashmir	70(0.25%)	1792(0.91%)	0(0%)	0(0%)	0(0%)	1862(0.75%)	19
12	Jharkhand	11(0.04%)	58(0.029%)	41(0.55%)	0(0%)	0(0%)	1100(0.04%)	28
13	Karnataka	19(0.07%)	12524(6.39%)	7(0.09%)	1729(10.64%)	0(0%)	14279(5.77%)	7
14	Kerala	10(0.04%)	10397(5.30%)	0(0%)	32(0.19%)	0(0%)	10439(4.22%)	9
15	Madhya Pradesh	1893(6.86%)	2904(1.48%)	201(2.68%)	141(0.87%)	37(97.36%)	5176(2.09%)	15
16	Maharashtra	58(0.21%)	26023(13.28%)	93(1.24%)	2362(14.53%)	0(0%)	28536(11.54%)	3
17	Manipur	1105(4.01%)	0(0%)	0(0%)	0(0%)	0(0%)	1105(0.45%)	22
18	Meghalaya	2028(7.35%)	0(0%)	35(0.47%)	0(0%)	0(0%)	2663(0.83%)	18
19	Mizoram	423(1.53%)	0(0%)	0(0%)	0(0%)	0(0%)	423(0.17%)	24
20	Nagaland	144(0.52%)	0(0%)	3(0.04%)	0(0%)	0(0%)	147(0.06%)	27
21	Odisha	13(0.05%)	4824(2.46%)	27(0.36%)	505(3.10%)	0(0%)	5369(2.17%)	14
22	Puducherry	1519(5.51%)	0(0%)	0(0%)	4(0.024%)	0(0%)	1523(0.62%)	21
23	Punjab	69(0.25%)	9799(5.001%)	269(3.59%)	433(2.66%)	0(0%)	10570(4.27%)	23
24	Rajasthan	27(0.10%)	781(0.39%)	3149(42.01%)	2200(13.54%)	0(0%)	6157(2.49%)	12
25	Tamil Nadu	152(0.55%)	40894(20.87%)	564(7.52%)	4806(29.58%)	0(0%)	46416(18.77%)	1

26	Telangana	21(0.08%)	13(0.01%)	0(0%)	53(0.33%)	0(0%)	87(0.04%)	29
27	Tripura	168(0.61%)	0(0%)	0(0%)	0(0%)	0(0%)	168(0.06%)	26
28	Uttar Pradesh	9444(34.23%)	22410(11.44%)	956(12.75%)	1195(7.35%)	0(0%)	34005(13.75%)	2
29	Uttarakhand	140(0.51%)	110(0.57%)	235(3.13%)	285(1.75%)	0(0%)	1769(0.72%)	20
30	West Bengal	687(2.49%)	19915(10.17%)	0(0%)	1(0.006%)	0(0%)	20603(8.33%)	4
Total		27586(100%)	195913(100%)	7496(100%)	16249(100%)	38(100%)	247285(100%)	

Table 3 indicates that the total number of deposit theses is 247285 dated 24.04.2020 (from the Shodhganga dashboard section on the <http://14.139.13.45/shodhganga/index.php/home> website). 30 State in India with a total of 463 universities has deposited theses in the Shodhganga repository of which we find that Tamil Nadu contributes the highest number of theses about 46416 (18.77percent), next to that is Uttar Pradesh (34005) (3.75percent) and Maharastra has contributed 28536 theses (11.54percent). A total of 247285 theses were deposited from different types of universities in India. Here we find that state universities contribute maximum theses of 195913 of 79.22 percent of total theses, followed by central universities of 11.16%), private universities of 6.57%, deemed universities of 3.03% and centrally funded technical Institutions(CFTIs) of 0.02%.

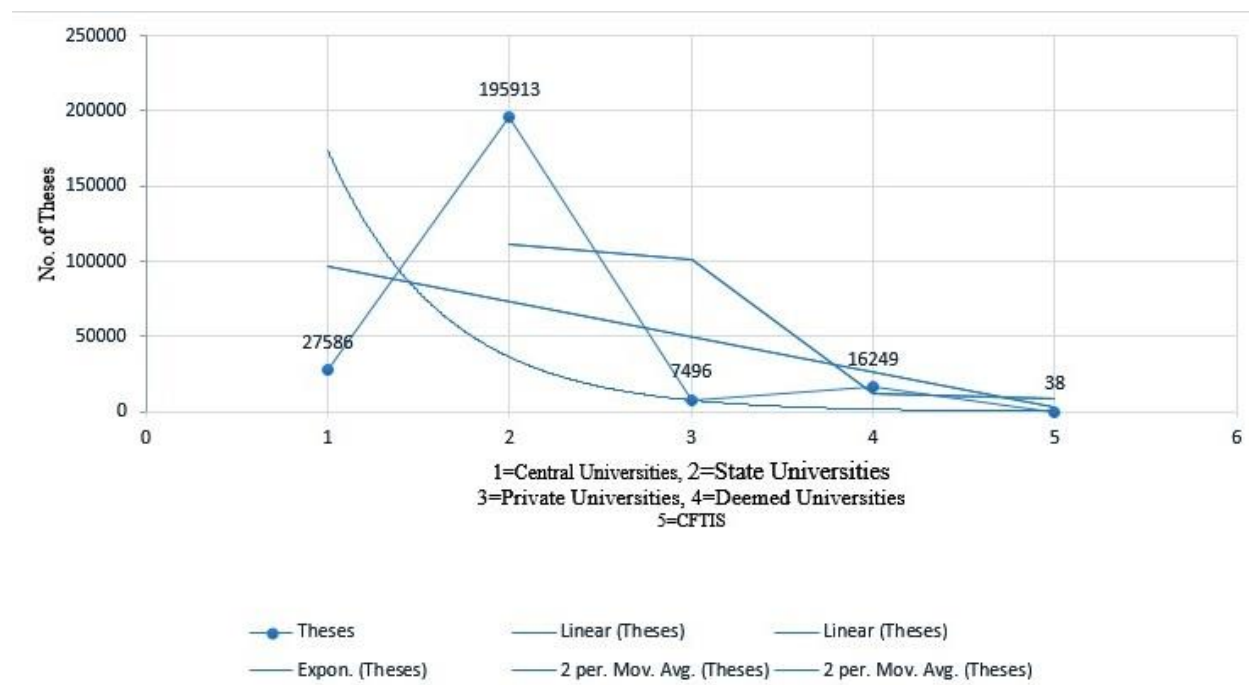


Figure 3: Contribution of theses by type of universities-wise, moving average of 2 cycles
(theses)

From figure 3, the researcher was plotting a graphical representation (XY Scatter diagram) of the theses contribution from different types of universities. Here measure a moving average of 2 cycles (theses) and then use the average of the first two data points as the first point in the moving average trendline. The average of the second and third data points is used as the second point in the trendline, and so on.

Table 4: Top ten universities of these contributors

Sl. No.	University	Type	State	Theses	Rank
1	University of Calcutta	State University	West Bengal	11908	1
2	University of Madras	State University	Tamil Nadu	10524	2
3	Savitribai Pune University	State University	Maharashtra	10509	3
4	Chhatrapati Shahuji Maharaj University	State University	Uttar Pradesh	9680	4
5	Anna University	State University	Tamil Nadu	9028	5
6	V.B.S Purranchal University	State University	Uttar Pradesh	8174	6
7	Aligarh Muslim University	Central University	Uttar Pradesh	8162	7
8	Panjab University	State University	Punjab	7485	8
9	Bharathidasan University	State University	Tamil Nadu	5858	9
10	Manonmaniam Sundaranar University	State University	Tamil Nadu	5619	10

Table 4, displays individual university rank order for contributing theses in the Shodhganga repository in India. Where we observe that the University of Calcutta, has deposited a maximum of 11908 theses that belong to the West Bengal state. The next University of Madras and Savitribai Pune University, contributing 10524 and 10509 number of theses and keeping second and third places respectively. Here we observe that among the top ten universities in India, nine universities are in-state universities, one central university. Besides, it is found that four universities belong in the state of Tamil Nadu and three universities are coming from Uttar Pradesh. Here we observe that nine of India's top ten universities are in-state universities, one central university. This is also noticed that four universities belong to Tamil Nadu province, and three universities are from Uttar Pradesh.

Table 5: PDS distribution and status in state-wise

SL. No.	State	Nos. of Institute	Rank	Users	Rank	Documents	Rank
1	Andhra Pradesh	43(4.15%)	9	1674(2.12%)	16	3174(0.89%)	21
2	Arunachal Pradesh	10(0.97%)	23	291(0.37%)	28	606(0.17%)	29
3	Assam	25(2.42%)	18	5140(6.51%)	4	11044(3.10%)	12
4	Bihar	33(3.20%)	12	403(0.51%)	25	5497(1.54%)	15
5	Chhattisgarh	29(2.81%)	16	1029(1.30%)	18	3611(1.01%)	18
6	Delhi	30(2.91%)	14	3582(4.54%)	8	12930(3.63%)	9
7	Goa	3(0.29%)	29	304(0.39%)	27	3176(0.89%)	20
8	Gujarat	75(7.28%)	3	3702(4.69%)	7	20164(5.67%)	5
9	Haryana	47(4.55%)	8	3176(4.02%)	9	7519(2.11%)	13
10	Himachal Pradesh	28(2.71%)	17	1549(1.96%)	17	4711(1.32%)	16
11	Jammu and Kashmir	16(1.55%)	21	582(0.74%)	23	4172(1.17%)	17
12	Jharkhand	30(2.91%)	15	606(0.77%)	22	3298(0.93%)	19
13	Karnataka	68(6.59%)	4	3817(4.84%)	6	11955(3.36%)	10
14	Kerala	23(2.22%)	19	2001(2.53%)	15	13467(3.78%)	8
15	Madhya Pradesh	68(6.59%)	4	3066(3.89%)	11	17175(4.83%)	6
16	Maharashtra	66(6.39%)	5	5486(6.94%)	3	29934(8.41%)	4
17	Manipur	7(0.67%)	26	122(0.15%)	31	626(0.17%)	28
18	Meghalaya	10(0.97%)	23	695(0.88%)	21	2048(0.57%)	24
19	Mizoram	3(0.29%)	30	553(0.70%)	24	545(0.15%)	30
20	Nagaland	5(0.48%)	26	139(0.18%)	30	152(0.04%)	31
21	Odisha	31(3.00%)	13	2863(3.62%)	12	3117(0.87%)	22
22	Puducherry	4(0.38%)	28	354(0.44%)	26	1054(0.30%)	27
23	Punjab	36(3.49%)	10	3978(5.03%)	5	30533(8.58%)	2
24	Rajasthan	86(8.33%)	1	2593(3.28%)	13	13582(3.81%)	7
25	Sikkim	7(0.68%)	24	705 (0.89%)	20	1181(0.33%)	26
26	Tamil Nadu	60(5.81%)	6	17770(22.51%)	1	98146(27.58%)	1
27	Telangana	23(2.22%)	20	735(0.93%)	19	2194(0.61%)	23
28	Tripura	4(0.38%)	27	184(0.23%)	29	1515(0.42%)	25
29	Uttar Pradesh	79(7.65%)	2	6309(7.99%)	2	30141(8.46%)	3
30	Uttarakhand	35(3.39%)	11	2411(3.05%)	14	7167(2.01%)	14
31	West Bengal	48(4.65%)	7	3118(3.94)	10	11423(3.20%)	11
Total		1032(100%)		78937(100%)		355857(100%)	

Table 4 shows that a total of 31 states with 1032 institutes/universities are using plagiarism detection software supported by MHRD, Government of India, through the ShodhSuddhi program.

Rajasthan has the largest number of institutes/universities (86) of 8.33 percent of total

institutes/universities of India that PDS operates at Tamil Nadu makes 17770 (22.51 percent) the highest number of PDS users by their institutes/universities. The State also allows the largest number 98146(27.58percent) of documents for screening plagiarism checks.

MAJOR FINDINGS

Following are the major findings of this study

1. A total of 463 universities has contributed theses until 24/04/2020. Maximum of 187 state universities (40.4 percent) contributing to the Shodhganga. 140(30.2percent) private universities, 88 (19.0%) from deemed university and 3 (0.6%) from CFTI, remaining 45 (9.7%) from central university deposited theses into the repository.
2. The highest number of universities (46) that are submitting e-theses is from the state of Tamil Nadu. The second and third contributing state is Rajasthan (41) and Uttar Pradesh (40)
3. The total quantity of deposit theses as of 24.04.2020 is 247285
4. 30 state of India participates in the Shodhganga Program and contributes theses.
5. Tamil Nadu contributes the highest number of theses 46416 (18.77percent), next to that is Uttar Pradesh (34005) (3.75percent) and Maharastra has contributed 28536 theses (11.54percent).
6. The state universities contribute maximum theses of 195913 of 79.22 percent of total theses, followed by central universities of 11.16%), private universities of 6.57%, deemed universities of 3.03% and centrally funded technical Institutions(CFTIs) of 0.02%.
7. displays individual university rank order for contributing theses in the Shodhganga repository in India. Where we observe that the University of Calcutta, has deposited a maximum 11908 theses that belong to the West Bengal state. The next University of Madras and Savitribai Pune University, contributing 10524 and 10509 number of theses and keeping second and third places respectively.

8. Contribution of theses in Shodhganga repository, nine of India's top ten universities are in-state universities, one central university and four numbers of top universities belong to the province of Tamil Nadu, and three universities are from Uttar Pradesh.
9. A total of 31 states with 1032 institutes/universities are using plagiarism detection software supported by MHRD, Government of India, through the ShodhSuddhi program.
10. Rajasthan has the largest number of institutes/universities (86) of 8.33 percent of total institutes/universities of India who accept PDS.
11. Tamil Nadu through its institutes/universities generates 17770 (22.51 percent) PDS users.
12. Tamil Nadu uploads the largest number of documents 98146 (27.58 percent) for plagiarism checks.

CONCLUSION

In this paper, the researcher is trying to figure out how various types of universities in the Shodhganga who signed MOU contribute e-theses. Theses submission is an ongoing process. Nearly all universities have already been active in the project and are contributing their entire database; Several universities are in the early stages and hope to progress to develop India's research arena. In the Shodhshuddhi, nearly double the institutions/universities are participating in comparison with the Shodhganga project. PDS tools made available to universities would play a significant role in curbing plagiarism as it helps in preventing duplication of research work that has already been done in universities, thereby improving the quality of research at universities. The growth of research at universities highly depends on the outcome of the research quality. While the Shodhganga Standard increases, then improve its accessibility and use through the depositing quality of e-theses and stimulate the new generation in exploring unreserved research areas.

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