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Indian Doctoral Research in the field of Sociology: A Mixed Method Approach

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Abstract:

The very purpose of this study is to conduct a systematic analysis of the doctoral research works produced by Indian Universities in the discipline of Sociology during the period from 2004 to 2017. The study is based on the secondary data, compiled from the authentic Indian data source on doctoral research known as "University News". It aims to find out the developmental trends of Sociology research, the productivity of states, universities, and supervisors as well as languages and gender-wise productivity of Sociology doctoral research. It also aims to find out the most frequently occurred key words and the research areas associated with these keywords through a qualitative analysis of the titles of the research works done in the discipline. The study revealed that in all, 1333 doctoral degrees were awarded from 104 universities, guided by 676 supervisors. Delhi, the National Capital Territory of India proved its research competence by emerging as a leading destination of Sociology research in India. Similarly, at the institution level, Jawaharlal Nehru University (Delhi) found to be the prominent institution that awarded the maximum number of doctoral degrees (200) among the universities. A K Pandey (University of Lucknow) and Anand Kumar (JNU) are the most prolific supervisors who have guided to a maximum of 19 scholars each during the period of study. Research works on 'Women' focused on aspects like, 'social presence', 'profession', 'empowerment', 'health', 'crime', 'education', and other related issues on different communities are found to be the Indian scholars' most favoured research areas in sociology.

Keywords: Doctoral Research, Sociology, Frequently Occurred Keyword, Women, Social Presence, India, Universities

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1. Introduction:

Research is considered as the index of the prosperity of the nation, and it is a means for continuously developing a discipline. Every discipline feeds on research, and it increases the breadth and depth of the discipline. Universities and research laboratories contribute a pivotal role in shaping the research and developmental activities of the nation. Research is regarded as a determining factor in supporting and influencing a sustainable future of a nation. Doctoral research comprises one subset of research for which India annually invests substantial resources. Theses and dissertations pertaining to doctoral research contribute considerably to the scholarly knowledge bank and constitute a pivotal segment of research literature. Doctoral researches are considered as essential programs for the development of higher education, where universities are the key players in carrying out the major responsibility for producing good researchers and becoming a platform for the generation of new research output. The doctoral researches are represented through dissertations submitted to Universities for the award of the doctoral degree known as Doctor in Philosophy (Ph.D.). Considering the importance of doctoral theses as the primary and the unique source of scholarly communication, the present research paper analyses systematically the doctoral research works produced by Indian universities in the discipline of **Sociology** - an integral field of study of Social Science, with an objective to find out the growth pattern, productivity of universities, supervisors, as well as the key areas of research in the discipline.

2. Review of Literature:

The literature reviewed for this paper is comprising of scholarly articles published in various national and international journals, reports, and working papers that represent a vivid account and state of the art of social science research in India from several dimensions. As regards to the Sociology research in India, only two articles found to be relevant that have been reviewed along with articles on Social Science research.

Goel (2001) made an assessment of the Social Science Research in India and as per this study, Tata Institute of Social Sciences (Mumbai) ranks 9th among other institutions in India. Pandian (2002) surveyed social science resources and status of higher learning and research to understand the current sense of crisis faced by social science institutions at the regional as well as at the all-India levels and pointed out that South India is endowed with a reasonable degree of resources for social science higher learning and research. Tyagi and Johri (2004) used bibliographical data from Social Science Citation Index (SSCI) for the period 1997 and 98 and found that the USA is the most frequent partner in collaborating academically with India in

Social Sciences followed by the UK. Angadi et al. (2006) have analyzed 358 publications published by the Social Scientists working in various departments and research units of the Tata Institute of Social Sciences (TISS) during 2001-2004. The results indicated that the most preferred journals by the social scientists were: *Economic and Political Weekly, Indian Journal of Social Work and Indian Journal of Labour Economics.* Kousha & Thelwall (2007) investigated whether the Web can be helpful to find out research performance of social science publications by monitoring Web Citations. The report entitled "Restructuring the Indian Council of Social Science Research" of the Fourth Review Committee (2007)[1] presented that Social science research is chiefly driven by two forces: (a) interest in knowledge about the functioning of society in its diverse social, cultural, political and economic aspects, and in understanding the factors that shape them; and (b) the practical needs of policymakers and managers in government, civil society and the private sector for reliable information and professional analysis. Gupta, Dhawan, and Singh (2009) compared the status of social science research in India, China, and Brazil using various indicators. They particularly focused on the annual average publication rate vis-a-vis global publication share; the research profile of different countries; distribution of research output by geographical regions within each country and characteristics of high productivity institutions and highly cited papers. Papola (2010) in his working paper mentioned that Social Science research in India has come under serious criticism in recent years for not meeting expectations in terms of analyzing some basic structural aspects of the economy and society that have emerged particularly in the wake of India's quest for globalization. Sudhier and Abhila (2011) analyzed the research productivity of social scientists at the Centre for Development Studies (CDS), Thiruvananthapuram, during 1998-2008.

The report entitled 'Social Science Research in India: A Mapping Report' prepared by The South Asia Research Hub (2011)[2] presents that India has the highest volume of research in the region, and it is significantly ahead of other countries in South Asia. Gupta & Mahesh (2013) have made a comparative analysis of the status of social science research in four South Asian countries for the period 1996-2011 which reflects that Pakistan, Bangladesh, Sri Lanka, and Nepal had published 2477, 1159, 590 and 335 papers in social sciences. Gupta, Kumbar, and Gupta (2013) analyzed India's performance in social sciences and focused on India's global publication share, rank and growth rate, citation quality, international collaborative publications share, its publication share and distribution in various broad and narrow subjects using 10 years data from the Scopus database. The study indicates that India has great potential

in giving and sustaining still higher publication growth in social sciences in the coming years as compared to other countries. Nongkynrih (2013) presented the development of social science research at the national level, throws light on the challenges of social science research in general and sociology in particular in the context of northeast India. It was found that the discipline of sociology is urban-centric and the majority of students pursuing a post-graduate degree in sociology comes from urban areas. Sangam and Mogali (2014) attempted to map knowledge domains of social science literature to understand the positions of its various subfields and their relative position. The different schemes of classification systems like DDC, CC, UDC, and Web of Science have been used to locate the position of each subject which comes under social science. Rath (2015) discussed the implications of open access publishing on Social Science research in libraries and made few suggestions towards encouraging open access publishing in Social Science subjects in India. Venkataraman (2016) through his paper analysed the premises and promises of capability approach of Social sciences in higher education. Iyer (2016) opined that Social science research in India is increasingly assuming an interdisciplinary orientation and becoming relatively more collaborative in its approach. Pandita and Singh (2017) presented a trend of doctoral research activities undertaken in social sciences across the institutes of higher learning in India. It was found that at the institutional level, Dr. B. R. Amedkar Marathwada University, Jawaharlal University, and Maharishi Dayanand University are the three leading institutes across the country, which have awarded the maximum number of doctoral degrees. Canosa, et al. (2017) through their paper explored the theories, concepts, and methods employed in tourism doctoral dissertations informed by the foundation disciplines of anthropology and sociology. The analysis revealed identity theory was the predominant theory and an increase in the use of qualitative and mixed methods research. Tripathi, Kumar, and Babbar (2018) highlighted the research output generated in India in the field of social sciences and humanities (SSH) during the period 2005–2014 based upon the data extracted from the Social Science Citation Index (SSCI) and Arts & Humanities Citation Index (A&HCI). The study revealed that multi-authored research papers received more citations than single-authored papers. These studies provide valuable insight into various aspects of social science research.

3. Research Questions:

The objective of the current study is to find out the developmental pattern, the productivity of universities and supervisors, the language and gender-wise productivity of doctoral research in

Sociology, the keyword analysis, and the frequently occurred areas of research. Taking into consideration all these aspects the following research questions are formulated.

RQ 1: What is the growth trend of doctoral research in Sociology in India during the period of study from 2004 to 2017?

RQ 2: Which are the most productive Universities in India in terms of awarding Ph.D.in Sociology?

RQ 3: Which states have contributed significantly to the doctoral research in Sociology?

RQ 4: Who are the most prolific supervisors in the discipline of Sociology?

RQ 5: What are the gender-wise and language-wise distribution of doctoral research?

RQ 6: What is the pattern of word counts of doctoral theses in Sociology, which are the frequently occurred keywords, and what are the prominent areas of study under these keywords?

4. Data and Method:

To address the research questions formulated for the study, the following step by step approach has been followed.

Identification of relevant data source:

As the objective is to give a representative picture of Sociology doctoral research in India, the authentic and reliable data source maintained at the national level namely 'University News'[3] has been used for the purpose. The periodical 'University News' is a weekly publication of the Association of Indian Universities-a premier inter-university organisation located in New Delhi. This particular periodical publishes every week a list of doctoral researches, under the heading 'Theses of the Month', in the fields of Social Sciences, Science, and Humanities accepted by Indian Universities. For the present study data on the specific subject -Sociology has been compiled. The key feature of the present work is to make a quantitative and qualitative analysis of the doctoral theses accepted by Indian Universities in the field of Sociology.

Development of a Database:

A database was created in MS Excel spreadsheets incorporating various bibliographical details of each doctoral research work in Sociology. Each and every title was thoroughly examined for removing the duplicate titles and development of a curated dataset. Finally, a dataset of

Sociology doctoral works for a period of 14 years from 2004 to 2017 was created in Ms-Excel spreadsheet containing bibliographic data elements of the 1333 theses like the title of the thesis, name of the scholar, research supervisor/s (if any), awarding university, year of the award, keywords in the title, etc. By formulating six numbers of research questions with the study objective in mind and a detailed analysis was made accordingly.

5. Results and Discussion:

RQ 1: *What is the growth trend of Sociology doctoral research in India during the period of study from 2004 to 2017?*

The first research question concerning the growth trend of Sociology doctoral research is addressed in Table – 1. The numbers of Ph.D. theses submitted over the years i.e., 2004 to 2017 are 1333, the average is 95.2. It is observed that there is a variation in the number of Ph.D. submission over the years. The highest number of theses 181 (13.6%) were awarded in the year 2007 and the lowest in the year 2013, which is 47 (3.5%). The theses submission during the study period was divided into two time zones of 7 years span each i.e. (2004–2010) and (2011–2017). It was observed that 870 (65.3%) number of theses were submitted during the first seven-year span (2004 – 2010) and 463 number of theses (34.7%) during the second time zone (2011 – 2017). Evidently, it is observed that during the first time zone the highest numbers of Ph.D. were awarded.

Table – 1: Year-wise distribution of theses

Year	No. of Theses	%	Cumulative	%	7 - Year Span	%
2004	155	11.6	155	11.6	870	65.3
2005	113	8.5	268	20.1		
2006	117	8.8	385	28.9		
2007	181	13.6	566	42.5		
2008	114	8.6	680	51.1		
2009	122	9.2	802	60.3		
2010	68	5.1	870	65.4		
2011	80	6	950	71.4	463	34.7
2012	88	6.6	1038	78.0		
2013	47	3.5	1085	81.5		
2014	68	5.1	1153	86.6		
2015	52	3.9	1205	90.5		
2016	72	5.4	1277	95.9		
2017	56	4.2	1333	100		
Total	**1333**	**100**			**1333**	**100**

All the theses have been submitted to 104 number of universities which were guided by 676 supervisors. Year-wise distribution of theses along with the highest number of theses submitted from universities has been analysed. Jawaharlal Nehru University topped the list as the most leading university in awarding Ph.D. in Sociology.

Table – 2: Distribution of theses across the years, universities and guides

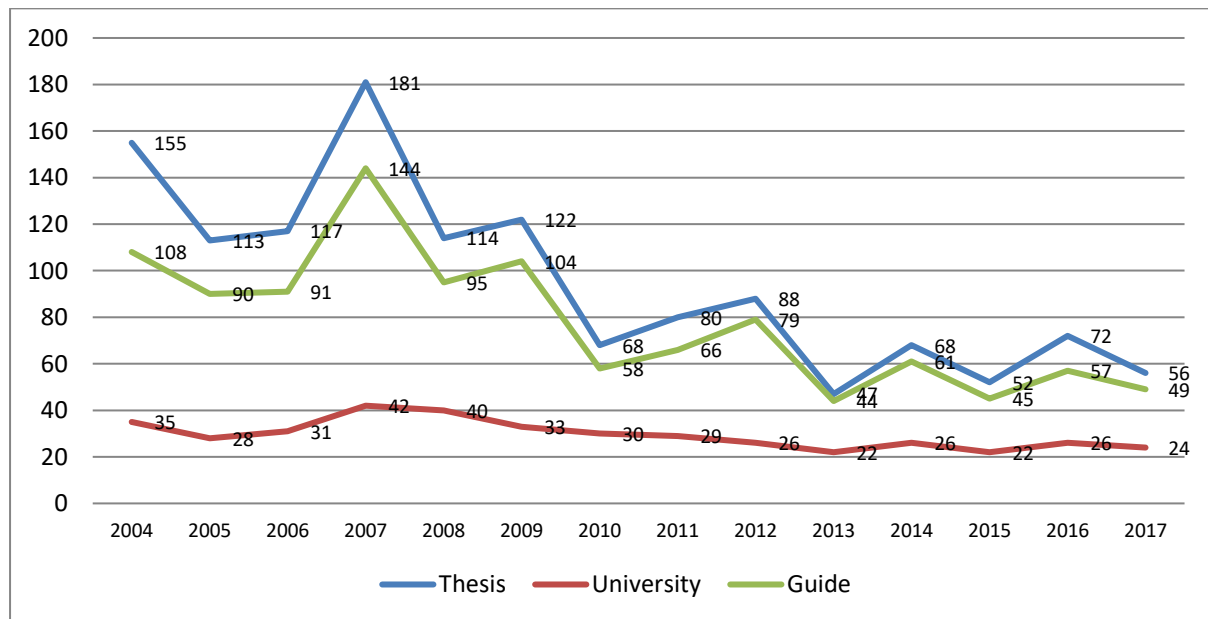| Year	Theses	University	Guide	University with Highest Count	No. of Thesis
2004	155	35	108	Jawaharlal Nehru University	22
2005	113	28	90	Devi Ahilya Vishwavidyalaya	19
2006	117	31	91	Jawaharlal Nehru University	19
2007	181	42	144	Jawaharlal Nehru University	24
2008	114	40	95	Jawaharlal Nehru University	17
2009	122	33	104	Jawaharlal Nehru University	28
2010	68	30	58	Kannada University	9
2011	80	29	66	Jawaharlal Nehru University	13
2012	88	26	79	Jawaharlal Nehru University	29
2013	47	22	44	Jawaharlal Nehru University	8
2014	68	26	61	Jawaharlal Nehru University	14
2015	52	22	45	University of Lucknow	6
2016	72	26	57	Indira Gandhi National Open University	8
2017	56	24	49	Babasaheb Bhimrao Ambedkar Bihar University,; Devi Ahilya Vishwavidyalaya; Sarguja University & Saurashtra University	5
Total	1333	414	1091	Unique universities (104) Unique Guide (676)	...

Figure – 1: Year-wise distribution of Theses, University, and Guides

The year-wise distribution of Theses with respect to universities and guides is depicted in Figure – 1. It reveals, during the year 2007 maximum (181) Ph.D.s were awarded by 42 universities, supervised by 144 guides, and during the year 2013, it is minimum with 47 PhDs awarded by 22 universities, supervised by 44 guides. The average Ph.D.s awarded is 95.

RQ 2*: Which are the most productive universities in India in terms of awarding Ph.D. in Sociology and what are the ranges of Ph.D.s awarded by universities?*

This Research question is particularly represented in Table- 3 and 4. There are 104 universities from which 1333 Ph.D. theses have been submitted. While Table-3 represents the most productive universities of India with regard to sociology doctoral research, Table-4 depicts the range of Ph.D.s awarded by the number of universities. A total of 669 (50.1%) theses have been submitted by the top 10 universities. Jawaharlal Nehru University tops the list with 200 (29.9%) theses, followed by Devi Ahilya Vishwavidyalaya with 71 (10.6%) theses. A total of 11 universities are accommodated in the top 10 list. Dibrugarh University and Dr.Harisingh Gour Vishwavidyalaya both are at the 9th rank with 37 (5.5%) theses. Banaras Hindu University ranked 10th with 31 (4.6%) contributions.

Table - 3: Year-wise distribution of Ph.D. awards among top 10 universities

University	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total	Rank	%
Jawaharlal Nehru University	22	18	19	24	17	21	7	13	23	8	14	1	7	6	200	1	29.9
Devi Ahilya Vishwavidyalaya	11	10	3	8	10	6	3	1	3	2	3	4	2	5	71	2	10.6
University of Lucknow	11	8	10	1	2	2	3	2	4	6	2	6	2	3	62	3	9.3
Karnataka University	2	5	5	16	4	6	3	4	2	2	2	4	1	3	59	4	8.8
Saurashtra University	2	2	1	7	3	4	5	3	7	2	2	2	5	4	49	5	7.3
Kannada University	5	1		4	2	3	9	1	4	2	7	1	1	3	43	6	6.4
Utkal University	1	3	3	12	2	7	1	1	2	3	2	1	3	1	42	7	6.3
Gandhigram Rural Institute	6	2	4	4	3	3	2	2	1	2	2	2	3	2	38	8	5.7
Dibrugarh University	3	4	2	4	1	5	3	2	5	2	1	2	1	2	37	9	5.5
Dr.Harisingh Gour Vishwavidyalaya	2	3	3	2	3	5	4	2	5	2	2	1	2	1	37	9	5.5
Banaras Hindu University	3	3	2	2	2	3	1	2	2	3	3	2	1	2	31	10	4.6
Total	79	69	61	94	53	75	36	29	66	23	31	16	23	14	669	...	100

As regards to the ranges of Ph.D. theses produced by universities, it is found that the highest number (47) of universities have produced Ph.D. theses within the ranges of 1-5 followed by 22 universities within the ranges of 6-10 theses. One university that is JNU, New Delhi has produced the highest number of theses (200) during the study period which is far ahead than other universities.

Table - 4: No. of Ph.D. Awarded vs. No. of Universities

No. of Ph.D. Awarded	No. of Universities
1-5	47
6-10	22
11-20	17
21-30	7
31-50	7
51-75	3
200	1
Total	**104**

A study of the distribution of theses among the universities over two time zones of 7 year duration that is from (2004-2010) and from (2011-2017) reveals that during first time zone all the universities except Saurashtra University have more theses submission in comparison to the second time zone (2011-2017).
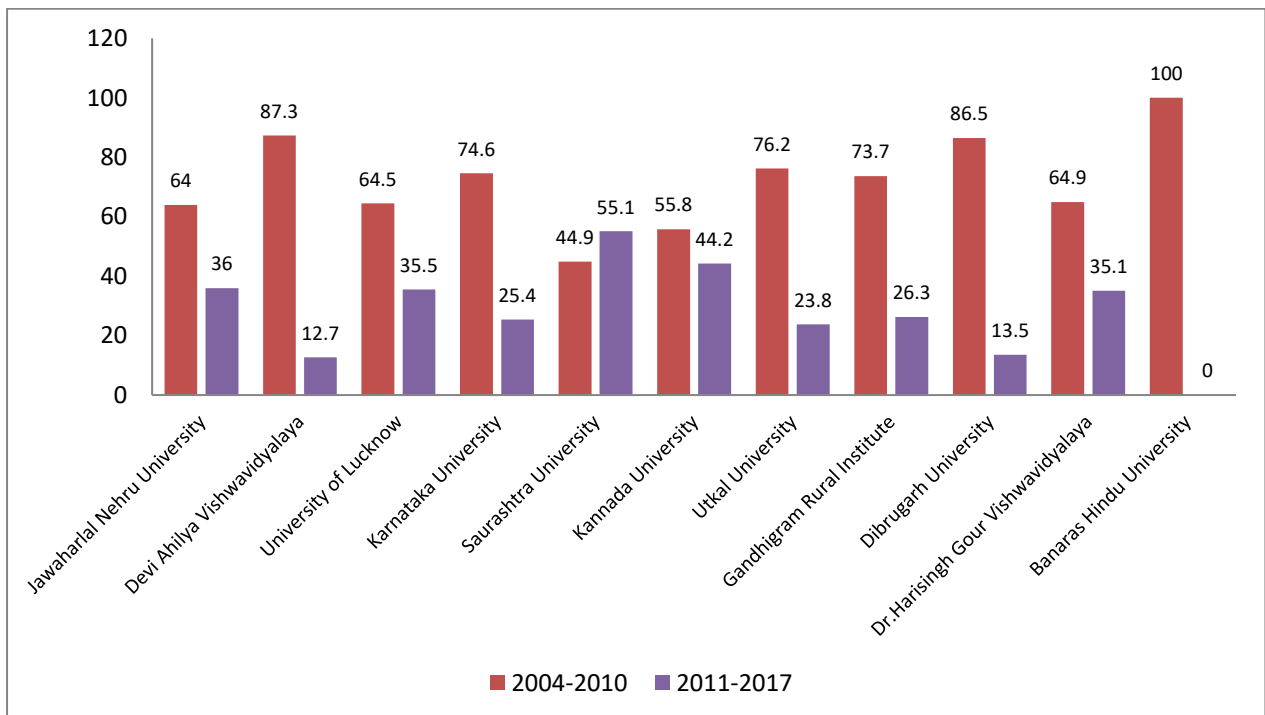

Figure – 2: Percentage Distribution of Theses among the top 10 universities

Table – 5: Distribution of theses among the universities over two time zones

University	2004-2010		2011-2017		Total	Rank
	No.	%	No.	%		
Jawaharlal Nehru University	128	64.0	72	36.0	200	1
Devi Ahilya Vishwavidyalaya	51	71.8	20	28.2	71	2
University of Lucknow	37	59.7	25	40.3	62	3
Karnataka University	41	69.5	18	30.5	59	4
Saurashtra University	24	49.0	25	51.0	49	5
Kannada University	24	55.8	19	44.2	43	6
Utkal University	29	69.0	13	31.0	42	7
Gandhigram Rural Institute	24	63.2	14	36.8	38	8
Dibrugarh University	22	59.5	15	40.5	37	9
Dr.Harisingh Gour Vishwavidyalaya	22	59.5	15	40.5	37	9
Banaras Hindu University	16	51.6	15	48.4	31	10
Total	**418**	**69.8**	**251**	**30.2**	**669**	

So as to the distribution of theses among the top 10 universities during the two time zones, a clear difference is perceived and it is during the first time zone highest number of theses are awarded in comparison to the second time zone 2011 – 2017. The number in the second time zone is more in the case of Saurashtra University.
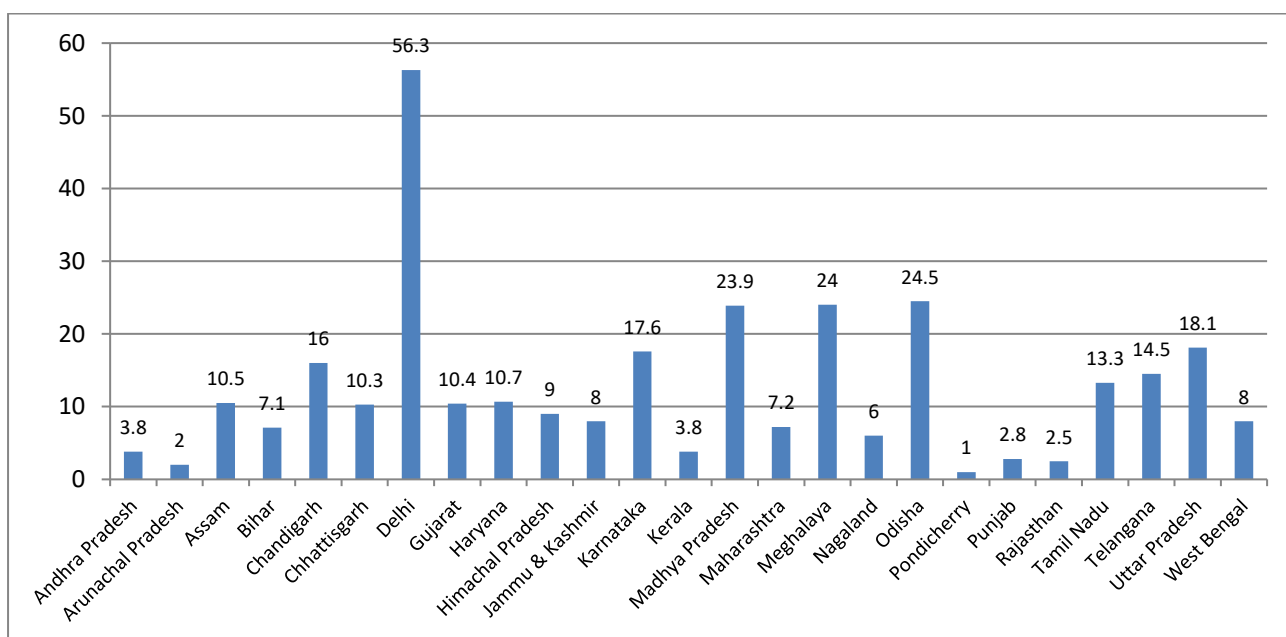
RQ 3: Which states have contributed significantly to Sociology doctoral research?

This research question is addressed in Table-6. Altogether there are 1333 theses which have been deposited during the study period by 104 universities distributed over 23 states and two Union Territories of India. Delhi, the National Capital Territory of India (NCT) tops the list with 225 number of theses followed by Madhya Pradesh (191) and Uttar Pradesh (145).

It is observed that the distribution of universities among the states is not uniform and the Theses as well. Average theses per university are calculated by considering the number of theses and number of universities located in the respective states and Union Territories (UTs). Figure – 3 depicts the average distribution of theses among the universities situated in different states. Delhi, the Union Capital Territory of India acquires the top bar with an average 56.3, followed by Odisha with 24.5 and Meghalaya with 24. Six states have less than 5 theses at an average. It shows the clear dominance of certain states in terms of Theses distribution.

Table – 6: State-wise distribution of Ph.D. Awards with respect to the number of universities and average theses per university

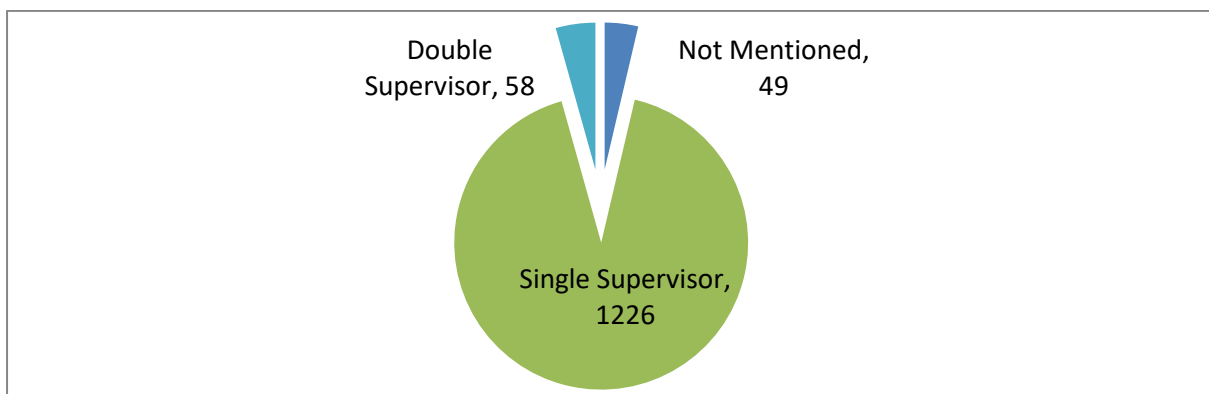| Sl. No.	State	Ph.D. Awarded	No. of Universities	Average per University	%
1	Andhra Pradesh	15	4	3.8	3.8
2	Arunachal Pradesh	4	2	2.0	1.9
3	Assam	42	4	10.5	3.8
4	Bihar	50	7	7.1	6.7
5	Chandigarh	16	1	16.0	1.0
6	Chhattisgarh	41	4	10.3	3.8
7	Delhi (NCT)	225	4	56.3	3.8
8	Gujarat	104	10	10.4	9.6
9	Haryana	32	3	10.7	2.9
10	Himachal Pradesh	9	1	9.0	1.0
11	Jammu & Kashmir	8	1	8.0	1.0
12	Karnataka	141	8	17.6	7.7
13	Kerala	15	4	3.8	3.8
14	Madhya Pradesh	191	8	23.9	7.7
15	Maharashtra	101	14	7.2	13.5
16	Meghalaya	24	1	24.0	1.0
17	Nagaland	6	1	6.0	1.0
18	Odisha	49	2	24.5	1.9
19	Puducherry	1	1	1.0	1.0
20	Punjab	11	4	2.8	3.8
21	Rajasthan	10	4	2.5	3.8
22	Tamil Nadu	40	3	13.3	2.9
23	Telangana	29	2	14.5	1.9
24	Uttar Pradesh	145	8	18.1	7.7
25	West Bengal	24	3	8.0	2.9
	Total	**1333**	**104**	**12.8**	**100**

Figure– 3: Average distribution of theses among states

RQ 4: Who are the most prolific supervisors in the discipline of Sociology?

All the theses are supervised by 676 numbers of supervisors. While Table - 7 represents the prolific supervisors, the nature of supervision is depicted in Figure-4. It is observed that 15 number of supervisors are coming within the top 5 ranks. Two supervisors have occupied in rank one each with 19 numbers of theses, one in rank 2 with 14 theses, two in rank 3 with 11 theses each, 4 in rank 4 with 10 theses each and 6 with 8 theses each in rank 5. A K Pandey (University of Lucknow) and Anand Kumar (Jawaharlal Nehru University) topped the list who have supervised 19 theses each. From among 15 supervisors, 5 supervisors belong to Jawaharlal Nehru University that occupied rank 1 among all the universities in terms of the highest number (200) of theses submission.

Table – 7: Most prolific Supervisors and Universities with Rank

Sl.No.	Guides	Frequency	Rank	University	Rank
1	A K Pandey	19	1	University of Lucknow	3
2	Anand Kumar	19		Jawaharlal Nehru University	1
3	Avijit Pathak	14	2	Jawaharlal Nehru University	1
4	B N Borthakur	11	3	Dibrugarh University	9
5	K B Singh	11		Guru Ghasidas Vishwavidyalaya	
6	A P Singh	10	4	Dr.Harisingh Gour Vishwavidyalaya	9
7	C A Somashekharappa	10		Karnataka University	4
8	H S Zala	10		Saurashtra University	5
9	R A Syed	10		University of Lucknow	3
10	D N Jena	8	5	Utkal University	7
11	H V Rao	8		Saurashtra University	5
12	K R Nayar	8		Jawaharlal Nehru University	1
13	Renuka Singh	8		Jawaharlal Nehru University	1
14	Sudesh Nangia	8		Jawaharlal Nehru University	1
15	V N Bhat	8		Kuvempu University	

Double Supervisor, 58
Not Mentioned, 49
Single Supervisor, 1226

Figure– 4: Pattern of Supervision

As regards to the pattern of supervision of theses, highest number of theses 1226 (92%) have been supervised by single supervisors as a common practice and only 58 (4.4%) theses by joint supervisors. For few theses (49) no information was given regarding the supervisors.

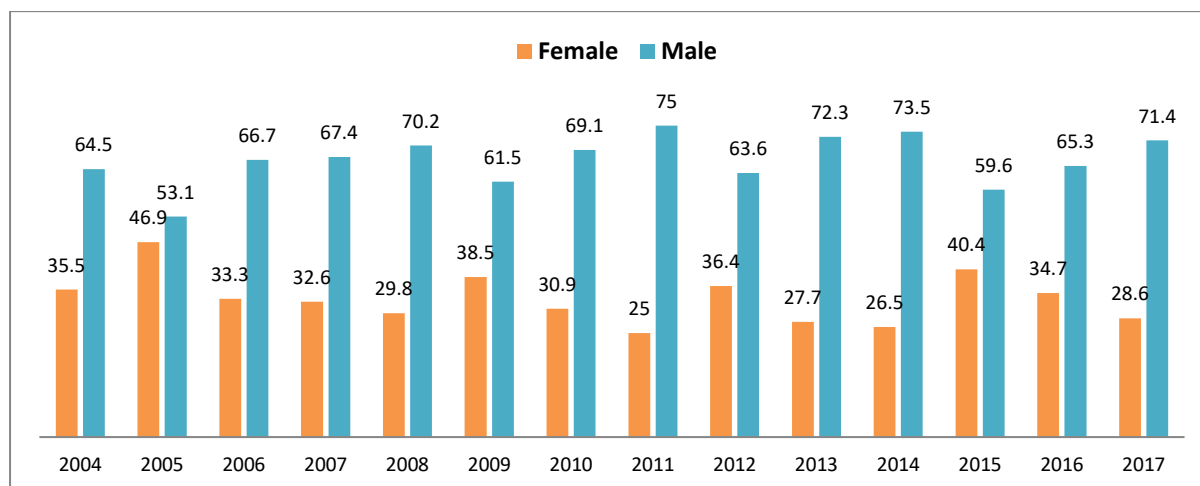*RQ 5: What are the gender-wise and language-wise distribution of Sociology doctoral research?*

Figure – 5: Gender wise distribution of scholars

Table – 8: Language distribution of Theses

Year	English	%	Hindi	%	Total	Ratio (English: Hindi)
2004	109	70.3	46	29.7	155	2.4
2005	62	54.9	51	45.1	113	1.2
2006	76	65	41	35	117	1.9
2007	130	71.8	51	28.2	181	2.5
2008	72	63.2	42	36.8	114	1.7
2009	95	77.9	27	22.1	122	3.5
2010	45	66.2	23	33.8	68	2.0
2011	69	86.3	11	13.8	80	6.3
2012	76	86.4	12	13.6	88	6.3
2013	38	80.9	9	19.1	47	4.2
2014	58	85.3	10	14.7	68	5.8
2015	26	50	26	50	52	1.0
2016	64	88.9	8	11.1	72	8.0
2017	35	62.5	21	37.5	56	1.7
Total	**955**	71.6	**378**	28.4	**1333**	2.5

This research question has two parts to be addressed. The first part is regarding the gender of the research scholars which was studied and represented in Figure-5. Out of 1333 theses submitted, 880 (66.0%) are by male scholars and 453 (34.0%) are by female scholars.

The overall ratio is 1.9. It is clearly evident from the result that, the percentage of male scholars dominates over female scholars over the years. The percentage of Male scholars is highest (75%) in 2011 followed by 73.5% in 2014 and 72.3% in 2013. The percentage of Female Scholars is highest (46.9%) in 2005 followed by 40.4% in 2015 and 38.5% in 2009.

The second part of the research question is regarding the language of the Theses presented in Table - 8. As a common practice, theses submission in the English language (955, 71.6%) dominates over Hindi languages (378, 28.4%). Only in the year 2015, the numbers of theses submitted in English and Hindi languages are equal that is 26 each. The ratio of English to Hindi theses is highest (8.0) in 2016, followed by 6.3 in 2011 & 2012 and 5.8 in 2014. The ratio is less than 2 in 5 years.

RQ 6*: What is the pattern of word counts of doctoral theses in Sociology, which are the frequently occurred keywords, and what are the prominent areas of study under these keywords?*

This research question has three sub-parts which are addressed below. As regards to the pattern of word counts, maximum theses 673 (50.5%) are within the length of 10 to 15 words followed by 319 (23.9%) theses within 3-9 words and 282 theses within 16-20 words. The word counts of the titles of theses reveal that the average words of the theses are 12.8 and mode is 13 and the range between 10-15 is the most common. The highest word count is 31 in case of only one thesis followed by 30 words in case of only two theses.

Table – 9: Pattern of Word Counts in the Titles of Theses

Words Range	Frequency	%
3-9	319	23.9
10-15	673	50.5
16-20	282	21.2
21-28	56	4.2
30	2	0.2
31	1	0.1
Total	**1333**	**100**

Most Frequently Occurred Keywords:

The second sub-part of the research question is related to the frequently occurred keywords for which titles of all the theses (1333) were analysed. It is observed that the most common words are *'Women', 'Sociological study', 'Case study', and 'A study of'.* In order to know what are the types of research works are associated with these frequently occurred words, all the titles where the above four words are found to be a component were further analysed

and found that 552 of research works are coming under this category which was selected for qualitative analysis. It is observed that the word 'Women' is the most highly occurred (214, 38.8%) keyword followed by 'Sociological Study' (177. 32.1%), 'A Study' (91, 16.5%) and 'Case study' (70, 12.7%).

Table – 10: Year-wise distribution of the Most Frequently Occurred Keywords (MFOK)

Word(s)	a study	case study	Sociological Study	women	Total
2004	11	8	15	26	60
2005	10	6	7	18	41
2006	4	4	12	25	45
2007	12	13	12	27	64
2008	3	6	13	16	38
2009	8	1	20	20	49
2010	1	4	12	13	30
2011	18	6	20	7	51
2012	9	7	15	11	42
2013	3	3	8	12	26
2014	2	8	13	9	32
2015	1	1	7	7	16
2016	8	3	16	15	42
2017	1		7	8	16
Total	**91**	**70**	**177**	**214**	**552**
%	**16.5**	**12.7**	**32.1**	**38.8**	**100**

Table – 11: Top 10 universities in terms of the presence of most frequently Occurred Keywords

Sl.	Top 10 Universities	Total Theses	No. of Theses having MFOK	% (*)
1	Jawaharlal Nehru University	200	113	56.5
2	Karnataka University	59	39	**66.1**
3	Saurashtra University	49	28	57.1
4	University of Lucknow	62	27	43.5
5	Utkal University	42	25	**59.5**
6	Dibrugarh University	37	23	**62.2**
7	Kannada University	43	19	44.2
8	Gandhigram Rural Institute	38	15	39.5
9	Banaras Hindu University	31	9	29.0
10	Devi Ahilya Vishwavidyalaya	71	6	8.5
…	**Total**	**632**	**304 (out of 552; 55%)**	**48.1**
* MFOK - Most Frequently Occurred Keywords; % of MFOK Theses w.r.t. total Theses				

Table – 11 depicts the top 10 ranked universities bearing the Most Frequently Occurred Keywords (MFOK) in the titles as a component. Out of a total of 552 number of MFOKs, around 55% of MFOKs (304) occurred in the theses submitted by these top 10 Universities. It reveals that Jawaharlal Nehru University has the maximum number of theses (113) containing the selected keywords, followed by Karnataka University (39). But, in terms of the overall theses generated and the theses bearing the Most Frequently Occurred Keywords (MFOK) in the titles as a part, it shows that Karnataka University (66.1%) tops the list followed by Dibrugarh University with (62.2%) and Utkal University (59.5%) respectively.

Analysis of the Keyword 'Women'

The third subpart of the research question is related to the areas of research related to MFOK. Out of 552 number of theses selected for analysis, in 214 (38.8%) of theses the word 'Women' found to be a component in the title. From the systematic analysis of the areas of research centered around 'Women', it is revealed that the research works are mostly focused on six aspects namely, Social presence, profession, empowerment, health, crime, and education of women. 'Social Presence' tops the list with a frequency of 81(37.9%) theses, followed by 'Profession' with 59 (27.6%) theses. 'Education' is at the bottom of the list with only 6(2.8%) frequency.
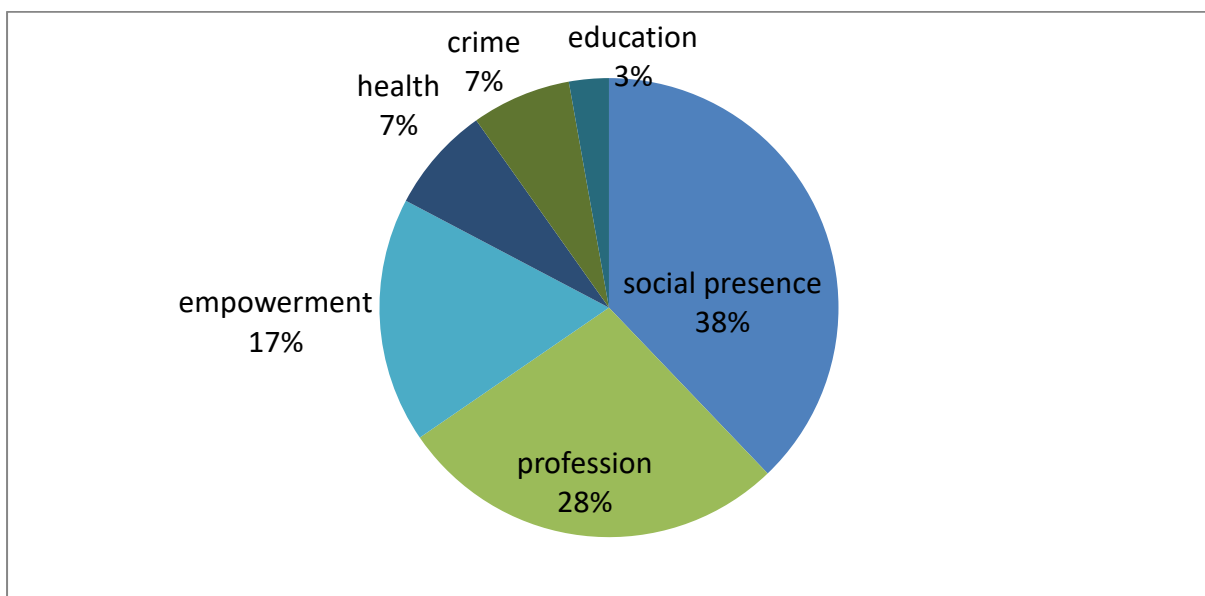

Figure – 6: Areas of study related to the keyword 'Women'

Social Presence – the research works categorised under 'social presence' are mostly related to the position, dignity, and depiction of women. Theses relating to this area are the works on 'aged women', 'women authors', 'dalit women', 'educator', 'HIV positive', 'labourer',

'landowner', 'politicians', 'unmarried women', 'working women', 'leaders', etc. Women as educators, women as portrayed in cinemas, novels, and plays also form a part in this category.
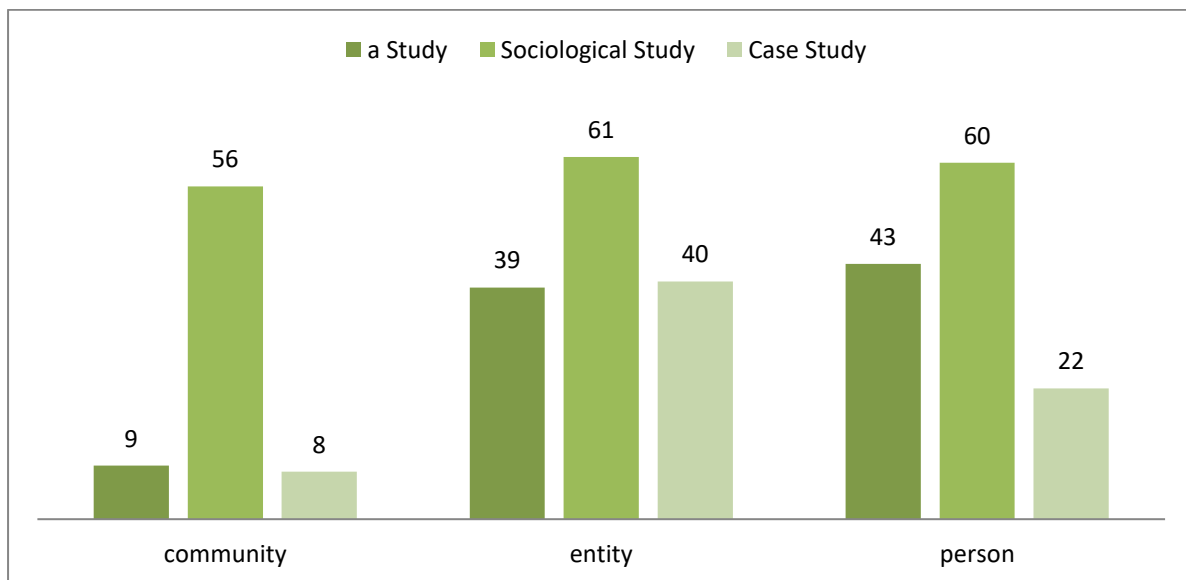
Profession – Under this category research works are related with the various profession of women like women in the banking sector, women as doctors, engineers, entrepreneurs, executives, farmers, fisher-women, lawyers, women in politics, women as scientists, teachers, women in mass media, fashion designer, women engaged in health care facilities, etc.

Empowerment – In this category works included are related to empowerment of women through different developmental programmes, the role of NGOs, SHGs and voluntary organisations towards the empowerment of women in society, empowerment through non-formal education, self-education, literacy mission, etc.

Health – It includes the research works dealing with the health issues of women like fertility, maternal risk, mental health, reproductive health, and health issues of fisherwomen.

Crime – The areas of research under this category are crime against women in general, domestic violence, women prisoners, etc. Crime against women in different states, crime as depicted in cinemas are also categorized in this domain.

Education – it includes the research works which are dealt with educational attainment, education as a means of improvement and general awareness of women.

Figure– 7: Analysis of the Keywords 'Sociological Study', 'Case Study' and 'A Study'

Titles of theses where the keywords like 'Sociological Study', 'Case Study', and 'A Study' were found to be a component were further categorized by analyzing the aspects

embodied in it. The categories resulted are the study of, 'community', 'entity', and 'person' from different dimensions.

Community – it includes the areas of research relating to certain communities like Dalits, SCs, STs, and Tribal of certain specific areas, migrants, slum dwellers, religious monks, etc.

Entity – it includes the areas of research related to organizations and institutions like Panchayats, Schools, Hospitals, local bodies, colonial cities, religious institutions, civil society, educational institutions, village development board, etc. Other aspects of research are irrigation, handicraft, family planning, the environmental movement, community health, rural leadership, child development, food industry, health practice, displaced villagers, Indian tradition and culture, social change, water management, occupational mobility, etc.

Persons – Research areas under this category are related to labourers, students, teachers, blind students, drug addicts, elderly people, opium cultivators, rag pickers, school dropouts, rural youth, RSS workers, mental illness patients, home guards, nurses in hospitals, retired government employees, street children, stock market participants, sugar market participants, tourists, truck drivers, workers in sugar mills, middle-class people, industry workers etc.

6. Conclusion:

From this study on doctoral researches on Sociology, some clear and reasonable results were obtained. Considering the findings of the present study it can be interpreted that doctoral research on Sociology is mostly carried out in the universities of India. There is a growing recognition of the importance of research on Sociology in India as there are a considerable number of theses (1333) that have been deposited by 104 Universities. Though most of the Indian States and have facilities to pursue research in Sociology, a wide disparity is marked among different states of the country with regard to the theses deposited. The highest numbers of theses (181) were awarded in the year 2007 while the lowest (47) in 2013. Delhi, the National Capital Territory of India proved its research competence by emerging as a leading destination of Sociology research in India. Similarly, at the institution level, Jawaharlal Nehru University (Delhi) found to be the prominent institution that awarded the maximum number of doctoral degrees (200) among the universities of the country. Solo guide supervision is dominant in doctoral research work. A K Pandey (University of Lucknow) and Anand Kumar (JNU) are the topmost supervisors who have guided a maximum of 19 scholars each during the period. The percentage of male scholars dominates over female scholars over the years. It is found that English is the predominant language of writing theses followed by Hindi. As regards to the

pattern of word counts, maximum titles of theses 673 (50.5%) are within the length of 10 to 15 words. As regards to the preferred areas of research, issues related to various aspects of Women like Social presence, profession, empowerment, health, crime, and education issues are have been explored in its length and breadth. The highest number of doctoral works (113) related to issues of women have been conducted from JNU. On the whole researches in Sociology in India are oriented towards various social problems but attention must be given towards the application areas of research.

7. Declaration of conflicting interests:

The author declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

8. References:

1. Angadi, M., *et al.* (2006). Publication productivity of Tata Institute of Social Sciences: a Scientometric Study. *SRELS Journal of Information Management, 43*(4), 363-374.

2. Canosa, A., Moyle, B. D., Moyle, C.-L., & Weiler, B. 2017. 'Anthropology and Sociology in tourism doctoral research.' *Tourist Studies: An International Journal* 18 (4): 375–398. DOI:10.1177/1468797617737999

3. DFID SARH (2011). *Mapping of social science research in India,* Sep 2011, 1-21. Accessed on 30 January 2020. Avaliable at https://assets.publishing.service.gov.uk/media/57a08abee5274a31e0000754/60911-MappingReport_social_science.pdf.

4. Goel, K. (2001). Bibliometrics of Social Science Research in India. *University News* 39 (15), 9-11.

5. Gupta, B. M., & Mahesh, G. (2013). A comparative Analysis of Social Sciences Research Publications in four South Asian countries. *Library Philosophy and Practice* (e-journal), 2013 (Paper 956). Available at http://digitalcommons.unl.edu/libphilprac/956.

6. Gupta, B. M., Dhawan, S. M., & Singh, U. (2009). Social Science Research in India, China and Brazil - A Comparative Study. *DESIDOC Journal of Library & Information Technology, 29*(2), 15-23.

7. Gupta, B. M., Kumbar, B. D., & Gupta, R. (2013). Social Science Research in India: A Scientometric Analysis of Publications (2001-10). *DESIDOC Journal of Library & Information Technology, 33*(6), 442-450.

8. ICSSR (2007). *Restructuring the Indian Council of Social Science Research, Report of the Fourth Review Committee,* New Delhi, Indian Council of Social Science Research.

9. Iyer, P. K. (2016). Mapping the Changing Context and Orientation of Social Science Research In India : Some Observations. *Indian journal of applied research, 6*(5), 31–32.

10. Kousha, K., & Thelwall, M. (2007). The Web Impact of Open Access Social Science Research. *Library and Information Science Research*, *29*(4), 495-507.

11. Nongkynrih, A. K. (2013). Social Science Research in Northeast India: The Position of Sociology. *The NEHU Journal*, *XI* (2), 1-18.

12. Pandian, M. S. S. (2002). Social Sciences in South India: A Survey. *Economic and Political Weekly* 2002 (August 31), 3613-3627.

13. Papola T. S. (2010). Social Science Research in Globalising India: Historical Development and Recent Trends. In *Institute for Studies in Industrial Development* (ISID) working paper (WP2010/05), 1-14. Available at http://isidev.nic.in/ or http://isid.org.in/

14. Rath, P. N. (2015). Study of Open Access Publishing in Social Sciences and its Implications for Libraries. *DESIDOC Journal of Library & Information Technology, 35*(3), 177-183. DOI: 10.14429/djlit.35.3.8720

15. Sangam, S. L., & Mogali, S. (2014). Mapping of Indian Social Science Literature. *Collnet Journal of Scientometrics and Information Management*, *8*(1), 61-80. DOI: 10.1080/09737766.2014.916861

16. Sudhier, K.G. & Abhila, I.S. 2011. Publication Productivity of Social Scientists in the Centre for Development Studies, Thiruvananthapuram: A Bibliometric Analysis. *In 8th International CALIBER - 2011*, March 02-04, 661-679. Goa University, Goa.

17. Tripathi, M., Kumar, S., & Babbar, P. (2018). Bibliometrics of social science and humanities research in India. *Current Science, 114*(11), 2240-2247.

18. Tyagi, K. G., & Johri, N. (2004). International Collaborations in Social Science Research in India. *Universities News, 42*(13), 10-19.

19. University News. *Association of Indian Universities. Retrieved for the years from 2004-2017. Available at http://www.aiuweb.org/university/universitynews.asp.*

20. Venkataraman, L. (2016). Social Sciences in India : Premises and Promises of Capability Approach. *Indian Journal of Human Development, 10*(1), 1–11 https://doi.org/10.1177/0973703016654560.