

# **A Bibliometric Study of Vidyavaridhi (Ph.D.) Theses and Vishishtacharya (M.Phil.) Dissertations of Uttarakhand Sanskrit University, Haridwar Submitted during 2015-2020: A Case Study**

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## **ABSTRACT**

*This paper deals with the Vidyavaridhi (Ph.D.) Thesis and Vishishtacharya (M. Phil.) Dissertations of Uttarakhand Sanskrit University, Haridwar during the year 2015-2020. The main aim of this paper is to understand citation activity in the field of Sanskrit and allied subjects. Bibliometrics is a statistical tool widely used to analyze published materials. As Bibliometrics is statistical in nature, bibliometrics gives quantitative output however, this analysis is dealt with texts, it provides ease to interpret in qualitative manner. All the data collected were in-house and MS-Excel, SPSS and Power BI used to analyze the data. This paper highlights the various facts like chronological distribution of Doctoral Theses, Subject coverage, Department wise research output, Gender wise research output of researchers and Guides of Ph.D. theses and M. Phil. Dissertations.*

**KEYWORDS:** Bibliometrics, Vyakaran, Jyotish, Sahitya, Yogic Science, Hindi and Linguistic Doctoral Theses, INFLIBNET – Shodhdhganga, Bibliometric Database.

## **INTRODUCTION**

Sanskrit is the body of specialized knowledge, provides linguistic supports to ancient Indian branches of Knowledge like Ayurveda, Veda, Sanskrit Literature and Sanskrit Grammar, Vastushastra, Yoga and other interdisciplinary subjects. These subjects are the fast-developing subject and become multi-disciplinary and complex due to the application of its' theories, principles, etc. As a result, the Sanskrit as a subject and

profession is changing day by day. The increased nature of R & D programmes in the area of Sanskrit and allied subjects have strengthened the process in a great deal. All these become possible due to the uninterrupted communication of R & D results to the Sanskrit professionals through various kinds of communication channels like periodicals, conference papers, lectures discussion, articles in edited and collected works, and Doctoral Dissertations etc.

**Uttarakhand Sanskrit University, Haridwar:** Uttarakhand Sanskrit University, Haridwar is a Central University set-up by State university act, 1973, located in Haridwar, Uttarakhand. The reason behind establishing this university was to promote the education and research work in the field of Sanskrit language and literature. Now a-days people are taking interest in higher education and research work like other subjects and languages. In the same manner, though this university is in developing stage, the research output is also increasing these days. From the last few decades, again importance of Sanskrit language is increasing and it is visible across the country. This university is active for the preservation, up gradation of that Sanskrit language, innovation and innovation of modern epistemology.

**Research Priority of the University:** The university has adopted the traditional method of teaching and learning for encouraging the Post-Graduation Research Activities by way of Research Work for Ph.D. Degree and MPhil. Degree. Sanskrit is an oldest language which covers all the topics related to human life and observation. So, students of different disciplines must get attracted to do research in ancient Indian knowledge in their related branch. Here is the list of Faculties, Departments Establishment Year, Status of Vidyavaridhi (Ph.D.) and Vishishtacharya (M.Phil.) and Ph.D. Awarded by USU.

**Table 1**

<b>Faculty Name</b>	<b>Department Name</b>	<b>Establishment Year</b>	<b>Status of Vidyavaridhi (Ph. D.)</b>	<b>Vishishtacharya (M.Phil.)</b>	<b>Vidyavaridhi (Ph.D.) Awarded</b>
Faculty of Veda- Vedang	Department of Vyakaran	2005	Available	Available	Yes
	Department of Jyotish	2006	Available	Available	Yes
	Department of Veda	2013	Under Process	Unavailable	No
Faculty of Sahitya- Sanskrit	Department of Sahitya	2005	Available	Available	Yes
Faculty of Adhunik Gyan- Vigyan Vigyan	Department of Yogic Science	2007	Available	Available	Yes
	Department of Journalism and Mass Communication	2011	Under Process	Unavailable	No

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	Department of Hindi and Linguistic	2010	Available	Available	Yes
	Department of Computer Science	2005	Unavailable	Unavailable	No
	Department of Environmental Science	Under Process	Unavailable	Unavailable	No
	Department of Library and Information Science	2009	Unavailable	Unavailable	No
Faculty of Philosophy	Department of Philosophy	Under Process	Unavailable	Unavailable	No
Faculty of Education	Department of Education	2010	Available	Available	No

**Bibliometric:** Bibliometric is derived from two Greek words, 'biblio' and 'metrikos' meaning 'Book' and 'Measurement'. Bibliometrics and Librametry were commonly defined by Ravichandra Rao as "Information processes and Information handling in Libraries and Information Centres by quantitative analysing the characteristics and behaviour of documents, Library Staff and Library Users" (Ravichandra Rao, 1981). Bibliometrics was proposed by Alan Pritchard (1969) as a replacement of the term "Statistical Bibliography". Two other areas closely related to Bibliometrics are Scientometrics and Librametrics, which encompasses all quantitative analysis of scientific productivity and citation analysis which refers to the practices and patterns of scholarly references to search the characteristics of Information sources in relation to regular patterns, is the major focus of bibliometrics. Ranganathan (1969) suggested that it is necessary for Librarian to develop "Librametry" on the lines of biometry, econometry and psychometry since many of the matters connected with library work and services involve large numbers.

## **OBJECTIVES**

The objective of the study is to determine bibliometric features visible in doctoral theses and Masters' dissertations submitted to USU between 2015 to 2020. The total 28 doctoral theses and 6 M.Phil. dissertations have been taken in account to conduct bibliometric study.

This study is aimed to bring outcomes which strengthen the collection development policy by evaluating the research productivity of Uttarakhand Sanskrit University, Haridwar.

- To study chronological and language wise distribution of doctoral theses and M.Phil. Dissertations of Uttarakhand Sanskrit University, Haridwar.
- To identified the chapter wise distribution of the submitted doctoral theses.
- To find out the citation languages of doctoral theses and M.Phil. Dissertations of Uttarakhand Sanskrit University, Haridwar.

- To find out the subject areas of the research work done.
- To find out gender-wise growth of thesis submission between 2015-2020.
- To find out correlation between production of theses and dissertation submitted and number of citations used to produce these documents.

**Scope:** The Scope of the study is limited to the awarded 28 PhD and 06 M.Phil. Dissertations of the Uttarakhand Sanskrit University during the year 2015 to 2020.

**Methods and materials Used:** The Present study covers the 28 doctoral theses and 06 M.Phil. Dissertations records available at Central Library, Uttarakhand Sanskrit University, Haridwar as on 15<sup>th</sup> September 2021. The citation data of Doctoral theses and M.Phil. dissertations were of manually collected from each doctoral thesis as well M.Phil. dissertations and analysed through software MS-Excel, SPSS and Power BI.

## **REVIEW OF LITERATURE**

**Vasudevan T.M. and Sujehs P. (2007)** The author explains, the descriptive catalogues of the manuscripts collection in the department of Sanskrit and Malayalam were analysed The aim of the study was to find out subject wise break up competition wise break up authorship and anonymous workers, language in which more works have been delivered. Interviews with the users were also conducted to know more about the collection. Manuscripts handling a wide range of topics in Sanskrit literature in Sanskrit language are present in the collection did not give any information about the period it recording more than 50% of the manuscripts are completes works with known authorship and unknown authorship in the collection are almost equal in number.

**Naidu, P. Giri (2017)** The results of a bibliometric analysis of Sanskrit Ph.D. theses submitted to Banaras Hindu University, Varanasi, are presented in this publication. The bibliometric characteristics of the greatest number of theses supervised, including year-by-year, subject-by-subject, language-by-language, department-by-department, and research guide-by-research-guide analysis, have been presented. The research highlights important aspects of accounts of theses awarded in the discipline of Sanskrit. It was discovered that the bulk of theses (221, or 40.63 percent) were awarded in Hindi, with only one in Pali. The majority of 79 (14.52) Ph.D. theses were granted in the subject of “Hinduism” in Sanskrit, while the least Ph.D. Theses were awarded in the subject of “Scripture” in 18 (3.31 percent). Dr. Verma V K has guided the most Ph.D. theses (27), ranking first among the guides, while Dr. Bhattacharya B has guided the second most Ph.D. theses (19), ranking second among the guides.

**Kapade, Dipak (2018)** Doctoral Dissertations of Ph.D. and D. Lit. Doctoral Dissertations of Kavikulaguru Kalidas Sanskrit University, Ramtek from 2002 to 2012 were featured in this research article. Various data were highlighted in the report, including the chronological distribution of Doctoral Dissertations, subject coverage, guiding ship pattern, geographical distribution of researchers, and faculty-wise distribution of Doctoral Dissertations.

**Ramkumar, S. (2020)** studied on “Research Productivity Through the Lens of Doctoral Guidance: A Study of Sanskrit Universities in India.” This study revealed that The Multi-campus Sanskrit University RSS registered a total of 571 theses during the 15-year period 2002-2016. (Mean =38.07; SD =21.20 and Median =36.00). A total of 445 theses were produced by RSVP, a Single Campus Sanskrit University during the same period. (Mean

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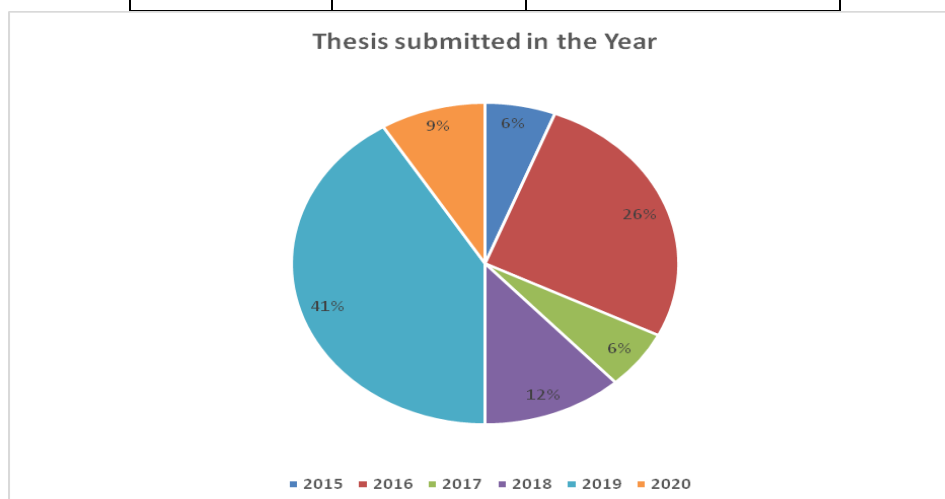
=29.67; SD =20.05 and Median =21.00). While the growth rate in terms of the number of guides who had participated in Ph.D. guidance was higher in the single-campus University during 2007- 2011, the multi-campus University had a higher growth rate during 2012-2016. An analysis of the topic-wise productivity of number of doctoral theses revealed the following: Sahitya seemed to be the most popular topic across both single campus (33.71%) and multi campus (36.07%) universities. While the second and third popular topic in the multi-campus University were Vyakarana (17.16 %) and Shikshashastra (12.26 %), it was Shikshashastra (24.49%) and Vyakarana (9.66 %) in the single-campus University.

**RESULTS AND DISCUSSION**

This data presentation shows that two third of records submitted were in the years of 2015 and 2016. These both the years seems highly productive in nature. As a doctoral thesis takes 3-4 years of time to submit and which work being started in year of 2012-14, the fruit were observed in respective phase, data supports this rationality. However, year 2020 and 2021 were of pandemic.

**Table 2**

Serial Number	Year	No. of Doctoral Thesis
1	2015	2
2	2016	9
3	2017	2
4	2018	4
5	2019	8 + 6 M. Phil Dissertations
6	2020	3
	<b>Grand Total</b>	<b>28+6= 34</b>



**Figure 1**

**Table 2** and **Figure-1** shows that during the 2015 the 2 (6%) Ph.D. theses have been awarded. Out of these 9 (26%) have been awarded in the 2019; following 4 (12%) have been awarded in 2018 period. And 3 (9%) theses awarded during the 2020 year. The large number of Ph.D. Theses produced in 2019 with 8 Doctoral Thesis and 6 M. Phil Dissertations (41%).

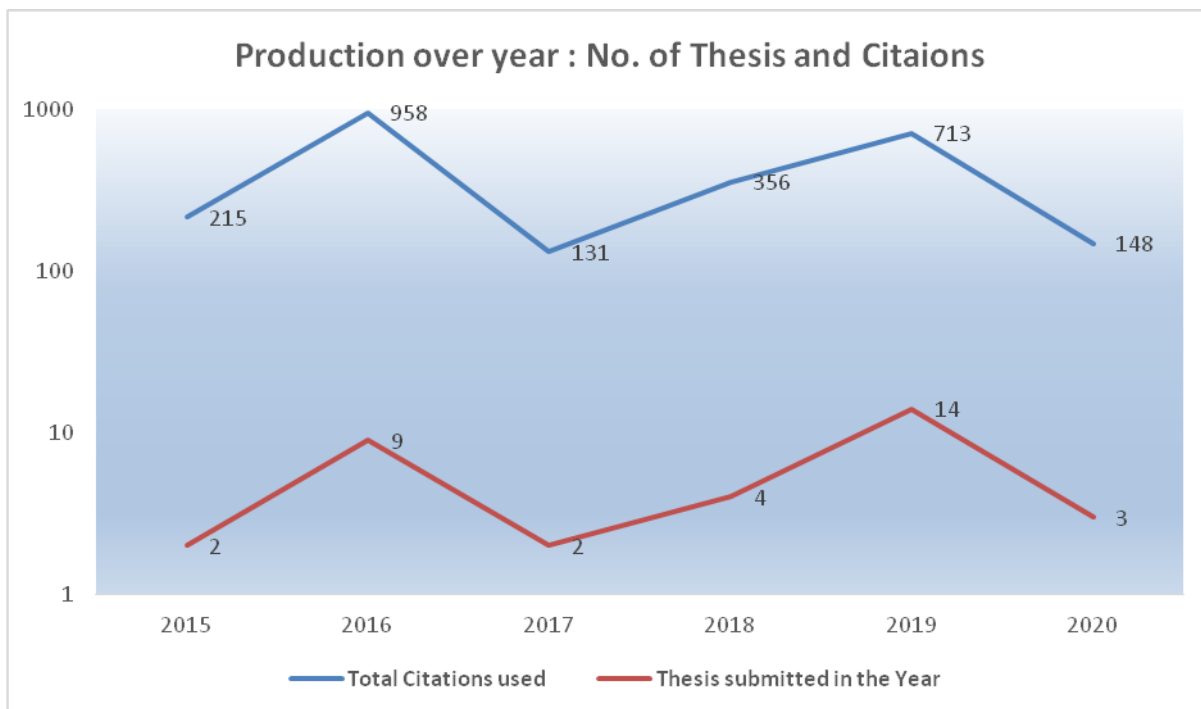


Figure 2

Compared to number of theses and dissertations submitted, it is also observed in further analysis that as number of thesis grown, the use of citations’ pattern of grown in similar pattern is observed in year-wise distribution of submitted theses and dissertations submitted. This clearly indicates that citations are evenly distributed amidst thesis and dissertations.

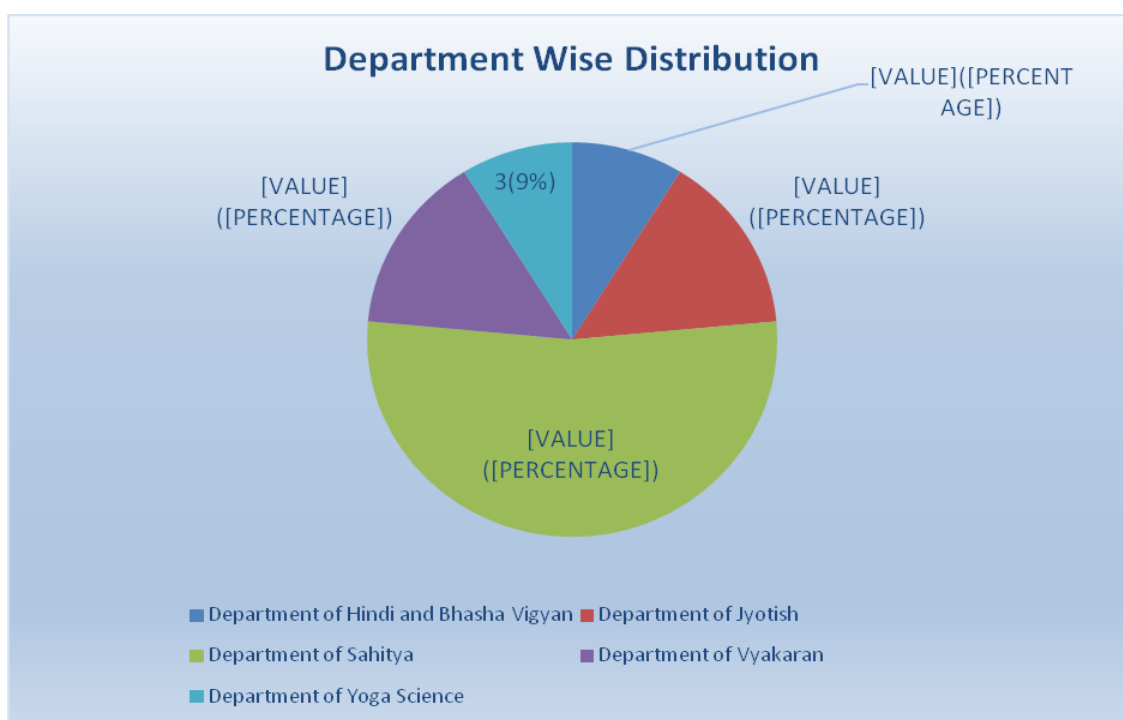
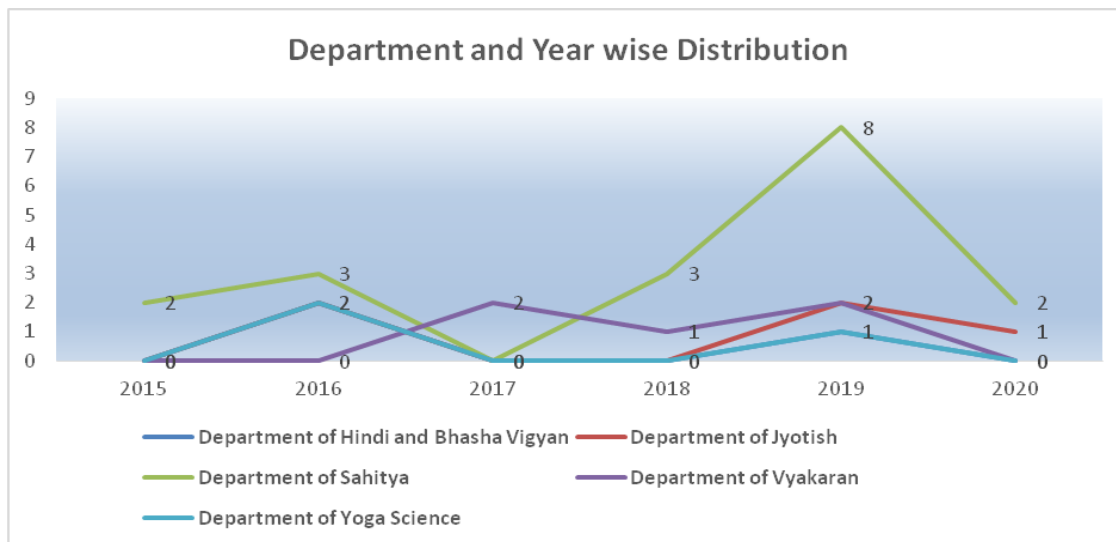


Figure 3

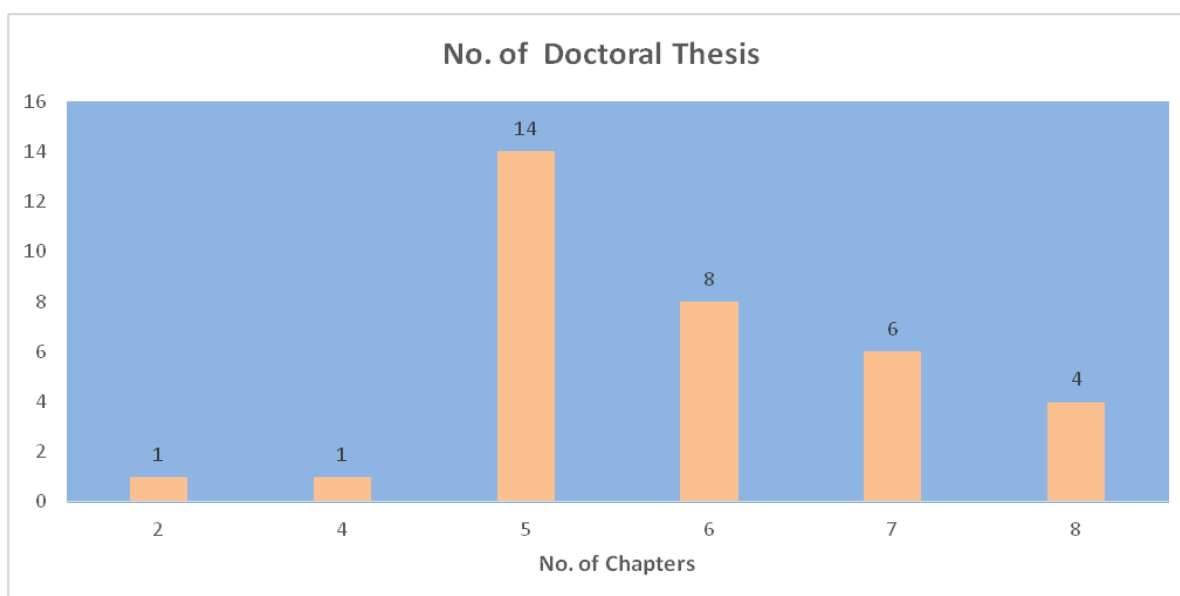
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Figure 3 is related with various Departments research productivity percentage. Further, when it analysed with cumulative data of submitted records of department wise distributed, it shows that half of the work done is also came from Department of Sahitya. 18 (53%) Thesis are from Department of Sahitya and 5 (15%) Thesis are from Department of Vyakaran and 5 (14%) Thesis are from Department of Jyotish and 3 (9%) thesis are from the Department of Yoga Science and Department of Hindi and Bhasha Vigyan.



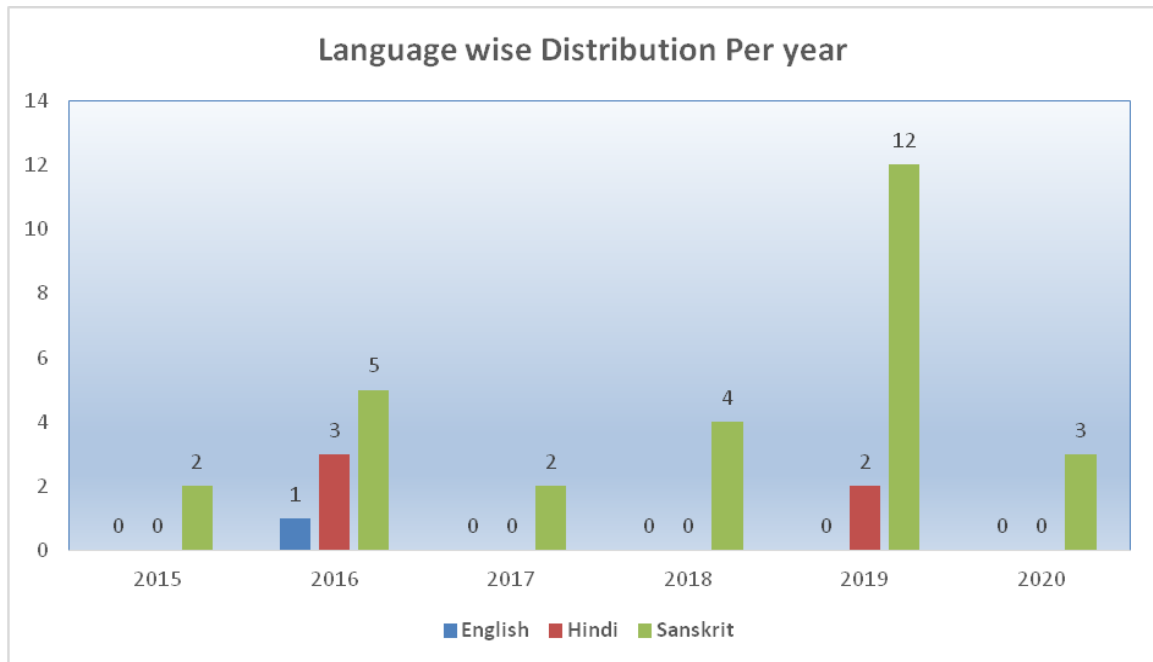
**Figure 4**

When it is taken in case of Departments and years to distribute the records, it is found that Department of Sahitya is one of the most productive Department. If we analyse in the other way, Jyotish, Yogic Science, Vyakaran and Sanskrit Sahitya Departments are more or less devoted to ancient and Vedic literature and knowledge and it seems that the growth of doctoral thesis and M.Phil. dissertations are going into right direction with the vision of Uttarakhand Sanskrit University, Haridwar. No. of Doctoral thesis and No. of citations are moving almost equally. It is always notable that in each discipline the pattern of chapters of doctoral thesis are vibrant and as discipline changes, the pattern in number of chapters observed vary. To study this phenomenon, data is observed here and result is going in almost similar pattern.

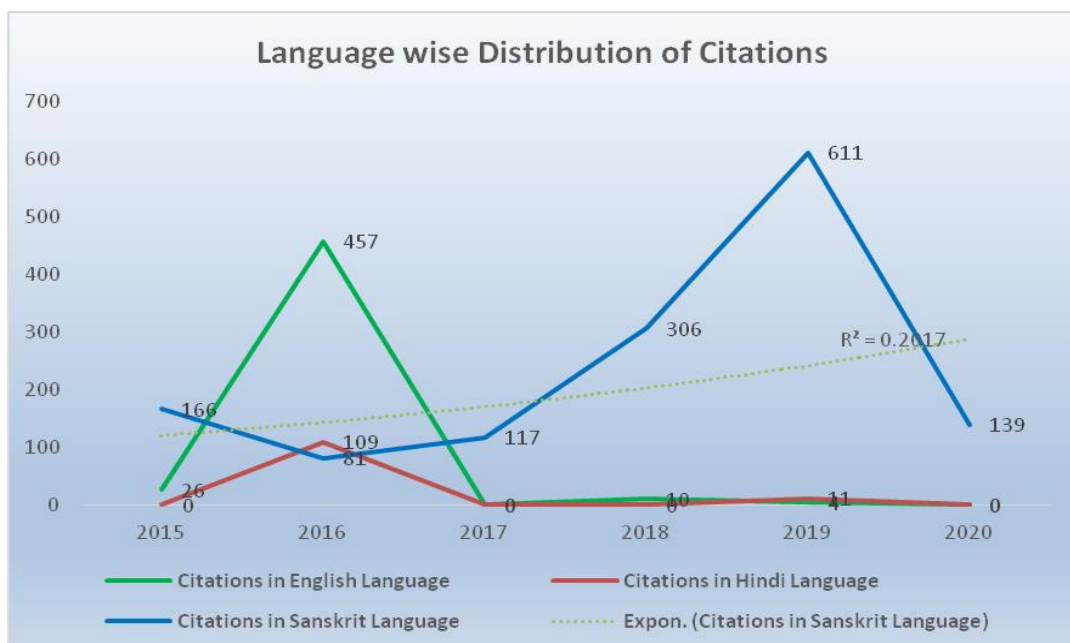


**Figure 5**

Figure 5 is related with number of Chapters in Sanskrit Doctoral Thesis of USU. Thesis has highest number of chapters i.e. 8 in 4 theses whereas 1 thesis is lowest number of chapters i.e. 2. This figure shows that and 1 thesis have 4 chapters and 14 thesis has 5 chapters followed by 8 thesis which has 6 chapters and 6 theses have 7 chapters. Average of the submitted thesis is 5.8 chapters.



**Figure 6**



**Figure 7**

To determined growth according to vision of USU, it is deeply analysed that whether Sanskrit is dominant language in the field of teaching and learning. To assess this hypothetically, language wise distribution of thesis and dissertations have been tested in quantitative manner. It gave similar pattern which is full-filling vision of the establishment of the USU, which clearly represents that Sanskrit is the dominant language of choice for researchers whether it is language of citations used or the language in which dissertation or thesis written and submitted.



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Table 3

Gender of Researcher	Year Completed						Total
	2015	2016	2017	2018	2019	2020	
Male	1	8	2	2	9	2	24
Female	1	1	0	2	5	1	10
Total	2	9	2	4	14	3	34

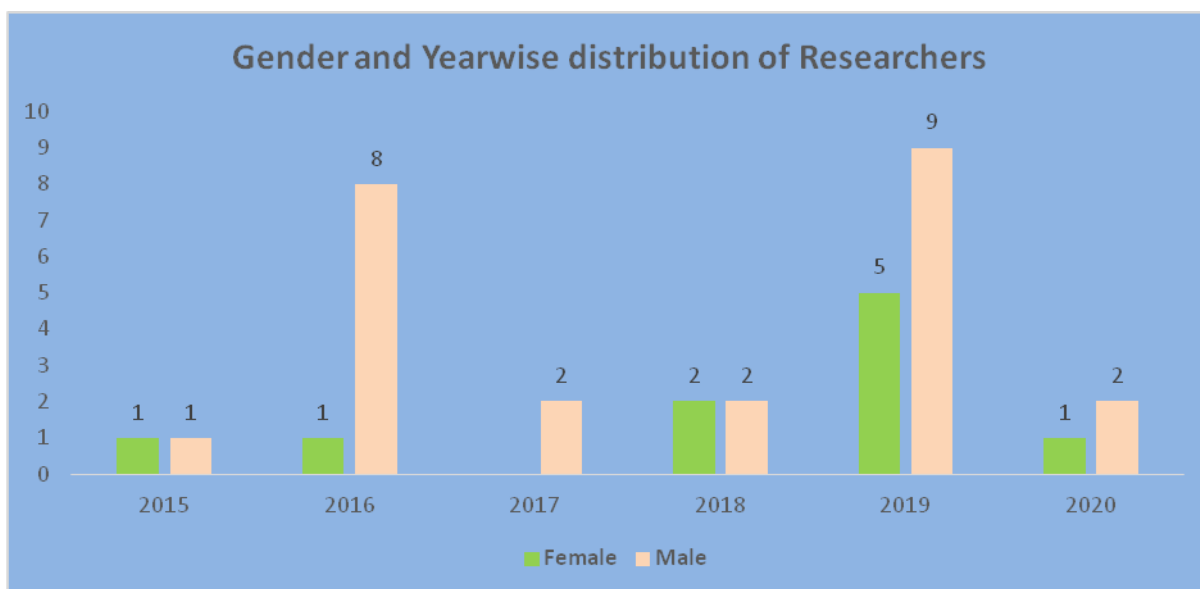


Figure 8

It is always important for a developed nation / organisation as well an academic institution that there should be more participation of female and equal opportunities for female is visible in each activity and each of the product. To determine gender equality, researcher has measured growth of thesis and dissertations submitted. The presented figure shows that during the span of 2015-2020, at each interval of a year, the growth of female researcher is consistently growing however, 2017 is a year in which data behave abnormally may be due to the phase manner and doctoral dissertation submission cycle of 3-4 years.

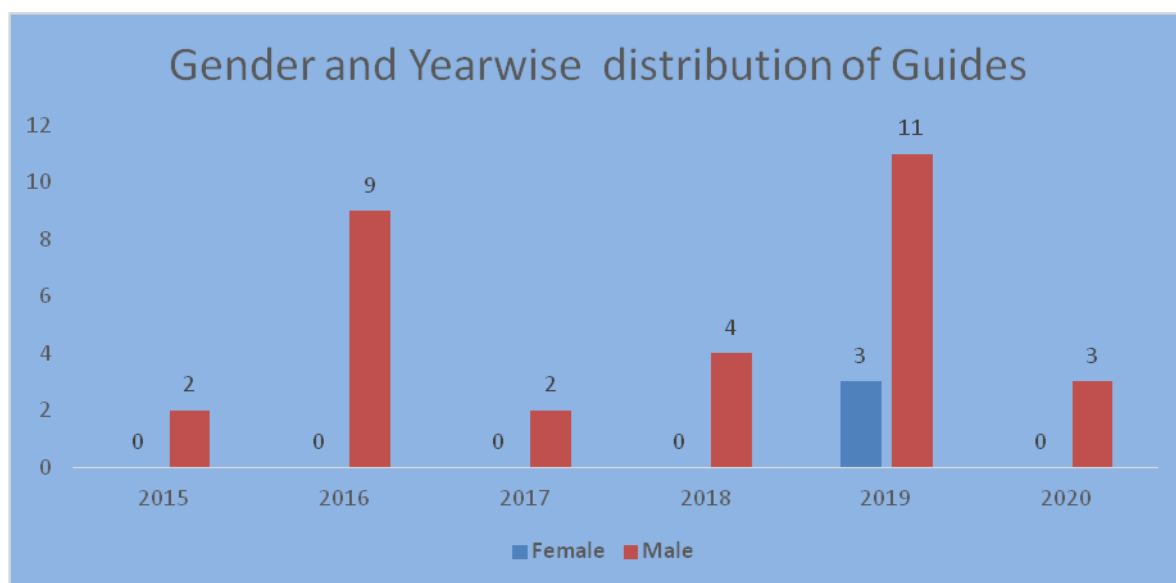


Figure 9

Figure 8 shows that during 2015 the male guide were available for Doctoral Thesis as well for M.Phil Dissertations. From 2016-2018 only male guides have available but in 2019 Female Guide is also available for Research work. And in 2020 male guide contribution.

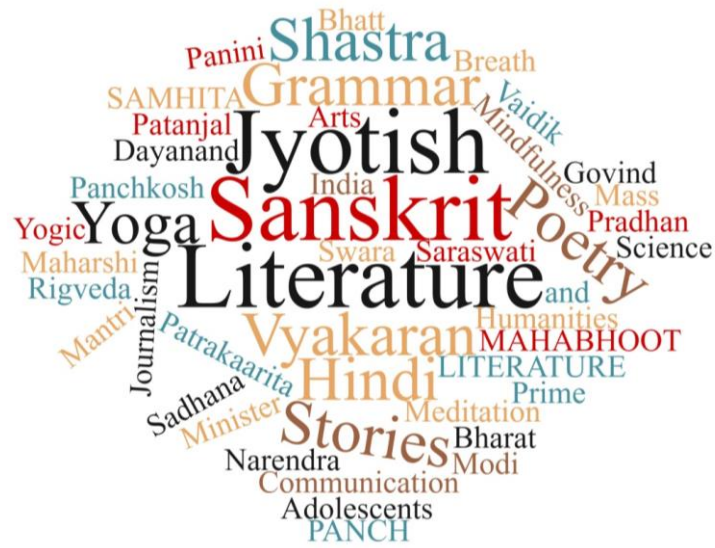


Figure 10

It is always matter of novelty that to understand in which subject direction research productivity is observed advancing. To observe this a word cloud is being created and observed that Sanskrit and peripheral literature is at central position in the strong manner hence it is supporting the main objective in formation of USU. “Sanskrit Literature” word is hitting in this word cloud.

Table 4

Department	No. of M. Phil.	Researcher Gender		Guide Gender		Language
		Male	Female	Male	Female	
Department of Sahitya	3	1	2	1	2	Sanskrit
Department of Jyotish	1	1	0	1	0	Sanskrit
Department of Yoga Science	1	1	0	1	0	Hindi
Department of Hindi and Bhasha Vigyan	1	1	0	1	0	Hindi

### FINDINGS AND SUGGESTIONS OF THE STUDY:

1. There should be a greater number of productions of thesis and dissertation in the field of Sanskrit and allied subjects, especially on the scientific knowledge with comparison of Language and Literature.
2. There should be more gender equality in terms of guides.
3. Uses of English references are too low, English reference should be promoted and users should be motivated to use references of English Language.

### Further Scope of Research

There should be comparative study of research work in the same field.

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**CONCLUSION**

From 2015 to 2020 the 34 Doctoral Thesis and M. Phil. Dissertations were awarded by Uttarakhand Sanskrit University, Haridwar. The majority of research work is in Sanskrit Language and under the Male Guides. From 2019 the Female Guide and Female researchers are also active in the research work. Like 06 M.Phil. Dissertations were submitted in 2019 and the 3 M.Phil. dissertations were from the Department of Sahitya has 3 in Sanskrit. During 2019 from others Department like Department of Jyotish, Department of Yoga Science and Department of Hindi and Bhasha Vigyan has only 1-1 M.Phil. Dissertations during 2019. Gender wise submission of thesis were like Department of Sahitya has 2 female researchers and one male researcher in M.Phil. and from others Department like Department of Jyotish, Department of Yoga Science and Department of Hindi and Bhasha Vigyan has only male researchers.

Gender-wise submission of Guideship was in Department of Sahitya 2 thesis were under the female guide and one was under the male guide. Department of Jyotish, Department of Yoga Science and Department of Hindi has male guides. Language-wise no. of thesis distribution in Sanskrit Language it is 4 and remaining 2 are in Hindi Language. 04 Doctoral thesis have Co-Guide. 01 Doctoral theses from Department of Hindi and Bhasha Vigyan have web-citations too.

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