A BIBLIOMETRIC STUDY OF RESEARCH TREND IN LIBRARY AND INFORMATION SCIENCE IN NORTH-EASTERN REGION OF INDIA, 1989-2018

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ABSTRACT

One of the growing areas of research in the discipline of library science that is gaining wide currency in a research study is bibliometric study. The term 'bibliometric' was derived from two Greek words: 'biblion' which means 'book' and 'metron' which means 'measure'. This paper deals with the quantitative study of one hundred (100) doctoral theses awarded in the field of library science by four (4) central universities in North Eastern Region of India during 1989-2018. The study shows that there is a steady growth of research activity in the discipline as shown by a gradual increase in the production of doctoral theses by the research community of the region. Research in the discipline is carried out on various traditional and modern topics concerning library science. Some of the faculty are very dynamic and resourceful in terms of publications and the number of doctoral theses awarded under their supervisions indicates. So, the study of library science as a discipline and as a subject of research interest is very dynamic and holds much scope to explore further.

Keywords: Bibliometric Study, North Eastern Region, Doctoral theses, References.

INTRODUCTION

Bibliometric Study

One of the growing areas of research in the discipline of library science that is gaining wide currency in a research study is bibliometric study. The term 'bibliometric' was derived from two Greek words: 'biblion' which means 'book' and 'metron' which means 'measure'. The anglicised term 'Bibliometrics' was first used by Paul Otlet in 1934 and popularised by Alan Pritchard in 1969, and is defined as 'the application of mathematical and statistical methods to books and other media of communication' (Thompson & Walker, 2015; Deshmukh, 2019). In other words, a quantitative analysis of publications (Sellen, 1999) to identify and ascertain desired objectives is bibliometric. The advancement and usage of tools of Information, Communication and Technology (ICT), like computing power and software applications, has profoundly impacted this bibliographic study in nature, scope and sophistication (Pendlebury, 2010).

Library Science in North-Eastern Region (NER) of India

Gauhati University was the first university to commence a department of library science in NER in the year 1966, followed by North Eastern Hill University (NEHU) in 1985, then Manipur University in 1986, Mizoram University in 2002, Assam University in 2009 and Tripura University in 2016 (Panigrahi, 2010; Lalrempuii, Ngurtinkhuma & Mishra, 2019; "Tripura University Website",

2021). Most of these universities provide courses from certificate level to doctoral level. The most referred and preferred library science course in NER is a two-year integrated master course. Important library associations in the region are Assam Library Association (ALA) (estb.1938), Assam College Librarians' Association (ACLA) (estb.1973), and Manipur Library Association (MALA) (est. 1987) (Phuritsabam, Devi & Sagolsem, 2013; Sinha, 2016).

METHODOLOGY

The data are secondary. They are taken from the references and bibliographies of the studied one hundred (100) doctoral theses produced in the field of library science in the North Eastern Region of India. These data are personally taken from the concerned universities after taking due permission. Also, some of them are taken from Shodhganga, a digital repository for Indian doctoral theses run by Inflibnet. Then, these data are scanned and printed. They are entered in Microsoft Excel and classified and sorted according to the research objectives. WorldCat and IndCat are categorical in processing the data.

LIMITATION

The study is limited to four (4) central universities which have awarded at least one doctoral thesis in the field of library science, and the study period is 1989 to 2018. The four central universities are Assam University (AU), Manipur University (MU), Mizoram University (MZU) and North Eastern Hill University (NEHU).

OBJECTIVE OF THE STUDY

The main objective of the study is to have a clearer picture of the research trends in the field of library science in North Eastern Region of India.

STUDIES OF PAST RELATED-LITERATURE

Quantitative analysis by Maurya, Shukla & Ngurtinkhuma (2018) had shown tremendous growth of publications in library science within the last decade by the research community in North East India. Another similar study by Shukla, Singh & Verma, (2019) had indicated similar trends in research publications by the community of Mizoram

University in which the year 2017 (21.86% papers) was most productive, followed by 2015 (18.28% papers). There was an erratic publication by the research community.

Authorship trends and collaborative research were studied by (Nongrang, 2015). The outcome of the study showed that multi-authored articles (64.93%) prevailed over the single-authored articles (35.07%). Another study by Bhattacharjee (2019) also indicated a similar strong collaboration amongst researchers in North East India in general and Tripura University in particular.

Journals were the most preferred channels of information among research scholars in their research works. Out of the one hundred and seventy-eight (178) citations from cited Indian sources, the highest number of citations one hundred and sixty-four (164) (92.13%) was from Journals, followed by books/monographs thirteen (13) (7.30%) citations (Gogoi & Barooah, 2016). The study by Bhattacharjee (2019) also found that journal article was the most preferred document by the research community with four hundred and ninety (490) (90.07%) papers referred, then Review thirty-eight (38) (6.99%) papers, Letter seven (7) (1.29%) papers, Meeting Abstract seven (7) (1.29%) papers, Proceeding Paper four (4) (0.74) papers and so on. There was a growing trend in the usage of web resources as shown by a large number of visits to the websites or domains of the eight (8) central universities in NER. Most visit websites were Tezpur University, NEHU, Manipur University, and Nagaland University (Verma & Brahma, 2017; Stephen, 2019). A study by (Waghamode & Kulkarni, 2017) had shown that the most productive institutions in the region were Manipur University and Gauhati University; the most productive individual contributors in the region were Th Madhuri Devi, then. A. V. Murthy and Ch. Ibohal Singh to name a few. A similar study by Singh & Jassal (2018) had found similar results wherein the highest contributing states in LIS in the region were Assam (28.83%) and Manipur (6.91%). Publications in the region were funded by varied national and international bodies like University Grants Commission (UGC) (Kalita, 2017).

DATA ANALYSIS AND INTERPRETATIONS

Table 1

Year-Wise Production of Theses			
Sl. No.	**Year**	**No. of Theses**	**University**
1	1989	1	MU
2	1991	2	MU
3	1993	1	MU
4	1994	2	MU,NEHU
5	1995	2	MU,NEHU
6	1996	1	NEHU
7	1999	2	MU,NEHU
8	2000	1	NEHU
9	2002	4	NEHU
10	2003	4	NEHU
11	2004	1	MU
12	2005	1	MU
13	2006	2	MU,NEHU
14	2007	4	MU,MZU
15	2008	5	MU,MZU,NEHU
16	2009	2	MU
17	2010	6	MU,MZU
18	2011	2	MU
19	2012	4	MU,MZU,NEHU
20	2013	8	MU,MZU,NEHU
21	2014	7	MU,MZU,NEHU
22	2015	3	MU,MZU,NEHU
23	2016	15	AU,MU,MZU,NEHU
24	2017	14	AU,MU,MZU,NEHU
25	2018	6	MZU,NEHU
	Total	100	

Figure 1

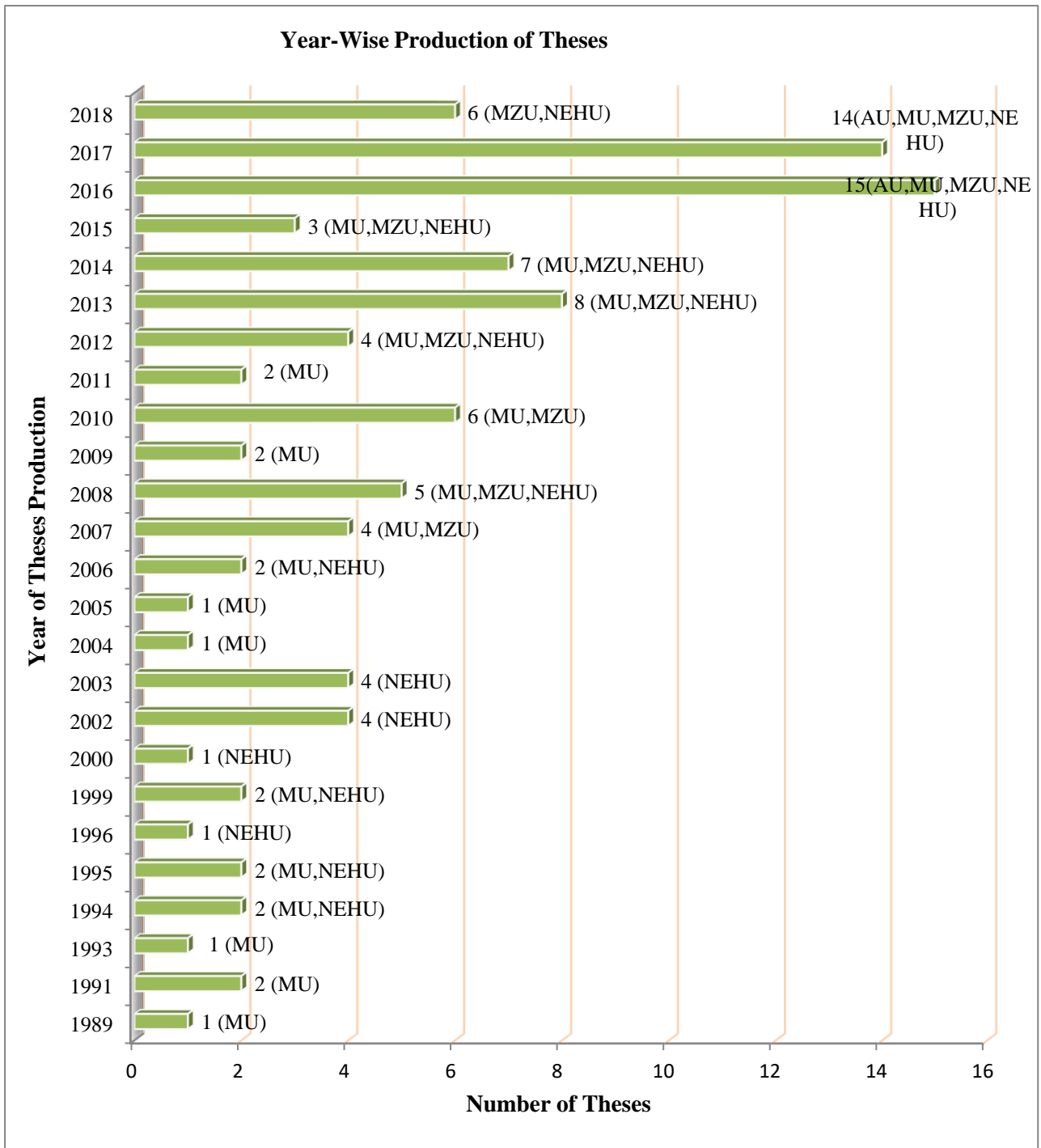**Table 1 & Figure 1**, shows that the most productive year in the region was 2017 with fifteen (15) doctoral theses published, closely followed by 2018 with fourteen (14) doctoral theses produced. By comparing the relative growth of doctoral production by the LIS research community in NER, the very recent decade was very active with a large number of theses being generated in comparison to the early decade. Also, through the years, it showed an erratic, not a steady, generation of doctoral research works by the community.

Subject-Wise Share of Theses

Table 2

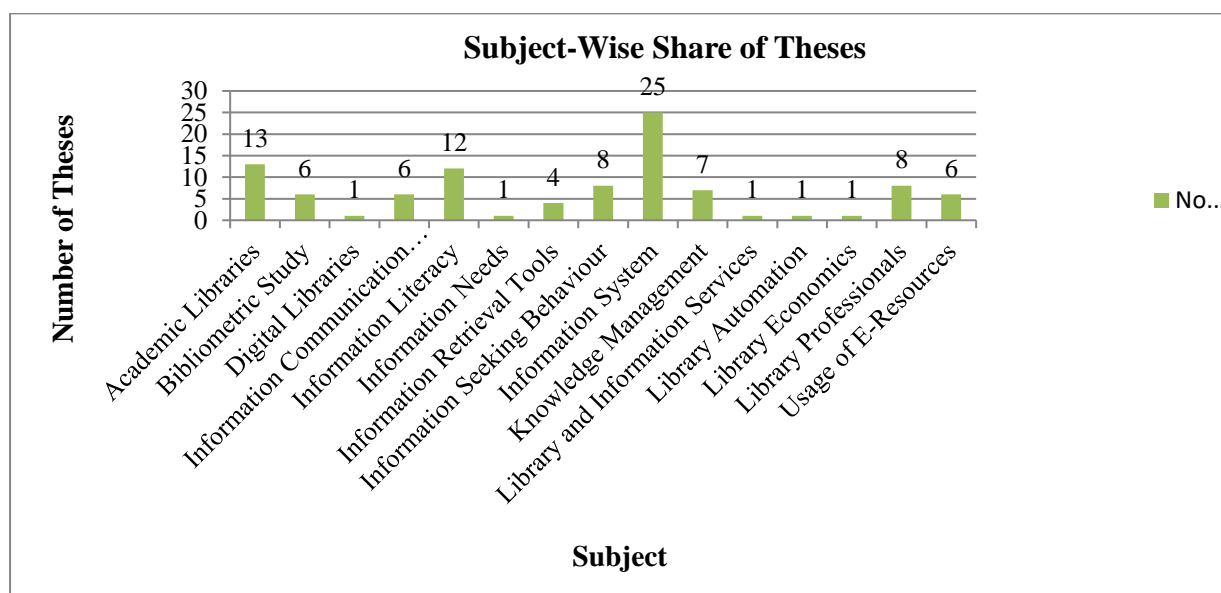|	Subject -Wise Share of Theses	
Sl. No.	**SUBJECT**	**No. of Theses**
1	Academic Libraries	13
2	Bibliometric Study	6
3	Digital Libraries	1
4	Information Communication and Technology	6
5	Information Literacy	12
6	Information Needs	1
7	Information Retrieval Tools	4
8	Information Seeking Behaviour	8
9	Information System	25
10	Knowledge Management	7
11	Library and Information Services	1
12	Library Automation	1
13	Library Economics	1
14	Library Professionals	8
15	Usage of E-Resources	6
	Total	100

Figure 2

Table 2 & Figure 2, the researchers in the region take up various subjects concerning library science for their doctoral research works. Some of them are familiar and traditional topics whereas others are new and recent topics. The most researched subject by the research topic in the region is 'Information System' with twenty-five (25) doctoral theses. The next two hot topics are 'Academic Libraries' with thirteen (13) doctoral theses and 'Information Literacy' with twelve (12) doctoral works, respectively.

Supervisor-Shares of Theses

Table 3

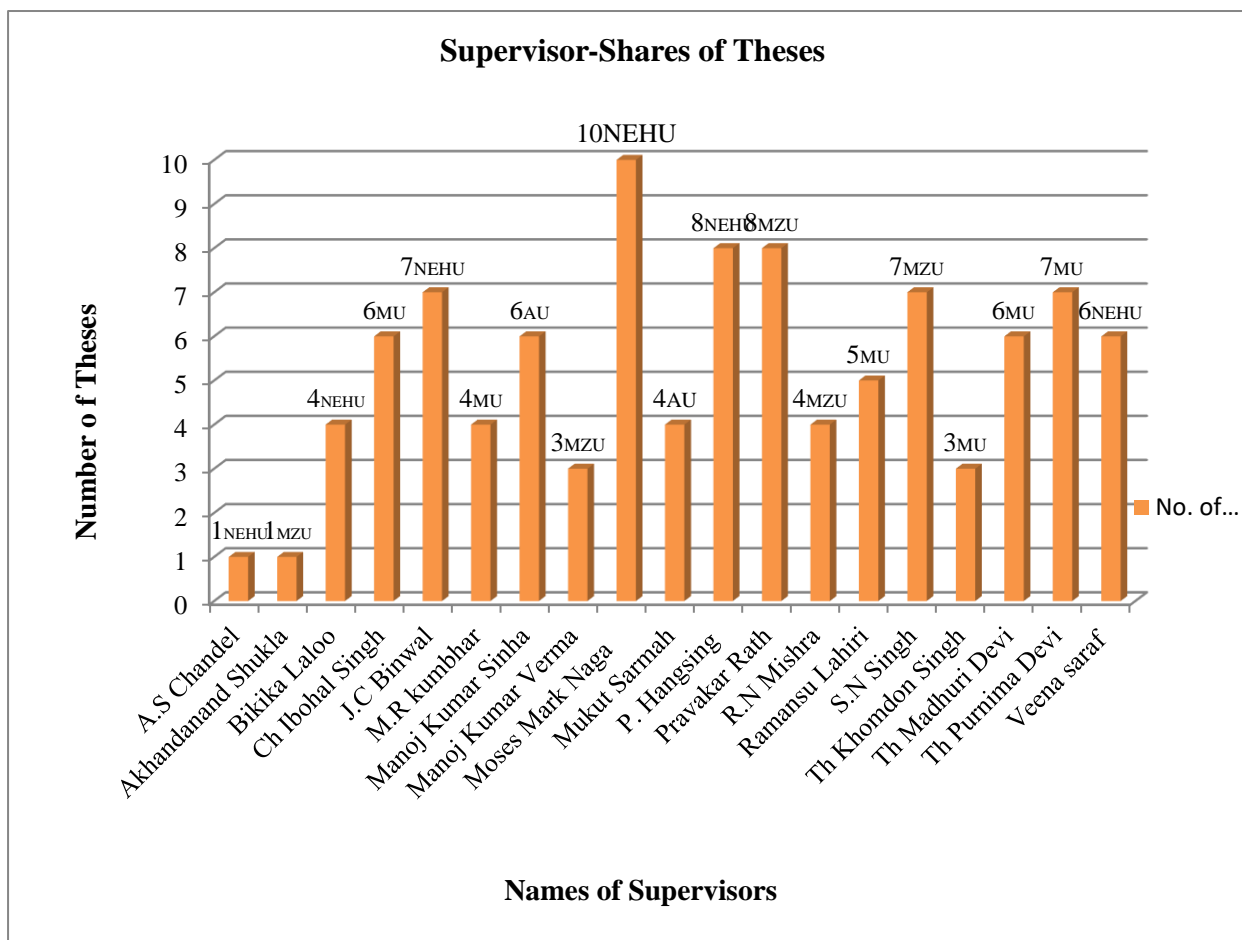| Supervisor-Shares of Theses			
Sl. No.	**Name of Supervisor**	**No. of Theses**	**University**
1	A.S Chandel	1	NEHU
2	Akhandanand Shukla	1	MZU
3	Bikika Laloo	4	NEHU
4	Ch Ibohal Singh	6	MU
5	J.C Binwal	7	NEHU
6	M.R kumbhar	4	MU
7	Manoj Kumar Sinha	6	AU
8	Manoj Kumar Verma	3	MZU
9	Moses Mark Naga	10	NEHU
10	Mukut Sarmah	4	AU
11	P. Hangsing	8	NEHU
12	Pravakar Rath	8	MZU
13	R.N Mishra	4	MZU
14	Ramansu Lahiri	5	MU
15	S.N Singh	7	MZU
16	Th Khomdon Singh	3	MU
17	Th Madhuri Devi	6	MU
18	Th Purnima Devi	7	MU
19	Veena saraf	6	NEHU
Total		100	

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Figure 3

Table 3 & Figure 3, the most dynamic and productive faculty basing on the sole criterion of doctoral theses supervised is Moses Mark Naga (NEHU) with ten (10) doctoral theses produced under his supervision. The next productive supervisors are P.Hangshing (NEHU) and Pravakar Rath (MZU) with eight (8) doctoral theses each produced under them, respectively**.**

Nature of Supervision of Theses

Table 4

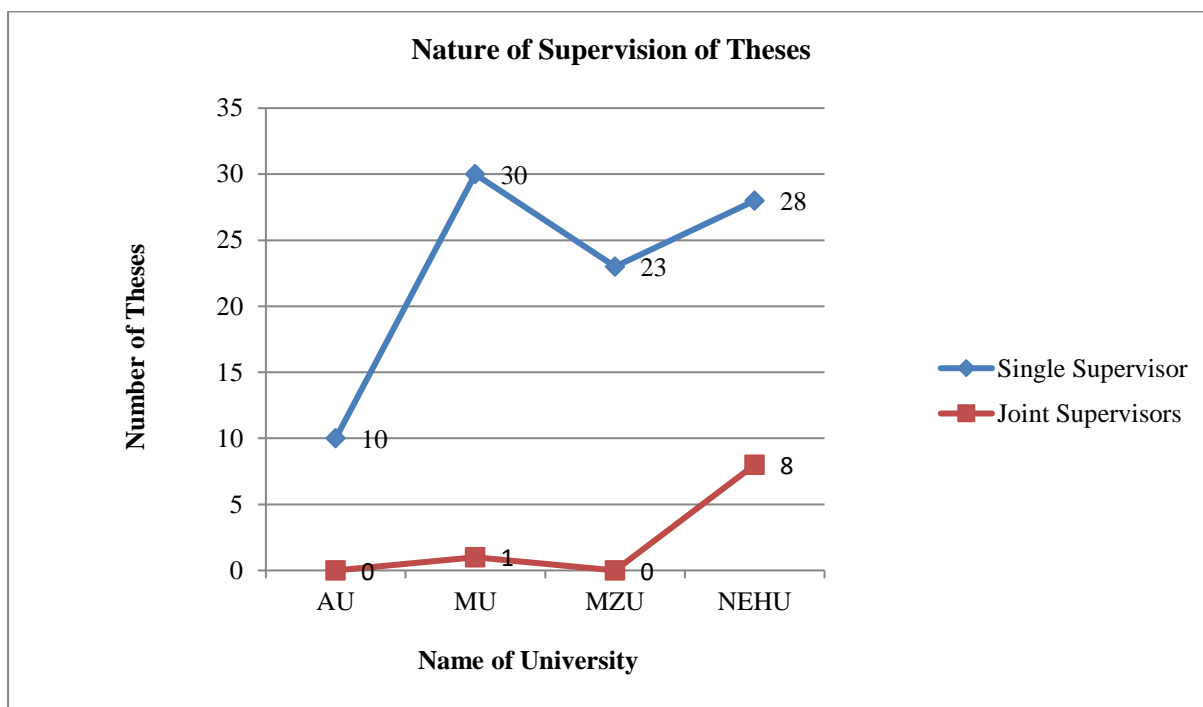|		Number of Theses with		
SL. No.	**Name of University**	**Single Supervisor**	**Joint Supervisors**	**Sub Total**
1	AU	10	0	10
2	MU	30	1	31
3	MZU	23	0	23
4	NEHU	28	8	36
Grand Total		91 (91%)	9 (9%)	100 (100.00%)

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Figure 4

Table 4 & Figure 4, all the studied doctoral theses produced in the library community of Assam University, AU (10 theses) and Mizoram University, MZU (23 theses) are under a single supervisor, respectively. In the case of Manipur University (MU), out of thirty-one (31) theses, one (1) thesis is produced under a joint supervisor and the remaining thirty (30) under a single supervisor. The maximum number of theses produced under joint supervisors is at North Eastern Hill University (NEHU) with eight (8) doctoral theses and the rest i.e. twenty-eight (28) theses under a single supervisor. On the whole, ninety-one (91) doctoral theses are generated under a single supervisor and the remaining nine (9) theses under joint supervisors.

Nature of References of Theses

Table 5

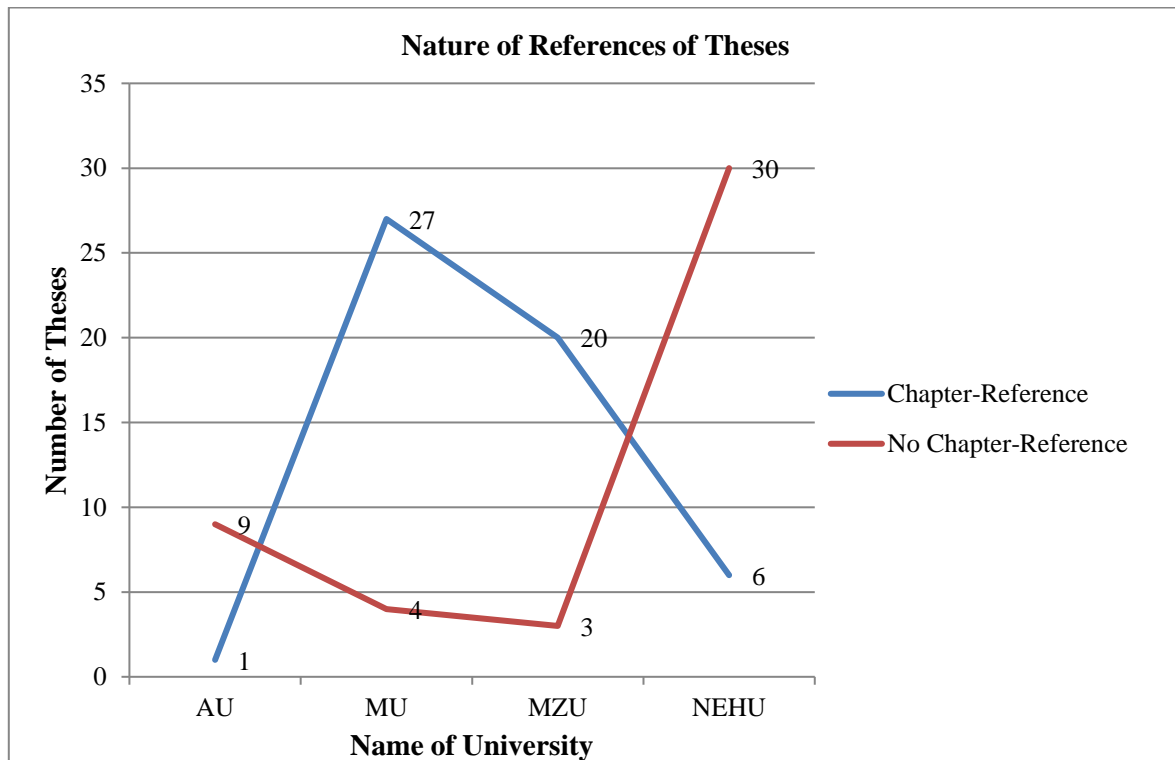| SL. No.	Name of University	Number of Theses		Sub Total
		Chapter-Reference	**No Chapter-Reference**	
1	AU	1	9	10
2	MU	27	4	31
3	MZU	20	3	23
4	NEHU	6	30	36
Grand Total		54 (54%)	46 (46%)	100 (100.00%)

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Figure 5

From Table 5 & Figure 5, in the case of Assam University (AU), only one (1) out of ten (10) theses has chapter-wise reference and the majority remaining nine (9) theses each has a single-reference or a bibliography. The case is similar to North Eastern Hill University (NEHU), in which six (6) theses out of thirty-six (36) doctoral theses have at least one chapter reference besides the end reference or bibliography and the remaining thirty (30) doctoral theses have no chapter-reference. On the other hand, in both the cases of Manipur University (MU) and Mizoram University (MZU) their doctoral theses are appended with a larger number of chapter reference than those without any chapter reference. For MU, twenty-seven (27) doctoral theses have at least one chapter reference and the rest four (4) theses have no chapter reference out of the studied thirty-one (31) doctoral theses. For MZU, twenty (20) theses have chapter reference and the remaining three (3) theses have no chapter reference out of the total twenty-three (23) theses.

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Citation-Styles Distribution of Theses

Table 6

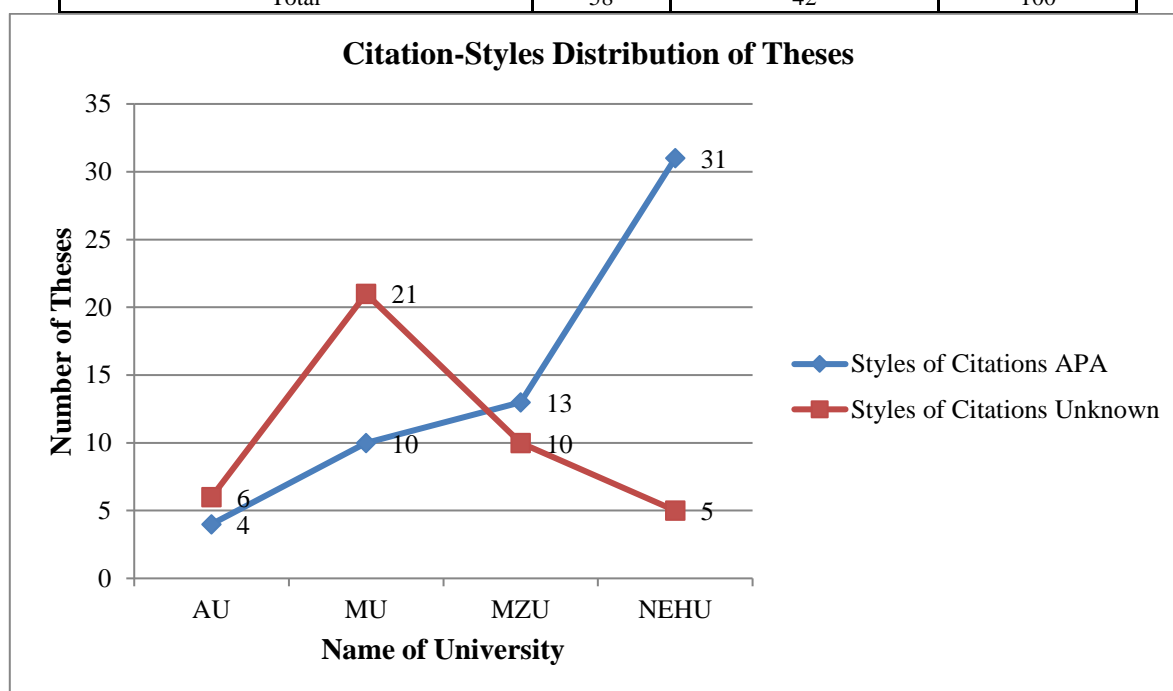|		Styles of Citations		No. of
Sl. No.	**University**	**APA**	**Unknown**	**Theses**
1	AU	4	6	10
2	MU	10	21	31
3	MZU	13	10	23
4	NEHU	31	5	36
	Total	58	42	100

Figure 6

From Table 6 & Figure 6, the only known citation style or reference style given by the research community in the region is American Psychological Association (APA) citation style. The others references' style could not be ascertained and identified. In the case of NEHU, out of the thirty-six (36) theses, and overwhelmingly thirty-one (32) give references using the APA style and the remaining five (5) theses with unknown reference style. Whereas in the cases of AU, MU and MZU, almost an equal half number of doctoral theses are referenced with the known APA style and the remaining half are unknown or uncertain reference styles.

RESULTS OR FINDING

The most productive year in the region was 2017 with fifteen (15) doctoral theses published, closely followed by 2018 with fourteen (14) doctoral theses produced. By comparing the relative growth of doctoral production by the LIS research community in NER, the very recent decade was very active with a large number of theses being generated in comparison to the early decade. Also, through the years, it showed an erratic, not a steady, generation of doctoral research works by the community.

The researchers in the region take up various subjects concerning library science for their doctoral research works. Some of them are familiar and

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traditional topics whereas others are new and recent topics. The most researched subject by the research topic in the region is 'Information System' with twenty-five (25) doctoral theses. The next two hot topics are 'Academic Libraries' with thirteen (13) doctoral theses and 'Information Literacy' with twelve (12) doctoral works, respectively.

The most dynamic and productive faculty basing on the sole criterion of doctoral theses supervised is Moses Mark Naga (NEHU) with ten (10) doctoral theses produced under his supervision. The next productive supervisors are P.Hangshing (NEHU) and Pravakar Rath (MZU) with eight (8) doctoral theses each produced under them, respectively.

All the studied doctoral theses produced in the library community of Assam University, AU (10 theses) and Mizoram University, MZU (23 theses) are under a single supervisor, respectively. In the case of Manipur University (MU), out of thirty-one (31) theses, one (1) thesis is produced under a joint supervisor and the remaining thirty (30) under a single supervisor. The maximum number of theses produced under joint supervisors is at North Eastern Hill University (NEHU) with eight (8) doctoral theses and the rest i.e. twenty-eight (28) theses under a single supervisor. On the whole, ninety-one (91) doctoral theses are generated under a single supervisor and the remaining nine (9) theses under joint supervisors.

In the case of Assam University (AU), only one (1) out of ten (10) theses has chapter-wise reference and the majority remaining nine (9) theses each has a single-reference or a bibliography. The case is similar to North Eastern Hill University (NEHU), in which six (6) theses out of thirty-six (36) doctoral theses have at least one chapter reference besides the end reference or bibliography and the remaining thirty (30) doctoral theses have no chapter-reference. On the other hand, in both the cases of Manipur University (MU) and Mizoram University (MZU) their doctoral theses are appended with a larger number of chapter reference than those without any chapter reference. For MU, twenty-seven (27) doctoral theses have at least one chapter reference and the rest four (4) theses have no chapter reference out of the studied thirty-one (31) doctoral theses. For MZU, twenty (20) theses have chapter reference and the remaining three (3) theses have no

chapter reference out of the total twenty-three (23) theses.

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CONCLUSION

The discipline of library science in the North Eastern Region of India has come a long way. There is a steady growth of research activity in the discipline as shown by a gradual increase in the production of doctoral theses by the research community of the region. Research in the discipline is carried out on various traditional and modern topics concerning library science. Some of the faculty are very dynamic and resourceful in terms of publications and the number of doctoral theses awarded under their supervisions indicates. So, the study of library science as a discipline and as a subject of research interest is very dynamic and holds much scope to explore further.

ACKNOWLEDGEMENT

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