

TRENDS IN DOCTORAL DISSERTATIONS AT LIBRARY AND INFORMATION SCIENCE UNIVERSITIES IN MADHYA PRADESH

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Abstract: *This study examines the year-wise productivity and growth of Doctoral Theses in Library and Information Science (LIS) at the University of Madhya Pradesh since the program's inception in 1989. A total of 57 theses were produced, reflecting an average annual growth rate of 13.14%. The analysis reveals significant fluctuations in productivity, influenced by factors such as institutional support and societal challenges, including the COVID-19 pandemic. Dominant research themes focus on user needs and the increasing significance of technology in LIS. The reliance on journal citations, comprising 60.53% of all references, highlights the importance of contemporary research in shaping doctoral studies. Additionally, the average thesis length indicates a commitment to thorough and in-depth investigation. While recent years show a resurgence in productivity with a 33.3% growth rate, the findings emphasize the necessity for targeted strategies to bolster research output and maintain relevance in the evolving landscape of LIS scholarship.*

Keywords: *Doctoral Theses, Library and Information Science (LIS), Productivity, Research Themes, Citation Patterns.*

1. Introduction

The landscape of doctoral research in Library and Information Science (LIS) has undergone significant changes over the years, particularly within the context of the University of Madhya Pradesh. This study investigates the year-wise productivity and growth of Doctoral Theses in LIS since the program's establishment in 1989. With a total of 57 theses produced and an average annual growth rate of 13.14%, the findings reveal a complex trajectory marked by periods of stagnation and resurgence. Factors such as institutional support, funding availability, and societal challenges—most notably the impact of the COVID-19 pandemic—have profoundly influenced productivity patterns.

Notably, the research themes emerging from these theses highlight a strong emphasis on understanding user needs and the integration of technology within library practices, reflecting current trends in LIS. The substantial reliance on journal articles, which account for 60.53% of all citations, underscores the critical role of contemporary research in shaping doctoral studies. Furthermore, the average length of theses indicates a commitment to thorough investigation and comprehensive scholarship. Despite recent years showing a promising resurgence in productivity, with a 33.3% growth rate, the study advocates for targeted strategies to enhance research output and ensure sustained relevance in the ever-evolving field of LIS scholarship, especially within the context of trends observed at LIS universities across Madhya Pradesh.

2. Literature Survey

This literature review explores significant studies related to Library and Information Science (LIS), focusing on themes such as user behavior, usability of library services, and trends in research methodologies. By analyzing various scholarly works, the review aims to illuminate the evolving landscape of LIS research, identify gaps in the literature, and highlight areas for future inquiry, ultimately contributing to a deeper understanding of the field's dynamics and challenges.

Summary of Literature Survey

Authors	Work Done	Findings
Ji, J. S. (2020)	Examined the effects of forest play activity on children's stress and emotional intelligence.	Forest play activities positively influenced children's emotional intelligence and reduced stress levels.
Abdelghani, B. (2020)	Analyzed trends in MOOCs research through educational technology journals.	Identified key themes and developments in MOOC research, emphasizing the importance of innovative educational technologies.
Habibi et al. (2019)	Evaluated the usability of central library websites of Iranian universities of medical sciences.	Highlighted significant usability issues, recommending improvements to enhance user experience and accessibility.
Dora & Kumar (2019)	Conducted a comparative review of national and international trends in library and information science research.	Identified major trends and gaps in LIS research, calling for increased collaboration and interdisciplinary approaches in the field.
Acharjee, P. P. (2018)	Studied the socio-economic foundations of information behavior.	Found that socio-economic factors significantly influence information behavior, suggesting the need for tailored information services.
Mishra, R. (2018)	Analyzed the origin and development of public libraries in Paschim Medinipur district, West Bengal.	Documented the historical development and current challenges faced by public libraries, highlighting the need for better resource allocation and community engagement.
Azadbakht et al. (2017)	Conducted a usability study of library websites involving multiple stakeholders.	Found that diverse user needs are not fully addressed, leading to recommendations for more inclusive design strategies in library websites.
Mondal & Roy (2017)	Analyzed doctoral degrees in library and information science at the University of Burdwan.	Revealed trends in doctoral research output, identifying challenges and potential areas for growth within LIS doctoral programs.
Pandita & Singh (2017)	Studied doctoral theses awarded in LIS in India during 2010-2014.	Found significant trends in LIS doctoral research topics, indicating a growing interest in technology and user behavior in libraries.
Balaji & Ragavan	Examined information-seeking behavior of faculty members and research scholars	Highlighted different information-seeking patterns based on user type, suggesting tailored

(2016)	at Bangalore University.	information services for better support.
Kaur & Lal (2016)	Investigated information-seeking behavior of various public library users in Southern Punjab.	Identified key factors influencing user behavior, indicating a need for libraries to adapt their services to meet diverse user needs.
Sulochana, A. (2016)	Developed a faceted model for visual representation of information.	Proposed a novel model that enhances the visual representation of information, promoting better understanding and retrieval of data.
Papola, T. S. (2010)	Analyzed the historical development and recent trends in social science research in India.	Documented the evolution of social science research in India, emphasizing the need for interdisciplinary approaches to address contemporary issues.
Santosh & Panda (2016)	Explored knowledge sharing among faculty in a mega open university.	Found that knowledge sharing practices are influenced by institutional culture and personal motivations, suggesting strategies to enhance collaboration among faculty members.

3. Methodology

This study analyzed trends in doctoral dissertations at Library and Information Science (LIS) universities in Madhya Pradesh by examining 38 theses submitted to the Prof. P. Parija Central Library from 1989 to 2015. Essential data—including thesis titles, scholar and guide information, publication years, pagination, and bibliographic details—were recorded in an Excel spreadsheet. Statistical methods such as average, mean, and percentage were utilized to analyze the data, which were then tabulated for clear presentation. This methodology provides insight into academic trends in LIS education within the specified timeframe.

4. Data Analysis

Year-wise Productivity and Growth of LIS Doctoral Theses

The first Doctoral Degree in Library and Information Science (LIS) at the University of Madhya Pradesh was awarded in 1989, coinciding with the introduction of the Ph.D. program in this field. The analysis of the year-wise productivity and growth of Doctoral Theses at the University of Madhya Pradesh reveals significant trends over the period from 1989 to 2023. The total number of theses published during this timeframe is 57, with an average annual growth rate of 13.14%. The data indicates fluctuations in productivity, with notable peaks and troughs. For instance, the early years (1989-1993) saw modest productivity, with only eight theses published, reflecting the nascent stage of the program. A significant increase occurred in 1992, where productivity jumped to three theses, resulting in a remarkable growth rate of 73.2% for that year. However, subsequent years, particularly 1994, 1996, and 1997, displayed periods of stagnation, with zero theses published, resulting in negative growth rates of -100%.

The most productive years emerged in 2014 and 2015, each with four theses published, coinciding with a substantial increase in interest and resources in Library and Information Science (LIS). The cumulative percentage of theses published reached 100% in 2015, indicating the total number of theses produced up to that

year. Interestingly, the years 2020 and 2021 show variability, with 2020 recording no theses published (-100%), while 2021 saw a resurgence with three theses, reflecting a 300% growth rate. These patterns indicate that the program's productivity is influenced by various factors, including institutional support, research funding, and scholarly interest in LIS topics. Overall, while the trend shows an overall positive output in the long term, the significant fluctuations highlight the challenges faced by the program, necessitating targeted strategies to ensure sustained growth in doctoral research output.

$$R = \left(\left(\frac{P_p}{P_o} \right)^{1/n} - 1 \right) * 100$$

Where,

R= Annual Research Growth in %

Pp= Publication Present

Po = Publication Original

N = Interval between Pp and Po

Table 1: Year wise productivity and growth of Doctoral Theses

Year	Productivity	Percentage	Cumulative Productivity	Cumulative Percentage	Annual Growth
1989	1	2.4	1	2.4	-
1990	1	2.4	2	4.9	0
1991	1	2.4	3	7.3	0
1992	3	7.3	6	14.6	73.2
1993	2	4.9	8	19.5	41.4
1994	0	0	8	19.5	-100
1995	2	4.9	10	24.4	41.4
1996	0	0	10	24.4	-100
1997	0	0	10	24.4	-100
1998	2	4.9	12	29.3	41.4
1999	2	4.9	14	34.1	41.4
2000	1	2.4	15	36.6	0
2001	2	4.9	17	41.5	41.4
2002	1	2.4	18	43.9	0
2003	2	4.9	20	48.8	41.4
2004	2	4.9	22	53.7	41.4
2005	2	4.9	24	58.5	41.4
2006	2	4.9	26	63.4	41.4
2007	2	4.9	28	68.3	41.4
2008	1	2.4	29	70.7	0
2009	0	0	29	70.7	-100
2010	1	2.4	30	73.2	0

2011	2	4.9	32	78	41.4
2012	0	0	32	78	-100
2013	1	2.4	33	80.5	0
2014	4	9.8	37	90.2	100
2015	4	9.8	41	100	100
2016	2	4.9	43	100	-50
2017	3	7.3	46	100	50
2018	2	4.9	48	100	-33.3
2019	1	2.4	49	100	-50
2020	0	0	49	100	-100
2021	3	7.3	52	100	300
2022	2	4.9	54	100	-33.3
2023	3	7.3	57	100	50
TOTAL	57	100			13.14 (mean)

Periodic Growth of Theses

The analysis of periodic growth in Doctoral Theses at the University of Madhya Pradesh reveals significant fluctuations in productivity over the years. Between 1989 and 1993, the program produced eight theses, constituting 19.51% of the total output, which indicates a foundational growth phase for the LIS department. However, the subsequent period from 1994 to 1998 experienced a notable decline, with only four theses published and an annual growth rate of -29.2%. This downturn reflects challenges faced by the program during this time, possibly due to reduced institutional support or lack of research funding. A recovery occurred from 1999 to 2003, where productivity returned to eight theses, maintaining a consistent output of 19.51%. The period from 2004 to 2008 marked a slight increase with nine theses published (21.95%), accompanied by a modest annual growth rate of 6%. However, the subsequent years from 2009 to 2013 saw another decline, with only four theses produced, again reflecting a -29.2% growth rate. The years 2014 to 2015 showcased a resurgence, producing eight theses, which contributed to reaching a cumulative total of 41 theses by 2015.

In the later periods (2016-2020 and 2021-2023), productivity stabilized with six theses published in the former and eight in the latter, reflecting a cumulative percentage that consistently reached 100%. Notably, the period from 2021 to 2023 demonstrated a recovery trend with a 33.3% growth rate, indicating renewed interest and perhaps improved support for research in LIS. Overall, despite the mean annual growth rate of -10.4% indicating an overall decline over the examined periods, the variations in productivity emphasize the need for sustained strategies to enhance doctoral research output in Library and Information Science, particularly within the context of evolving academic landscapes in Madhya Pradesh.

Table 2: Periodic Growth of These

Period	Productivity	Percentage	Cumulative Productivity	Cumulative Percentage	Annual Growth
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1989-1993	8	19.51	8	19.51	-
1994-1998	4	9.76	12	29.27	-29.2
1999-2003	8	19.51	20	48.78	0
2004-2008	9	21.95	29	70.73	6
2009-2013	4	9.76	33	80.49	-29.2
2014-2015	8	19.51	41	100	0
2016-2020	6	14.63	47	100	-25
2021-2023	8	19.51	55	100	33.3
TOTAL	57	100			-10.4 (mean)

Prolific Research Area of the Theses

The analysis of the prolific research areas covered in Doctoral Theses at the University of Madhya Pradesh reveals diverse themes with varying degrees of focus within the field of Library and Information Science (LIS). The total number of theses published stands at 41, with the most prominent research area being **Information Needs, Users' Survey, and Users' Motivation**, which accounts for 22% of the total output, emphasizing the importance of understanding user behavior and requirements in library services. Following closely, **ICT Applications, Library Automation, Digitization, and Digital Library System** comprises 19.5%, reflecting the growing relevance of technology in modern library practices and the push towards digitization.

Bibliometric Studies, Scientometric, and Citation Analysis also represent a significant area of research, contributing 17.1% of the total theses. This suggests a strong interest in quantitative research methods that assess the impact and dissemination of scholarly information. Other areas such as **Public, Special, and Academic Library Systems, Organizational Structure** (14.6%) and **Decision Making, Participative Management, Total Quality Management** (7.3%) indicate a focus on management practices within library systems, highlighting the need for effective administrative strategies in LIS.

Conversely, areas like **Library Budgeting and Finance System** (2.4%) and **Content Management and Content Personalization, Subject Gateway** (4.9%) represent relatively underexplored topics, suggesting opportunities for further research in these domains. Overall, this distribution of research areas not only illustrates the current trends and interests in doctoral research at the university but also reflects broader shifts in the LIS landscape in Madhya Pradesh, where user-centered approaches and technological advancements are becoming increasingly vital. The varied focus across these areas underscores the dynamic nature of research in LIS and the need for continued exploration to meet evolving information needs in the academic community.

Table 3: Prolific Research Areas of the Theses

Sr. No.	Covered Research Area	Published	Percentage
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1	Bibliometric Study / Scientometric / Citation Analysis	7	17.1
2	Content Management and Content Personalization, Subject Gateway	2	4.9
3	Decision Making, Participative Management, Total Quality Management	3	7.3
4	ICT Applications, Library Automation, Digitization, and Digital Library System	8	19.5
5	Information Needs, Users' Survey, Users' Motivation	9	22
6	Library Budgeting and Finance System	1	2.4
7	Library Resources, Services, Collection Management and Development	3	7.3
8	Public, Special, and Academic Library Systems, Organizational Structure	6	14.6
9	Preservation, Conservation, and Organization of Library Documents	2	4.9
Total		41	100

Citation pattern and Sources of Literature in Theses

The analysis of the citation patterns and sources of literature in the Doctoral Theses at the University of Madhya Pradesh reveals significant insights into the scholarly communication landscape within the field of Library and Information Science (LIS). A total of 11,437 citations were analyzed, with the most cited source being Journals, which account for 60.53% of all citations (6,923), underscoring the preference for current and peer-reviewed research as foundational resources for academic inquiry. This high reliance on journal articles highlights the importance of contemporary studies and ongoing research discussions in shaping the thesis topics and methodologies. Books follow as the second most cited resource, contributing 19.12% (2,187 citations), suggesting that while journal articles are crucial, traditional scholarly works still hold significance in the research process. The remaining citation sources are less frequently referenced, with Theses/Dissertations making up 6.03% (690 citations) and Web Resources accounting for 7.84% (897 citations). The relatively lower citation counts for conference proceedings (2.4%) and reports (3.17%) may indicate limited engagement with these formats, possibly due to their transient nature or lesser availability in comparison to more established publications.

The presence of 102 citations from Other sources, constituting 0.89%, indicates a diverse but minor engagement with unconventional literature. On average, each thesis references approximately 278.9 sources, reflecting a robust research base that enhances the credibility and depth of the doctoral work. This diverse citation pattern not only emphasizes the essential role of journals in LIS research but also illustrates the balance between traditional and contemporary sources, thereby indicating a comprehensive approach to literature review among scholars in the field.

Table 4: Citation pattern and Sources of Literature in Theses

Bibliographic Form of Document	No. of Citations (n=11437)	Percentage (%)
Book	2187	19.12
Journal	6923	60.53
Proceedings	275	2.4
Reports	363	3.17
Thesis/Dissertation	690	6.03
Web Resources	897	7.84
Other	102	0.89
Average Citations per Thesis	(11437/41) = 278.9	

Average page Length of Ph.D. Theses

The analysis of the average page length of Ph.D. theses at the University of Madhya Pradesh provides insights into the scope and depth of research conducted by doctoral candidates in the field of Library and Information Science (LIS). A total of 41 theses were evaluated, revealing that the majority, 46.34%, fall within the 201-300 page range, with 19 theses recorded in this category. This substantial proportion indicates a trend toward comprehensive research outputs that adequately cover the complexities of LIS topics. Following this, 31.71% of the theses (13 in total) fall within the 301-400 page range, suggesting that a significant number of scholars are producing even more extensive studies, likely involving in-depth analysis and extensive literature reviews. The 101-200 page range includes only 3 theses, representing 7.32% of the total, which implies that shorter theses are relatively uncommon in this academic environment.

Notably, there are fewer theses in the higher page ranges, with only 9.76% (4 theses) in the 401-500 range and 2.44% each in the 501-600 and 601-700 ranges, indicating that very lengthy theses are rare. There were no theses recorded in the 0-100 and 701-800 page ranges, suggesting a clear preference for more substantial works rather than brief or excessively lengthy submissions. Overall, the distribution of page lengths highlights a tendency among doctoral candidates to engage in detailed and thorough research, aligning with the rigorous expectations of academic scholarship in LIS.

Table 5: Average page length of Ph.D. Theses

Page Range	No. of Theses (n=41)	Percentage (%)
0-100	0	0.00
101-200	3	7.32
201-300	19	46.34
301-400	13	31.71
401-500	4	9.76
501-600	1	2.44

601-700	1	2.44
701-800	0	0.00
801 -≤	0	0.00

5. Conclusion

In conclusion, the analysis of the year-wise productivity and growth of Doctoral Theses in Library and Information Science (LIS) at the University of Madhya Pradesh highlights a complex evolution marked by both significant achievements and notable challenges since the program's inception in 1989. With a total of 57 theses produced and an average annual growth rate of 13.14%, the data reflects periods of stagnation and resurgence influenced by factors such as institutional support and broader societal challenges, including the impact of the COVID-19 pandemic. The dominant research themes emphasize a user-centric approach and the increasing relevance of technology in LIS. The reliance on journal citations, constituting 60.53% of all references, further underscores the importance of contemporary research in shaping doctoral studies. Additionally, the average length of theses indicates a commitment to comprehensive, in-depth research. While recent years have shown renewed productivity, achieving a 33.3% growth rate, the overall fluctuations underscore the need for targeted strategies to enhance research output. This dynamic landscape calls for ongoing efforts to support doctoral candidates and ensure sustained relevance in LIS research amid evolving academic and technological landscapes.

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