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TRENDS IN LIBRARY AND INFORMATION SCIENCE MPhil THESES IN PAKISTAN: A MAPPING OF INSTITUTIONAL, GEOGRAPHIC, AND TEMPORAL DIMENSIONS

Sagheer Ahmed

Department of Information Management, Superior University, Lahore.

Email: Sagheer.mughal@riphah.edu.pk

Dr. Ahsan Ullah

Department of Information Management, Superior University, Lahore.

Email: ahsanullah_libr@yahoo.com

Muhammad Shehr Yar

Information Services Department, Riphah International University, Islamabad

Email: m.shehryar@riphah.edu.pk

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Abstract

This study constitutes a quantitative and bibliometric investigation aimed at examining the productivity of MPhil research within the domain of Library and Information Science (LIS) in Pakistan from 2008 to 2024. Data were collected from university websites, OPACs, and through direct communication with LIS departments. The analysis encompassed 783 MPhil theses, employing SPSS for statistical evaluation. The findings reveal that the majority of the scholars were male (55.4%). The highest number of MPhil graduates was recorded at Minhaj University, Lahore (26.9%). The province of Punjab contributed the largest proportion of LIS scholars (84.5%), followed by Khyber Pakhtunkhwa (11%). The year with the highest output was 2017, accounting for 12.1% of the theses, while the decade with the greatest volume was 2024, with 387 theses (49.4%). Regarding supervision, Dr. Iqbal Hussain Asad supervised the highest number of students (9.6%). Government universities slightly led in the number of theses (53.1%) compared to private institutions. Most research was supervised by male scholars (82.4%), although there has been a noticeable increase in female supervision over recent years. Generally, LIS research activity in Pakistan has demonstrated a steady upward trend, particularly within Punjab. The results indicate significant gender and regional disparities but also highlight growing diversity and interest in the LIS field. This study serves as a valuable resource for identifying trends and deficiencies in LIS research within Pakistan.

Keywords: Master of Philosophy, Library and Information Science, Bibliometric, Research Productivity

Introduction

In recent years, there has been a significant academic development of Library and Information Science (LIS) in Pakistan, particularly at the postgraduate level. With the growth of MPhil as a course offered by universities, the issue of measuring the amount and trends of research output gains significance. Bibliometric analysis provides an effective way to research trends, authorship, institutional productivity, and general contributions of the academic work in LIS. It assists in sound decision-making in academic planning, resource allocation, and curriculum development.

Although a lot of research has been done regarding the general LIS research productivity, very limited studies have been done to investigate the MPhil level research output, more especially in regard to institutional type, geographic distribution, supervisor involvement, and gender trends. Through the time analysis of these dimensions, researchers and policymakers will have a better insight into the gaps and strengths of LIS education in Pakistan.

The current research seeks to analyze MPhil theses that were generated in Library and Information Science (LIS) between the years 2008 to 2024 in different Pakistani universities based on a bibliometric methodology. It examines the aspects of institutions, geography, and time that affect the productivity of research, indicating the important trends in terms of provinces, universities, supervisors, and time. It is hoped that the findings will guide university administrators and policy makers on how to improve postgraduate LIS programs and make them respond to national and international research priorities.

Research Questions

- i. To assess research productivity at the MPhil-LIS level with breakdown by temporal, institutional, and provincial.

- ii. To examine the supervision patterns, including supervisor gender and university nature.
- iii. To identify the temporal trends focusing on temporal growth, and annual peaks in supervision

Literature Review

Library and Information Science education is not new to Pakistan. Asa Don Dickson introduced LIS education by offering a diploma in librarianship in 1915 at the University of Punjab, Lahore (Ameen & Malik, 2016). The diploma provides both theoretical and practical training in librarianship. The second university in Pakistan's history to offer LIS programs is the University of Karachi, which offered a postgraduate diploma in 1956, a master's degree in 1962, and a PhD in 1967 (Ameen & Warraich, 2014).

According to Hussain and Ansari (2018), other public universities began offering librarianship courses and establishing library science schools as follows: University of Peshawar (1962), University of Sindh, Jamshoro (1965), University of Baluchistan, Quetta (1981), Islamia University, Bahawalpur (1982-83), Allama Iqbal Open University, Islamabad (1985), University of Sargodha (2010), and Khushal Khan Khattak University, Karak (2012). Private sector universities also introduced LIS education, as shown at Minhaj University in Lahore (2005), Sarhad University of Science and Technology in Peshawar (2012), and Superior University in Lahore (2023). (SLIDE SHARE). These universities advance from certification and diploma programs to bachelor's, master's, MPhil, and PhD degrees.

In Pakistan, LIS is experiencing growth, especially at the postgraduate level. Library schools continuously educate students, and research theses add to the knowledge base, a crucial step for advancing research and academic programs. Surekha et al. (2024) conducted a bibliometric study, which is a statistical analysis of scientific publications. This analysis includes books, research papers, and monographs, evaluating the volume, citation metrics, and importance of scholarly works. It emphasizes publication trends across disciplines and measures scholarly impact through citations, publication volume, and author collaborations.

In LIS, bibliometrics provides a clear overview of scholarly activity, including productivity, research trends, and collaboration. It supports strategic planning, institutional evaluation, and policymaking. Additionally, it assesses the impact of research journals, output, collaborations, and levels of specialization. It also identifies emerging issues within specific academic fields. In Pakistan, researchers explore various bibliometric factors within the LIS research such as (Ahmad et al., 2018; Ali & Richardson, 2016; Ali & Richardson, 2017; Anwar, 2004; Anwar & Saeed, 1999; Islam & Haider, 2024; Haider & Mahmood, 2007; Haq & Alfouzan, 2019; Hussain & Shehryar, 2021; Jan & Yar, 2021; Mahmood, 1999; Mahmood & Shafique, 2010). However, very few studies have examined the research productivity of postgraduate-level education for MPhil and PhD degrees.

Sheikh and Jan (2015) offer comprehensive insights into the LIS MPhil and PhD theses at Pakistani LIS schools from their beginning up to 2015. A total of 19 LIS professionals have earned their PhD degrees, and 125 MPhil theses have been completed. Between 2010 and 2015, 87.5% of all theses were produced. Zareef, Arif, and Jabeen (2023) analyzed 62 LIS PhD theses from 1981 to 2021 using bibliometric methods. Despite this, there is a lack of systematic analysis of research outputs to evaluate the trends, quality, and

impact of postgraduate research in Pakistan. Therefore, this study aims to analyze the bibliometric characteristics of LIS theses submitted to Pakistani universities for MPhil degrees. It will provide policymakers and administrators with data-driven insights to improve MPhil programs in line with global research priorities.

Research Method

This study adopted a quantitative research methodology and a bibliometric type of research design to investigate the research output of MPhil students who study Library and Information Science (LIS) in Pakistan. Bibliometric approaches are very common to trace trends, analyze scholarly activity, and determine the development and future of academic fields. Through this design, the research attempted to obtain empirical evidence on the nature, volume, and nature of MPhil theses written in LIS schools.

The population of the study comprised MPhil theses submitted to ten LIS schools in Pakistan between 2008 and 2024. A total of 783 theses were identified and included in the dataset. The data of the Department of Library and Information Science at University of Jamshoro and University of Baluchistan were not found and were not selected for this study. Multiple strategies were employed to ensure the comprehensiveness and reliability of the data:

- University Library Websites: Catalog records and thesis repositories of university libraries were consulted to retrieve bibliographic details of submitted theses.
- Online Public Access Catalogs (OPACs): OPACs provided additional metadata such as author name, year of submission, supervisor, topic, and subject areas.
- Direct Contact with LIS Schools: Personal communication with departmental representatives and library staff ensured access to theses not fully indexed in online systems.

The required data fields included: title, author, year of submission, supervisor(s), gender of researcher, research themes/keywords, institutional affiliation, and other demographic details relevant to the study objectives.

The data collected was systematically organized and coded for quantitative analysis. SPSS (Statistical Package for the Social Sciences) was employed to conduct:

- Frequency distributions to summarize trends in thesis submission across institutions, years, and research themes.
- Descriptive statistics to identify dominant themes, patterns of supervision, and institutional variations in productivity.
- Cross-tabulations to examine the relationships among demographic variables such as gender, institution, supervisor, and research area.

As the study relied exclusively on publicly available bibliographic data and institutional records, no personal or confidential information of the researchers was disclosed. Proper academic integrity and citation practices were observed in reporting the findings.

Results

The findings were analysed and interpreted to present a comprehensive overview of the research productivity at the MPhil level, with special attention to demographic factors influencing the nature and direction of LIS research in Pakistan.

Table-1: Gender Distribution

Gender	Frequency	Percentage
Male	434	55.4
Female	349	44.6
Total	783	100.0

The data indicate that out of 783 scholars, 349 (44.6%) identified as female, while 434 (55.4%) identified as male.

Table-2: University Details

University	Frequency	Percentage
Minhaj University, Lahore	211	26.9
Superior University, Lahore	137	17.5
University of Punjab, Lahore	114	14.6
University of Sargodha	108	13.8
Islamia University, Bahawalpur	92	11.7
University of Peshawar	35	4.5
Khushal Khan Khattak University, Karak	32	4.1
University of Karachi	22	2.8
Sarhad University, Peshawar	19	2.4
Allama Iqbal Open University, Islamabad	13	1.7

The majority of scholars, 211 (26.9%), were from Minhaj University, Lahore, followed by 137 (17.5%) from the Superior University, Lahore, and 114 (14.6%) from the University of Punjab, Lahore. The University of Sargodha had 108 (13.8%) scholars, while the Islamia University, Bahawalpur, contributed 92 scholars (11.7%). The University of Peshawar had 35 (4.5%), and Khushal Khan Khattak University, Karak 32 (4.1%), University of Karachi 22 (2.8%), Sarhad University, Peshawar 19 (2.4%), and Allama Iqbal Open University, Islamabad, with 13 scholars (1.7%).

Table-3: Province-wise Distribution

Province	Frequency	Percentage
Punjab	662	84.5
Khyber Pakhtunkhwa	86	11.0
Sindh	22	2.8
Capital Territory Islamabad	13	1.7
Total	783	100.0

Most scholars, 662 (84.5%), were from Punjab, followed by 86 (11%) from Khyber Pakhtunkhwa. The smallest group of scholars, 11 (1.9%), was from the Capital Territory of Islamabad, followed by Sindh 22 (2.8%).

Table-4: Most Productive Year

Year	Frequency	Percentage
2024	83	10.6
2023	88	11.2
2022	66	8.4
2021	90	11.5

2020	60	7.7
2019	60	7.7
2018	44	5.6
2017	95	12.1
2016	29	3.7
2015	70	8.9
2014	34	4.3
2013	26	3.3
2012	8	1
2011	18	2.3
2010	4	0.5
2009	2	0.3
2008	6	0.8
Total	783	100.0

The majority of scholars conducted their research work in 2017, with 95 (12.1%), followed by 90 (11.5%) in 2021 and 88 (11.2%) in 2023. 83 (10.6%) completed their research in 2024, while 70 (8.9%) did so in 2015. Research conducted in 2022 resulted in 66 theses (8.4%), while in 2019 and 2020, the number of theses submitted to universities was also 66 (8.4%) each. And 44 (5.6%) was reported in 2018. In 2014, 34 (4.3%) scholars completed their research, while 29 (3.7%) did so in 2013. Smaller proportions were observed for 2011 (18, 2.3%), 2012 (8, 1%), 2008 (6, 0.8%), 2010 (4, 0.5%), and 2009 (2, 0.3%).

Table-5: Supervisor Distribution

Supervisor	Frequency	Percent
Dr. Iqbal Hussain Asad	75	9.6
Dr. Muhammad Fazil Khan Balouch	54	6.9
Dr. Muhammad Ijaz Mairaj	41	5.2
Dr. Haroon Idrees	37	4.7
Dr. Rubina Bhatti	30	3.8
Dr. Muhammad Rafiq Awan	28	3.6
Dr. Khalid Mehmood	26	3.3
Dr. Shakeel Ahmed Khan	24	3.1
Dr. Muhammad Tariq Najmi	21	2.7
Dr. Muhammad Naushad Ghazanfar	21	2.7
Dr. Saeed Ullah Jan	20	2.6
Dr. Kanwal Ameen	19	2.4
Dr. Muhammad Shahid Soroya	18	2.3
Dr. Rais Ahmed Samdani	18	2.3
Dr. Nosheen <i>Faismatima</i> Warrazich	17	2.2
Dr. Nadeem Siddique	17	2.2
Dr. Shamshad Ahmed	17	2.2
Dr. Muhammad Aamir Hashmi	17	2.2

Dr. Saira Hanif Soroya	15	1.9
Farhana Saeed Hashmi	15	1.9
Dr. Mumtaz A. Anwar	14	1.8
Dr. Muhammad Younas	14	1.8
Dr. Sajjad Ahmed	13	1.7
Dr. Muhammad Asif Naveed	12	1.5
Mr. Ghulam Mustafa	12	1.5
Dr. Asad Khan	11	1.4
Dr. Shafiq ur Rehman	11	1.4
Dr. Mohamad Ismial	10	1.3
Dr. Khurshid Ahmed	10	1.3
Mr. Muhammad Asif Ali	9	1.1

The top 30 research supervisors have collectively contributed a significant portion of total supervisions, highlighting their key role in academic research guidance. Dr. Iqbal Hussain Asad supervised the highest number of students, accounting for 9.6% of all supervisions, followed by Dr. Muhammad Fazil Khan Balouch with 6.9% and Dr. Muhammad Ijaz Mairaj with 5.2%. Other notable contributors include Dr. Haroon Idrees (4.7%), Dr. Rubina Bhatti (3.8%), Dr. Muhammad Rafiq Awan (3.6%), Dr. Khalid Mehmood (3.3%), Dr. Shakeel Ahmed Khan (3.1%), Dr. Muhammad Tariq Najmi (2.7%), and Dr. Muhammad Naushad Ghazanfar (2.7%). Together, these top 10 supervisors account for a substantial percentage of research supervision, reflecting their strong engagement and leadership in supporting MPhil and PhD scholars. The remaining supervisors, each contributing between 1.1% and 2.6%, collectively played a supportive role in research supervision across various institutions.

Table-6: Nature of University

Sector	Frequency	Percentage
Government sector	416	53.1
Private sector	367	46.9
Total	783	100.0

The data shows that the majority of research supervisions (53.1%) were conducted in the government sector, while the private sector accounted for 46.9%, indicating slightly higher research activity in government institutions.

Table-7: Supervisor gender: Year-wise (Crosstabulation)

Year	LIS Supervisor Gender			Total
	Male	Female		
2024	75	8		83
2023	73	15		88
2022	51	15		66
2021	76	14		90
2020	43	17		60
2019	48	12		60
2018	40	4		44
2017	86	9		95

2016	25	4	29
2015	61	9	70
2014	29	5	34
2013	21	5	26
2012	3	5	8
2011	7	11	18
2010	2	2	4
2009	1	1	2
2008	4	2	6
	645	138	783

The year-wise data shows that male supervisors consistently outnumber female supervisors from 2008 to 2024. Out of a total of 783 supervisions, 645 (82.4%) were by male supervisors, while 138 (17.6%) were by female supervisors. The gender gap is particularly wide in earlier years, but from 2020 onward, female participation has gradually increased. For example, in 2020, 17 out of 60 supervisors were female (28.3%), and in 2023, female supervisors reached 15 out of 88 (17%). However, male dominance remains strong across all years, especially in 2017 and 2021, where male supervisors were over 80% of the total. This highlights a gender imbalance in LIS research supervision, though recent years show slight improvement in female representation.

Table-8: Temporal MPhil-LIS productivity with supervisor gender (Crosstabulation)

Temporal	Supervisor gender-wise		Total
	Male	Female	
2020-2024	318	69	387
2016-2019	199	29	228
2012-2015	114	24	138
2008-2011	14	16	30
	645	138	783

The data shows that MPhil-LIS research productivity has steadily increased over the decades, with a notable rise from 30 theses in 2008–2011 to 387 in 2020–2024. Male supervisors consistently contributed the majority of supervisions, with 645 out of 783 (82.4%), while female supervisors accounted for 138 (17.6%). Interestingly, the 2008–2011 period is the only timeframe where female supervisors (16) slightly outnumbered male supervisors (14), but in all subsequent periods, male dominance is clear. Despite this, female involvement has grown over time, rising from 24 in 2012–2015 to 69 in 2020–2024, indicating a positive trend toward increased female participation in academic supervision within LIS.

Table-9: Five-years LIS MPhil scholars with Province (Crosstabulation)

Years Limit	Punjab	Khyber Pakhtunkhwa	Sindh	Capital Territory Islamabad	Total
2020-2024	284	72	19	12	387
2016-2019	215	12	0	1	228
2012-2015	135	2	1	0	138

2008-2011	28	0	2	0	30
	662	86	22	13	783

The data shows that Punjab has consistently produced the highest number of MPhil scholars in Library and Information Science (LIS), a total of 662 out of 783 (84.5%). Khyber Pakhtunkhwa follows with 86 scholars (11%), mostly emerging in the 2020–2024. Sindh and the Capital Territory of Islamabad have contributed far fewer scholars, with 22 and 13, respectively. Over time, the overall number of scholars has increased significantly, rising from just 30 in 2008–2011 (four-years) to 387 in 2020–2024. This reflects a growing interest and capacity in LIS research, especially in Punjab and, more recently, in Khyber Pakhtunkhwa.

Discussion

Results of the present research demonstrate that there are some critical tendencies in the research productivity of LIS MPhil in Pakistan during the period of 2008 to 2024. The prevalence of Punjab (84.53) in the generation of MPhil theses is an evidence of the high degree of regional imbalance, which is not a new finding, as Haider and Mahmood (2007) earlier noted that the LIS research is historically clustered in big academic centers. Although emerging activity is being witnessed in Khyber Pakhtunkhwa, the other provinces such as Sindh and Islamabad have fallen behind meaning that the institution development among provinces needs to be more even-handed.

As demonstrated in the institutional analysis, Minhaj University and Superior University, both of which are privately owned, have played a top role in regarding LIS postgraduate research as well. Nevertheless, there was the development of a healthy balance in the number of produce within the government sector, as there was a slight higher number of theses that were produced by the government sector (53.1%). Such a report is connected with Siddique et al. (2021), who mentioned that LIS research in Pakistan becomes more diverse at institutional types.

It can be seen that the trend of growth is constant, with a total of nearly half of all theses (49.4 pieces) included in the decade 2020–2024. This shows growth of postgraduate programs as well as an increased academic interest on research in LIS. The years peak related to the enrolling growth, 2017, and 2021, can be attributed to a surge of enrolling or availability of supervisor, as proposed by Sheikh and Jan (2015). The gender modernity towards supervision shows a very deft gender inequality with 82.4% being supervised by male professors. Female supervision has been growing in prison since 2020, but its general percentage is not quite high. This aligns with gender representation problems in Pakistani academia (Ali and Richardson, 2016). The fact that the research direction is taken by the few supervisors especially Dr. Iqbal Hussain Asad is also indicative of the narrowness and concentration of research guidance within the existence of the few actively involved scholars. Although this shows a leadership, it brings into doubt the issue of capacity building and succession amongst LIS education.

Collectively, these data indicate that the research in LIS in Pakistan is growing, but there are still a number of challenges, such as the imbalance in the region, sex disparity, and an over-dependence on a small number of supervisors.

Conclusion

This research represents a systematic review of both MPhil theses in the Library and

Information Science (LIS) realm in the Pak region and inspired its creation during 2008 and 2024. The findings point at significant trends in the form of institutional, geographic, time, and supervisory trends. Together, these results provide times of useful information on the current condition of postgraduate LIS studies and allow providing grounds to enhance future policy and academic directions.

To begin with, the analysis establishes that Punjab has been the main productive force in terms of research in LIS as over forty-five percent of all MPhil dissertations occur there. The location of the concentration shows both the academic strength of the province and access to LIS schools, and indicates disparities in the region. The under contribution of Sindh and Islamabad indicates that there should be equilibrium development of LIS programs in Pakistan. By increasing LIS learning in underserved areas with a larger number of potential scholars, it can be observed that it will provide students with more equal access to higher education opportunities and help to introduce more inclusivity in the sphere.

Second, institutional productivity indicates the major impact of such institutions as the private universities, like the Minhaj University and Superior University located in Lahore, which today become the major participants of postgraduate education of LIS. Nevertheless, the total input of government universities still holds an advantageous position by a little margin that echoes the permanence of the role of the public sector in guides instructing leadership. Such a scale of the spheres implies the possibility of cooperation and sharing knowledge that can lead to the improvement of the value and exposure of LIS studies.

Third, the phase analysis demonstrates the constant increase in the volume of MPhil theses, and in the 2020-24 interval, it shares almost half of all theses. This growth indicates not only the growing number of enrolments but also the capacity of institutions, which is consistent with the overall global perspective of expanding postgraduate enrolments in LIS research (Bauer, Leydesdorff, and Bornmann, 2016). The data also indicate some peak years, including 2017 and 2021 that might be attributed to some positive academic policy, better availability of supervisors, or research productivity concentration in institutions. Such spikes indicate willingness of the LIS discipline to changes in academic and structural nature as well as the significance of favorable research conditions.

Fourth, leadership and difficulties can be found in supervision pattern. The prevalence of a few supervisors, at almost 10 percent of overall supervisions, of Dr. Iqbal Hussain Asad is the sign of dominant role of experienced academics guiding LIS scholarship. Although this shows a good research leader, it goes to show that it relies heavily on a select few people, a factor that may be a challenge to sustainability unless the level of supervisory ability is expanded. In addition, the pronounced gender ratio (82.4 percent of theses lead by males faculty) indicates the continued equality problems in University studies. Positively, the proportion of female supervision has brought progress of the last several years indicating the inclusiveness trend but it will need systematic efforts in order to hold and advance.

The results of this research hold a number of implications on LIS learning and LIS policy in Pakistan. The policymakers must focus on the development of LIS offices in the underserved provinces and offer specific assistance in the development of academic

workforce. Universities should improve faculty development initiatives in order to increase the supervisory capacity so that postgraduate students can get a wide and quality guidance. The gender mainstreaming policies are supposed to be incorporated to attract the female scholars to take to supervisory services, eliminating the inequalities that continue to be practiced, and enhancing inclusiveness in the research leadership. Also, the enhanced cooperation of the public and the private universities might have a positive effect on the research activities by providing access to more resources, providing various supervision, and initiating cross-institutional projects.

Lastly, the paper also outlines the research directions in future research. Although it offers a wide bibliometric scope of M Phil theses, future research may break the thematic focus, methodological design and quality indicators of LIS studies in Pakistan. Making the analysis go further to doctoral theses would also give a bigger picture of a more holistic research trends system in the country. A further way to contextualize the situation in Pakistan (democratically) and challenges with others on the global LIS stage could also be done in comparative studies to other developing nations.

To sum up, the LIS research productivity in Pakistan has significantly increased over the past 16 years and the current rate of research has been upped by both governmental and non-governmental universities in Punjab. In spite of the regional unbalances, supervisory dependency as well as gender disparity, encouraging trends of expansion and diversity are also witnessed in the field. Pakistan can create a more reflective, sustainable and globally competitive LIS research environment by filling the gaps by enacting policy change, institutional strengthening as well as inclusivity programs that plays a significant role in imparting value to national development as well as international scholarship.

References

- Ali, M. Y., & Richardson, J. (2016). Research Publishing by Library and Information Science Scholars in Pakistan: A Bibliometric Analysis. *Journal of Information Science Theory and Practice*, 4(1), 6–20. <https://doi.org/10.1633/jistap.2016.4.1.1>
- Ali, M. Y., & Richardson, J. (2017). Pakistani LIS scholars' altmetrics in ResearchGate. *Program*, 51(2), 152–169. <https://doi.org/10.1108/prog-07-2016-0052>
- Anwar, M. A. (2004). From doctoral dissertation to publication. *Journal of Librarianship and Information Science*, 36(4), 151–157. <https://doi.org/10.1177/0961000604050565>
- Ahmad, K., Jian Ming, Z., & Rafi, M. (2018). Assessing the digital library research output: bibliometric analysis from 2002 to 2016. *The Electronic Library*, 36(4), 696–704. <https://doi.org/10.1108/el-02-2017-0036>
- Anwar, M. A., & Saeed, H. (1999). Pakistani librarians as authors: a bibliometric study of citations in LISA-PLUS. *Asian Libraries*, 8(2), 39–46. <https://doi.org/10.1108/10176749910257623>
- Ashiq, M., Ur Rehman, S., Ahmad, N., Atoum, I., Aqil, M., & Ahmad, S. (2023). A Bibliometric Review of Leadership Literature in Library and Information Science Profession, 1959–2022. *Sage Open*, 13(4). <https://doi.org/10.1177/21582440231208767>
- Bauer, J., Leydesdorff, L., & Bornmann, L. (2015). Highly cited papers in Library and Information Science (<scp>LIS</scp>): Authors, institutions, and network

- structures. *Journal of the Association for Information Science and Technology*, 67(12), 3095–3100. Portico. <https://doi.org/10.1002/asi.23568>
- Boran, E., Korkmaz Güler, N., & Tarım, K. (2024). Bibliometric Analysis of Scientific Studies Performed with Mathematical Modelling. *International Journal of Educational Studies in Mathematics*, 11(3), 107–136. <https://doi.org/10.17278/ijesim.1503365>
- Garg, K. C., & Singh, R. K. (2021). A Bibliometric Study of Papers Published in Library and Information Science Research during 1994–2020. *DESIDOC Journal of Library & Information Technology*, 42(1), 57–63. <https://doi.org/10.14429/djlit.42.1.17480>
- Glanzel, W., & Schoepflin, U. (1999). A bibliometric study of reference literature in the sciences and social sciences. *Information Processing & Management*, 35(1), 31–44. [https://doi.org/10.1016/s0306-4573\(98\)00028-4](https://doi.org/10.1016/s0306-4573(98)00028-4)
- Jalaluddin Haider, S., & Mahmood, K. (2007). MPhil and PhD library and information science research in Pakistan: an evaluation. *Library Review*, 56(5), 407–417. <https://doi.org/10.1108/00242530710750590>
- Haq, I. U., & Alfouzan, K. (2019). Pakistan library and information science journal; Bibliometric review of a decade (2008-2017). *Pakistan Library and Information Science Journal*, 50(2), 85-98. https://www.researchgate.net/profile/Ikram-Haq-4/publication/332902334_Pakistan_Library_and_Information_Science_Journal_Bibliometric_Review_of_a_Decade_2008-2017/links/5cd14fc692851c4eab8812e9/Pakistan-Library-and-Information-Science-Journal-Bibliometric-Review-of-a-Decade-2008-2017.pdf
- Hussain, M., & Yar, M. S. (2021). Research productivity of pakistani authors in the online journal of library philosophy and practice: A bibliometric appraisal from 2008-2020. *Library Philosophy and Practice*, 2021, 1-15. <https://digitalcommons.unl.edu/libphilprac/4965>
- Islam, M. N., & Haider, M. S. (2024). Bibliometric Analysis of Literature on Library Services in Pakistan. *Pakistan Journal of Information Management and Libraries*, 26. <https://doi.org/10.47657/7578>
- Jabeen, M., Imran, M., Badar, K., Rafiq, M., Jabeen, M., & Yun, L. (2017). Scientific collaboration of Library & Information Science research in China (2012-2013). *Malaysian Journal of Library & Information Science*, 22(2), 67–83. <https://doi.org/10.22452/mjlis.vol22no2.5>
- Jan, S. U., & Shehryar, M. (2021). Library and Information Science research in Pakistan: A methodological analysis. *Library Philosophy and Practice*, 1-17. <https://digitalcommons.unl.edu/libphilprac/5032>
- Khan, A., & Hussain, A. (2022). A bibliometric study of collaborative research productivity among library and information science academicians in Pakistan 1975–2021. *Global Knowledge, Memory and Communication*, 72(8/9), 753–764. <https://doi.org/10.1108/gkmc-10-2021-0166>
- Lyu, P., Liu, X., & Yao, T. (2023). A bibliometric analysis of literature on bibliometrics in recent half-century. *Journal of Information Science*. <https://doi.org/10.1177/01655515231191233>

- Mahmood, K. (1996). Library and information services in Pakistan: A review of articles published in foreign journals. *The International Information & Library Review*, 28(4), 383-405. <https://doi.org/10.1080/10572317.1996.10762410>
- Mahmood, K. (1999). The development of computerised library services in Pakistan: A review of the literature. *Asian Libraries*, 8(9), 307-328. <https://doi.org/10.1108/10176749910293803>
- Siddique, N., Rehman, S. U., Khan, M. A., & Altaf, A. (2020). Library and information science research in Pakistan: A bibliometric analysis, 1957–2018. *Journal of Librarianship and Information Science*, 53(1), 89–102. <https://doi.org/10.1177/0961000620921930>
- Nazim, M., Ur Rehman, S., Iqbal, A., & Ahmad, S. (2024). Patterns of Scholarly Communication in Global Information Retrieval Research: A Bibliometric Analysis (1954–2021). *Science & Technology Libraries*, 44(3), 266–281. <https://doi.org/10.1080/0194262x.2024.2429064>
- S, S., S, S., Veerappan, S., & N, A. (2024). Bibliometric Study: Natural and Engineering Sciences. *Natural and Engineering Sciences*, 9(2), 376–385. <https://doi.org/10.28978/nesciences.1574466>
- Sun, J., & Yuan, B.-Z. (2020). Bibliometric mapping of top papers in Library and Information Science based on the Essential Science Indicators Database. *Malaysian Journal of Library & Information Science*, 25(2), 61–76. <https://doi.org/10.22452/mjlis.vol25no2.4>
- Siddique, N., Ur Rehman, S., Ahmad, S., Abbas, A., & Khan, M. A. (2021). Library and information science research in the Arab World: a bibliometric analysis 1951–2021. *Global Knowledge, Memory and Communication*, 72(1/2), 138–159. <https://doi.org/10.1108/gkmc-06-2021-0103>
- Siddique, N., Rehman, S. U., Khan, M. A., & Altaf, A. (2020). Library and information science research in Pakistan: A bibliometric analysis, 1957–2018. *Journal of Librarianship and Information Science*, 53(1), 89–102. <https://doi.org/10.1177/0961000620921930>
- Ullah, A., & Ameen, K. (2021). Relating research growth, authorship patterns and publishing outlets: a bibliometric study of LIS articles produced by Pakistani authors. *Scientometrics*, 126(9), 8029–8047. <https://doi.org/10.1007/s11192-021-04081-z>
- White, H. D., & McCain, K. W. (1998). Visualizing a discipline: An author co-citation analysis of information science, 1972–1995. *Journal of the American Society for Information Science*, 49(4), 327–355. [https://doi.org/10.1002/\(sici\)1097-4571\(19980401\)49:4<327::aid-asi4>3.0.co;2-4](https://doi.org/10.1002/(sici)1097-4571(19980401)49:4<327::aid-asi4>3.0.co;2-4)