Current Status of Library and Information Sciences Research in Pakistan: A Critique

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Abstract:
Research in the library and information sciences (LIS) or information management (IM) is a systematic inquiry of issues and problems related to libraries and related concepts. Research productivity of any discipline helps to understand the research output, patterns, trends, challenges, and strength of the discipline. The purpose of this study is to critically evaluate the state of LIS research in Pakistan by analyzing research patterns, research output, and challenges. To get valuable insights, the study used a comprehensive content analysis of bibliometric studies, the papers on LIS research and education, research patterns, research growth, research performance, and research practice. The results indicate that LIS researchers have produced 1305 research articles which shows a growth of LIS researchers in Pakistan. The collaborative authorship pattern was the most adopted by the Pakistani LIS researcher. The finding revealed that there is a growth in LIS research. The challenges that hinder the progress in LIS research are insufficient funds and resources, lack of training and development, and Lack of expert faculty. Little research is available on libraries and sustainable development, information policy, library management, and leadership. The findings of the study offer solid recommendations for strengthening LIS research infrastructure, moving towards collaboration, and meeting research requirements with global standards. The study provides a roadmap for enriching the LIS research in Pakistan to create an impact on academic and societal development.

Keywords: LIS research status; Research patterns; Research trends; Research growth; Content analysis.

Introduction

Scientific and scholarly standards define research in library and information sciences (LIS) as a systematic investigation of problems related to this domain and its branches. The journey of LIS education in the subcontinent started in 1915 at the University of Punjab (PU) Lahore with the arrival of Asa Don Dickenson. He started a certificate course in library education. The aim of starting a library science course was to teach about library management and its related operations and to equip the library professional with modern library practices to manage the university library (Dickinson, 1916). The book Dickinson's, titled Punjab Library Primer, was the first research publication in library education and research in the region. Research plays an involute role in any field of study and explores unexplored dimensions. The development of library & information science in Pakistan can be assessed through the research outputs of library & information science researchers. The researchers of LIS include students, faculty members, library professionals, institutions, associations, and stakeholders. At the time of independence, there was a single library school which was developed

in 1915. Later, the University of Karachi started offering library programs in 1956, the University of Sindh started offering library science programs in 1965, the University of Baluchistan in 1981, and the University of Peshawar started programs in 1983. The Islamia University of Bahawalpur started the degree programs in Library & Information Science in 1985. (Haider & Mahmood, 2007). At present, there are almost more than 12 LIS schools across the country which are offering different programs from BS level to PhD. The LIS schools are continuously producing graduates who are making the profession stronger with great competence and skills which are crucial. LIS researchers are actively producing research publications nationally and globally. The strengths and weaknesses of any discipline can be judged by its research productivity. This study aims to analyze critically the status of LIS research in Pakistan and to explore the challenges being faced by Pakistani researchers. The research output of LIS professionals is also discussed in the study.

Objectives of the Study

The underneath objectives guide the study to its logical conclusion.

i.   To analyze critically the status of LIS Research in Pakistan.
ii. To analyze the research output of LIS Professionals in Pakistan.
iii. To explore the challenges faced by LIS professionals in Pakistan.
iv. To examine the research areas lacking in LIS research in Pakistan.

Literature Review

Measuring the research productivity of any discipline helps to understand the research output, patterns, trends, challenges, and strengths of the discipline. Many researchers have consistently measured the research output of their perspective disciplines. To measure the research output of LIS researchers in Pakistan many of the studies were conducted in different periods. Haider and Mahmood (2007) conducted a study to evaluate the research productivity of PhD and M. Phil students at different LIS schools

in Pakistan. The study insights indicate that only three M. Phil and six PhD students completed their degrees by 2006. The topics of PhD research were not problem-oriented even though the topics of some studies were confusing and not clear. The study of Ahmad and Warraich (2013) attempted to identify the pattern of LIS research from the period of 2007 to 2012. During the selected period, the researchers from three LIS schools produced 170 research articles. The LIS students of PU and IUB produced 40 theses during this period. The insight showed that 30% of authors authored research articles solely and 70% of papers were written by two or more than two authors. Library education and information computer technology remain prominent topics. Ninety-six papers were written on these topics out of 170. The history of library education and research started with Punjab Library Primer and a research journal "Moden Librarian in 1937 (Ameen & Warraich, 2014). The research study of Khan and Hussain (2023) indicated the research productivity of LIS academicians, research patterns, and the level of research. The insights of the study showed that 702 research papers were published by the LIS faculty from 1975 to 2021. The faculty members adopted the collaborative authorship pattern mostly as 436 articles were written by two or more faculty members and 266 articles were written by a single author. Information needs, information-seeking behavior, IL skills, and Bibliometrics/scientometrics were trending top among LIS researchers by 2021. Ullah (2023) measured the research performance of 32 LIS faculty members in three databases. H-Index, citations, and total number of publications were measured. The faculty members of PU (IIM) have a higher H-Index in all three databases than the other LIS faculty members of different LIS schools. According to Hussain et al. (2023), the year 2021 remains the most productive which produced the most number of research articles. LIS researchers have produced 56 articles this year. A total of 197 research articles were published in the selected period (1985-2022). Highlighted that The University of Punjab contributed the most (77) and least number of articles produced by the

University of Home Economics (7). Most of the articles (60) were published in the journal "Library Philosophy and Practice" which is not an HEC-recognized journal from July 2023 onward. Ahmad et al. (2023) highlighted in their research that university libraries, bibliometric studies, LIS education, electronic information resources, and academic, public, and national libraries trending on top among Khyber Pakhtunkhwa researchers.

After reviewing the existing literature, it was observed that the previous studies have mapped two major items in LIS research: (i) research growth and, (ii) research pattern. The major focus was on bibliometric trends without discussing the structural challenges. For example, the study of Haider and Mahmood, (2007) pointed out the low completion rate of PhD. This represents a systematic issue in supervision and resource accessibility. In another study of Ullah, (2023) pointed out disparities in LIS research productivity across departments The researcher has suggested a need for the distribution of equitable resources. This study aims to address these issues by providing an analysis of research trends, patterns, and challenges. The practical recommendation of the study offers a comprehensive solution to issues.

Research Methodology
Content analysis is a systematic method for analyzing and interpreting communication characteristics like text, images, or audio, identifying patterns, and themes, and drawing inferences based on the findings (Hassan, 2024). This study conducted a content analysis of bibliometric studies to gain valuable insights into LIS research in Pakistan from 2000 to 2023. The bibliometric studies were retrieved from three sources WoS, SCOPUS, and Google Scholar using the keywords: LIS research and education, research patterns, research growth, bibliometric analysis, research performance, and research practice. A comprehensive analysis was conducted to meet the study objectives. This approach provides the foundation for findings.

Analysis and Interpretation
Research Status at LIS Schools
Looking back at the early revolution of library science education in the subcontinent, it seems that the only library school was started in 1915 at the University of Punjab by Asa Don Dickenson. LIS schools are the primary stakeholders in the aesthetic aura of research. The LIS School of Punjab University is the major library and information science research contributor with 125 publications as shown in Fig 1. Similarly, the other LIS schools like the Department of Information Management at the University of Sargodha with 115 publications. The University of Peshawar 60 and the University of Karachi contributed 34 research publications. The other LIS schools at AIOU and the Department of Information Management at IUB lead a great research output in Pakistan. Fig. 1 presents the research contributions of four major LIS schools in the country. Punjab University is a pioneer in LIS and contributed the most. Sargodha University in the past decade, has made a tremendous contribution to LIS research.
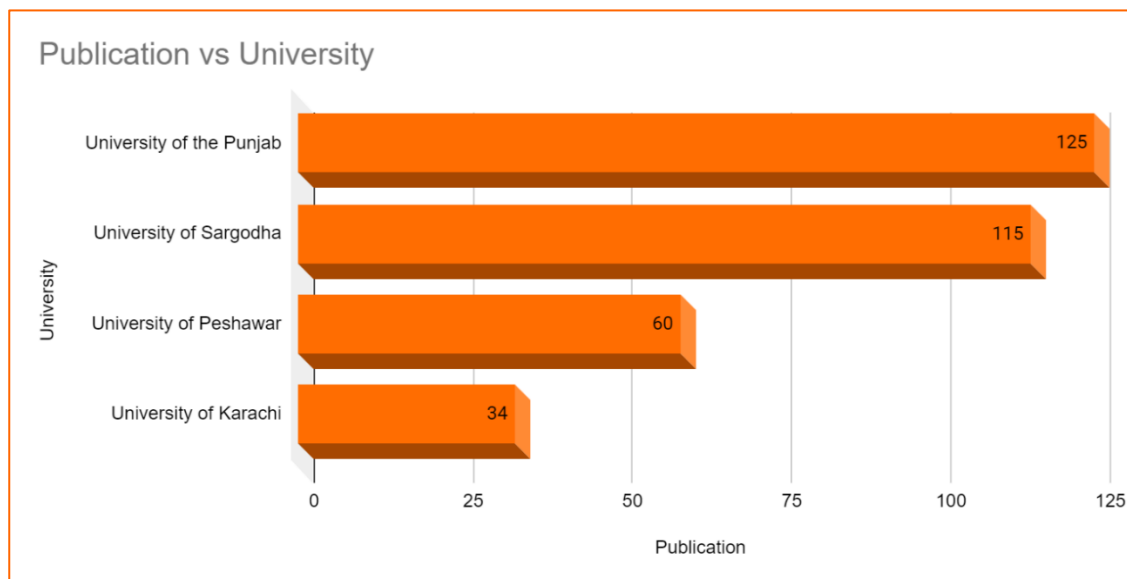
Figure 1 Contribution of LIS Schools in Research.

(Source: Official websites of the universities)

LIS Research Journals in Pakistan

Research journals are the major container of research in the era of research and innovation. In Pakistan Higher Education Commission is the authoritative body of journal recognition. There are Six HEC-recognized "Y" category LIS Journals being published in Pakistan. International Journal of Librarianship and Information Science (IJoLIS) is being published by the efforts of the Department of Library and Information Sciences, Allama Iqbal Open University, and its first volume was published in 2016. It is a double, blind peer-reviewed research journal of LIS that accepts research articles globally. Pakistan Journal of Information Management & Libraries is a successful effort of the Institute of Information Management, University of the Punjab which started its publications in 2000. It is an online open-access LIS research journal. Journal of Information Management & Practices was launched by IUB and began publishing in open-access format in 2021. Pakistan Library and Information Science Journal (PLISJ) is one of the first Journals of LIS published in Pakistan. Library Promotion Bureau is the publishing body of PLISJ. This journal has published most number of articles 441 from 1968-2018 (Siddique et al., 2021). The International Journal of Information Management Sciences (IJIMS) is another double-blind peer-reviewed HEC-recognized "Y" category multidisciplinary journal that was started by the PLWO with the collaboration of the University of Chenab in 2022. The journal has published 36 research papers till 2024. Department of Library and Information Science, Kushal Khan Khattak University Karak started the Journal of Information Management and Library Studies (JIMLS) on an annual basis, but unfortunately, even a single issue of the journal cannot be published till 2023. In 2024 the journal was recognized by HEC in the "Y" category and started accepting manuscripts. International Journal of Library and Information Science by the Department of Library and Information Science, University of Peshawar is still deadlocked. Pakistan Library Association Journal has published 20 research articles so far.
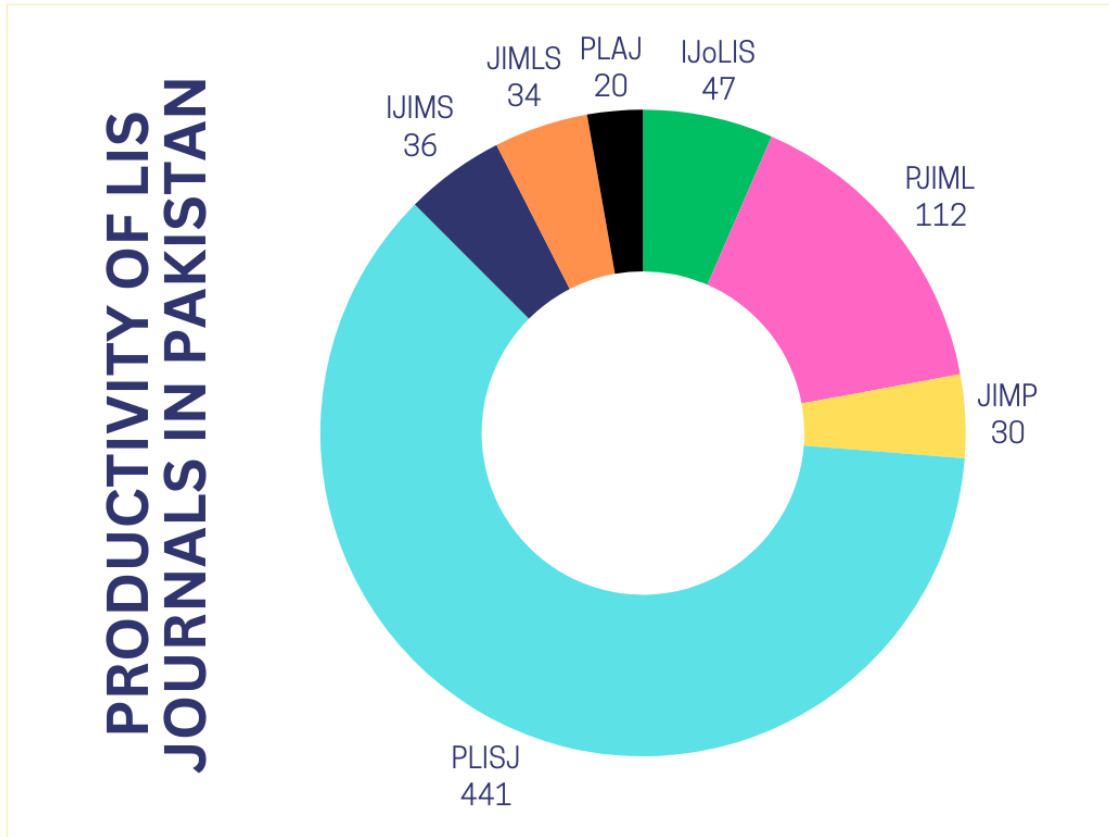
Figure 2. Productivity of LIS Journals in Pakistan

Growth of LIS Research in Pakistan

As reported in earlier literature, the annual growth rate of LIS research remained eight to nine percent from the year 2004 to 2016. A total of 166 Pakistani authors contributed 600 articles, with an average of 3.61 articles per author which showed tremendous progress. The authors preferred foreign journals to publish their manuscripts than locally recognized journals as it seems that the growth of research published in foreign impact factor journals (preferred) was much higher compared to local journals. Moreover, collaboration among LIS researchers was seen seven times higher during the years 2009 to 2016 (Ullah & Ameen, 2021). An analysis of authors' productivity and authorship patterns revealed that 2,609 authors contributed 4,934 research papers, which showed an average of 1.89 articles per author. It was unveiled that Pakistani LIS researchers preferred to work collaboratively rather than independently (Naseer, 2015).
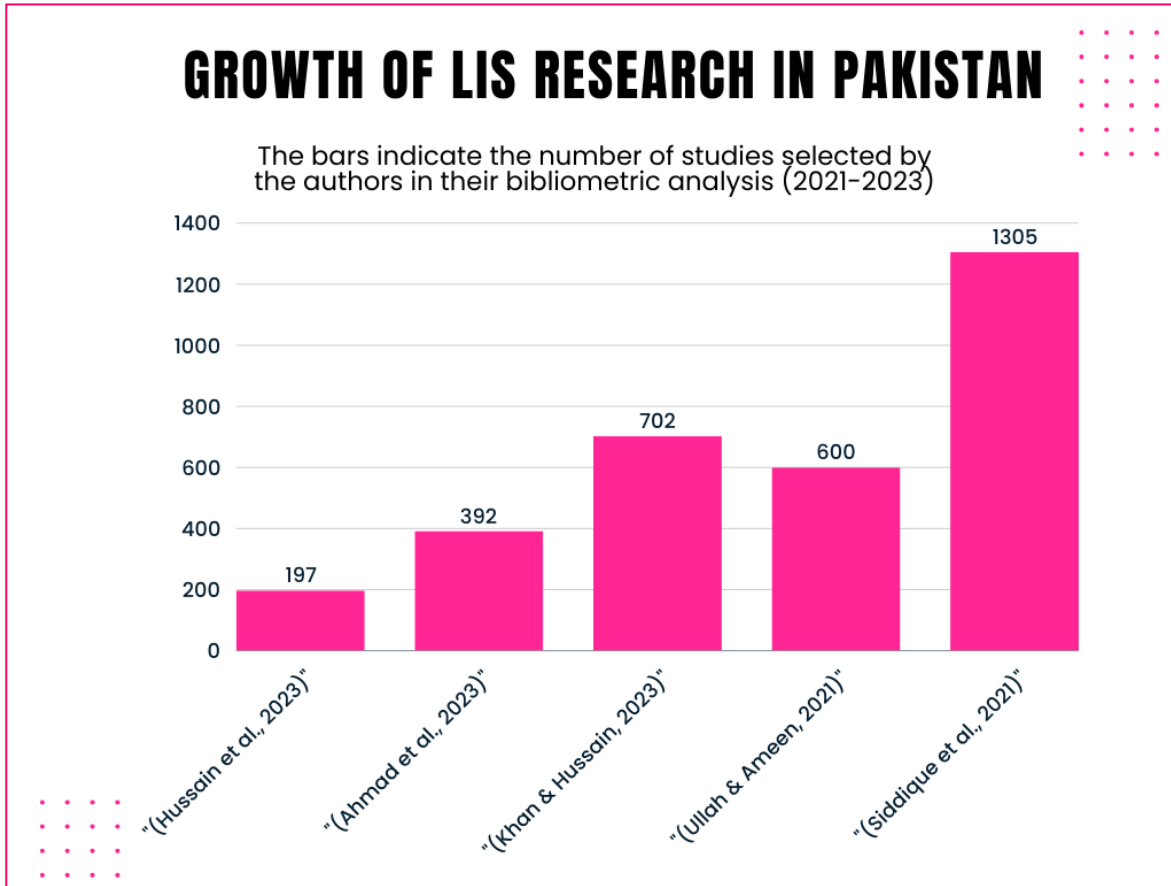
GROWTH OF LIS RESEARCH IN PAKISTAN

The bars indicate the number of studies selected by the authors in their bibliometric analysis (2021-2023)

Figure 3. Sample of Analyzed Studies

A bibliometric analysis of the SCOPUS database was conducted by Hussain et al. (2023) to highlight the research contributions of Pakistani LIS scholars from 1985 to 2022. The insights indicated the LIS researcher has produced 197 research articles. Data was extracted from Scopus only. Ahmad et al. (2023) conducted a study on research trends in LIS in the province of KPK. During the selected period the researcher of LIS in KPK produced 392 research articles. They collected the data from Google Scholar. The study of Khan and Hussain (2023) measured the collaborative research productivity the data was extracted from three sources, Google Scholar, Scopus, and Web of Science. The results show that the LIS researcher produced 702 articles during the period 1975-2021. A study conducted by Ullah and Ameen (2021) covering the years 2001-2016 reported a positive upward trend in LIS research in Pakistan. LIS researchers have produced 600 articles during this period. The study of Siddique et al. (2021) was consist of 1957 to 2018. They collected that data from four databases which were (i) Web of Science, (ii) Scopus, (iii) LISA, and (iv) LISTA. The results indicate that LIS researchers produced 1305 research articles which shows a growth of LIS researchers in Pakistan.

Authorship Patterns in LIS Research in Pakistan

The authorship pattern of LIS research in Pakistan remained one of the focal points of several bibliometric studies. The earlier studies that the researchers reviewed have analyzed various aspects such as research growth, authorship patterns, publishing outlets, and collaboration among Pakistani LIS researchers. One significant study published in 2021 in the journal Scientometrics, examined LIS articles written by Pakistani researchers from the years 2001 to 2016 (A. Ullah & Ameen, 2021). Another study

conducted a bibliometric analysis to gauge the contributions of Pakistani LIS researchers in the SCOPUS database from 1985 to 2022 (Hussain et al., 2023b). It highlighted that the year 2021 remained the most productive year for LIS research, with 56 research papers published by Pakistani LIS scholars in SCOPUS-indexed journals. The Institute of Information Management at the University of the Punjab, Lahore was leading and remained the most dynamic institution which have contributed to 75 research publications

(Hussain et al., 2023a). It seemed that the authorship pattern was preferred by LIS researchers in Pakistan. Research collaboration started after 1995 among Pakistani LIS teaching faculty members. About 266 research articles were produced individually, and 436 articles collaboratively. There is a balanced collaborative research trend among academicians and practitioners of LIS in Pakistan (Khan & Hussain, 2023).
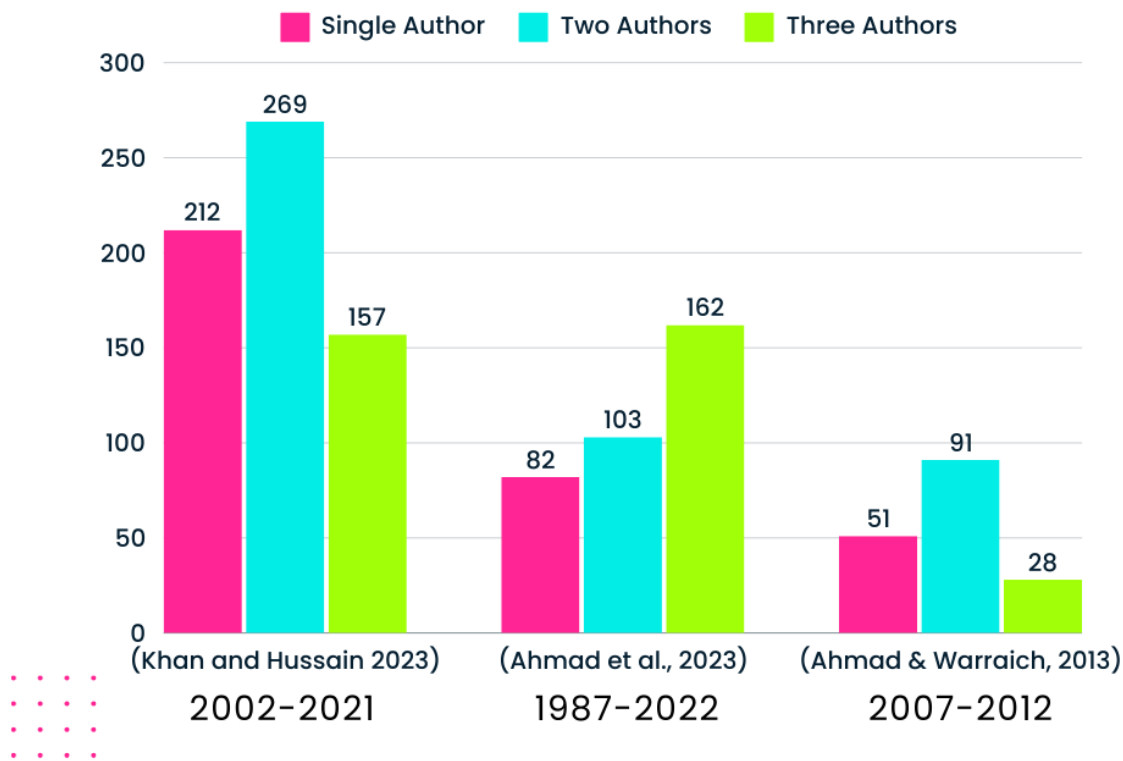

Figure 4. Authorship Patterns in LIS Research in Pakistan

Research Output of LIS Researchers in Pakistan

A study analyzing the PLISJ from 1998 to 2007 found that LIS professionals in Pakistan produced 236 research articles till 2007. The journal has played a significant role in disseminating professional ideas and knowledge, with a total of 38 volumes (102 issues) published till December

2007 (Naseer & Mahmood, 2009). Research productivity among LIS professionals in Punjab, Pakistan, has been assessed, showing a consistent increase in research output. The focus of the study was on LIS professionals who have an MPhil or PhD degree in LIS from HEC-recognized universities. The study pointed out that the research productivity of LIS researchers has

increased after the completion of MPhil/PhD degrees (Sulehri et al., 2017). A bibliometric analysis pointed out that the most studied areas of research by LIS authors in Pakistan in 2020 were Bibliometric, Libraries in Covid-19, and Information Literacy. The study highlighted an increase in publications output and collaborative research in LIS researchers. They produced 213 research articles in 2020 (Haq, 2021). Another bibliometric study pointed out that there is an average growth of publications at 83.79 items per year. It also indicated that the Information treatment for information services was the most favored research area (Naseer, 2013).
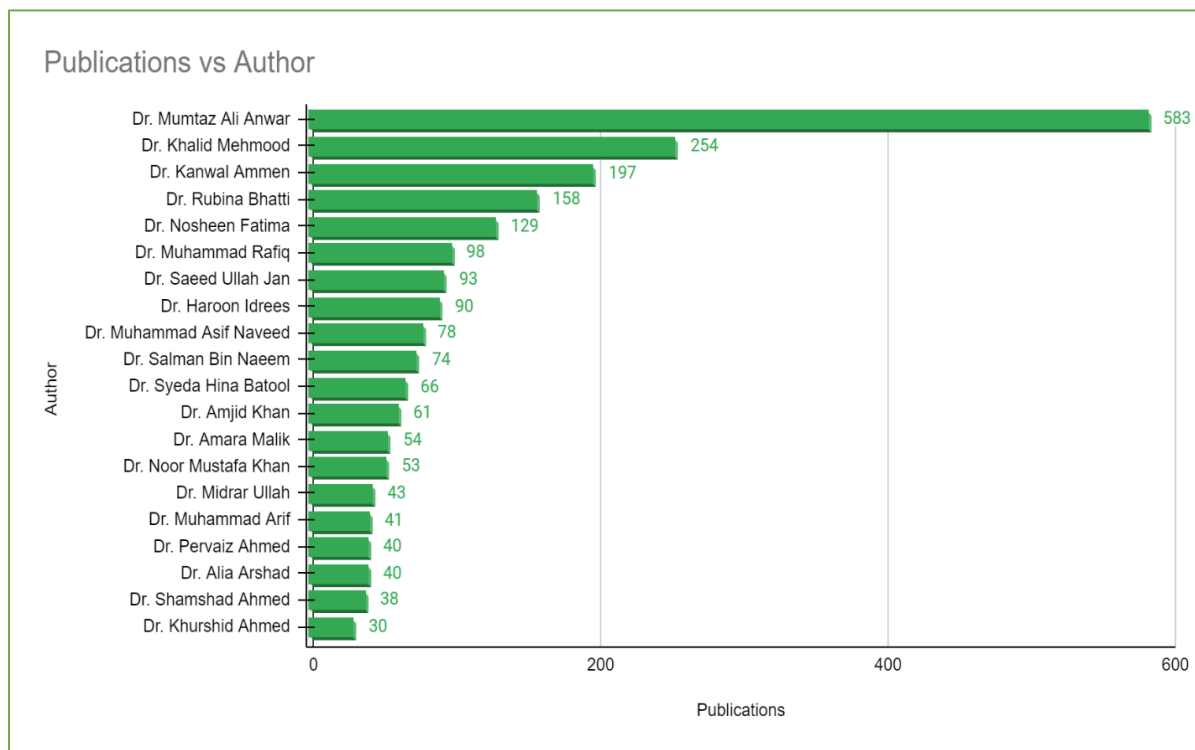

Figure 5. Research Output of LIS Researchers in Pakistan

Discussion

Despite challenges, research in the field of LIS/information management in Pakistan has become a dynamic academic endeavor with significant progress. LIS domain has become one of the leading research contributors in Pakistan particularly with attention to current topics such as bibliometric analysis, information literacy, artificial intelligence, information-seeking behavior, and so on. LIS domain faces the challenge of inadequate schools and faculty as compared to other fields of study, which not only adversely affects the quality of education and research but also limits mentoring, counseling, and learning opportunities for new students and researchers. Further, the lack of resources and non-availability of educational amenities in many academic institutions aggravates the situation, adversely affecting the scope and quality of research (Shah et al., 2023). The day-to-day changes and advancements in Information and Communication Technology (ICT) are becoming more challenging. Keeping LIS professionals up-to-date about the latest trends is a critical need of the time, which demands continuous professional development programs and opportunities. Preservation of research resources has been an important issue in modern and ancient times (Warraich & Tahira, 2009). It is crucial to have effective security strategies in place to ensure the safety of research resources. To safeguard the research information resources it is essential that there should be technical support

and proper security measures (Haq & Shahzad, 2021). There are numerous challenges that LIS researchers are facing. Despite these challenges, there are many opportunities to explore new areas such as digital/electronic libraries, library services for the vulnerable segment of society, libraries in the era of sustainable development, Information policies, information ethics, information sociology, the political economy of information, information governance, meta literacy, artificial intelligence, etc. exploration of these research areas are very critical for continuous growth and development within the LIS domain (Khan & Shahzad, 2024). There is no doubt that a lot of work has been done on information literacy in Pakistan but still a lot of work needs to be done for further improvements (Ali, 2022). There is limited research on the utilization of new technologies in libraries in Pakistan. It is important to research how library services can be enhanced using new technologies, how materials can be safeguarded, and how information can be disseminated within society. Research plays a crucial role in understanding how information can be shared, and Pakistani LIS researchers should also investigate these areas (Bashir & Warraich, 2023). Knowledge management is also very important. By reviewing the literature, it comes to know that there is a dearth of research on the topic of knowledge management (Husna & Ahmad, 2022). Researching leadership, management, and governance and their effects on library performance, service delivery, and user-centric approach can improve the growth and worth of the LIS profession in Pakistan. There is a dire need to establish efficient, effective, and transparent systems for effective decision-making. Time management, team leadership, resource allocation, optimism, proactiveness, effective communication, and a strong grip on subjects are essential for leadership and are beneficiary for discipline growth (Dolly & Nonyelum, 2018). Regulations and policies help to run the institutions smoothly; regulations and policies are made for the betterment of society. Research in information policies and information legislation improves the credibility and effectiveness of information. Misinformation and

Disinformation can be handled through proper legislation. In Pakistan a very little research on information policy and information legislation. Information ethics is also a neglected research area in Pakistan. LIS researchers should explore these areas for better policies and legislation in Pakistan (Konjicija-Kovač, 2020). Libraries are critical to achieving the UN's Sustainable Development Goals (SDGs). The library can play a role in achieving SDG 4 "Quality Education" and play a role in achieving other SDGs. LIS researchers should research how libraries can contribute to sustainable development, which measures to be taken, and which information resources are required. The Green Library initiative should benefit environmental sustainability. Libraries should develop community centers and educational and training programs that support the UN's "Sustainable Development Goals" (Mwanzu et al., 2023). Libraries play an important role in the dissemination of healthcare information, which can benefit the health-related issues of society. The collaboration among LIS professionals and medical professionals helps to increase the importance of health information. Accurate and standardized health information can reveal the level of customer satisfaction and identify areas for improvement. (Naccarella & Horwood, 2021). Schools are the first educational institutions, and school libraries play an important role in enhancing student achievement and learning. If we look at the current state of school libraries in Pakistan, the situation is very disturbing, there is a great need for improvement in school libraries. Research can be conducted to improve and establish the libraries at the school level (Tabassum et al., 2019). It is only through research that the LIS in Pakistan can transform and improve its relationship with the public-government – challenges that are also the need of the hour. It is impossible to move forward without dealing with them, a comprehensive strategy to exploit available opportunities and explore new avenues of research is imperative. Encouraging partnerships, improving facilities, increasing funding, developing a research culture, providing continuous training programs, and promoting publication in world-class journals are

the modes of survival. Engagement with experts from a variety of disciplines can stimulate cutting-edge research projects aimed at effectively addressing complex issues. Although much research has been done by LIS researchers, it is not without obstacles and problems. Recognizing these challenges, the field is pursuing high-quality research within its boundaries that not only advances the profession but also benefits society at large. By investing in research infrastructure, promoting collaboration, and prioritizing suitable research areas, Pakistan can position itself as a leader in LIS discipline. The upward leap in collaborative research practices reflects global patterns in the LIS landscape in Pakistan. However, the lack of research funding and lack of expert faculty leading a unique gap as compared to developed countries. The eradication of these challenges by shaping focused policy interventions could place LIS research at the top in the region and contribute to the global dialog of sustainable library practices and information governance.

Recommendations

The following are the recommendations for the improvement of LIS research in Pakistan.

i. The Higher Education Commission must establish a national LIS research consortium with the collaboration of the Pakistan Library Association and the National Library of Pakistan to encourage collaboration and cooperation among scholars, promote resource sharing, and promote research activities

ii. HEC's digital library provides free access to research databases, journals, and all other research resources for researchers across Pakistan.

iii. Lobby for more government funding for LIS research via grants, scholarships, and fellowships with special mentions to digital libraries and information literacy as priority areas.

iv. Develop a national LIS research agenda emphasizing areas to focus on, introducing interdisciplinary collaboration, and connecting research with national development goals.

v. Conduct workshops/training programs on Research Methodology, Data analysis, Literature review, and Academic Writing at various levels for Library & Information Science, Professors, and students.

vi. Mentor emerging researchers and connect them with expert researchers so that their research can also be published in impact factor international journals.

vii. Organize interdisciplinary conferences and workshops that connect LIS researchers with experts in fields such as computer science, education, or the social sciences to advance potential research collaborations.

Conclusion

While Library Information Science (LIS) research in Pakistan has achieved many successes, it also faces many challenges. In the last few years, there has been much progress in research and education in this field. Lack of qualified scholars, professional isolation, limited resources, and rapidly changing technology are all factors that hinder the development of LIS research in Pakistan. There may be many opportunities for Investing in education and training, fostering collaboration and focusing research in under-researched areas will not only strengthen the profession, but also increase its relevance and impact on society. The road ahead may be full of obstacles, but with determination, collaboration, and innovation, Pakistan's LIS researchers can pave the way for a dynamic and efficient future that can make its place in the world's knowledge. Empower individuals and communities to access knowledge and information. LIS research has vast potential as well as time to take practical steps. The study's findings and recommendations offer a way for policymakers and institutions to strengthen the LIS research for sustainable libraries and educational developments

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