

## Research Trends of LIS Schools in Khyber Pakhtunkhwa

Abid Hussain<sup>1</sup>, Dr Muhammad Ismail<sup>2</sup>

### Abstract

*The change has been a constant phenomenon in librarianship. However, when we talk about the LIS schools in developing countries, the situation in Pakistan is a bit slowly. Overall, the progress of LIS education in the country is increasing because new schools have been set up in the last few years and research trends are growing. Still, Pakistan has not yet reached its position as other developing countries did in the previous few decades. Presently, 15 schools offer a degree in Library and Information Science discipline. These university faces serious issues like faculty education, curriculum development, assessment and infrastructure etc. The Higher Education Commission Pakistan HECP is pushing hard to inculcate productive research culture in educational sectors, including the LIS discipline. The paper presents an overview of research trends among LIS schools based in Khyber Pakhtunkhwa, Pakistan. The result shows that 588 articles and theses were contributed by three schools exclusive of the School of LIS in Swabi and Swat, which are not fully operational. The authors have covered the gap of present faculties working in these schools until 2021, and a gap is left for future research. The study is helpful for LIS Schools in Pakistan in general and KP in particular. The stakeholders of universities, scholars, academia, HEC and Educational ministry will get possible help from the present paper.*

**Keywords:** Research Trends; LIS Schools, Research growth, LIS Scholars, Library Science, Information Professionals.

### Introduction

From the Melvil Dewey's school of Library Economy in 1887 at Columbia University to the present scenario, Library education in Pakistan has a brilliant history. The whole credit goes to C.R.Ewing, the then Vice-Chancellor of Punjab University, 1910-1917. Though he was an American National educated, taking the opportunities from his career as Vice-Chancellor, he felt that there should be a trained librarian, who organize the library, train the fellow librarians and purchase material for the libraries as per the demand of the teaching faculty. The suggestion was approved in a syndicate meeting and the post was advertised in the American Press for the said job. Mr. Asa Don Dickenson, who applied for the said job and was selected as the first librarian in Punjab province's sub-continent. (Anwar, 1992). Dickenson stayed at Punjab University for a year; however, librarians in Pakistan got their identity as emerging professionals in the region. The pace of library education in other parts of the world is increasing at an alarming rate. However, in developing countries like Pakistan, there is still a need to further accelerate the curriculum, infrastructure, faculty education, Job market, quality research, etc. Hussain, A., & Jan, S. U. (2020).

Since many libraries have been set up, the old traditional services and quality enhancement in Lis education have not been endeavoured like in other developed countries. To create the best and balancing combinations of needed information and modern skills. Library education can move

---

<sup>1</sup> Library Officer, Institute of Strategic Studies Islamabad, Email: [abidhussain@issi.org.pk](mailto:abidhussain@issi.org.pk)

<sup>2</sup> Assistant Professor, Department of Library and Information Science, University of Peshawar, Email: [ismailpeshawar@gmail.com](mailto:ismailpeshawar@gmail.com)

faster, but quality research and modern education can further ignite the scope of library education in the eyes of stakeholders and policymakers. Similar research has been conducted on library education in Pakistan, but hardly any literature has been undertaken that address research trends in Khyber Pakhtunkhwa. Though researchers in Pakistan have contributed a handsome amount of research on different topics, the present paper has covered the published work and theses in partial fulfilment of scholars in these schools. Library Education in Pakistan has a remarkable past, present and future; however, it can only attain its objectives when we produce a quality research in the field. There are 15 LIS Schools in Pakistan; among them, five are established in Khyber Pakhtunkhwa. The oldest school in the history of Pakistan and the region is the University of Peshawar which was established in 1962. The most dynamic schools in terms of research productivity are the Department of LIS University of Peshawar and Khushaal Khan Khattak University Karak. The private sector schools play a pivotal role in producing quality works. The LIS school at the Sarhad University of Science and Technology is the third LIS school in research productivities. Among five schools, the school affiliated with Bacha Khan University Charsadda was banned by HEC for not having a parental department; the two schools, the University of Swabi and the University of Swat are not fully functional. The present paper sheds light on the contributory works of four LIS Schools of Khyber Pakhtunkhwa.

### **Objectives of the study**

1. To identify the present scenario of research trends in LIS Schools
2. To analyse the Published works of Teaching faculty and their supervised theses
3. To Identify the fundamental issues related to research trends in LIS Schools
4. To Suggest the possible measures for Research trends in LIS

### **Research Design**

The multi-method approach was used for the collection of data for this paper (i) in-person survey conducted by telephone among the entire faculty members, including chairpersons of various departments (ii) interviews conducted with faculty members (iii) Websites of various schools were visited (iv) Google Scholar and research gate pages were visited for each faculty members in order to confirm the reliability of produced work (v) data from the previous research was also brought into use for this paper.

### **Literature Review**

Research plays a tremendous role in the advancement of any profession. It enables researchers to share their findings with wider professional communities. Evaluation and assessment are powerful tools to identify any field's strengths and weaknesses. Haq, I. U., Hussain, A., & Tanveer, M. (2021); these evaluations help in decision making and policy development of any profession. Research in developed countries is increasing at an alarming pace. Still, research has not been considered in many fields in developing countries like Pakistan, the Library and Information Science field has not been given full preferences so far. Research is an excellent source of narrative buildings; the more researchable areas get more attention in the field. Research in the library field

has been growing in the last few decades, but, the quality and advancement in the field is still lagging behind from other disciplines in the country.

Nevertheless, the quality and progress in this profession are a bit slow compared to other disciplines. Over the years, researchers have adopted quantitative techniques like scientometrics, bibliometrics, and webometrics to investigate the impact of productivities in different aspects relevant to LIS. Hussain, A (2022). (Erfanmanesh et al., 2010). Research and education in the region, called Pakistan have a long history. The history can be traced back when Asa Don Dickinson produced the first textbook on the subject in 1916, which was published at the university of Punjab under the name Library Premier. Anwar, M. A. (1990). Hence, Punjab is the cradle of the library movement in Pakistan.

LIS is a growing subject; analysis and experimentation in this field lead to new insights and research. Khalid Mahmood and Farzana Shafique (2010) affirm that research is an essential element of librarianship, similarly, librarians play a crucial role in the promotion of research. Librarians assist researchers in their work, and librarians themselves need to be skilled researchers. It is opined that the history of library research in Pakistan dates back to 1916 when Asa Don Dickinson wrote the first book, the leading textbook on library science written outside the United States. Since then, LIS professionals in Pakistan have constantly added to library and information science literature. Ismail, M., Ahmad, S., & Subpouto, N. (2015).

Asa Don Dickenson's research was a pioneering activity in the library and information science field; now, the pace of research in library research is albeit a bit slow, but still, it is contributing a handsome knowledge in the area. Haider, 2000. For the last few decades, LIS literature in Pakistan has been increasing enormously, but it still needs more concentration on quality research. Fewer bibliometric studies reveal that Pakistan's library field research has a remarkable place. Scholars in this discipline are contributing many publications in scientific journals. Literature reviews show that LIS in Pakistan has contributed outstanding research indexed in Scopus and the web of science; however, it can be more fascinating when these schools initiate a counselling of young scholars. The present study was conducted to measure the research growth of LIS Schools based in Khyber Pakhtunkhwa, Pakistan. LIS researchers from 1957-to 2018 was conducted by a scholar, but that paper was limited to articles only. Siddique, N. et al., (2021) some other researchers have also researched Master level theses; nevertheless, those papers cover Punjab's area and the particular geographical contribution to Pakistan. The significant research areas have been crystalized and a foundation has been laid for more prominent research in the region. Therefore, it is intended to fill the gap in research in the Khyber Pakhtunkhwa province. The study focused on the following research questions:

### **Research Questions**

1. What is the current status of research trends in LIS schools of Khyber Pakhtunkhwa, Pakistan?
2. Which are the most productive library schools in KP regarding research activities?
3. What are the authorship and collaboration patterns of LIS faculty in Pakistan?
4. What are the various challenges faced by LIS Schools in Khyber Pakhtunkhwa, Pakistan?

## Discussion

Table 1 shows the overall schools of LIS in Pakistan. In the list below, it has been demonstrated that presently there are total 15 LIS Schools in Pakistan. The oldest among them is the Department of Library and Information Science at the University of Karachi, established in 1956. The second LIS School founded in this region was the Department of Library and Information Science University of Peshawar, established in 1992 with a Bachelor's degree in LIS; later on, in 1982, it started a Master's degree programme. The third school of LIS is regarded as the Department of the Information Management University of the Punjab Lahore. It is said that initially, the first training school in terms of Library services was regarded as the University of Punjab, but the programme was cancelled and was reorganized in 1963. The last school of LIS was established in 2018 at the University of Swabi 2018, but no proper classes have been initiated yet due to faculty appointments and admission of students etc.

**Table 1:** *Library and Information Science Schools in Pakistan*

S.No	LIS school	Year established	Degrees offered
1.	Department of Library and Information Science, University of Karachi	1956	BLIS, MLIS
2.	Department of Library and Information Science, University of Peshawar	1962	MLIS, MPhil
3.	Department of Information Management, University of the Punjab, Lahore	1963	BS LIS,MLIS, MPhil, PhD
4.	Department of Library & Information Science & Archive Studies, University of Sindh, Jamshoro	1970	DLIS, BS-LIS, MLIS
5.	Department of Library & Information Science, University of Balochistan, Quetta	1981	MLIS
6.	Department of Library and Information Science, Islamia University of Bahawalpur	1982	MLIS, MPhil, PhD
7.	Hamdard Institute of Education and Social Sciences, Hamdard University, Karachi	1992	MPhil, PhD
8.	Department of Library and Information Sciences, Allama Iqbal Open University, Islamabad	2001	Certificate, BLIS, MLIS, MPhil
9.	Department of Library and Information Sciences, University of Sargodha	2008	MLIS, MPhil, PhD
10.	Institute of Social Sciences, Bahauddin Zakariya University, Multan	2012	BS-LIS, MLIS
11.	Department of Library and Information Science, Sarhad University of Science & Information Technology, Peshawar	2012	BLIS, MLIS, MS-LIS
12.	School of Library & Information Sciences, Minhaj University, Lahore	2012	BS-LIS, MLIS, MPhil, PhD
13.	Department of Library and Information Science, Khushal Khan Khattak University, Karak	2014	BS-LIS, MLIS, MPhil
14.	Department of Library and Information Studies, University of Swat	2015	BS-LIS
15.	Department of Library and Information Science, University of Swabi	2018	BS-LIS

Table 2 shows LIS Schools in Khyber Pakhtunkhwa. It is said that the oldest school among them is the LIS School University of Peshawar, which was established in 1962. Initially, it started with a bachelor's diploma in 1962; later on, in 1982, a master's level programme was started. Rest all schools are followed by the Peshawar University; the second school after Peshawar LIS school is the department of Library and Information Sciences School of Sarhad University of Science and Technology, established in 2012. The school offers BS Lis, MLIS and MS/MPhil programmes in the region. The third most prominent school in Khyber Pakhtunkhwa is the Department of Library and Information Science Khushaal Khan Khattak University Karak, which has started its MLISC and BS LIS in 2014 and MPhil LIS in 2018. The department of Bacha Khan University couldn't survive for a long time because of no parental organization. The Department of Library and Information Science at the University of Swat was initiated in 2015, but no formal admission has been announced yet. The University of Swabi has also launched the Department of LIS, but it has not been operationalized.

**Table 2:** *LIS Schools in Khyber Pakhtunkhwa*

S.No	LIS school	Year established	Degrees offered
1.	Department of Library and Information Science, University of Peshawar	1962	BS LIS, MLIS, MPhil
2.	Department of Library and Information Science, Sarhad University of Science & Information Technology, Peshawar	2012	BLIS, MLIS, MS-LIS
3.	Department of Library and Information Science, Khushal Khan Khattak University, Karak	2014	BS-LIS, MLIS
4.	Institute of Policy Study, Bacha Khan University Charsadda	2017	MPhil LIS
5.	Department of Library and Information Science, University of Swabi	2018	BS-LIS

Table 3 shows overall theses submitted by students in various LIS schools of Khyber Pakhtunkhwa. The record covers theses of MPhil, MS, Master, BS/BLIS. The University of Peshawar, being the oldest university in KP, has produced 66 theses inclusive of all categories, followed by Sarhad University with 64 theses and research projects. Khushal Khan Khattak University Karak has produced total 49 theses, including 49 at BS level and 9 at MS level. Bacha Khan University has presented only four theses out of 183 at the M.Phil level.

**Table 3:** *Theses Submitted to LIS School in KP*

Program	University of Peshawar	Khushal Khan Khattak University Karak	Sarhad University Peshawar	Bacha Khan University Charsadda	Total
MS/MPhil	10	9	25	4	48
Master	63		38		101
BS/BLS		40	1		41
<b>Grand Total</b>	<b>73</b>	<b>49</b>	<b>64</b>	<b>4</b>	<b>190</b>

Table 4 reveals the overall contributions of the faculty of LIS in terms of ranking. Keeping in view the record of whole collections, Dr. Saeed Ullah of KKUK has produced 77 articles and supervised 78 theses with an accumulation of 155 contributions. Dr Sajjad Ahmad ranked second with 42 papers and 10 theses accumulative 52. Dr Asad Khan of Peshawar University was ranked third in terms of research contributions, who published 48 articles and supervised 3 theses with accumulation 51 records. Among the lowest contributions, Mr. Shahab of Khushal Khan Khattak University has produced only 1 article and supervised no theses.

**Table 4: Research Contributions of Faculty of LIS at Khyber Pakhtunkhwa**

Rank	Name	LIS School	Articles	Supervise thesis	Grand Total
1	Dr Saeed Ullah Jan	Khushal Khan Khattak Uni	77	78	155
2	Dr Sajjad Ahmad	University of Peshawar	42	10	52
3	Dr Asad khan	University of Peshawar	48	3	51
3	Dr Ghalib khan	Khushal Khan Khattak Uni	39	12	51
4	Dr Muhammad Ismail	University of Peshawar	38	4	42
5	Dr. Midrar Ullah	Bacha Khan University	36	2	38
6	Dr. Arif	Bacha Khan University	31	1	32
7	Mr. Hamid Rahman	University of Peshawar	17	13	30
8	Syed liquait Ali	University of Peshawar	10	18	28
9	Mohammad Hussain	Khushal Khan Khattak Uni	20	8	28
10	Mr. Ibrahim Khan	Sarhad university	20	0	20
11	Dr. Sajid Mirza	Bacha Khan university	14	1	15
12	Dr Fida Muhammad	University of Peshawar	0	10	10
13	Dr Rahim Jan	Khushal Khan Khattak Uni	4	0	4
14	Dr. Ata-Ur-Rahman	Sarhad university	3	5	8
15	Mr. Izhar Muhammad	Khushal Khan Khattak Uni	7	0	7
16	Mr.Syed Arif Ali Shah	Sarhad university	0	5	5
16	Dr M. Ashfaq Ahmad	Sarhad university	0	4	5
17	A.U. Khan	University of Peshawar	0	3	3
18	Khush Muhammad	University of Peshawar	2	2	2
19	Mr. Muhammad Shahab	Khushal Khan Khattak Uni	1	0	1
<b>Total</b>	<b>16</b>		<b>409</b>	<b>179</b>	<b>588</b>

Table 5 shows the theses and Research articles of faculty members at Bacha Khan University Charsadda, KP. Among all faculties, the contribution of Midrar Ullah is remarkable, with 36 Articles and two theses. Muhammad Sajid Mirza ranked second with 14 articles and one thesis,

followed by Dr. Arif with 30 articles and one thesis being supervised. The faculty members contributed 81 articles and four theses at Bacha Khan University Charsadda. HEC banned the department for not having a parental department at Bacha Khan University.

**Table 5: Theses and Research Articles of Faculty at Bacha Khan University, KPK**

S. No	Name	Article	Supervise thesis	Grand Total
1	Dr. Midrar Ullah	36	2	38
2	Muhammad Sajid Mirza	14	1	15
3	Dr. Arif	31	1	32
<b>Total</b>	<b>3</b>	<b>81</b>	<b>4</b>	<b>85</b>

Table 6 shows the contributions of the Faculty of Library and Information Science department at Khushaal Khan Khattak University Karak (KKKUK). Dr. Saeed Ullah Jan has produced handsome research while contributing 77 articles and supervised theses 129 accumulative 106. The second-ranked among them is Dr Ghalib Khan, with 39 articles and 12 theses, followed by Dr. Muhammad Hussain with 20 articles and 8 theses. The fourth-ranked teacher is Mr. Izhar Muhammad, with only seven articles, followed by Dr. Rahim Jan with 4 articles. The last faculty ranking in Mr. Muhammad Shahab, with only one article in his credit. Overall, faculty members at KKKUK have produced 148 articles and 49 theses with an accumulative total of 195.

**Table 6: Theses and Research Articles of Faculty at Khushal Khan Khattak University, KP**

S. No	Name	Article	Supervise thesis	Total
1.	Dr Saeed Ullah Jan	77	29	106
2.	Dr Ghalib khan	39	12	51
3.	Mr. Mohammad Hussain	20	8	28
4.	Mr. Izhar Muhammad	7	0	7
5.	Dr Rahim Jan	4	0	4
6.	Mr. Muhammad Shahab	1	0	1
<b>Total</b>	<b>6</b>	<b>148</b>	<b>49</b>	<b>195</b>

Table 7 shows the contribution of Sarhad University of Science and Technology to Khyber Pakhtunkhwa. Among faculty members, Dr. Ata Ur Rahman has contributed 3 articles and supervised 6 theses, followed by Dr. Saeed Ullah Jan with 49 Theses, as the article of Dr. Saeed Ullah has been shown in table 6, so his articles have been excluded. The third-ranked is Syed Arif Ali shah with 5 theses, followed by Dr. Ashfaq with four theses, followed by Mr. Ibrahim Khan, a visiting faculty with 20 articles, followed by Zakaria Qasmi with only three articles. Over contributions of SUIT among Private Sector Universities in Pakistan is slightly good. The overall contribution of faculty members is 26 articles and 64 theses which shows a reasonable markup.

**Table 7: Theses and Research Articles of Faculty at Sarhad University of Science & Tech, KP**

S. No	Name	Article	Supervise thesis	Total
1	Dr. Ata-Ur-Rahman	3	6	9
1	Dr Saeed Ullah Jan	0	49	49

3	Mr. Syed Arif Ali Shah	0	5	5
4	Dr M. Ashfaq Ahmad	0	4	4
5	Mr. Ibrahim Khan	20	0	20
6	Zakaria Qasmi	3	0	3
<b>Total</b>	<b>6</b>	<b>26</b>	<b>64</b>	<b>90</b>

Table 8 shows the contributions of faculty members at the Department of Library and Information Science, University of Peshawar, Khyber Pakhtunkhwa. Among faculty members, the position of Dr. Asad Khan is highly commendable, with a total of 48 articles and 3 theses, followed by Dr. Muahammad Sajjad with 42 articles and 10 theses. Dr. Muahmmad Ismail ranked third with 38 articles and four theses, followed by Mr. Hamid Rahman with 17 articles and 13 theses. The fifth-ranked faculty member is Syed Liaqat Ali, with 10 articles and 18 theses, followed by Khush Muhammad Khan, with two theses. AU Khan and Dr. Fida Muhammad have contributed 13 theses while staying at this department. Overall, the Department of LIS faculty members has contributed 155 articles, 63 theses with an accumulative 218.

**Table 8: *Theses and Research Articles of LIS Faculty at the University of Peshawar***

S. No	Name	Article	Supervise thesis	Total
1.	Dr Asad khan	48	3	51
2.	Dr Sajjad Ahmad	42	10	52
3.	Dr Muhammad Ismail	38	4	42
4.	Mr. Hamid Rahman	17	13	30
5.	Syed Liaqat Ali	10	18	28
6.	Khush Muhammad Khan	0	2	2
7.	A.U. Khan	0	3	3
8.	Dr Fida Muhammad	0	10	10
<b>Total</b>	<b>8</b>	<b>155</b>	<b>63</b>	<b>218</b>

### **Implications for LIS Faculties**

The present study focuses on scholarly works of faculties in different LIS Schools of Khyber Pakhtunkhwa; therefore, the researchers feel that many publications contributed by students at graduate level have not been included. Similarly, research produced by the former faculties has also not been included. Therefore, a comprehensive study may be undertaken to cover the full publications of these schools. All graduate-level students who have completed their theses under the former and contemporary teachers should be included in future research. It is also suggested that all schools should design their websites that shows the published and produced work of concerned department. Presenting research on the website will help the scholars at the national level and the international level. This will increase the visibility of readership and encourage students to fill the gap being left in previous researches. As many LIS schools have launched their journals, it is also suggested that graduate-level students of each school should be encouraged to contribute their articles. Student counselling is yet another step for all schools. LIS schools should

encourage students to write these instead of taking viva voce in exams. Increasing the amount of research will open new horizons for these schools and help them to send their narratives abroad. Based on these findings and keeping in view the international growth of publications, it is suggested that high-quality journals should be targeted for research development and growth. Worldwide global indexing agencies like Scopus and Web of Science cover those journals that highly impact academic performance. The researchers of these universities should be encouraged to publish at least two articles while pursuing higher degrees. It is further suggested that MPhil and PhD Theses conducted at these schools should be uploaded to HEC website named Pakistan Research Repository Portal. Hussain, A. (2021). Last but not least, a repository for published work may be designed in each school so that students can upload their theses and scholarly works at their own end.

### **Conclusion**

The present study reveals that there are a total fifteen (15) LIS Schools in Pakistan which offer degrees at bachelor's, master and postgraduate levels. Among all these schools, five 5 are established in Khyber Pakhtunkhwa province. The oldest school in LIS Discipline was established at the University of Peshawar earlier in 1962. The first-degree programme at the master's level was started by the University of Peshawar in 1982. The most productive schools in terms of research activities are the University of Peshawar and the Department of Library & Information Science at Khushaal Khan Khattak University Karak. Among five LIS schools, three are entirely functional the LIS Department University of Peshawar, Khushaal Khan Khattak University Karak and the Department of Library and Information Science at Sarhad University of Science Technology. HEC has banned one school affiliated with Bacha Khan University Charsadda for not having parental schools in the university. Two schools, the Department of Library and Information sciences at the University of Swabi and Swat are not fully operational. The result revealed that these five schools had contributed 588 research since their establishment. Though the literature reviews were conducted in LIS research, nobody has researched a specific issue. This study reveals the publishing trends of Pakistani LIS researchers have been increasing for the last few decades; however, the research growth in this discipline is a bit slow in the region, contrary to the University of Punjab. It is opined that the University of Punjab has been the leading university in producing LIS literature in Pakistan. Knowing the weaknesses and vital areas of research, this paper recommends the following recommendations for future research in the field:

### **Recommendations**

1. Curriculum reviving from time to time
2. Research Counselling in each LIS school
3. Grants for Research by HEC and Parental Organizations
4. Research Awareness Programme through continuing education
5. Encouraging students in research activities
6. Group research activities should be encouraged

7. Recommendation of Think –Tank at Provincial Level like PLA etc
8. Journals indexed in Scopus and Web of Science should be targeted
9. An initiative of Journals at each LIS School that meets HEC criteria.
10. Collaboration with NGOs and other Research Organizations
11. Research Repository at the Provincial level
12. Last but not least. All schools should encourage collaborative projects at the provincial level. (Joint venture)

### References

- Ameen, K. (2007, August). Issues of quality assurance (QA) in LIS higher education in Pakistan. In *World Library and Information Congress* (pp. 19-23).
- Anwar, M. A. (1990). The Pioneers: Asa Don Dickinson. *World Libraries*, 1(2).
- Erfanmanesh, M. A., Didegah, F., & Omidvar, S. (2010). Research productivity and impact of Library and Information Science in the Web of Science. *Malaysian Journal of Library & Information Science*, 15(3), 85-95.
- Haq, I. U., & Satti, M. H. (2021). Research Productivity of Pakistani Authors in Library and Information Science; An Overview of 2019 publications. *Library Philosophy and Practice* (e-journal), 4853.
- Haq, I. U., Hussain, A., & Tanveer, M. (2021). Evaluating the Scholarly Literature on Information Literacy indexed in the Web of Science Database. *Library Philosophy and Practice* (e-journal), 5230.
- Hussain, A. (2021). Electronic Theses: Why Pakistan is lagging behind. *Library Philosophy and Practice*, 1-12.
- Hussain, A. (2022). Research Output of Canadian Journal of Information and Library Science (CJILS): A Bibliometric Analysis from 1993-2021. *Library Philosophy and Practice*, 1-12.
- Hussain, A., & Jan, S. U. (2020). Mapping of Research Output of the Journal “Strategic Studies” Islamabad: A Statistical Review. *International Journal of Librarianship and Information Science (IJOLIS)*, 5, 55-61.
- Ismail, M., Ahmad, S., & Subpouto, N. (2015). Library and Information Science Research in the Khyber Pakhtunkhwa, Pakistan. *Pakistan Library & Information Science Journal*, 46(2).
- Mahmood, K., & Shafique, F. (2010). Changing research scenario in Pakistan and demand for research qualified LIS professionals. *Library Review*.
- Siddique, N., Rehman, S. U., Khan, M. A., & Altaf, A. (2021). Library and information science research in Pakistan: A bibliometric analysis, 1957–2018. *Journal of librarianship and information science*, 53(1), 89-102.