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Professor Dr. Rubina Bhatti, Leader in Library and Information Science Research in the South Punjab, Pakistan: *Bio-Bibliometric analysis utilizing the Scopus database*

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Abstract:

The current study aims to evaluate the Scopus-indexed publications of Professor Dr. Rubina Bhatti, Dean, Faculty of Social Sciences and Chairperson, Department of Library and Information Sciences (LIS) at Islamia University of Bahawalpur (IUB), Pakistan. She obtained her Master's degree in LIS in 1991 from IUB, later she joined IUB as a Lecturer in the Department of LIS in 1993. She completed her Ph.D. at The University of Manchester, United Kingdom in 2003. She is the most productive LIS author belonging to the Southern part of Punjab province in Pakistan. The data of this study was retrieved from the Scopus database on January 2nd, 2023. The data analysis presented the periodic growth of papers, citation impact, authorship pattern, collaborative authors, frequently used sources of publications, topographic distribution of papers based on authors' used keywords and characteristics of top-cited papers. The findings of this study would encourage the females of Pakistan through sincere hard work, commitment and dedication, any female can achieve success in her practical and professional career.

Keywords: Research productivity, Bibliometrics, Scopus, Library and Information Science

Introduction

Educated and talented females contribute positively in every field of life (Khaliq et al., 2017). In Pakistan, the female population consisted of about half of the total and their ratio of literacy has been recorded at about 52 percent (Pakistan, 2022). Slightly more than one-third (34.2%) females attained the level of high school education, while 8.3 percent attained tertiary education (Kamal, 2022). Most of educated females are serving in the education (Khan, 2014) and healthcare sectors (Salahuddin 2021) in Pakistan.

The researchers of Stanford University have updated the global list of the top two percent (2%) scientists belonging to various disciplines in 2022 (Ioannidis et al., 2020). Thirteen scientists/researchers belonging to Islamia University of Bahawalpur (IUB) were listed and the name of Prof. Dr. Rubina Bhatti has also been included, that motive us to conduct this study.

Dr. Rubina is a distinguished female academician and prolific researcher belonging to the Southern part of Punjab, Bahawalpur, Pakistan. She is serving as Dean, Faculty of Social Sciences and Chairperson, Department of LIS IUB. Along with the administrative and teaching assignments, she has not been contributing valuable research and also supervising the research from the Master to Doctorate levels. She attained her post-graduation degree in Library and Information Science (LIS) from IUB in 1991 and later

she joined IUB as a faculty member. She completed her doctorate in LIS from The University of Manchester, United Kingdom in 2003. Her topic of research was “*Perceptions of user education in the university libraries of Pakistan*”. She completed her research under the supervision of Professor Tom Christie, and co-supervisor Dr. Glyn Price. Her dissertation was published in book format entitled “*Perceptions of User Education in the University Libraries of Pakistan: Educating the library users*” by VDM Verlag Dr. Muller, ISBN- 978-3639233841 (Haq, 2017)

The description of the educational accomplishments and review of research contribution of legendary academicians, researchers and authors, has always been one of motivational sources for peers, colleagues as well as future generations (Kousar & Mahmood, 2010). It is very unfortunate that usually the attainments of the scholarly fellows are presented on his/her end of service or documented in obituary columns after his/her demise (Koganuramah, et al. 2004). The impartial assessment and pointing out the qualities of scholarly activities during the life time of the author, would be considered as token of appreciation and acknowledgment of his/her intellectual work (Haq & Ahmad, 2019).

It is appropriate to assess the scholarly output of researchers to understand the publication growth, research trends and other bibliometric characteristics. Further, the horizon of research evaluation can be spread to a specific area of knowledge, institutions and publication output of journal(s). We can draw a comparison of publication output in different ways. All these studies fall in the bibliometrics method of research (Hood & Wilson, 2001; Tanveer et al., 2020). Bibliometrics is an application of statistics and mathematics in published work (Prichard, 1969). These studies highlight the various properties of published work, like the growth of publications by years, citation impact, potential authors, collaboration pattern and subject dispersion (Siddiqui et al., 2021; Ahmad et al., 2021). The findings of these studies are valuable for government agencies, higher management and research units of the institutions, ranking agencies and for individual researchers, who are looking for a suitable topic for their future research. Institution academic committees also applied bibliometric methods to acquire new learning resources for the library and information resource centers (Haq & Faridi, 2021; Donthu et al., 2021; Ellegaard & Wallin, 2015). The present study aimed to examine the Scopus-Indexed publications of Dr. Rubina Bhatti and highlight the selected bibliometric parameters of her research.

Literature Review

Dr. Rubina Bhatti is a faculty member of IUB and which is a pioneer, distinguished higher education degree-awarding and research institution in South Punjab. Haq (2021b) examined the publication output of IUB from 1981 to 2021, the study revealed that 60% of the publications were produced during the last five years of the study. *Agricultural and Biological Sciences* had been the most preferred area of research, followed by *Chemistry* and *Pharmacology*. The share of *Social sciences* research was 6.55%.

Siddique et al., (2021) analyzed the LIS research in Pakistan from 1957 to 2018. The study reported that IUB had been the third most productive institution after the University of the Punjab and University of Karachi. Among the three most productive authors, Dr. Khalid Mahmood secured the top rank with 133 publications followed by Dr. Kanwal Ameen and Dr. Rubina Bhatti with 92 and 88 publications, respectively.

Our study design is related to a bio-bibliometrics study that deals with the quantitative and analytical aspects comprised of a brief life sketch and legacy of research productivity of a single author/scientist (Sen & Gan, 1990).

The pioneer bio-bibliometric study was carried out by Sinha and Bhatnagar (1980), they evaluated the 68 publications of Dr. R. C. Sinha, a renowned plant virologist. The study extracted the dataset from the Biological Abstracts. Forty-seven papers of Dr. Sinha were published in international journals and the

highest number of papers (n=23) were published in *Virology*, followed by *Physiotherapy* (n=14). The study also calculated the citation impact based on the *Journal Citation Report* of 1977. Tiew (1999) examined the 205 publications, contributed by Khoo Kay Kin, a Malaysian historian. His productive period was spread on 41 years (1963-1998). The research collaboration was found only in two publications; 203 publications had been written by a single author. The highest number of publications were conference papers (n=79), followed by journals' articles (n=60) book chapters (n=28), lectures/talks (n=23) and books (n=15). The highest number of papers (n=47) were published in *Sejarah* (Journal of the History Department, University of Malaya), and 60.5% of his work was published in the English language while the rest of the literature appeared in the national language of Malaysia, Bahasa Melayu.

In the Pakistani context, a first bio-bibliometric study was conducted by Mahmood and Rehman (2009) on the published work of Prof. Dr. Anis Khurshid. Dr. Anis contributed to 182 publications in the span of 47 years. About three-fourths (74.73%) of his work was published in the English language. Kausar and Mahmood (2010) analyzed the 96 publications of Prof. Dr. Syed Jalaluddin Haider, produced over 41 years. Dr. Anis and Dr. Haider both belonged to the University of Karachi, these studies were conducted after their demise.

A bio-bibliometric study covered the research output of Prof. Dr. Khalid Mahmood. This study was limited to 115 publications produced from 1993 to 2011 (Qayyum and Naseer, 2013). Now the number of his publications reached 241 and his work has been cited 5,351 times (January 8, 2022). Another study explored the merits of research produced by Dr. Kanwal Ameen. This study was limited to 137 papers/documents published from 1991 to 2017. She contributed 25 papers/documents (18.24%) as solo-author, and served as the second author in more than half (n=74; 54%) of documents. Other than solo author papers, she performed as the leading author in about one-fourth (n=34; 24.81%) of the documents. There were four potential co-authors (Nosheen Fatima Warraich, Muhammad Rafiq, Alia Arshad, and Midrar Ullah) having more than ten papers each (Haq & Ahmad 2019). Presently, Dr. Kanwal is serving as Vice-Chancellor at the University of Home Economics, Lahore. She is the first LIS professional in Pakistan to reach this prestigious status. Naveed (2018) reviewed the 187 items contributed by Prof. Dr. Mumtaz Ali Anwar and these items were published in 57 years (1964-2017). Seventy-two percent of his work was done as a single author while the rest of the work has collaborated with 42 authors. Hussain (2020) examined the publications productivity of Prof. Hamid Rahman, a former faculty member of the University of the Peshawar. He contributed 28 publications from 1983 to 2015 and the preferred areas of research were "Academic Libraries" and "Library Education".

Other than LIS professionals, two studies dealt with the research profiles of Dr. Atta ur Rehman and Dr. Tassar Hayat. Dr. Atta is a renowned scientist in the field of Organic Chemistry, he also served as Federal Minister of Education and Chairman, Higher Education Commission of Pakistan. He has been selected as one of the 500 most influential personalities in the world. Manzoor and Anjum (2011) analyzed his 776 documents published from 1966 to June 2007 and highlighted the various characteristics of his publications. Haq (2021a) scrutinized the research growth of the most productive Pakistani researcher, Dr. Tasawar Hayat. He belonged to Quaid-e-Azam University and the study examined the 2,374 documents indexed in Scopus database published in 26 years (1995 -2020).

The studies mapping the LIS research in Pakistan, quantify the share of female authors. Shadab (2009) reviewed the 557 articles published in *PLISJ* in 38 years (1968-2007) contributed by 280 authors, the share of female authors was found 19 percent. Naseer and Mahmood (2009) assessed 236 papers published in *PLISJ* from 1998 to 2007. The contribution of female authors was found 36 percent. Another study assessed 170 papers contributed by LIS researchers of the Punjab from 2007 to 2012 and the share of female authors was 41 percent (Ahmad & Warraich, 2013). Anwar and Zhewei (2020) evaluated the

research contributed by Pakistani female authors in *Library Philosophy and Practice* from 2008 to 2020. The study found 83 publications and Dr. Rubina emerged as the most prolific author with 26 papers followed by Dr. Farzana Shafiq (n=11), Dr. Kanwal Ameen (n=6) and Dr. Nosheen Fatima (n=6). A recent study evaluated the collaborative research among LIS faculty members in Pakistan from 1975 to 2021. A study revealed that 72 LIS faculty members belonging to 12 LIS schools contributing 1,787 papers in 47 years. The female LIS faculty members contributed in 32.40 percent of the papers (Khan & Hussain, 2022). Ullah and Ameen (2021) examined 600 LIS papers contributed by 166 Pakistani authors from 2001 to 2016. A distribution of papers by gender showed that female authors produced 185 (30.83%) papers. The highest number of papers were published in *PLISJ*, followed by *Library Philosophy and Practice*.

Haq (2020) examined the social sciences research in Pakistan from 1961 to 2019. Most of the research (90%) was done after 2003 and 113 papers were published in *Library Philosophy and Practice*. The top three authors belonged to LIS professionals, Dr. Khalid Mahmood occupied the top rank followed by Dr. Kanwal Ameen and Dr. Rubina Bhatti.

Haq and Alfouzan (2019) scrutinized the publication output of *PLISJ* from 2008 to 2017. Dr. Rubina Bhatti emerged as a most productive author in this study. Haq (2021) evaluated the citation analysis of papers published in *PLISJ* from 2004 to 2020, indexed in EBSCO database. A total of 361 papers were found and the highest number of papers (n=39) were contributed by Dr. Rubina Bhatti.

A paper discussed the contribution of female authors of India in LIS research, based on, *SRELS Journal of Information Management*. A total of 464 papers were published from 2011 to 2018 contributed by 877 authors, the proportion of female authors was 28.50% (Patel & Verma, 2019).

Objectives

The following are the objectives of the study:

- a. To quantify the papers, citations and citation impact by year.
- b. To review the authorship patterns.
- c. To highlight the top co-authors in research collaboration.
- d. To point out the preferred sources of publications
- e. To examine the subject dispersion based on authors used keywords.

Research Methodology

A bibliometric method of quantitative research has been applied to the data, retrieved from the Scopus database. The was collected on January 2nd, 2023.

Scopus database created by Elsevier in 2004, having a comprehensive coverage of abstracts and citation counts of more than 40,000 publication sources including journals' articles, conferences proceedings, book chapters, books etc. from the year 1788 onwards. All these scholarly and scientific materials going through the selection process by the content and quality specialists and they re-evaluated the contents periodically (Singh et al., 2021).

The following search query was employed in Scopus database.

(AUTHOR-NAME (Bhatti, R.) AND (LIMIT-TO (PREFNAMEAUID,"Bhatti, R.#30267551800")))

The publications of Dr. Rubina have been indexed under ID No. 30267551800. It might be a chance that some publications have been missed or overlooked.

The data was analyzed by using Microsoft Excel (version-16) and VOSviewer software (Van Eck & Waltman, 2010) was applied to visualize the co-author networks and co-occurrence of authors' used keywords

Limitation

PLISJ has been publishing regularly for the last 53 years by the Library Promotion Bureau, Karachi. This journal has not been indexed in Scopus database that's why the papers published in this journal were not included in the current study. The papers contributed to conferences and published in non-Scopus-indexed sources have not been included. The citation counts are also limited to Scopus database.

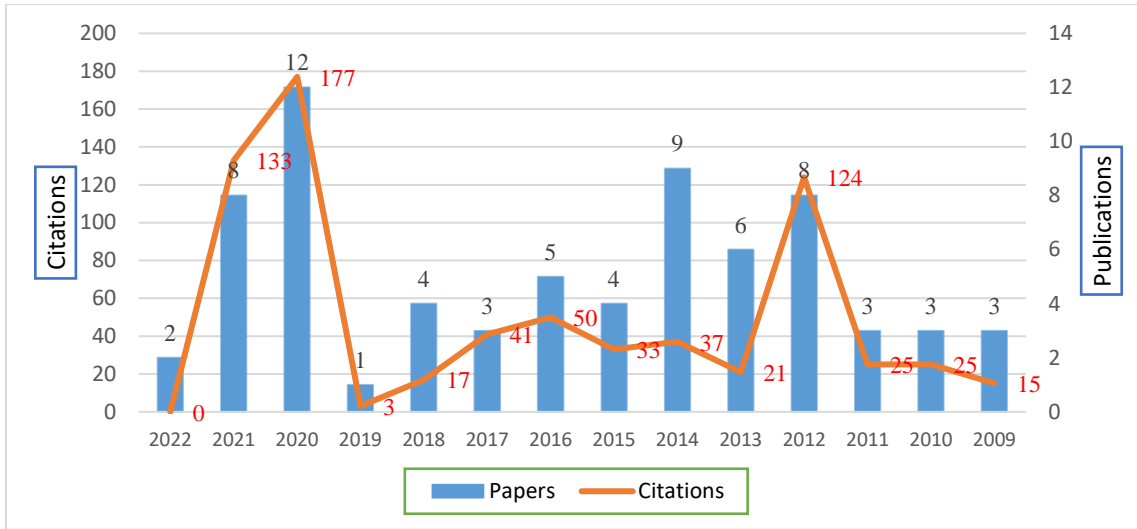
Results

Table-1 and Figure-1 described the periodic growth of Scopus-indexed papers of Dr. Rubina Bhatti. Seventy-one papers were identified and published in the last 14 years from 2009 to 2022 with an average of 9.94 papers per year. The highest number of papers (n=12) were published in the year 2020 and only one paper was found in 2019. All these papers were cited 701 times with an average of 9.87 citations per paper.

Table-1, Distribution of papers, citations and citation impact by year

Year	Papers	Citations	Citation Impact
2022	2	0	0.00
2021	8	133	16.63
2020	12	177	14.75
2019	1	3	3.00
2018	4	17	4.25
2017	3	41	13.67
2016	5	50	10.00
2015	4	33	8.25
2014	9	37	4.11
2013	6	21	3.50
2012	8	124	15.50
2011	3	25	8.33
2010	3	25	8.33
2009	3	15	5.00
Total	71	701	9.87

Figure-1, Graphic distribution of papers and citations by year



She contributed only six papers as a single author and these all articles were published in *Library Philosophy and Practice* in 2009 and 2010. In the other 65 papers, mostly she collaborated with her colleagues, students from the Master to Ph.D. levels. She performed her role as first author in 16 papers, while in other 49 papers, she performed as a collaborative co-author other than the first author.

She has collaborated with 40 authors on 65 papers. Out of 40 authors, 25 authors contributed to one paper each while 15 authors mentioned in Table-2, contributed to two or more than two papers. The highest number of research (n=25) was collaborated with Salman Bin Naeem, followed by Ghalib Khan (n=10), Shakeel Ahmad Khan (n=9), Muhammad Yousuf Ali (n=9) and Tariq Mahmood Chohan (n=5).

Table-2, Top-15 potential co-authors

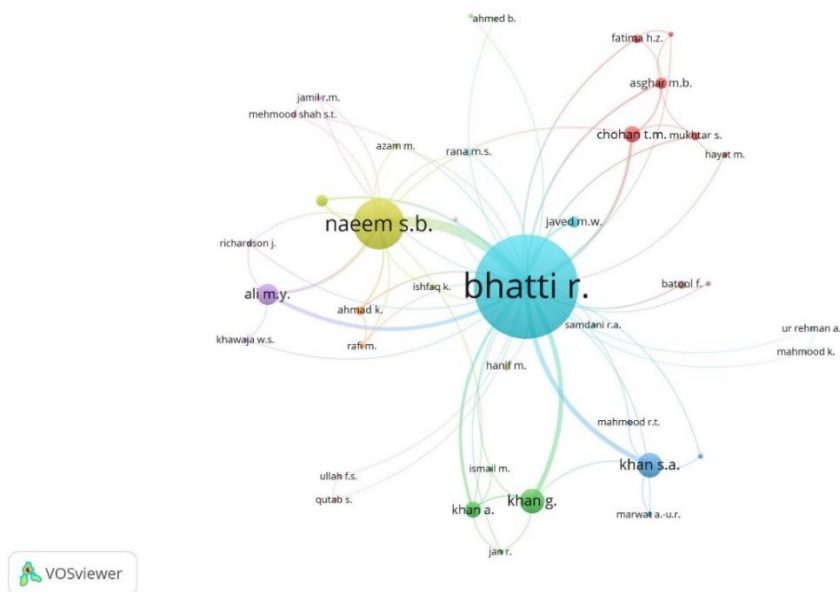
Serial No.	Potential co-authors	Documents	Citations	Citation impact
1.	Salman Bin Naeem	25	316	12.64
2.	Ghalib Khan	10	54	5.40
3.	Shakeel Ahmad Khan	9	159	17.67
4.	Muhammad Yousuf Ali	7	46	6.57
5.	Tariq Mahmood Chohan	5	26	5.20
6.	Amjid Khan	4	20	5.00
7.	Mahe Bushra Asghar	3	14	4.67
8.	Muhammad Waqas Javed	3	18	6.00
9.	Naimat Ullah Shah	3	1	0.33
10.	Khurshid Ahmad	2	2	1.00
11.	Farwa Batool	2	3	1.50
12.	Hafiza Zaheer Fatima	2	2	1.00
13.	Muhammad Hanif	2	11	5.50
14.	Sarwat Mukhtar	2	7	3.50
15.	Muhammad Shafiq Rana	2	1	0.50

The VOSviewer software was used to analyze the co-authorship network. The software divided the 40 authors into 15 clusters. There are six authors in the first two clusters, and four authors in the third and fourth clusters. The detail of authors in different clusters has been shown in Table-3.

Table-3, Co-authorship network

Cluster 1	Cluster 2	Cluster 3
Asghar M.B. Chohan T.M. Fatima H.Z. Firdous A. Hayat M. Mukhtar S.	Ismail M. Jan R. Khan A. Khan G. Khan Asad. Khan Aqsa	Ahmad M.N. Khan S.A. Mahmood R.T. Marwat A. Ur.
Cluster 4	Cluster 5	Cluster 6
Azam M. Ishfaq K. Naeem S.B. Shah N.U.	Ali M.Y. Khawaja W.S. Richardson J.	Javed M.W. Samdani R.A.
Cluster 7	Cluster 8	Cluster 9
Ahmad K. Rafi M.	Batool F. Malik S.	Jamil R.M. Mehmood Shah S.T.
Cluster 10	Cluster 11	Cluster 12
Qutab S. Ullah F.S.	Sabzwari M.N. Ahmed B.	Mahmood K. Ur Rehman A.
Cluster 13	Cluster 14	Cluster 15
Hanif M.	Ramzan M.	Rana M.S.

Figure-2, Co-authorship network

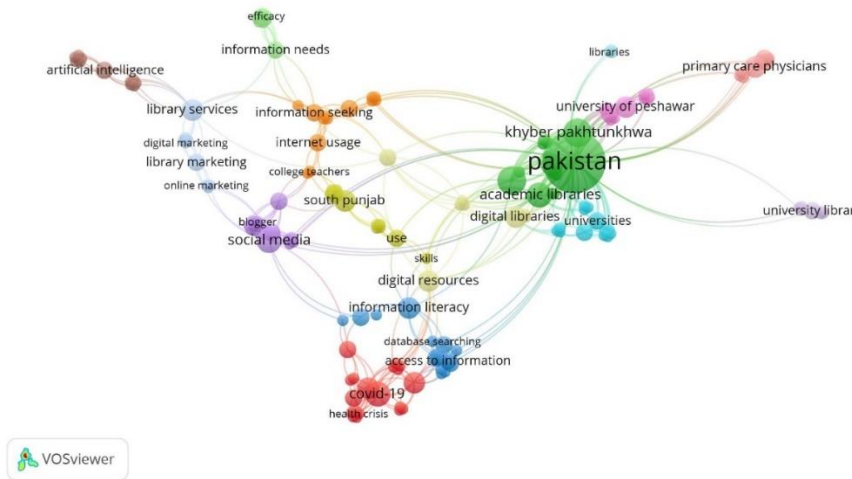


A total of 217 keywords have been used in 71 papers with an average of 3.05 keywords per paper. The top 16 keywords have been used three or more than three times and the keyword of “Pakistan” has been used most frequent, followed by “Khyber Pakhtunkhwa”, “University libraries”, “Academic Libraries”, “Covid-19” and “Social Media”. The occurrence and total link strength of the top 16 keywords are demonstrated in Table-4. Out of 217 keywords, a co-occurrence network of 171 keywords was generated by VOSviewer software as shown in Figure-3.

Table-4, Most frequently used top 16 keywords

Serial No.	Keyword	Occurrences	Total Link Strength
1.	Pakistan	21	26
2.	Khyber Pakhtunkhwa	5	12
3.	University libraries	5	11
4.	Academic Libraries	4	7
5.	Covid-19	4	6
6.	Social Media	4	1
7.	Collection Development	3	8
8.	Digital Libraries	3	5
9.	Digital Resources	3	8
10.	Information Literacy	3	2
11.	Information Services	3	4
12.	Library Services	3	0
13.	Pandemic	3	5
14.	Primary Care Physicians	3	2
15.	South Punjab	3	0
16.	University of Peshawar	3	5

Figure-3, Co-occurrence of 171 keywords



All 71 papers were published in 19 different sources. Table-5 presents the detail of journals, documents published in the particular journal, total citations gained by the documents and total link strength. Slightly more than half of the papers (n=37; 52%) have been published in *Library Philosophy and Practice*,

followed by *Health Information and Libraries Journal*, *Collection Building*, *Electronic Library*, *Journal of Hospital Librarianship* and *Pakistan Journal of Information Management and Libraries*. There are 10 journals, that published one paper each, while three journals with two papers each. The papers published in *Health Information and Libraries Journal* and *Information Discovery and Delivery* have more impact based on the total link strength.

Table-5, Sources of publications with published papers, Citations and Total Link Strength

Serial No.	Source	Papers	Citations	Total Link Strength
1.	Library Philosophy and Practice	37	171	1
2.	Health Information and Libraries Journal	5	269	9
3.	Collection Building	3	17	0
4.	Electronic Library	3	63	1
5.	Journal of Hospital Librarianship	3	18	2
6.	Pakistan Journal of Information Management and Libraries	3	10	2
7.	Communications in Computer and Information Science	2	5	2
8.	Information Discovery and Delivery	2	2	9
9.	International Information and Library Review	2	9	1
10.	Asia-Pacific Journal of Public Health	1	30	1
11.	Bottom Line	1	6	0
12.	Business Information Review	1	7	3
13.	Global Knowledge, Memory and Communication	1	0	2
14.	Information Development	1	12	3
15.	Journal of Access Services	1	1	3
16.	Library Hi Tech News	1	2	2
17.	Library Review	1	5	1
18.	Medical Forum Monthly	1	0	0
19.	Webology	1	73	0

The top-10 most cited papers gained two third of the total citations (n=469; 66.90%). Only one paper (serial no. 8) is a single author while the other nine papers were written in collaborative research and Dr. Rubina performed as co-author (other than the first author). (Dr.) Salman Bin Naeem and (Dr.) Shakeel Ahmad Khan performed as the leading author in three papers each with Dr. Rubina. The analysis of journals revealed that three papers each were published in *Health Information & Libraries Journal* and *Library Philosophy and Practice*. The top two papers have been published in 2020 and 2021 gained the highest number of citations.

Table-6, Top-10 Most cited papers

Serial No.	Bibliographic description of papers	Citations
1.	Salman Bin Naeem, Rubina Bhatti. The Covid-19 ‘infodemic’: a new front for information professionals. <i>Health Information & Libraries Journal</i> , 2020, 37(3), 233-239.	128
2.	Salman Bin Naeem, Rubina Bhatti, Aqsa Khan. An exploration of how fake news is taking over social media and putting public health at risk. <i>Health Information & Libraries Journal</i> 2021, 38(2),143-149.	121
3.	Shakeel Ahmad Khan, Rubina Bhatti. Application of social media in marketing of library and information services: A case study from Pakistan. <i>Webology</i> 2012, 9(1),1-8.	73
4.	Shakeel Ahmad Khan, Rubina Bhatti. Digital competencies for developing and managing digital libraries: An investigation from university librarians in Pakistan. <i>The Electronic Library</i> , 2017, 35(3), 573-597.	41
5.	Muhammad Yousuf Ali, Rubina Bhatti. COVID-19 (Coronavirus) Pandemic: Information Sources Channels for the Public Health Awareness. <i>Asia Pacific Journal of Public Health</i> 2020, 32(4), 168-169.	30
6.	Shakeel Ahmad Khan, Rubina Bhatti. A review of problems and challenges of library professionals in developing countries including Pakistan. <i>Library Philosophy and Practice</i> , 2012, 757, 1-7.	18
7.	Saima Qutab, Rubina Bhatti, Farasat Shafi Ullah. Adoption of ICT's for library operations and services: A comparison of public and private university libraries of Pakistan. <i>Library Philosophy and Practice</i> , 2014, 1107, 1-10.	15
8.	Rubina Bhatti. An evaluation of user-education programmes in the university libraries of Pakistan. <i>Library Philosophy and Practice</i> , 2010, 316, 1-15.	15
9.	Ghalib Khan, Rubina Bhatti. An analysis of collection development in the university libraries of Pakistan. <i>Collection Building</i> , 2016, 35(1), 22-34.	14
10.	Salman Bin Naeem, Rubina Bhatti. Clinical information needs and access in primary health care: a comparative cross-sectional study of rural and non-rural primary care physicians. <i>Health Information & Libraries Journal</i> , 2015, 32(4), 287-299.	14

Discussion

The bio-bibliometric study helps to recognize the publication trends and other parameters of publications produced by a single author (Haq & Ahmad, 2019). Dr. Rubina Bhatti contributed 71 papers in Scopus-Indexed sources. Her actual research work has been more than this number. She has continuously contributed to the local LIS journal (*PLISJ*) but due to the limitation of this study, these papers were not included in the present analysis.

The research profiles of Dr. Rubina can be accessed on academic social networking sites. Her 136 documents are listed in her Google Scholar profile and these documents were cited 2,168 times. The number of h-indexed documents was 23 and 45 documents gained the i10-indexed scale. In ResearchGate,

she added 85 documents, these has been read 76,075 times, gained 1,456 citations and 73 recommendations. It has been stated in ResearchGate that her research interest score (1,165) has been higher than 94% of the members (These statistics are recorded on January 8, 2023).

The contribution of female authors in LIS research has been increasing significantly after the introduction of M.Phil. and Ph.D. programs in Pakistan and especially after the restructuring of the Higher Education Commission in Pakistan in 2002. Shadab (2009) found that 19 percent of female authors contributed to papers published in *PLISJ* from 1968 to 2007. Ahmad and Warraich (2013) revealed that the ratio of female authors was 41 percent in LIS research produced by Punjab from 2007 to 2012. Ali and Richardson (2016) reviewed 354 LIS papers produced by 104 authors, the share of female authors was recorded at 26 percent. The LIS research scenario in India has similar findings, a paper quantified the contribution of female authors in India reported 28.50 percent (Patel & Verma 2019).

Dr. Rubina obtained her doctorate in 2003 but her first Scopus-indexed paper was published in 2009. She produced six papers in her initial productive period (2009-2010) and she contributed all these papers as a solo author. Later, she started a research collaboration with her colleagues, peers and students, and later all her research was of collaborative nature. A sharp fluctuation has been observed in the number of publications by year, for example in 2019 she published only one Scopus-indexed paper while in the following year (2020), she was succeeding to contribute 12 papers.

The VOSviewer software described that her 71 research papers used 1,847 references from 1,081 sources produced by 2,328 authors, with an average of 26 references per paper. Her research work has been cited 701 times with an average of 9.87 citations per paper in Scopus database. She collaborated with 40 authors and the highest number of papers were written with (Dr.) Salman Bin Naeem, earlier who was her student and later he joined IUB as a faculty member. The second most contributing author was (Dr.) Ghalib Khan (Now a faculty member in Khushal Khan Khattak University Karak), followed by (Dr.) Shakeel Ahmad Khan (now a faculty member in IUB) and Muhammad Yousuf Ali (Ph.D. student and Associate Librarian at Aga Khan University Karachi). Her nine papers collaborated with Shakeel Ahmad Khan gained the highest citation impact, 17.67 citations per paper followed by 25 papers (12.64 citations per paper) with Salman Bin Naeem.

The analysis of keywords supports to comprehension of the thematic distribution of papers. “University libraries”, “Academic libraries”, “Covid-19”, “Social media”, “Collection development”, “Digital libraries”, and “Information literacy” were the most preferred areas of research by Dr. Rubina and her research team.

The examination of publication sources exposed that her intellectual work was published in 19 journals, except one, *Pakistan Journal of Information Management and Libraries*, all other journals are international. Her 52 percent of the papers were published in *Library Philosophy and Practice*, an open accessed journal published by the University of Nebraska Lincoln, United States. Haq (2018) explored the research contributed by Pakistani authors in *Library Philosophy and Practice* from 2008 to 2017. A total of 93 papers were identified and Dr. Rubina contributed the highest number of papers (n=29) followed by Dr. Khalid Mahmood with 20 papers. Dr. Rubina’s five papers were published in *Health Information and Libraries Journal*, and these papers gained 269 citations with an average of 53.8 citations per paper.

Limitation and Future direction

The current study is limited to Scopus-indexed publications; future studies can be included all research contribution of Dr. Rubina Bhatti and can perform the in-depth subject dispersion. There is a need to collaborate with the LIS faculty members of other LIS schools in Pakistan and abroad. LIS faculty can

collaborate research on multidisciplinary issues with faculty members other than LIS to broad the horizon of LIS research domain.

Conclusion

The study evaluated the 71 Scopus-indexed papers contributed by Dr. Rubina Bhatti in the span of 14 years (2009-2022). These papers were cited 701 times with a mean ratio of 9.87 citations per paper. She has been contributing valuable research and supervising the research assignments of students. Most of her work is the product of research collaboration with her students only six papers were written as a single author. She is not only the most prolific female LIS author in South Punjab, Pakistan but also a very supportive teacher, able administrative and overall a good human being. She is a great example and inspiration for the females of her respective region.

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