

PUTAJ- Humanities and Social Sciences: A Ten Years Bibliometric Analysis

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Abstract

The Peshawar University Teachers Association Journal (PUTAJ) is an HEC recognized journal published by the University of Peshawar since 1993/94. This study examined 276 articles published in PUTAJ-Humanities and Social Sciences during 2007-2016 in its 10 volumes and 13 issues using bibliometric analysis. For this purpose, standard bibliometric features including authorship patterns with amount of productivity, organizational affiliation, collaboration, and country of origin were analyzed. In addition, the topics and year-wise distribution of articles, number of citations appended, and the number of pages per article published in the journal were also analyzed.

For determining the subject of the articles the keywords given in the abstracts of the articles were used. The data was collected directly from the articles and entered into a database that was formed in MS-Access. The reports were generated with the help of database according to the objectives of the study and then the data were transferred to MS-Excel for calculating percentages.

The findings revealed that the majority of authors (65.58%) contributed one paper in PUTAJ-Humanities and Social Sciences either individually or in collaboration. The number of multi-authored papers was high with 216 (78.24%) papers out of 276. The researcher from University of Peshawar published maximum number of papers (67.78%). The highest number (99%) of authors belonged to Pakistan. In foreign contributions authors from Malaysia were on the top of the list with 0.45 percent, followed by authors from Canada with 0.15 percent. Education, English, Economics, Psychology, and Library and Information Science

were the most main subjects of Humanities and Social Sciences in which articles have been published with a total of 53.23 percent. Approximately 28 articles have been published per year.

Key Words: *Bibliometrics; PUTAJ-Humanities and Social Science; Peshawar University Teacher Association Journal.*

Background of the Study

In the field of library and information science bibliometric is an important

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area of research. It encompasses the quantitative assessment of publications of all micro and macro-communications through statistical and mathematical calculation (Venkataramana & Sudhakar, 2010). Alan Pritchard (1969) has used the term 'bibliometric' and defined it as, "the application of mathematic and statistical method to book and journals media communication". The online dictionary of library and information science defines bibliometric as, "the use of mathematical and statistical method to study and identify patterns in the usage of materials and services within a library or to analyze the historical development of specific body of literature , specially its authorship, publication and use" (ODLIS, 2012). Nicholas and Ritchie (1978, p.3), in their book entitled 'Literature and Bibliometric', stated that, "bibliometric provide information about the structure of knowledge and how it is communicated"? According to Brookes (1990) the term bibliometric exploited computer techniques to update scientific bibliographies (as cited in Anyi, 2008). In the current context, "bibliometric is a set of methods for measuring the production and dissemination of different branches of human knowledge, particularly scientific knowledge" (Archambault & Gagne, 2004).

Bibliometric can be applied to numerous subject areas and to most of the problems concerned with written communication. It facilitates to observe the growth of literature and research patterns (Roy & Basak, 2013). It is statistical analysis of written publications, such as books and articles published in periodicals. Bibliometric methods are usually used in the field of Library and Information Science (LIS). For instance, bibliometric are used to provide quantitative analysis of academic literature. Citation analysis and the content analysis are commonly used bibliometric methods. Many research fields use bibliometric methods to explore the impact of field, the impact of a set of researchers, or the impact of a particular paper. Bibliometric also has a wide range of other applications such as: in descriptive linguistics, the development of thesauri and evaluation of reader. Okubo (1997) stated that, "Bibliometric has become a generic term for a range of approaches directed at quantifying output levels, collaboration patterns and impact characteristics of scientific research".

Ahmad and Ahmad (2013) stated that all research fields are composition of many subfields that are related in intricate ways. This composition or 'research landscape' is not inactive and changes by the addition of new

researches, which are continuously conducted and communal in different forms. Among these forms 'journal' is a leading form of sharing and communicating research productivity. Sometimes, a single journal published over a period of time is taken for bibliometric analysis. So far 189 single journal bibliometric studies have been reported in the published literature (Ahmad & Anwar, 2013).

Peshawar University Teachers Association Journal is an exclusive research journal that mirrors the activities and dedication of teachers and researchers to sustain research and scholarship. PUTAJ has been published since 1993-94 and is the solitary journal run by university teacher's association in Pakistan. Peshawar University Teachers Association (PUTA) annually publishes the three appropriated sections of PUTAJ such as, Humanities and Social Sciences, Oriental Studies, and Sciences.

PUTAJ (Humanities and Social Sciences) is recognized by Higher Education Commission of Pakistan, which shows that PUTAJ publishes quality research work in an extensive variety of disciplines from Natural Science, Oriental, Humanities, and Social Sciences. The publication policies and practices of PUTAJ-Humanities and Social Sciences is that it is published twice a year in June and December since 2014. It is a bi-annual publication. Before the year 2014 the publication was once in a year. PUTAJ- Humanities and Social Sciences publishes papers (written in English) on all aspects of Humanities and Social sciences field (putaj, n.d).

This research aims to analyze the bibliometric indicators of Humanities and Social sciences research published in PUTAJ from 2007 to 2016. For this various bibliometric indicator such as patterns of authorship, authors' collaboration, institutional affiliation, number of citations used, topics covered, and numbers of pages per article were analyzed.

Review of Literature

The literature of bibliometric is wide-ranging. During the last couple of decades single journal bibliometric studies have been completed by many researchers in different countries including Pakistan in different fields of studies. Some of the relevant studies are reviewed in the following paragraphs.

Dhiman (2000) studied Ethnobotany Journal covering period 1989 to

1998. His findings revealed that maximum number of articles published in 1997 volume with 16.6 percent of the total. Research institution/colleges made the highest contribution i.e 47.5 percent. This was substantially more than that of university contribution which was 30.2 percent. The highest contribution was made by Indian author with 81.7% followed by each China, Nepal, Nigeria, UK and USA with same ratio of (2.8%). Single author contribution was highest with 39.6 percent. The Maximum number of references per paper was between 1-10 i.e 41.7 percent and minimum is between 191-200 i.e 0.6 percent. Majority (57.5%) of the paper covered 1-5 pages, followed by 29.9 percent papers covering 6-10 pages, and only 0.5 percent papers' length was in between 56-60 pages.

Ahmad and Ahmad (2013) conducted a research on the prolific authors and institutions of the agricultural sciences, using bibliometric technique. They selected 25 years publications (1985 to 2009) of Sarhad Journal of Agriculture (SJA) to analyze the performance ranking of agricultural scientists in Pakistan based on their contributions published. Their major findings were that a total of 2761 articles published during 1985-2009. Most prolific authors were 39 as identified in the study. The collective published output of these authors was 1127 (40.81%) out of 2761 articles. All the contributors' who published in 25 volumes of SJA, in between the study period, were associated with 447 different institutions. The Agricultural University, Peshawar was the top contributing institutions with 40.48 percent. Overall, Pakistani organizations made the highest contribution with 93.13 percent, followed by the institutions from USA.

Ullah, Butt and Haroon (2008) conducted bibliometric analysis on Journal of Ayub Medical College covering the period 1997 to 2006. The major findings of their study were that the number of articles published per year during 1997 to 2006 ranged from 26 to 97. The number of citations per year range from 384 to 1668. The average year-wise citation per articles varied from 14.3 to 19.54 with an average of 17.43. A total of 270 (47.2%) articles top the list with 11-20 citation, and only one article had more than 60 citations. In authorship pattern of journal articles, three author contribution amounted to 134 (23.43%) and ranked to the highest of all categories. Muhammad Tayyab (Department of Pathology) and Waris Qidwai (Department of family medicine) was the most prolific author who contributed seven articles each. The majority of articles 295 (51.57%)

were contributed by author form NWFP (Khyber Pakhtunkhwa). In JAMC, 7769 (77.94%) citation were from foreign journals, while 1025 (10.28%) were from books followed by 555 (5.57%) from Pakistani journals. Ayub Medical College was the most productive institution with 203 (35.49%) authors and second was Agha Khan University Karachi with 47 (8.22%) contributors. It was also reported that the number of papers published in the journal had been increasing over the last 10 year.

Ahmad and Anwar (2013) conducted a research study on Sarhad Journal of Agriculture. They analyzed 2761 contributions published in the 25 volumes of SJA spread over 25 years (1985-2009). A database was developed in MS-Access and used for data collection and producing reports. All authors contributing to an article were counted to determine author productivity. It was found that seven authors in maximum had contributed to an article. Most of the researchers i.e 1929 (56.87%) contributed to one article either in collaboration or singly. The authors who contributed two papers were 578 (17.04%) and the authors with three papers each were 255 (7.52%). The maximum contribution by an individual author was 77 articles. There was a high propensity of collaborative authorship that was found in 2577 collaborative papers. In multiple authorship the highest number (n=835, 30.24%) was that of three-authored papers. The Khyber Pakhtunkhwa (KP) Agricultural University came first with 40.48 percent contribution. Contributors from Pakistan (n=3141, 92.6%) were on the top. The total foreign contribution was 200 (5.90%) authors from 33 foreign countries, showing that SJA was not the focus of foreign authors. In foreign contribution the authors from USA ranked on the top with 67 (1.98%), second UK with 34(1.00%), followed by Japan 11(0.32%). The main subjects covered in the papers were plant breeding and genetics with 471 articles; fertilizing and fertilizers with 288; crop husbandry with 261; and pests of plants with 202 articles. The first volume of 1985 contained the least number of articles i.e 67, while the 2007 volume contained the utmost i.e 212 contributions. The citation data revealed that 6 to 10 references each were used in over 1/3 of the papers (i.e 957, 34.66%).

Ahmad, Jan and Ahmad (2009) studied the publication patterns in the Journal of Law and Society covering period 2000 to 2009. Their findings revealed that a large group of authors (n=78, 62.9%) contributed only one article each either individually or in collaboration. The remaining 46

(37.10%) authors contributed two or more articles each. The maximum number of articles produced by an author was 20. Out of the 178 publications 109 (61.24%) articles were contributed in individual capacity, while only 69 (38.76%) articles were the result of collaborative efforts. University of Peshawar was on the top of the list with 81.51%. It was followed by KP Agricultural University with 3.42% occurrence. The institutional affiliation of 1.37% authorship was unknown. Most of the authors (86.29%) were from KP, Pakistan, followed by the contributors from Islamabad with 6.45%. Very few publications by the authors from USA (2), England (2), Bangladesh (1), and Iran (1) were published in the journal. Misal Zada was the leading contributor with 20 contributions, followed by Fayyaz-ur-Rehman, Amir Zada Asad and Suhail Shehzad with 15 articles each. The highly covered topics included Social Issues: Welfare; Education; Gender; Health; Migration; Population; and Terrorism with 48 (26.97%) articles followed by Economics and Agricultural issues and Governance issues; Corruption; Politics with 20 articles each. The range of citations used varied from zero to 90 (the most), 33.71% of the articles had 11-20 references, followed by 40 (22.47%) articles with having 1-10 references. Only three articles had no references. Maximum number of articles i.e. 76 (42.70%) fell in 6-10 pages range. The articles of 11-15 pages were ranked at second position with 35.96%. The shortest article was consisted of 4 pages, while the longest article was of 31 pages. The maximum numbers of papers were published in year 2006 i.e 40 (22.48%), while the least number of papers appeared in year 2003 i.e 12. It was recommended that a set pattern should be observed in the year wise growth of literature.

Jena, Swain and Sahoo (2012) analyzed the literature of Journal of Financial Crime (JFC) using bibliometric analysis. They selected the Journal of Financial Crime (JFC) to investigate the scholarly communications published during the last five years. The major findings revealed that least numbers of papers were contributed in the year 2008 (29 articles) and the maximum numbers of papers in the volume of 2006 (33 articles). The maximum average pages per article (14.62 pages) were found in the year 2007, whereas the minimum average pages per article (13.83 pages) were noticed in the year 2009. On a total average, the length of articles published in Journal of Financial Crime was found to be 14 pages. The authorship pattern established that most of authors had a

preference to publish their research output in single authorship (75.484 %) than the collaborative mode. There was a total of 220 authors who published articles in JFC from 2006 to 2010 among which Kristy Holtfreter (USA), Michel Dion (Canada), Paul Larsson (Norway), and Peter Gottschalk (Norway) had been found as the most prolific authors during the period of the study. The share of contribution from UK (33.17 points) was found higher than USA (31 points).

Tella and Olabooye (2014) analyzed the literature of African Journal of Library, Archives and Information Science using bibliometric technique. They selected the AJLAIS for the period between 2000 and 2012. The major findings of their study revealed that in the thirteen years period a total of 218 contributions were published. The highest number i.e 21 (9.63%) articles appeared in the year 2002. Out of 218 contribution, 126 (57.8%) were published as a single author contribution, out of which, an enormous number were on 'Information Retrieval'. More than one third of the papers (n=86, 39.4%) had 6-10 pages length. Volume 19 published in 2009 had 451 (12.4%) citations being the highest number. In addition, it was found that the greater number of the articles was theoretical papers with a total of 108 (49.5%), while the others were empirical papers, short communications, and book reviews.

Swain, Swain and Rautaray (2013) conducted a bibliometric analysis of literature published in Library Review (LR). They selected the five volumes of LR from the year 2007 to 2011 and a total of 275 scholarly articles published in LR with in a period of the study were analyzed. The major findings of the study were that the single authored articles occupied a prominent position with 63.63% indicating the domination of solo research. The degree of collaboration in the publications of this journal was found to be 0.36% which is below 0.5 i.e single articles occupied the prominent position. It was evident that LR had appended over 22 citations per article during the publication phase from 2007 to 2011. With regard to the country of origin of the authors the UK was on the top of the list with 128 occurrences followed by the USA with 65 occurrences and Nigeria with 17 occurrences.

Warriach and Ahmad (2011) studied literature of Pakistan Journal of Library and Information Science (PJLIS) covering the period from 1995 to 2010 using bibliometric technique. Their major finding were that majority of the contributors (n=72, 85.71%), contributed single paper and

the maximum number of authors to an article were five. Only two (2.38%) authors namely Khalid Mahmood and Kanwal Ameen contributed 10 papers each for PJJIS during the period of the study. A total of 111 papers had been contributed by 84 authors. Nearly half of the contribution ($n=54$, 48.65%) was from the authors affiliated with the University of the Punjab, Lahore. Geographic affiliation of the authors showed that most of the authors 93(72.09%) were from Pakistan. The highest foreign contribution was from India (9 papers, 6.97%), followed by Kuwait (6 papers, 4.65%), and Malaysia (4 papers, 3.10%). The majority of the papers 59 (53.13%) were in the category of research articles. Similarly, most of the papers ($n=78$, 70.27%) were in English language. The papers in Urdu language were twenty-one (18.92%) and bilingual papers were only 12 (10.81). The average number of papers published per year was almost 10. Volume 3 of PJJIS got the maximum number of papers ($n=16$, 14.41%), while minimum number of papers appeared in 2007 (vol.8) i.e $n=7$. The 60 percent papers had citations ranged from one to 100, while 40 percent papers had no citations. Majority of the papers (67, 60.35%) had 01 to 10 pages length.

Sharif and Mahmood (2006) conducted citation analysis of Pakistan Economic and Social Review, by considering its eight volumes. Their findings revealed that there were 73 articles with a total of 1298 citations. Authorship pattern of the citations of journal showed that 15.63% had no detail while 59.67% citations were single authored and two authored citations were above 20%. In the citations under study the most cited literature had been taken from journals and from the books with 45.61 percent and 45.14 percent respectively. Out of a total, 24.9 percent of the citation fell in up to 5 years category; the mean age of cumulative volumes was 12.96 years. The authors of this journal cited 72.81 percent foreign book on average. This greater use of foreign books in 1969-70 may be due to the absence of local monographic literature. In most cited journal the local journal Pakistan Development Review was at number one in the list.

Jan and Anwar (2013) also studied Pakistan Development Review during 1973-2009, using bibliometric analysis technique. Their findings revealed that during this period a total of 1066 authors published in the journal. Single-authored papers (55.56%) were highest in number. The degree of collaboration was low and 44.44 percent works accounted for it. The

country of origin of most of the authors (55.81%) was Pakistan; followed by the authors from USA and England. The highly dealt subject was Agriculture with 15.12 percent of representation. Family Planning, Demography, Fertility, Gender issues and Behavior was the second most popular topic. The average length of the articles was 16.34 pages, and the average number of references was 20.14 per article.

Bibliometric analyses of the journals are extremely helpful presenting the research tendencies in particular field of studies. The above review of literature showed that a lot of studies have been completed on single journals in different fields of studies. Therefore, the present study aimed not only to fill the gap in the professional literature but also is an effort to investigate the key bibliometric features of the PUTAJ Humanities and Social Sciences.

Research Objectives

This study will undertake the examination of the research articles published in Peshawar University Teacher's Association Journal (PUTAJ) Humanities and Social sciences, to achieve the following objectives:

To highlight the patterns of authorship in the research papers published in PUTAJ (Humanities and Social sciences) including:

- i. Productivity of authors'.
- ii. Authorship collaboration.
- iii. Institutional/Organizational affiliation.
- iv. Geographic/Country of origin.
- v. To find out the topics covered in these papers
- vi. To study the year-wise distribution of these papers
- vii. To examine the number of citations appended in these articles
- viii. To find out the length of these papers in terms of pages

Research Methodology

Bibliometric analysis technique was employed in this study to cover a sum of 276 papers published in 10 volumes and 13 issues of PUTAJ-Humanities and Social Sciences from 2007 to 2016. During the data collection each article was actually consulted, examined and essential bibliographic information were recorded in the database (Ahmad, Anwar & Ullah, 2010). For this purpose a data collection sheet was designed with provision for data entry about the following bibliographic details: author(s) name, institutional affiliation of author(s), collaboration, country

of origin (geographic affiliation), number of citations appended, number of pages per article, volume no, issue no, year of publication, columns for page from, page to, and total pages, and subject of the article.

The above discussed database was also used for data analysis as there was a provision of generating various quantitative reports through it. Then the data in the reports were further analyzed through MS-Excel for calculating percentages.

Data Analysis and Discussion

Patterns of Authorship

Productivity of Authors': As a whole 340 authors contributed 276 articles in the 10 volumes and 13 issues of PUTAJ-Humanities and Social Sciences from 2007 to 2016. Table 1 shows the productivity of authors' based on the data counting of all authors contributing to an article. The maximum number of authors contributing to an article was five. The data shows that a most of the authors (n=223, 65.58%) contributed to one article, while a little above one third of the authors (34.42%) contributed two or more articles. Out of total authors 54 authors (15.88%) contributed two papers and 22 (6.47%) contributed three papers. Only one (0.29%) author namely Jamil Ahmad Chitrali wrote 19 papers for PUTAJ-Humanities and Social Sciences.

Table-1: *Author Productivity (N=340)*

No of Articles	No of Authors	Percentage
1	223	65.58
2	54	15.88
3	22	6.47
4	11	3.23
5	10	2.94
6	8	2.35
7	4	1.17
8	3	0.88
9	2	0.58
11	1	0.29
16	1	0.29
19	1	0.29
Total	340	100%

Lotka's Law Application on PUTAJ Literature: When Lotka's law of author productivity was applied on the PUTAJ literature, the below mentioned facts were found:

According to the Lotka's Law Equation:

$$A(R) = A(1)/R^2$$

Here, "A (R) is the no of author that publishes 'R' works/papers. 'R' is the no of works (papers) that an author publishes, and A (1) is the author that publishes only 01 paper (works)" (Ahmad, Jan and Khan, 2013). Keeping in view the exemption that the exponent is not constantly '2' but a variables value, thus we can simplify and generalize the Lotka's law with the below given equation:

$$A(R) = A(1)/R^m$$

In this equation 'm' is the exponent of Lotka's law. In this distribution the exponent normally tends towards 2.0. If we take the value of $m=2$, the following values (shown in Table 2) for expected number of authors were resulting from the calculation as per the Lotka's law equation.

Table-2: *Observed and Expected Authors Productivity Distribution ($m=2$)*

No. of papers	No. of Authors (expected)	No. of Authors (observed)
01	223	223
02	55	54
03	24	22
04	13	11
05	09	10

The result of observed and expected author distribution revealed that Lotka's law applies over the literature of Humanities and Social Sciences with very minimal difference.

Prolific Authors: Out of the 340 authors, 117 (34.42%) authors contributed two or more papers each. In this study, 8 authors, who published 8 or more articles each, are taken as prolific authors (Table 3). According to that Jamil Ahmad Chitrali was the top contributor with 19 articles, followed by Syeda Kaneez Fatima Haider and Syed Munir Ahmad with 16 and 11 respectively. The fourth position was occupied by Noor Sanauddin and Sajjad Ahmad with 9 articles each, while the fifth position was shared by Muhammad Iqbal, Musarrat Anwar and Farzana Shaheen with 8

contributing articles each

Table-3: *Prolific Author who Contributed Eight or more Articles*

Authorship Collaboration: The total number of contributors to a paper has been counted and used to determine authors' collaboration. The data in Table 4 presents the status of authorship collaboration, which shows a very strong tendency towards multiple/collaborative authorships. It was found that out of 276 articles there were in 216 (78.24%) collaborative papers. Three authored papers encompassed the highest number (n=97, 35.14). Single authored papers were 21.73 percent, the two authored papers were 31.15 percent, and four-authored papers were 11.59 percent. Five authored collaborative papers were very few.

Rank	Author	No of Papers
1	Jamil Ahmad Chitrali	19
2	Syeda Kaneez Fatima Haider	16
3	Syed Munir Ahmad	11
4	Noor Sanauddin	9
4	Sajjad Ahmad	9
5	Muhammad Iqbal	8
5	Musarrat Anwar	8
5	Farzana Shaheen	8

To check the extent of authors' collaboration in quantitative terms, the researchers used the formula of Subramanian (1983), according to which:

$$C = \frac{Nm}{Nm + Ns}$$

Where

C = Extent of collaboration in the subject area

Nm= Number of multi-authored papers

Ns= Number of single-authored papers

$$C = 216 / 216 + 60 = 0.783$$

As the degree of collaboration (value of C) in the literature covered is 0.783 that obviously shows the domination of team/collaborative research in this discipline.

Authorship	Number of Papers	Percentage
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Single Author	60	21.73
Two Authors	86	31.15
Three Authors	97	35.14
Four Authors	32	11.59
Five Authors	1	0.36
Total	276	100%

Table-4: *Status of Authorship Collaboration (N=276)*

Institutional/Organizational affiliation of authors: The author's address given in their papers formed the basis of data used in this analysis. It was found that the contributors were affiliated with 76 different organizations with a sum of 655 occurrences of organizational affiliation. The University of Peshawar was on the top with 67.78 percent occurrence. The contribution of the top 10 organizations is provided in Table 5. The publication output of authors affiliated with these top 10 organizations comes to 80.45 percent of the total.

Table-5: *Top 10 Contributing Institutions/Organizations (N=655)*

Contributing Institutions	Frequency of Occurrence	Percentage
University of Peshawar	444	67.78
Islamia College University Peshawar	19	2.90
University of Punjab	12	1.83
Agriculture University Peshawar	9	1.37
Sarhad University of Science and Information Technology	9	1.37
Virtual University of Pakistan	9	1.37
Fatima Jinnah Women University Rawalpindi	8	1.22
Islamia University Bahawalpur	7	1.06
Abdul Wali Khan University Mardan	6	0.91
Hazara University Mansehra	6	0.91
Total	527	80.45%

Geographic affiliation (country of origin) of Authors: In bibliometric, the value of the geographic affiliation (the country to which the author belongs) of the author indicates the acceptability and international standing of the journal. Table 6 shows details of geographic affiliation of 656 writers who published in PUTAJ-Humanities and social sciences from 2007 to 2016. Pakistani contributors (n=650, 99.08%) were on the top. It was found that 6 (0.91%) authors came from 4 foreign countries, which is a clear sign that PUTAJ is not very much popular and considered by the foreign authors or its international visibility is weak. While, further analyzing geographic origin of Pakistani authors, KP stands first with 556 (84.5%), followed by Punjab with 39 (5.94%), Islamabad 36(5.48%), Sindh with 9(1.37%), Baluchistan with 5 (0.76%), Gilgit Baltistan with 4 (0.60%) and Azad Kashmir with 1 (0.15%) representation.

Table-6: Geographic Origin of Authors (N=656)

Geographic Affiliation	Number of Authors	Percentage
Khyber Pakhtunkhwa	556	84.75
Punjab	39	5.94
Islamabad	36	5.48
Sindh	9	1.37
Baluchistan	5	0.76
Gilgit Baltistan	4	0.60
Malaysia	3	0.45
Azad Kashmir	1	0.15
Canada	1	0.15
Kazakhstan	1	0.15
USA	1	0.15
Total	656	100%

Topics Covered

The details of subject wise distribution of articles from 2007 to 2016 were also checked. The topical distribution of the papers published is given in Table 7. The papers on various subject with same frequency were ordered alphabetically by subject. The major topics dealt with included: Education with 46 (16.66%) articles; English with 29 (10.50%) articles; Economics and Psychology with 25 (9.05%) articles; Library and Information Science with 22 (7.97%) articles; Sociology with 18 (6.52%) articles; Management with 17 (6.15%) articles. On the other hand the topics like Applied Linguistic, Business Administration, Disaster Management, Environmental Science, Food and Nutrition, Islamic Theology, Research Methodology, Urban and Regional Planning and Urdu received low coverage with only 1 (0.36%) articles each.

Table-7: *Topics Covered in the Papers (N=276)*

Subject	No of Articles	Percentage
Education	46	16.66
English	29	10.50
Economics	25	9.05
Psychology	25	9.05
Library and Information Science	22	7.97
Sociology	18	6.52
Management	17	6.15
Archaeology	13	4.71
Gender Studies	10	3.62
Journalism	7	2.53
Social Work	7	2.53
Political Science	6	2.17
Statistics	5	1.81
Pak Study	4	1.44
Anthropology	3	1.08
Commerce	3	1.08
Culture	3	1.08
Geography	3	1.08
Human Resource Management	3	1.08
Arabic	2	0.72
Art and Design	2	0.72
Diplomatic Studies	2	0.72
Family Studies	2	0.72
Home Economics	2	0.72
Human Development	2	0.72
International Relation	2	0.72
Philosophy	2	0.72
Public Administration	2	0.72
Applied Linguistic	1	0.36
Business Administration	1	0.36
Disaster Management	1	0.36
Environmental Science	1	0.36
Food And Nutrition	1	0.36
Islamic Theology	1	0.36
Research Methodology	1	0.36

Urban and Regional Planning	1	0.36
Urdu	1	0.36
Total	276	100

***Year-wise Distribution of Papers*

The year-wise distribution of 276 paper published from 2007 to 2016 is given in Table 8. Volume 20th of 2013 contained maximum number of articles (n=47, 17.02%), while volume 15th of 2007 covered minimum number of articles (n=11, 3.98%). The standard analysis of the year-wise distribution of papers revealed that there were 10 to 21 articles in six volumes, while the remaining four volumes have 44 to 47 articles. It can be concluded that in ten years of its publication, containing ten volumes and 13 issues, an average of 27.6% articles have been published in PUTAJ annually.

Table 8: *Year-wise Distribution of Articles (N=276)*

Year	Volume	Issue No	Number of Articles	Percentage
2007	14	-- --	13	4.71
2008	15	-- --	11	3.98
2009	16	-- --	19	6.88
2010	17	-- --	21	7.60
2011	18	-- --	18	6.52
2012	19	-- --	14	5.07
2013	20	-- --	47	17.02
2014	21	1 -2	44	15.94
2015	22	1 -2	44	15.94
2016	23	1 -2	45	16.30
10 year	10 volumes	13 issues	276	100%

***Number of Citations appended to the Articles*

To know the depth of the area in which the article is written citations or references used by the researchers in their articles are counted and examined. "Citation studies are helpful to identify the characteristics of subject literature" (Ahmad & Anwar, 2013, p.323). The number of citations appended to the articles appeared in PUTAJ-Humanities and Social Science varies from 0 (the least) to 73 (the most). The citations were given at the average number of 17.25 per article. Table 9 exhibits the

citation data organized in the ranges. Only two papers had zero citations. The rest of articles (99.28%) have citation ranged from 01 to 75. Majority of the papers (241, 87.31%) have up to 35 citations, while the remaining 33 (11.85%) papers have 36 to 75 citations. The maximum numbers of citation used in 63 (22.82%) papers have 11 to 15 citations, while the minimum numbers of citation used in 1 (0.36%) paper has 66 to 70 citations.

Table 9: *Number of Citations appended to the Articles (N=276)*

Citation Range	No of Articles	Percentage
0	2	0.72
1-5	12	4.34
6-10	50	18.11
11-15	63	22.82
16-20	43	15.57
21-25	38	13.76
26-30	22	7.97
31-35	13	4.71
36-40	9	3.26
41-45	3	1.08
46-50	4	1.44
51-55	5	1.81
56-60	6	2.17
61-65	2	0.72
66-70	1	0.36
71-75	3	1.08
Total	276	100%

**Length of Papers in Terms of Pages

The data about the length of articles in terms of pages are given in Table 10. There was no paper of one and two pages, therefore the details are given in ranges from 3-5 pages range and onwards. The data demonstrates that the papers of 9-11 pages were maximum in number with 31.15 percent, the papers of 6-8 pages were positioned second with 30.79 percent. Just two articles fell in the 24-25 pages range. There were 2 articles of only three pages length being the shortest, while 2 (0.72%) articles were of 25 pages length, being the longest. There was no paper in the range of 21-23 pages.

Table 10, Size of Papers in Terms of Pages (N=276)

Page Range	No of Articles	Percentage
3-5	8	2.89
6-8	85	30.79
9-11	86	31.15
12-14	48	17.39
15-17	34	12.31
18-20	13	4.71
21-23	0	0
24-25	2	0.72
Total	276	100%

Discussion

The findings of the study revealed that a majority of the authors (65.58%) contributed to one article, while only one (0.29%) author wrote 19 papers for PUTAJ. The same findings reported by Ahmad and Anwar (2013) that most of the author contributed to one article each they reported that (56.87%) authors contributed to one article, while in contrary to that the maximum publication by an author were 77 papers. Ahmad, Jan and Ahmad also found that (62.9%) contributed only one article each, while only one (0.08%) author wrote 20 papers. It is important to note that Lotka's law of author productivity applies over the literature of Humanities and Social Sciences.

In collaborative authorship three-authored papers comprised the highest number (35.14%), while collaboration between five authors was only one article. The same findings were reported by Ahmad and Anwar (2013) that three-authored papers comprised the highest number (n=835, 30.24%), while collaboration between seven authors was very limited with (0.14%) in papers. Ahmad, Jan and Ahmad (2013) also reported that collaboration between five authors was just 2 articles.

In the institutional affiliation University of Peshawar stands first with (67.78%) and Pakistani contributors were (99.08%) on the top and only 6 (0.91%) authors come from 4 foreign countries. The same findings were reported by Ahmad, Jan and Ahmad (2013) and Ahmad and Anwar (2013) in their studies. They found that 81.51 percent and 54.85 percent institutions were Universities, while 93.55 percent and 92.6 percent were Pakistani contributors.

The major topics dealt with included 'Education' with (16.66%) articles and the topics like Applied Linguistic, Business Administration, Disaster Management, Environmental Science, Food and Nutrition, Islamic Theology, Research Methodology, Urban and Regional Planning and Urdu received low coverage with only 1 (0.36%) articles each. Partially same findings were reported by Ahmad, Jan and Ahmad (2013), who found that the highly covered topics in their study included Social Issues: Welfare; Education; Gender; Health; Migration; Population; and Terrorism. The maximum number of articles (n=47, 17.02%) appeared in the PUTAJ volume number 21 of year 2013, while the minimum number of articles (n=11, 3.98%) appeared in volume 15 of year 2007. This finding was similar to that of Ahmad, Jan and Ahmad (2013) who reported that the highest number of articles appeared were 40 (22.48%) while the minimum number of articles per issue was 12 appeared in issue number 42 of year 2003.

The average number of citations was 17.25 per article; the maximum numbers of citation used in 63 (22.82%) papers had 11 to 15 citations, while the minimum numbers of citation used in 1 (0.36%) paper had 66 to 70 citations. The partially same findings were reported by Ahmad, Jan and Ahmad (2013) and Ahmad and Anwar (2013) in their studies. They reported that the average numbers of citations were 17.8% percent and 13.5% percent per article and the maximum numbers of citation used in 60 (33.71%) papers had 11-20 and 957 (34.66%) papers had 6-110 citation, while the minimum number of citation used in 1 (0.56%) paper had 81-90, and 1 (0.04%) paper had 23-25 citation respectively.

The articles of 9-11 pages were the highest in number with 31.15 percent, while t2 (0.72%) articles of just three pages length were the shortest. The finding revealed by Ahmad and Anwar (2013) was that the articles of 5-7 pages were the highest in number with (47.55%), while the 32 (1.16%) articles of just two pages length were being the shortest. Ahmad, Jan and Ahmad (2013) found that maximum number of articles (42.70%) fell in 6-10 pages range while the shorter article was consisted of 4 pages.

Conclusion and Recommendations

The following conclusions are drawn from the findings of this study. It was observed that most of the authors who contributed in PUTAJ-Humanities and Social Sciences were affiliated to the University of

Peshawar. This was not a vigorous trend for both the international visibility and quality of the research outputs of the contributors. Similarly, majority of the contributors' country of origin was Pakistan showing that authors from Pakistan in general and Social Scientist belonging to the area of KP tends to publish locally. The findings also revealed that being a popular Humanities and Social Sciences journal of the country the reputation and exposure of PUTAJ in the international scholarly community is weak. Consequently, a small quantity of literature published in PUTAJ-Humanities and Social Sciences were contributed by foreign researchers. The concerned authorities require looking at these issues seriously.

The following is recommended based on the findings and conclusions of this study:

The University of Peshawar in general and PUTA in particular must give a serious attention and thought to encourage its researchers to publish their research internationally. In this regard trainings for the authors on research skills and language along with the editorial assistance should be conducted. Through these efforts not only their quality of research output will be improved, but will also improve the international visibility of its scholars and raise their international research status.

The concerned authorities of PUTAJ need to create a research environment where team-work and collaboration with foreign/non local faculty is encouraged. A high amount of input from the host country and the host institution is not a good sign on the scholarly status of PUTAJ-Humanities and Social Sciences.

The management of PUTAJ-Humanities and Social Sciences should improve the quality of the journal in terms of clearly defined scope of PUTAJ, composition of the editorial board, and standard of editing in order to attract international contributions. These developments will result in its enhanced global exposure.

It is recommended that PUTAJ-Humanities and Social Sciences should also publish a variety of publications including reviews, news features, and research notes or short communications, because these will also aid in improving its acceptability in scholarly community.

For future research a citation analysis study of PUTAJ-Humanities and Social Sciences is recommended. This investigation will disclose that what kind of literature the researchers need and use? That will result in

improving the library and information services to the concerned scholars.

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