Mapping the Research Output of the Journal 'Strategic Studies'-Islamabad: A Statistical Review

Abid Hussain¹ and Saeed Ullah Jan²

Abstract

Purpose: To extract and scrutinize the published data of a quarterly journal of the Institute of Strategic Studies, Islamabad (ISSI) titled "Strategic Studies."

Designed/methodology/approach: The bibliometric approach is used for this study, by focusing on 11 years of published data (2008-2018). The analysis includes: authorship patterns, most prolific authorships and contributions of different organizations along with geographical distribution of research output of Strategic Studies.

Research limitation(s): The study is limited to bibliometric analysis of a single research journal for a limited time frame for the years (2008-2018).

Key finding(s): The result of the study reveal that 317 articles published during the period 2008 to 2018, an average of 7.2 articles per issue. The study shows that most of the articles, 132 (73.74%) are of a single author.

Practical implication(s): This study identifies the gap and loopholes in the existing style and ways of publication in the Strategic Studies. This analysis is expected to create awareness among the readers, potential authors, and library and information professionals in understanding the scope and coverage of this journal.

Contribution to knowledge: This attempt serves as a source of guidance for the novice researchers interested in bibliometric analysis of research outputs of various journals and scholarly databases. It also contributes to the scholarly world to assist and extend the boundaries of knowledge.

Paper type: Research.

Keyword(s): Strategic Studies; Bibliometric analysis; Statistical review; Research journal; Institute of Strategic Studies, Islamabad (ISSI).

Introduction and Background

The Institute of Strategic Studies, Islamabad (ISSI) was established as an autonomous, non-profit research organization in 1973 with a motto to analyze strategic perspectives through research and dialogue. Its mission revolves around regional and global strategic issues, affecting international peace and security. It also gives new insights to scholars, writers, specialists and speakers for study, research and analysis of vital strategic issues related to peace and security, elements of national power, influencing Pakistani, regional and the international community.

Journal "Strategic Studies"

Strategic Studies (SS) is a flagship journal of ISSI published since 1977. The journal focuses on quality research and bringing together researchers from different parts of the world to discuss strategic perspectives and quality research. This journal publishes four issues in a year broadly covering scholarly manuscripts, reports of original research, book reviews and other information related to contemporary issues. It is a forum for social scientists on emerging issues. The journal broadly covers research from all areas of strategic studies. Higher Education Commission (HEC), Pakistan has listed it as a recognized journal in the field of strategic issues since 2000-2019. Presently, it is a Y-category journal placed in social sciences category, It is indexed in Jstor, Ebscohots, ProQuest, Google Scholar, and others. It is pertinent to mention here that HEC has classified the journals in Y, X and W categories based on a standard criteria.

Significance of the Study

Human knowledge is expanding with rapid speed. This rapid growth has not only affected the readers but also scientists of different subjects. Bibliometric studies mostly depend on the journals indexed in the ISSI Web of Science database. As per Journal Citation Reports of 2018, the ISSI Web

¹ Institute of Strategic Studies, Islamabad, Pakistan. Email: <u>abidhussain@issi.org.pk</u> (Corresponding author).

² Khushal Khan Khattak University, Karak, Pakistan. Email: dr.saeedullah@kkkuk.edu.pk

of Science indexes 11,655 major publications from 234 scientific disciplines. These periodicals are the real indicators of literature across the world for transmitting knowledge in the form of primary data. Therefore, the author aims to conduct a bibliometric scrutiny of the Strategic Studies (SS) for the sake of improvement. Bibliometric analysis has many applications in all fields of knowledge to identify the trends of research journals. The findings of this study tend to assist the editors to improve the quality and standard of their journals.

Objectives of the Study

The objectives of this study with regard to published work in the Strategic Studies include:

- 1. To examine year-wise distribution of articles/research papers.
- 2. To study modus operandi of authorship.
- 3. To determine the geographical distributions of contributions.

Literature Review

The term 'bibliometrics' was first coined by Pritchard as "the application of mathematical and statistical methods to books and other media (Prichard, 1969, p. 348). The term "Statistical Bibliography" was first coined by E. W. Hulme in 1923 (Hulme, 1923). Bibliometric plays an important role in assessing the academic production of publications to define parameters via statistics in an accurate manner (Van Eck & Waltman, 2014). Bibliometrics can be defined as "the quantitative study of published physical units, bibliographic units or both" (Broadus, 1987, p. 373). Bibliometric is the application of various statistical analyses to study patterns of authorship, publication, and literature use (Glanzel, 2003). Bibliometric is the discipline where quantitative approaches are implemented on scientific fields to study various aspects of written articles like the subject, author, citations, title, and so on. (Hussain, Fatima, & Kumar, 2011). This type of analysis is useful to monitor the growth of literature and patterns of research (Jacobs & Pichappan, 2001). The methods of bibliometrics closely relate to informatics, scientometrics and webometrics (Hood & Wilson, 2001). These methods can be used in research by increasing quantity of topics, such as distribution, frequency and words' use in different databases, which are helpful to link with websites or citations of researchers in literature (Bar-Ilan, 2008). To assist the scientific activities, bibliometric is proved as the most common tool (López-Muñoz et al., 2003). In the most prominent quantitative approach of Library and Information Science, the role of bibliometrics is of great importance (Laengle et al., 2017).

Bibliometrics include a set of methods employed to examine or measure texts and information (Hung, 2012). Journal papers and authorship patterns in terms of geographic, subject organization and other related parameters are usually covered in bibliometric studies (Hazarika, Goswami, & Das, 2003). A historical review of bibliometrics indicates that the first bibliometric study was conducted by (Cole & Eales, 1917). In this study, the authors carried out a statistical analysis of the literature in Science Progresses journal in 1543-1860. They also analyzed the comparative anatomy of publications by simply counting the number of titles of books and journal articles. Second study was conducted by Hulme in 1923. In this study, entries and authors of "English International Catalog of Scientific Literature" were examined. In 1927, the third study of bibliometrics was done. That was the first study related to citation analysis (P.L. Gross & E. M. Gross, 1927).

Research Methodology and Limitations

Articles published in the Strategic Studies were extracted and analyzed by using the visualization software. Cite Space was used to demonstrate the created networks. The research productivity of the Strategic Studies (SS) during 2008-18 were focused for analysis. A total of 307 articles published in the mentioned 11 years were tabulated and assessed. Efforts were made to analyze the year-wise distribution of articles, authorship patterns, and degree of collaboration.. This study is limited to the original research articles published in the Strategic Studies. Reports, short communications and commentaries were excluded from this statistical review.

Findings of the Study

A total 307 articles have published during 2008-2018. Table 1 shows the detail of the articles

published in the Strategic Studies. The maximum articles are 39 (12.70%) recorded in 2011. The year 2018 is reported as the less productive year with a research output of 22 articles. The SS has published an average of 55 articles per year. It is also pinpointed that 8.75 articles on average is the maximum research output per issue.

Volume number	Year	No. of articles	Percentage	Average articles per issue (quarterly)
28	2008	31	10.10	7.75
29	2009	26	8.47	6.5
30	2010	25	8.14	6.25
31	2011	39	12.70	9.75
32	2012	35	11.40	8.75
33	2013	23	7.49	5.75
34	2014	20	6.51	5
35	2015	25	8.14	6.25
36	2016	29	9.44	7.25
37	2017	32	10.42	8
38	2018	22	7.16	5.5
Total	11	307	100.00	76.75 (x4=307)

Table 1. Quantitative Progress of Articles

Table 2 shows authors' productivity in numbers. It is depicted that 260 articles have been written by single authors. Twenty-two articles are found as published by two authors. However, articles of 3 authors are reported as 8 (4.47%) during the 11 volumes and 44 issues of the Strategic Studies.

Authorship patterns	No. of authors	No. of articles	Percentage
1 (single)	260	260	73.74
2	44	22	12.29
3	24	8	4.47
4	20	5	2.79
5	20	4	2.23
6	18	3	1.68
7	7	1	0.56
8	8	1	0.56
9	9	1	0.56
10	10	1	0.56
13	13	1	0.56
Total	433	307	100

Table 2. Authors' Productivity

Table 3 shows the degree of collaboration since 2008. Total 31 single authors have contributed 31 research papers during the year 2008. Whereas, 25 single authors papers are contributed during 2009 with a percentage rate of 4.00%. In the year 2010, a total of twenty-one single authors have published 4 articles collaboratively.

Year	No. of single authored articles	No. of multiple authored articles
2008	31	0
2009	22	1
2010	21	5
2011	31	3
2012	29	6
2013	20	3
2014	19	2
2015	21	5
2016	22	6
2017	22	9
2018	22	7
Total	260/307	47/307

Table 3. Degree of Collaboration

The analysis of Table 4 reflects that Malik Qasim Mustafa has clinched first position by publishing 13 articles, whereas, Mehwish Hafeez based on ISSI has produced 10 articles followed by Amina Khan a researcher at ISSI has contributed 9 articles. Najam Rafique a director research has contributed 8 Articles in total 11 volumes.

Rank	Author's name	No. of papers
1	Malik Qasim Mustafa	13
2	Mahwish Hafeez	10
3	Amina Khan	9
4	Najam Rafique	8
5	Ghani Jafar	7
6	Sarah Akram	6
6	Nadia Sarwar	6
6	Ghazala Yasmin Jalil	6
7	Marukh Khan	5
7	Mir Sarbaz Khitran	5
7	Mohammad Waqas Sajjad	5
7	Arshad Ali	5
8	Mian Ahmad Naeem Salik	4
8	Kashif Mumtaz	4
8	Ahmad Rashid Malik	4
8	Khurshid Khan	4
8	Shamsa Nawaz	4
Total	17 authors	105/307 (34.20%)

Table 4. Most Frequent Authors

Table 5 shows the data about the most productive institution. Institute of Strategic Studies Islamabad is at the top with a research output of 167 (54.40%) articles during 2008-2018. National Defence University Islamabad is at second position in ranking with 33 (10.75%) research papers.

Rank	Institution	Frequency of occurrence	% of 307
1	Institute of Strategic Studies	167	54.40
2	National Defence University	33	10.75
3	Quaid-e-Azam University	19	6.19
4	Independent Analysts	10	3.26
5	International Islamic University	6	1.95
6	Bahria University	5	1.63
7	University of Peshawar	4	1.30
7	National University of Modern Languages	4	1.30
8	University of Balochistan	3	0.98
8	University of Pennsylvania	3	0.98
8	University of Gujrat	3	0.98
8	Ministry of Foreign Affairs	3	0.98
9	Government College University	2	0.65
9	University of Punjab	2	0.65
9	University of Sargodha	2	0.65
9	University of Karachi	2	0.65
9	National University of Science & Technology (NUST)	2	0.65
9	Bahauddin Zakriya University	2	0.65
9	Fatima Jinnah University	2	0.65
9	Aalborg University	2	0.65
9	Iqra University	2	0.65
10	29 Institutions	29 (one each)	0.33 (x29=9.45)
	Total	307	100

Table 5. Most Frequent Institutions' Rank List

Table 6 shows the geographical distribution. Pakistan is at the top-ranking country with a research productivity of 38 (70.70%) articles. China is second with 4(7.55%) research papers. UK, Germany, UAE, Italy, Spain and Iran have contributed only one article during 2008-2018 respectively.

Rank	Country	Frequency	Percentage
1	Pakistan	38	71.70
2	China	4	7.55
3	USA	3	5.66
4	Denmark	2	3.77
5	UK	1	1.89
5	Germany	1	1.89
5	UAE	1	1.89
5	Rome	1	1.89
5	Spain	1	1.89
5	Iran	1	1.89
Total		53	100

Table 6. Geographical Distribution of Institutions

Table 7 represents the data about the provincial contributions in the Strategic Studies. Authors from Islamabad have contributed 22 (57.89%) articles as compared to the rest of the country. Punjab has published 11 (28.95%) followed by Sindh with a research output of 3 (7.89%) articles.

Rank	Region	Frequency	Percentage
1	Islamabad	22	57.89
2	Punjab	11	28.95
3	Sindh	3	7.89
4	Baluchistan	1	2.63
4	Khyber Pakhtunkhwa	1	2.63
	Total		99.99

Table 7. Contribution of Institutions from Pakistan

Conclusion and Recommendations

The present study revealed that a total of 307 articles were published during the period 2008-2018 in the Strategic Studies journal. Most articles were contributed by single authors (268, 87.30%). The most frequent author was Malik Qasim Mustafa who had contributed 13 papers during the period 2008-18. So far as institutional contribution was concerned, Researchers from Institute of Strategic Studies have published a total of 167 articles and contributed more as compared to the rest of academic and research institutions in Pakistan. Among worldwide contributions, Pakistani authors have contributed total 38 (70.70%) articles, whereas from foreign countries: China has contributed total 4 (7.55%). Islamabad was reported as the on the top as compared to the rest of provinces in Pakistan.

From the above discussion, it is evident that the Strategic Studies is a peer reviewed HEC recognized journal with a major focus on research articles related to social sciences especially strategic studies. Researchers from all over the country and abroad have shown their interest by publishing their research work in this esteemed journal of the Institute of Strategic Studies, Islamabad. The Strategic Studies journal has proved to be an important platform for sharing vital research in order to promote cooperation in social sciences. The volume of articles has constantly been increasing; it is a source of the research network of different scholars and institutions. The stakeholders and competent authority are keenly interested in making Strategic Studies as one of the finest journals in social sciences. Based on conclusion, the following recommendations are made:

- 1. The frequency from quarterly needs to be converted to two-monthly in order to accommodate more authors.
- 2. Researchers of less developed areas in Pakistan ought to be provided more opportunities.
- 3. Articles of global interests and international issues should be covered to attract international scholars.
- 4. Number of articles may be increased to facilitate more authors.

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