

Gender Discrepancy in Open Access LIS Research: A Case Study of Journal of Scientometric Research

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Abstract

The present study deals in mapping the published literature in the reputed open access LIS journal, i.e. Journal of Scientometric Research. The research publications of the selected journal during 2019-2023 have been extracted from the Scopus database. Only the articles and review papers consisting of 249 documents are being considered for the study. The identification of gender has been performed using the Namsor software. The study assesses the annual growth of published literature on the basis of first authors' gender, investigates the first authors' productivity and citation received to the published literature through gender lens and revealed the number of single-authored research publications and their impact on gender perspective. The findings revealed that there is a significant gender gap in the research productivity and impact among the authors. Male authors are found to be dominant over female authors significantly in the research output and also in the case of citation. The female LIS professionals need to contribute more in the research productivity of reputed LIS journals and improve the quality of the research works to have more influence among the information seekers.

Keywords: Gender, Open Access, LIS research, Journals, Productivity, Citation

1. Introduction

Research is one of the most important four-pillars for the progress of disciplines, institutions, organizations, societies and nations. With the passage of time and development of new concepts and ideas, the research in the field of Library and Information Science (LIS) have undergone through various phases. The emergence of online publishing platforms has brought enormous growth in the LIS research publications (Pal & Chadar, 2015). Mode of research publications in the field of Library and Information Science are laterally moving towards open access publications (Rufai et al., 2011). The Open Access movement have influenced the scholarly communication specifically regarding the mode of its access by making the published literature free of cost and easily accessible through the internet. The Open Access platform can be basically divided into two broad categories, which are Gratis and Libre (Prajapati, 2015). Gratis refers to the form of open access contents which are fully free to access without cost and country restrictions. However, Libre means



that form of open access contents which are freely accessible with some restrictions. Open Access publications can also be classified into Gold, Green, Bronze and Hybrid with respect to its rights of access under Creative Common Licenses (Roy & Mukhopadhyay, 2022). In case of Gold open access, the literature is published in the open access mode and the information seeker can download the content freely. Green open access gives the author the right to self-archive the accepted version of the literature of subscription-based journal in the subscription-based journal. In case of Bronze open access, information seekers can access the content online, but dissemination of the content are not allowed for the readers. Hybrid journals contain the open access and close access literature that charge extra fee to make a specific article open access while the remainder of the journal remains behind a paywall. Despite the development in the mode of publications, the gender variations in contributions of research productivity are still persistent (Saikia & Verma, 2024).

The gender disparity is a great challenge for any developing society including academics and research. A society or a nation cannot achieve sustainable development without inclusive gender participation in diverse activities. Several studies have reported that there is significant gender gap in academics and research across various disciplines where the field of Library and Information Science is no exception (Patel & Verma, 2020). The scholarly output of 20 years among Indian LIS professionals during 1999 to 2018 which contained 1,195 publications, male first-authored publications dominated over women first-authored publications (Parabhoi et al., 2020). According to assessment on Indian journal articles published in the year 2017 for 186 research fields, there are at least 1.5 male first authors per female first author in each of 26 broad fields and 2.8 male first authors per female first author overall (Thelwall et al., 2019). Therefore, it is necessary to evaluate and highlight the share of female participation in research publications across various disciplines. Based on the analysis of Mendeley readers of articles from 2014 and 100 narrow Scopus subject categories, the female-authored articles attract more student readers than male-authored articles in Spain, Turkey, the UK and USA but not India (Thelwall, 2018). So, along with the research productivity, the impact and quality of the research output by the authors also need to be investigated on the basis of gender from time to time.

Research across various disciplines need to be carried out considering different dimensions. Therefore, the present study aims to evaluate and investigate specifically the female researchers' participation in productivity and citation of an open access LIS journal, i.e. Journal of Scientometric Research based on its citescore of 1.7 as in the Scopus database. The Journal of Scientometric Research is a peer-reviewed open access LIS journal from India which is indexed in the Scopus database. It is published by Phcog.Net since 2012. The study highlights and reflects the contributions and quality of the research output by the authors in the selected journal based on gender perspective. Due to the open access movement, research publications and mode of accessing the published literature have become easier for the information seekers. So, the study will reveal the participation of specifically female researchers in producing research output and quality of their works in the LIS open access field.

2. Objectives

The proposed study is conducted to fulfilling the foremost objectives as mentioned below:

- ❖ To assess the growth of literature based on gender of the first author
- ❖ To identify the gender of the first authors of the published literature and compare their productivity on gender perspective
- ❖ To compare the share of citations received to the literature on the basis of first authors' gender
- ❖ To compare the productivity and citation of single-authored research publications through gender lens

3. Methodology

The present study is carried out to investigate the contributions and impact of male and female authors in an open access LIS journal, i.e. Journal of Scientometric Research during 2019-2023. The study has been conducted by applying bibliometric methods on data collected from the Scopus database selecting the "Source Title" as "Journal of Scientometric Research" on 3rd April 2024. First of all, through the search results 253 documents were found, then the data was filtered by limiting the year range from 2019-2023 and document type only to "Article" and "Review" which resulted in 249 documents which were considered for analysis. The preliminary scrutinization and data analysis are performed using MS Excel. For the identification of gender, the online software named Namsor (<https://namsor.app/>) is used. Namsor is one of the most reliable software for determining gender based on religion, ethnicity and country. The first name and last name of the authors with respect to their ethnicity or country of residence are used to identify their gender through the software. The productivity and citation count of the literature have been determined manually in the MS Excel. The workflow of data collection process and data analysis is shown in Figure-1.

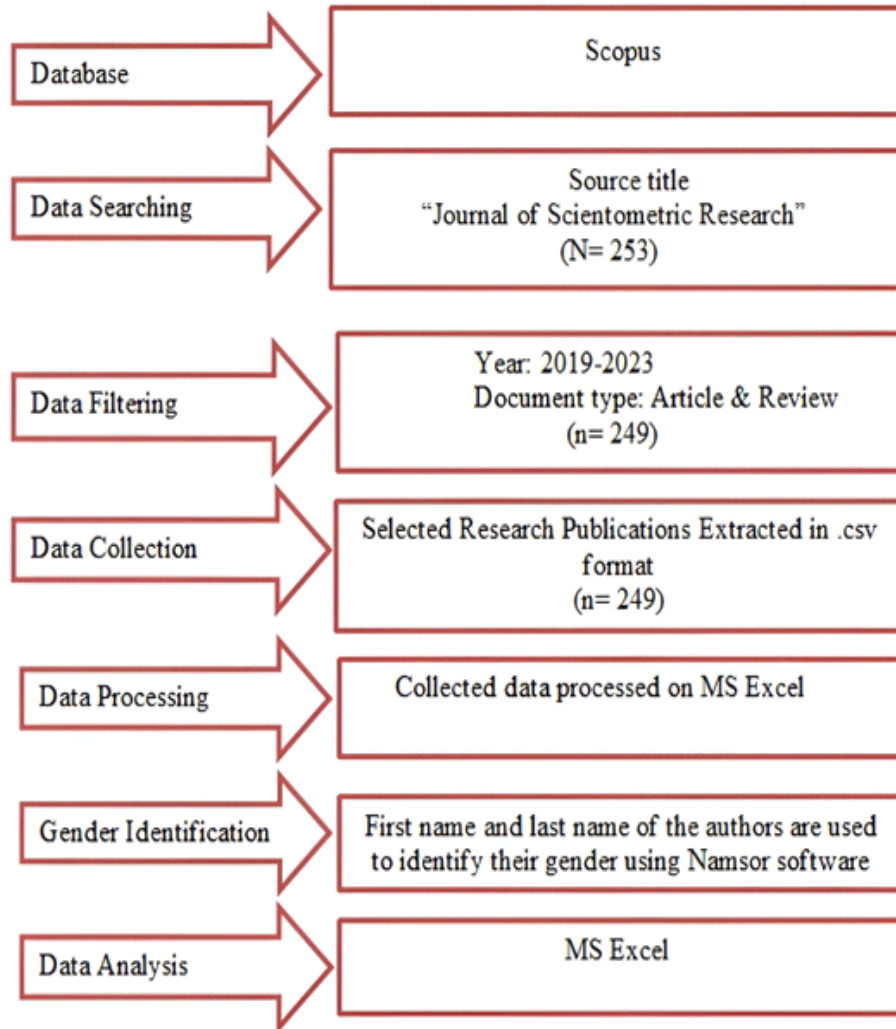


Figure 1: Workflow of data collection process from Scopus database

4. Data Analysis and Interpretation

4.1 Growth of published literature on gender perspective

The Journal of Scientometric Research have published 249 documents in the last five years from 2019-2023 considering only the articles and review papers. Figure-2 reveals that the contributions of male and female as a first author in the journal where the male authors are dominating in each and every year with respect to the research productivity. A total of 17 documents were contributed by female who stands as a first author. This contribution secures the maximum number of research publications in the year 2020 with respected to

the rest of year considered in the study. The figure depicts the relatively unsteady growth of research publications. However, highest number of 67 research documents were published in the year 2023.

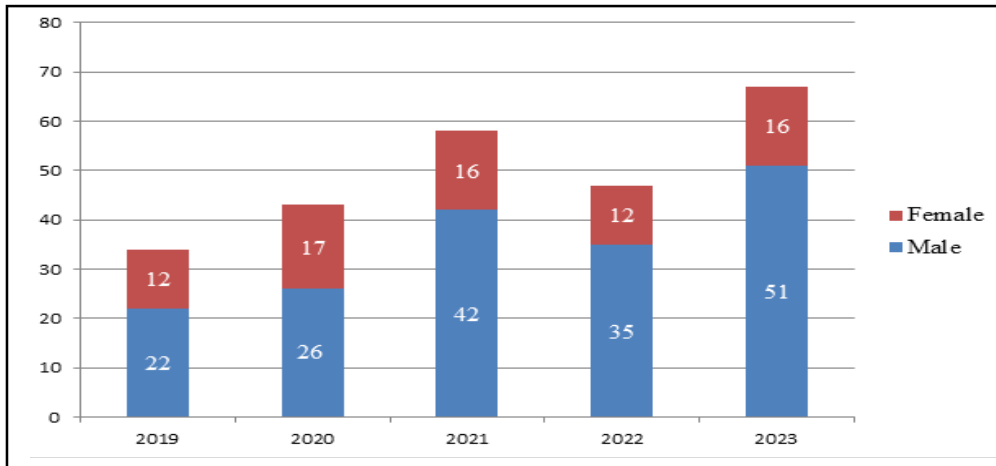


Figure 2: Annual growth of published literature on gender perspective

4.2 Share in the research productivity based on first authors' gender

First author has always more research contribution in any kind of literature documented by researchers. Figure-3 portrays the contribution and the share of male and female as a first author in the research publications of the selected journal during 2019-2023. It is clearly visible from the figure that the male as a first author is dominant in the productivity of research output with 70.68% as compared to 29.32% by female as a first author. Similar results were found in case of other LIS journal, i.e. DESIDOC Journal of Library and Information Technology whereas the study period was considered for the year 2014-2023 with 69% male as a first author and 31% female (Saikia & Verma, 2024). Therefore, it is the necessity of an era to encourage more female researchers to contribute more to the research productivity of the journal.

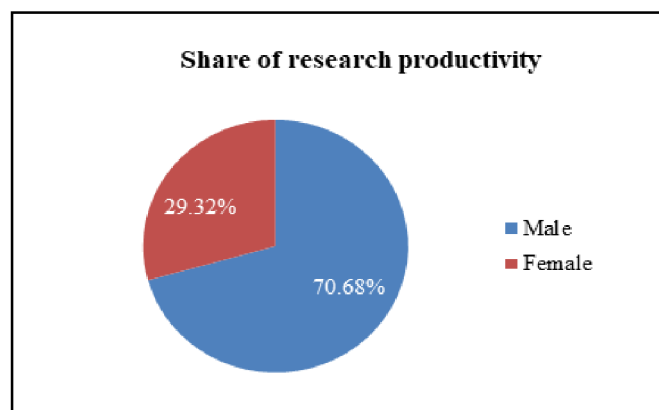


Figure 3: Research productivity based on first authors' gender

4.3 Share of citations received by first authors with respect to their gender

Citation is an important performance indicator to get idea regarding the quality and impact of the research output (Bisaria, 2018). Therefore, the share of citations in percentage received by male and female as a first author's research output from the overall citation counts have been depicted in Figure-4. The figure reveals that there exists a significant gap in case of citations received by the first author on gender perspective. Male author received 77.63% of the citations whereas, female author received only 22.37%. The lower share for citations received by female author's output might be linked to lower female researchers' productivity in the selected journal.

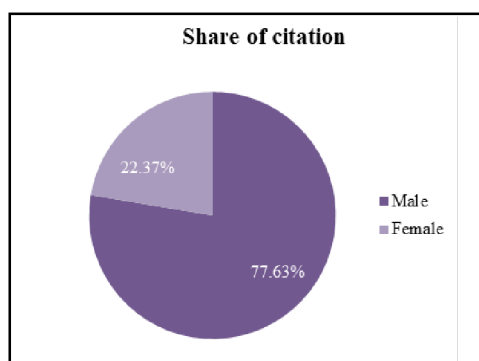


Figure 4: Share of citation received by male and female first authors

4.4 Single-authored research publications on gender perspective

A total of 48 research publications are contributed by single author in the Journal of Scientometric Research journal during 2019-2023. Figure-5 depicts the share of research productivity by the male and female single authors during that period. From the figure it is being revealed that male is very much dominant in contributing research output as a single author with 89.58% whereas female author's productivity share is only 10.42%. So, it is very much clear that female authors are contributing less research output when they are not collaborating with the other authors. Hence, the female LIS researchers need to strive hard and work on their professionalism to contribute more towards the scientific domain of the field.

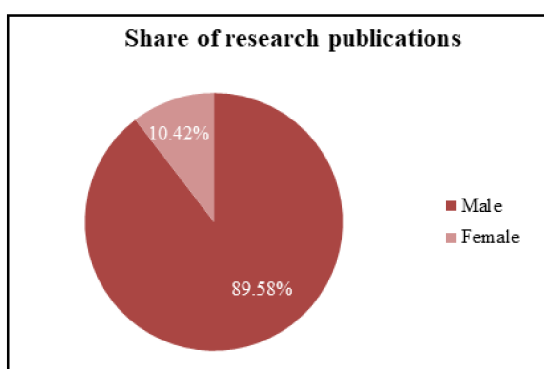


Figure-5: Share of research publications by single authors on gender perspective

4.5 Share of citations to the single-authored research publications

Since citation is an important aspect to have revelation regarding the impact and quality of the literature. So, it is utmost necessary to investigate the published literature with respect to the citation count. Figure-6 reveals that male authors' research output received so far, more citations with 98.08% of the total citation counts as compared to negligible citations to female authors' output with only 1.92%. The lower citation count of female authors' research work might be proportional to their lesser research productivity. However, it is proven that citations have no relation to authors' gender but by the quality of the research work (Bisaria, 2018). So, the female researchers need to improve the quality of their research works even when they are contributing alone to the scholarly communication.

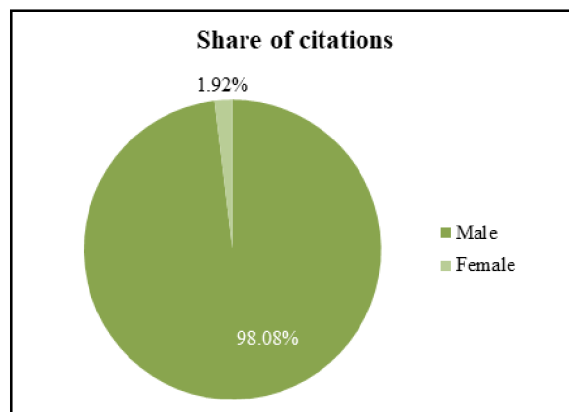


Figure 6: Share of citations to single-authored research publications

5. Conclusion

The Journal of Scientometric Research has been indexed in the Scopus database since 2019 securing 1.7 citesscore. From the analysis of the study, it is found that in the last five years of the publications of this journal, male authors are dominant over female authors considering the research productivity and citations received. There exists a significant gender gap in authors' productivity and impact of the research. The reason behind lower female researchers' productivity might be unawareness and lesser zeal of the female researchers to contribute to the scientific domain of the LIS field. Therefore, the academicians, LIS professionals and think-tanks of the field need to encourage female researchers to contribute more to the research works and produce quality research output by creating a suitable environment for them.

Acknowledgement

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