

Examining Research Productivity at a Higher Education Institution: A Case Study of S. P. Jain College, Pabal, Pune, India.

Mr. Yogesh Bhagwan Daphal Research Scholar ,KBCNMU, Jalgaon & **Librarian**, S.P. Jain Arts & Commerce College Pabal, Tal-. Shirur, Pune. Email Id: yogeshdaphal1234@gmail.com

Dr. Anil Nanaji Chikate Ex. Director K.R.C. BCNMU, University, Jalgaon. Email Id: anilchikate@gmail.com Mob: No.9970361104

ABSTRACT

This study aimed to assess the research contributions of faculty members at S.P. Jain College, affiliated with Savitribai Phule Pune University (SPPU), Pune, India, covering the period from 2017 to 2023. The research commenced by compiling a comprehensive list of faculty members using official college websites and the research portal available online. The investigator collected names and pertinent details of teaching faculty, and bibliographical data were extracted from the research portal database on the official website for the years 2017 to 2023.

A total of 223 research articles authored by 17 faculty members were identified. The key findings of the study revealed a higher prevalence of research published in journal articles compared to review articles, conference papers, and book chapters. The research explored various aspects, including gender, designation, language, authorship trends, communication channels, and more over the study period (2017–2023). Dr. Bhawari H.L. emerged as the most prolific author, contributing 24.66% of the research papers published through multiple channels.

This paper presents a Scientometric Study of the teachers at S.P. Jain College, specifically focusing on their research productivity from 2017 to 2023. The research covers aspects such as gender-wise and age group-wise productivity, the writing and publication status of teachers, language-wise research output, the utilization of communication channels for research, financial support agencies for research, the purpose of research productivity, and authorship patterns.

Keywords: Scientometric, Research Productivity, Authorship Pattern, Citation.

Introduction

The 21st century has ushered in a new era for education, where the progress of any nation is intricately tied to the caliber of its educational system. College libraries, serving as crucial hubs for information dissemination, play a vital role in providing effective support for teaching and learning to their user communities.

A crucial task for any academic discipline involves monitoring the publication patterns within its domain. Members of a discipline must understand the contributions of various groups to the field and the characteristics of its publications. This knowledge helps identify sources of strength in research and scholarship, as well as the discipline's position relative to other fields.

Scientometrics, the science of measuring and analyzing science, is often conducted in practice through bibliometrics, which involves the measurement of (scientific) publications. The term "scientometrics" was coined by Vassily V. Nalimov in 1960. Contemporary scientometrics is primarily built on the contributions of Derek J. de Solla Price and Eugene Garfield. Garfield founded the Institute of Scientific Information (ISI), which conducts scientometric analyses.

Scientometric studies broadly encompass quantitative analyses of scientific literature, revealing the latest developments in various fields and patterns of geographical distribution of science. These studies also shed light on the scientific productivity of individual nations.

About Shri Padmamani Jain Arts & Commerce College and Its Library:

Shikshan Prasarak Mandal's Shri Padmamani Jain Arts & Commerce College stands as a premier institution in the rural Pune district. Established in 2000, the college is affiliated with Savitribai Phule Pune University and holds accreditation from the National Accreditation & Assessment Council (NAAC) with a B+ Grade in its First Cycle. With over six hundred students, nineteen faculty members, eight subject branches, PG centers, and robust infrastructure, the college provides a conducive learning environment. The shared library for both courses is equipped with cutting-edge technology to offer efficient library and information services. The central library boasts a collection of over six thousand books, CDs/DVDs, 24 print journals, 200 bound volumes of journals, and subscribes to Nlist-Inflibnet online databases.

2. Definition of the Key terms:

Research: Research has been defined in a number of ways. A broad definition of research is given by Martin Shuteleworth—“in the broadest sense of the word, the definition of research includes any gathering of data, information and facts for the advancement of knowledge”

Productivity:

Cambridge learner's dictionary defines productivity means the rate at which goods are produced.

Definition of Research Productivity

In present study 'Research Productivity' means research outcomes or research products presented or published through research papers/articles by faculty, researchers/the scientists of an institution. A well known research productivity indicator is the number of publications produced by researcher within a given time. Publications are tangible outputs of research in professional journals, conference proceedings, writing books or chapters in books, working with post-graduate students on dissertations, and class projects, carrying out editorial duties, obtaining patents and licenses, writing monographs, developing experimental designs, producing works of an artistic or creative nature and engaging in public debate and commentaries (Iqbal and Mahmood, 2011).

3. Literature Review for study:

Numerous researchers have undertaken Scientometrics studies focusing on various universities in India, and the present study draws upon insights from some of these investigations. In a study by **Munazza Jabeen et al. (2015)**, an examination of the growth in Library and Information Science (LIS) publications and trends spanning from 2003 to 2012 was discussed. The research period witnessed the publication of 18,371 research articles, with the peak growth rate (11.37%) observed in 2009. The predominant category of publications was "articles," comprising 47.4%, while "book reviews" constituted 33.2%. The study also underscored noteworthy collaborative publishing contributions from China.

In another study **Sawai, Chavan, and Kalbande (2018)**, the research productivity of LIS professionals at Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, was investigated for the period from 2004 to 2013. The data collection involved assessing several factors influencing research productivity.

4. Statement: Research Problem

The subject of this investigation is " A Study of research productivity of the of S.P. Jain College, Pabal affiliated to Savitribai Phule Pune University (SPPU), Pune.

5. Aims and Objectives of the Study

The primary objective of this study is to assess the research productivity of teachers at S.P. Jain College affiliated with SPPU Pune for the period from 2017 to 2019.

1. Analyze the research productivity of teachers at S.P. Jain College during the years 2017 to 2013.

- 2.To identify the authorship patterns in research productivity.
- 3.To examine the research productivity based on gender.
- 4.To determine the Rank of author with the most publications.
- 5.4. To determine research productivity in various communication channels (Books, books chapters, journal articles, conference and Seminar proceedings etc.)
- 6. To know the most used -effectiveness of communication channels.

6. Scope & Limitation: The current investigation is only limited to faculty members in S.P. Jain College Pabal, Pune, Maharashtra, between year 2017 and 2023. The study focuses on teachers at SP Jain College, specifically evaluating the research productivity of aided academic teachers affiliated with Savitribai Phule Pune University. The research problem encompasses various aspects, including year-wise research productivity, the highest number of publications, productivity in books, published lectures and conference proceedings, journal articles, patents, gender productivity, language-wise productivity, age-related productivity of teachers, etc.

7. Research Methodology:

The current investigation was conducted using a survey method and online questionnaire as a data collection tool. The gathered information and data will be evaluated with statistical methods and research methodological techniques.

Various methods have been suggested to measure Faculty contributions in academia. In this study, the authors opted for the survey method, a globally recognized approach for assessing Faculty contribution. To delve into the research contributions of faculty, the initial step involved compiling a comprehensive list of faculty in the S.P. Jain College Pabal, Pune by visiting the college's website and the research portal available on the website. The investigator gathered names and relevant details of faculty members engaged in teaching. Bibliographical data were then extracted from the university research portal database on the official website for the years 2017 to 2023. During the data collection phase, a online survey was conducted on a total of 19 faculty members at S.P. Jain College Pabal, Pune, India. It was found that only 17 faculty members were identified, yet they collectively contributed to 210 publications.

8. Data Analysis & Interpretation: Out of the 19 teachers at S.P. Jain College, 17 responded, while 2 did not. The collected data were analyzed using various parameters, including gender-wise research productivity, types of research contributions, year-wise research productivity, age-wise research productivity, language-wise research productivity, financial agencies, authorship patterns, motivational factors, communication channel usage for research, and barriers to research productivity.

To analyze the research publications authors used bibliographical data visualization tool namely VOS viewer software and Microsoft Excel.

8.1 Gender Wise Research Productivity

Gender wise publication status of S.P.Jain College teachers affiliated to SPPU, Pune. The collected data is analyzed in table no.8.1

S. N	Gender	No. of Respondent	Number of Publi.	Percentage (%)	
1.	Male	13	151	67.71%	
2.	Female	4	72	32.29 %	
	Totals	17	223	100%	

Table 8.1: Gender Wise Research Productivity

It can be observed from table no. 8.1 that there are totals 223 publications. Male teachers have published 67.71% publications, while female teachers have published 32.29% publications. It indicates that male teachers have more research productivity than female teachers.

8.2 Types of Research Contribution: Research productivity in symposia, seminars, conferences, journals, book chapters, books; research projects, and patents of college teachers affiliated to SPPU. The collected data is analyzed in table no. 8.2

Sr No	Types of RP	Total
1	Symposia	18
2	Seminar	27
3	Conference	11
4	Journals	111
5	Book chapters	41
6	Books	12
7	Research project(MRP)	2
8	Patents	1
	TOAL	223

Table 8.2. Types of Research Productivity

Table no. 8.2 shows types of research productivity in symposia, seminars, conferences, journals, book chapters, research projects and patents. Majority of researcher have published research papers in Journals 111(49.77 %) followed by book chapter 41(18.38 %).

8.3. Year Wise Research Productivity

Table no. 8.3 shows that there are total 223 publications. 2019 was the more research productive year in relative to the number of publications. In 2019 researcher published 49 research papers in symposia, seminars, conferences, journals, books, books chapter research project etc. The less research productive year of the teachers was 2020 having only 22 publications. It shows that the productivity of teachers increase year by year. It is growing than previous year.

Sr No	Types of RP	2017	2018	2019	2020	2021	2022	2023	Total
1	Symposia	3	5	3	2	5	4	4	18
2	Seminar	2	3	5	5	5	6	8	27
3	Conference	2	2	7					11
4	Journals	37	28	4	11	9	10	12	111
5	Book chapters	8	2	5	9	11	5	1	41
6	Books	2	4	3	2	1	0	0	12
7	Research project(MRP)	1	1	0	0	0	0	0	2
8	Patents	0	0	0	0	0	1	0	1
	TOAL	29	32	49	22	31	26	25	223

Table no. 8.3 Year Wise Research Productivity

8.4. Age Wise Research Productivity:

Majority of the teachers are belonging to 41-50 age group. whereas 26.90% and 21.52% are belonging to 31-40 age groups & 51-60 respectively. 21-30 age group respondent have not published any research papers. Majority of researcher are belong to 41-40 age group have published 51.56 % research papers.

Sr. No.	Age group	Respondent	% of respondent	Publication	%
1	21-30	0	0	0	0
2	31-40	4	23.52%	60	26.90%
3	41-50	09	52.94%	115	51.56%
4	51-60	4	23.52%	48	21.52%
	Total	17	100%	223	100%

Table 8.4 Age Wise Research Productivity**8.5. Language Wise Research Productivity**

Majority of 70% teachers using English language for research publication. Followed by 23% teachers used Marathi Language and 5% teachers using Hindi language for research publication.

Sr No	Preferred Language	No. of Respondent	% of respondent
1	ENGLISH	12	70.58%
2	MARATHI	04	23.54%
3	HINDI	01	5.88%

Table 8.5 Language Wise Research Productivity**8.6 Authorship Pattern**

It can be noted from table no. 8.6 that 70.58% teachers using single authorship pattern followed by 17.64% double authorship pattern; and 11.76% teachers' preferred three authorship pattern in their publication. Nobody used More than three authorship pattern for their publications.

Sr No	Authorship Pattern	No of Respondent	% of respondent
1	SINGLE AUTHOR	12	70.58%
2	DOUBLE AUTHOR	3	17.64%
3	MORE THAN THREE AUTHOR	2	11.76%
	TOTAL	17	

Table 8.6. Authorship Pattern**8.7 Communication Channels Use for Research**

The table no. 8.7 shows that majority of researcher used journals for their research publications. i.e. 76.47% journals for research.

Sr. No.	Communication channel use for Research	No. of Respondent	% of respondent
1	Journals	11	64.7%
2	Books	3	17.64
3	Conference Proceeding	2	11.76 %
4	MRP	1	5.88 %
	Total	17	

Table 8.7 Communication Channel Use for Research**8.8. Purpose of Research**

Majority of the 47.05% teachers research purpose is to upgrade knowledge followed by 41.17% is to get promotion and to upgrade qualification 11.76%.

Sr No	Purpose of Research	No. of Respondent	% of respondent
1	To upgrade Knowledge	8	47.05%
2	To get promotion	7	41.17%
3	To upgrade Qualification	2	11.76%
4	To get job	0	0
	Total	17	

Table 8.8. Purpose of Your Research

8.9. Financial Support for Research

It is observed from the table no. 8.9 majority of 76.47 % researcher spending self on research activity; whereas 11.76% researcher stated that colleges provides fund for research activity and , 11.76 % BCUD provides fund for research activity. Nobody get UGC and Fellowship for research.

Sr No	Financial Support for Research	No. of Respondent	% of respondent
1	UGC	0	0
2	BCUD-University	2	11.76%
3	College	2	11.76%
4	Self	13	76.47%
	Total	17	

Table 8.9. Financial support for your research

8. MAJOR FINDINGS

1. The publication records show that 67.71% of publications are attributed to male teachers, while female teachers account for 32.29 % of publications. This suggests that male teachers exhibit higher research productivity compared to their female counterparts.
2. A significant portion of researchers, amounting to Journals 111(49.77 %) have chosen to publish their research papers in journals, followed by 41(18.38 %) who opted for book chapters.
3. The predominant choice among teachers for writing research papers is the English language.
4. Journals are the primary choice for teachers when it comes to writing research papers.
5. The majority of teachers allocate their own resources for research activities.

9. CONCLUSION

The current investigation relies on surveys, interviews, and observations to assess the research productivity of teachers at S.P. Jain College affiliated with SPPU University, Pune. In conclusion, the evolving landscape of higher education institutes is witnessing dynamic trends that profoundly impact research productivity. Innovations in teaching methodologies, increased interdisciplinary collaboration, and advancements in technology are shaping the future of academia. Embracing these trends can enhance research outcomes, fostering a culture of continuous improvement.

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