

Research Productivity of Arts and Commerce College, Taharabad: A Scientometric study.

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Abstract

The twenty first century creates a new environment for education. The progress of any country is strongly linked with the quality of education. College libraries play an indispensable role in the dissemination of information of knowledge; they provide effective teaching learning information support to its user's communities.

This paper presents a scientometric study of Arts and Commerce College i.e. research productivity of teachers during 2018-2020. This research paper covers gender wise, age group wise, writing/publication statues of teachers, language wise research productivity, use of communication channel for research, purpose of research productivity , and authorship pattern.

Keywords: Scientometric, Research Productivity, Authorship pattern, Geographical Distribution, Motivational Factor.

1.Introduction:

An important task for any discipline is to monitor the patterns of its publication. Members of a discipline need to know what different group contributes to the field and the characteristics of its publications. Such knowledge locates, among other things, sources of strength in research and scholarship and the fields place among other disciplines.

Scientometric is the science of measuring and analyzing science. In practice, scientometric is often done using bibliometrics that is measurement of scientific publications. In1960, Vassily V. Nalimove had coined the term scientometric. Modern scientometric is primarily based on the work of Derek J. de solla price and Eugene Garfield. The later founded the Institute of Scientific Information (ISI), which carries out scientometric analysis.

Scientometric studies broadly constitute quantitative analysis of scientific literature to reveal the latest developments in various fields and the patterns of geographical distribution of science and scientific productivity of individual nation.

2. About Arts and Commerce College and its library:

Maratha Vidya Prasarak Samaja's Arts and Commerce College Taharabad is one of the premier colleges in rural Nashik district. The college was established on 1997 and affiliated to Savitribai Phule Pune University, Pune. The college accredited by National Assessment and Accreditation council (NAAC)

with B grade in first cycle. The college has more than five hundred students and 17 faculty members, eight subject branches and good infrastructure.

There is a common library is a common library for both the courses which is fully equipped with the latest technology to render effective library and information services to its users. The college library is the central library of the college. The library has collection of more than five thousand books, CDs/DVDs, 12 print journals, 200 bound volumes of journals. Nlist-Inflibnet subscribed online database.

3. Definations of the key terms:

3.1. Research:

Research has been defined in a number of ways. A broad definition of research is given by Martin Shutleworth " In the broad sense of the word, the definition of research includes any gathering of data, information and facts for the advancement of knowledge".

3.2. Productivity:

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

3.3. Definition of Research Productivity

In present study ' Research productivity' means research outcomes of research products presented or published through research papers/articles by faculty, researchers/the scientist of institution. A well known research productivity indicator is the number of publications produced by researcher within a given time. Publication 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 public commentaries(iqbal and Mahmood,2011)

4. Review of Literature

Sharma (2009) carried out a bibliometric study of research publication trends among scientists of Central Potato Research Institute during 1991 to 2007. The authors found that the majority of publications have been conducted in joint authorship. The degree of

Collaboration is also quite high. The study shows no uniform pattern of literature growth but factors like fund availability, scientists' recruitment and their availability, and years that had special occasions like conference, seminars etc. have impact over scientific productivity of the scientist during the period.

Vijay (2005) conducted the study on Bibliometric Study of Research Publication Trend among Indian Food Scientists and Technologists. It is clear that there is an increasing trend towards collaborative research in the area of food science and technology. The publishing trend is also seen to totally depend on the pattern of productivity of the authors. Universities contributed maximum number of papers. The total publication of CSIR and its laboratories put together.

Mulla and Konnur (2012) conducted the study on Research Activities in Visvesvaraya Technological University (VTU) from 2007 to 2011. There were total 250 Ph.D.s awarded in The Mechanical, civil, electrical, applied science, computer science, electronics, management science and

technology during the study period. Maximum research was carried out in mechanical eng. and the highest number of publications has been contributed by Sri Jayachamarajendra College of Engineering Mysore.

Veeramani and Sivaraman (2011) conducted the study on Research Output of Chemistry Literature in India during 2001 to 2010. From the study period there were 8342 publications. Articles are a predominant source of publications. Majority of the publications have been written by the joint authors.

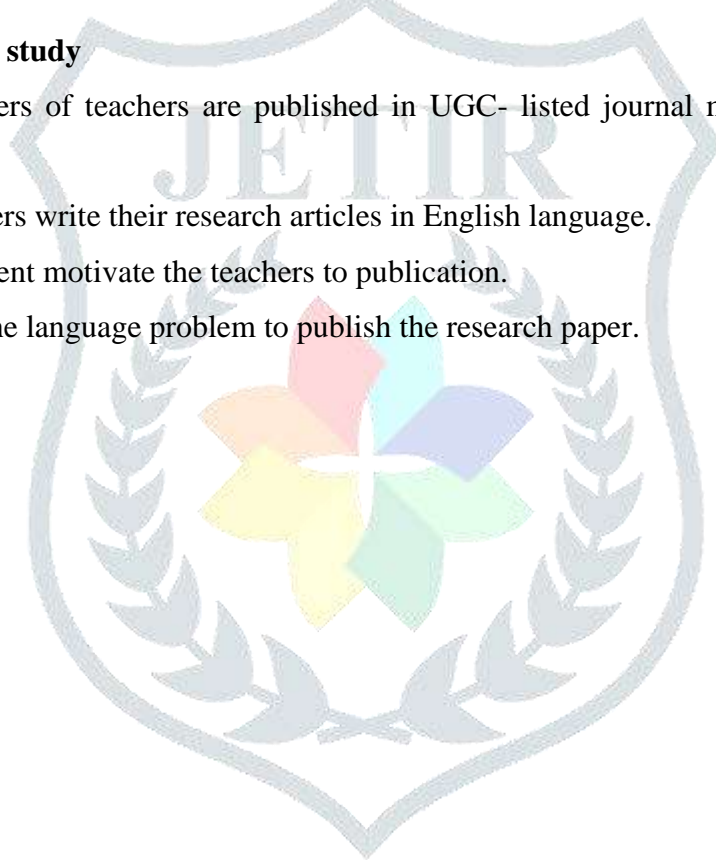
4. Objectives of the study:

The main objectives of the study is to examine the research productivity of Teachers working in Arts and commerce college Taharabad affiliated to SPPU Pune for the period of 2018 to 2020.

1. To analyze research productivity of teachers of Arts and commerce college during 2018 to 2020.
2. To find out the research productivity pattern (authorship pattern)
3. To know gender wise research productivity.
4. To examine the communication channel preferred for publication of college research output.

5. Hypothesis of present study

1. The research papers of teachers are published in UGC- listed journal more than conference and seminar
2. Majority of teachers write their research articles in English language.
3. Working environment motivate the teachers to publication.
4. Teachers facing the language problem to publish the research paper.



6. Research Methodology

The present study will adopt survey method using questionnaire as a tool of data collection. A structured questionnaire was designed with the help of Google form and link is distributed to the teachers i.e. faculty members of Arts and commerce college Taharabad. Also in addition to online Google form and offline printed questionnaire was prepared to collect the data required for the present study and 17 were received back. The response rate is 100%.

In addition to the questionnaire method, interview schedule and observation method were also used to collect required information as a supplement to the questionnaire method to bring more clarity to the data which are essential and use for analysis and interpretation of data. The collected data and information would be analyzed by applying statistical method and certain techniques of research methodology.

7 Data analysis and Interpretation

The numbers of teachers in Arts and Commerce College are 19 out of them 17 have respondent, 02 have not respondent. The collected data have been analyzed with using following parameters. Gender wise research productivity, types of research contribution, year wise research productivity, age wise research productivity, Language wise research productivity, authorship patterns, motivational factors, used of the communication channel for research, Barriers in research productivity.

7.1 Gender wise research productivity

Gender wise publication statuses of Arts and commerce college teachers affiliated to SPPU, Pune. The collected data is analyzed in table no.7.1

Table 7:1 Gender wise research productivity

| Sr. No. | Gender faculty | No. of Respondent | Publication | Percentage (%) |
|---------|----------------|-------------------|-------------|----------------|
| 1. | Male | 13 | 47 | 66.20% |
| 2. | Female | 04 | 24 | 33.80% |
| 3. | Total | 17 | 71 | 100% |

It can be observed from table no.7.1 that there are total 71 publications. Male teachers have published 66.20% publications while female teachers have published 33.80% publications. It indicates that male teachers have more research productivity than female teachers.

7.2 Types of research contribution:

Research productivity in symposia, seminar, conferences, journals, book chapters, books, research projects, and patents of college teachers affiliated to SPPU. The collected data is analyzed in table no.7.2

Table 7.2 Types of research productivity

| Sr. No. | Types of Research productivity | 2018 | 2019 | 2020 | Total | Percentage |
|---------|--------------------------------|------|------|------|-------|------------|
| 1. | Symposia | 3 | 5 | 5 | 13 | 12.62% |
| 2. | Seminar | 2 | 3 | 5 | 10 | 9.70% |
| 3. | Conference | 2 | 2 | 7 | 11 | 10.68% |
| 4. | Journal | 9 | 14 | 21 | 44 | 42.73% |
| 5. | Book | 3 | 3 | 8 | 14 | 13.59% |

| | | | | | | |
|----|------------------------|----|----|----|-----|-------|
| | chapters | | | | | |
| 6. | Books | 2 | 4 | 3 | 9 | 8.74% |
| 7. | Research project (MRP) | 1 | 1 | 0 | 2 | 1.94% |
| 8. | Patents | 0 | 0 | 0 | 0 | |
| | Total | 22 | 32 | 49 | 103 | 100% |

Table no. 7.2 shows types of research productivity in symposia, seminars, conferences, journals, book chapters, research products, and patents. There are 103 research publications during the year 2018 to 2020. Majority of researches have published research papers in journals 42.73%; followed by seminar 9.70%. Nobody registered for any patents.

7.3 Year wise research productivity:

Table no 7.2 shows that there are total 103 publications. 2020 was the more research productive year in relative to the number of publications. In 2020 research published 49 research papers in symposia, seminars, conferences, journals, book, book chapters, research projects etc. The less research productive year was 2018 having only 22 publications. It shows that productivity of teachers increase year by year. It is growing than previous year.

7.4 Age wise research productivity

Majority of the teachers are belonging to 31-40 age group. 23.54% and 5.88% are belonging to 41-50 age groups and 51-60 respectively. 21-30 age group respondents have not published any research papers. Majority of research paper are belong to 31-40 age group have published 70.54% research papers.

Table 7.5 Age wise research productivity

| Sr. No. | Age group | Respondent | Percentage of respondent | publication | percentage |
|---------|-----------|------------|--------------------------|-------------|------------|
| 1. | 21-30 | 0 | | 0 | |
| 2. | 31-40 | 12 | 70.58% | 91 | 88.35% |
| 3. | 41-50 | 04 | 23.54% | 12 | 11.65% |
| 4. | 51-60 | 1 | 5.88% | 0 | |
| | | | 100% | 103 | 100% |

7.6 Language wise research productivity:

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

Table 7.6 Language wise research productivity

| Sr. No. | Preferred language | No. of respondent | Percentage of respondent |
|---------|--------------------|-------------------|--------------------------|
| 1. | English | 12 | 70.58% |
| 2. | Marathi | 04 | 23.54% |
| 3. | Hindi | 01 | 5.88% |

7.7 Authorship pattern

It can be noted from table no. 7.7 that 70.58% teachers using single authorship pattern followed by 17.64% doubled authorship pattern; and 11.76% teachers preferred three authorship patterns in their publication. Nobody use more than three authorship pattern for their publication

Table 7.7 Authorship pattern

| Sr. No. | Authorship pattern | No of respondent | percentage of respondent |
|---------|------------------------|------------------|--------------------------|
| 1. | Single Author | 12 | 70.58% |
| 2. | Double Author | 3 | 17.64% |
| 3. | More than three author | 2 | 11.76% |
| | Total | 17 | |

7.8 Communication channels use for research

The table no. 7.8 shows that majority of researcher used journals for their research publications. i.e.76.47% Journals for research.

Table 7.8 Communication channels use for research

| Sr. No. | Communication channel use for research | No. of respondent | percentage of respondent |
|---------|--|-------------------|--------------------------|
| 1. | Journals | 13 | 76.47% |
| 2. | Books | 3 | 17.64% |
| 3. | Conference proceeding | 6 | 35.29% |
| 4. | MRP | 2 | 14.28% |
| | Total | 17 | |

7.9 Purpose of research

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

Table 7.9 Purpose of your research

| Sr. No. | Purpose of research | No of respondent | Percentage 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 a job | 0 | |
| | Total | 17 | |

7.10 Financial support for research

It is observed that the table no. 7.10 majority of 76.47% researchers pending self on research activity; whereas 11.76% researcher started that college provide fund for research activity. Nobody get UGC and fellowship for research.

Table 7.10 Financial support for your research

| Sr. No. | Financial support for research | No. of respondent | percentage of respondent |
|---------|--------------------------------|-------------------|--------------------------|
| 1. | UGC | 0 | |
| 2. | BCUD-University | 2 | 11.76% |
| 3. | College | 2 | 11.76% |
| 4. | Self | 13 | 76.47% |
| | Total | 17 | |

8. Major Findings

- 1) Male teachers have published 66.20% publications, while female teachers have published 33.80% publications. It indicates that male teachers have more research productivity than female teachers.
- 2) Majority of researchers have published research papers in journals 42.73% followed by chapters in book is 13.59%
- 3) Majority of teachers preferred English language to publish research papers.
- 4) Majority of teachers spending self on research activity.

9. Conclusion

Present study is based on survey, interview, observation to find out research productivity of the teachers in Arts and commerce college Taharabad affiliated to SPP University, Pune. It has covered the gender wise productivity, types of research contribution, year wise productivity and publication, age wise productivity, writing publication statues, language wise productivity, who provides financial support for your research, research project statues, Authorship pattern, and motivated factor in productivity, authorship position, Barriers in research productivity etc.

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