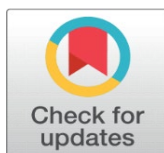


BIBLIOMETRIC ANALYSIS OF THE RESEARCH PERFORMANCE OF FACULTY MEMBERS OF GONDIA EDUCATION SOCIETY

Arvind A. Bhagat ¹, Prince Ajaykumar T Agashe ²

¹ Librarian, M.B. Patel Arts & Commerce College, Salekasa, Distt- Gondia, India

² Librarian, Matru Seva Sangh College of Social Work, Bajajnagar Nagpur, Indi



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ABSTRACT

The present study analyses the annual growth rate of research publications and their citation impact from 2010 to 2015 in selected 5 colleges run by Gondia Education Society. A total of 287 publications were registered during this 5-year period, out of which 1,343 received citations. The growth trend in the study shows a sharp increase in publications from 2010 (7) reaching a peak in 2013 (71), followed by a slight decline. In terms of citations, the highest number (431) was received in 2013, while the lowest (42) was received in 2011. Despite the low number of publications, the average citations per article was highest in 2010 (16.57), indicating a high impact of initial contributions. Overall, the findings show that although publication productivity increased significantly between 2010 and 2013, the impact of citations continued to vary from year to year, underlining both the quantitative and qualitative aspects of research performance.

Keywords: Bibliometric, Research Performance, Gondia, Education Society, Citation

1. INTRODUCTION

Research is essential for the progress of the nation and through it knowledge generation and socio-economic development are achieved. Although the number of higher education institutions in India is large, there is a lack of necessary funds, infrastructure and tools for research and innovation. This creates problems in the areas of quality education, employability and quality of research. A joint effort of the government, educational institutions and the industry is needed to solve these problems. Bibliometrics is an important quantitative tool for measuring research productivity and helps in measuring academic excellence by analyzing publication and citation patterns. Bibliometrics is a quantitative method used to measure research productivity, quality, and excellence. It involves analyzing scientific collaboration, interdisciplinary research, and trends in publication by studying patterns of publications and citations. The term was first proposed by Alan Pritchard (1969). He suggested using the term "Bibliometrics" instead of "Statistical Bibliography". Bibliometrics involves the mathematical and statistical study of authors, publication locations, subjects, keywords, and citations. Research productivity is the total amount of research work done by academic institutions or researchers during a given period.

The contribution of researchers is measured through books, journal articles, cases, conference papers, and reports. It is considered the most important tool of bibliometric measurement, as it allows comparison of research output across institutions and researchers. Factors such as the number of researchers, types of published papers, year of publication, and classification are considered while measuring research productivity. This output is useful in identifying strengths and weaknesses in the field of research and in formulating appropriate policies.

Research Productivity: Research productivity is the total amount of research work done by academic institutions or researchers during a given period. The contribution of researchers is measured through books, journal articles, cases, conference papers, and reports.

Research productivity was described as "The totality of research performed by academics in universities and related contents within a given time period" by Print and Hattie (1997) (p. 454). Williams (2003) pointed out that a researcher's output in terms of research effort and product can be characterized. Research output in this study refers to the books, journal articles, book chapters, annual reports, conference papers, and proceedings that academic staff members at the research institutes assessed have published. The most important metric for gauging the effectiveness of any manufacturing system is research productivity. In bibliometrics it appears to have been standard practice to distinguish research productivity from impact by defining it as the average number of publications per researcher. By identifying field strengths and shortcomings using the indicators of productivity at the field level, research policies and strategies are properly informed.

Gondia Education Society's: In 1945, about 94% of the people of Bhandara district were illiterate. At that time, some industrialists and social workers in the society decided to start an educational movement. On the initiative of Mr. Manoharbhai Patel, a second school was started in Gondia and the Gondia Education Society was established from it. The society spread education by establishing a college and many schools in a short time. By 1961, 22 schools and 2 colleges were established. Due to this, the literacy rate in the district increased rapidly and opportunities for higher education became available. Today, Gondia Education Society is known as a large and advanced educational institution in Maharashtra. Gondia education Society's (Registration No. B/95/1958) Vidarbha is registered under Society's Act & Bombay Public Trust Act. – F. 47. Gondia education society is the biggest education society under the jurisdiction of the RTM Nagpur university & Maharashtra state.

College runs by Gondia Education Society's.

Sr. no	Name Of College	Year of Est.	No. of. Faculty
1.	N.M.D.Post Graduate College Of Commerce Arts, Law & Mgt. Gondia.	1958	23
2.	P.P.College Of Education	1963	06
3.	D B Science College ,Gondia	1963	41
4.	J M Patel College Of Arts ,Commerce & Science , Bhandara.	1964	43
5.	S. N. Mor Arts, Commerce & Smt. G. D. Saraf Science College, Tumsar	1965	38
6.	C J Patel Arts & Commerce College ,Tiroda	1966	36
7.	Manoharbhai Patel PG College Of Arts, Com.& Science ,Sakoli.	1968	27
8.	S. S. Girls College , Gondia	1970	22
9.	Shri NarendraTidke College ,Ramtek	1970	11
10.	M B Patel College Of Arts & Commerce ,Deori	1990	16
11.	N J Patel College Of Arts ,Mohadi	1992	07
12.	M B Patel College Of Arts &Commerce ,Salekasa.	1994	14
13.	R.M Patel College Bhandara	1995	10
14.	Manoharbhai Patel Institute Of Pharmacy	2004	08
15.	Manoharbhai Patel College Sadakarjuni	2009	16
16.	Manoharbhai Patel Institute Of Engineering & Technology	2010	24
Total			342

College wise staff position

College Name	Faculty	Prof.	Asso. Prof.	Assi. Prof.	Principal	Librarian	Total No. Faculty
N. M.D. College Gondia	4	1	6	1	1	1	23
P.P.College Of Education	1	1	0	4	0	1	06
D B Science College ,Gondia	1	2	5	33	1	0	41
C J Patel College Tiroda	2	0	5	29	1	1	36
S S Girls College ,Gondia	2	0	3	17	1	1	22
J M Patel College Bhandara	3	0	16	25	1	1	43
R M Patel College Bhandara	1	0	3	6	0	1	10
M B Patel College Sakoli	3	0	6	21	0	0	27
M B Patel College S. Arjuni	2	0	0	15	1	0	16
M B Patel College Salekasa	2	2	3	7	1	1	14
N J Patel College Mohadi	2	0	4	2	0	1	7
S N J College Ramtek	3	0	1	8	1	1	11
S N Mor College Tumsar	3	2	1	33	1	1	38
M B Patel College Deori	3	0	8	6	1	1	16
MIET Bhandara	Engg.	0	0	23	1	0	24
Manoharbhay Patel Ins.of Pharmacy	Phar	0	0	7	1	0	8
Total		8	61	250	12	11	342

2. REVIEW OF LITERATURE

- 1) Prasad, Gnana J (2019) in this study An Analysis of the Research Productivity of Faculty Members of Bishop Heber College, Tiruchirappalli as a case study. In the study, faculty research articles from Bishop Heber College in Tiruchirappalli were subjected to a quantitative analysis. The teacher has greatly improved his or her research performance throughout the last ten years of the study period. According to the citations, out of 599 research outputs, 350 publications have citations and 249 papers don't, showing that the writers produce creative and high-quality work in their field. Teachers at Bishop Heber College are actively releasing their multi-author research articles. The study found that the productivity of a single author is quite poor.
- 2) Das, JabaMoni and Parabhoi, Lambodara, (2020) performed a study on "Research Productivity of LIS Women Faculty in India: A Bibliometric Study. The current study conducted to quantify the research contribution of Library and Information Science (LIS) women faculty of India between 1988 and 2018.. It was also revealed that LIS women faculty of India tends to publish more in an international platform than a national one. Dual authorship found dominating among the LIS women faculty of India. Further study revealed that P. Mahajan was the most productive LIS women faculty of India from Panjab University. The study result suggests that very small portion participation in research contributions as the current study surveyed 129 universities offering LIS education in India.
- 3) Dsouza, Felcy, (2021) performed a study on "Research Publications Trend of St Joseph Engineering College, Mangaluru, Karnataka: A Bibliometric Study. This study examined the bibliometric analysis of the research publication output of the St Joseph Engineering College (SJEC), Mangaluru indexed in Scopus during 2004 to 2019. The parameters such as the growth of publications, authorship pattern, author productivity, degree of collaboration, major areas of contribution, most preferred journals, geographical distribution. The findings revealed that, among the 230 publications published during the period of 16 years, highest numbers of 50 papers were published in the year 2019.
- 4) Bhaskar Mukherjeea and PriyaTiwari (2022) made a study on Perceptions of engineering faculty members regarding research collaborations. The purpose of this study is to connect the perceptions and understanding of the collaboration of faculty members of NIRF ranked top-performing engineering institutes with the publication they have. This study examine the quantitative bibliometric analysis along with the enquiry with authors show

that national collaboration, mainly with academic authors of same or other institution, still is a preferred. This study suggested that Most of the respondents believe that funding is important for research collaborations and low commitment of team members to the shared goal is a major barrier in collaboration.

3. OBJECTIVES OF THE STUDY

- To study year-wise productivity, faculty-wise of publications.
- To find out year wise the citations received.
- To study college wise publication received.
- To analyze the type of publications preferred by the faculty members .

4. SCOPE AND LIMITATIONS

The Present research work is extremely useful for analyzing and improving the quality of research of the faculty of GES in particular and Nagpur University in general. The present research work will help GES and university administrator made appropriate strategy to improve research quality. the present study will be confined 5 college out of 16 colleges (include Arts, Commerce, Science & Technology, interdisciplinary faculty) run by Gondia education society's Gondia , based on research outcome published i.e. research paper, conference Proceeding, books, books chapter by faculty member of Gondia Education Society's Gondia during 2010 to 2015.

5. METHODOLOGY

Data collected from authentic sources such as Google scholar, Annual Reports (College & RTMNU Nagpur), college website & personally from the faculty member of selective 5 colleges (from 2010 to 2015). Analysis of the data collected from sources has been properly drawn. Qualitative and quantitative technique used as a research method to derive a logical conclusion.

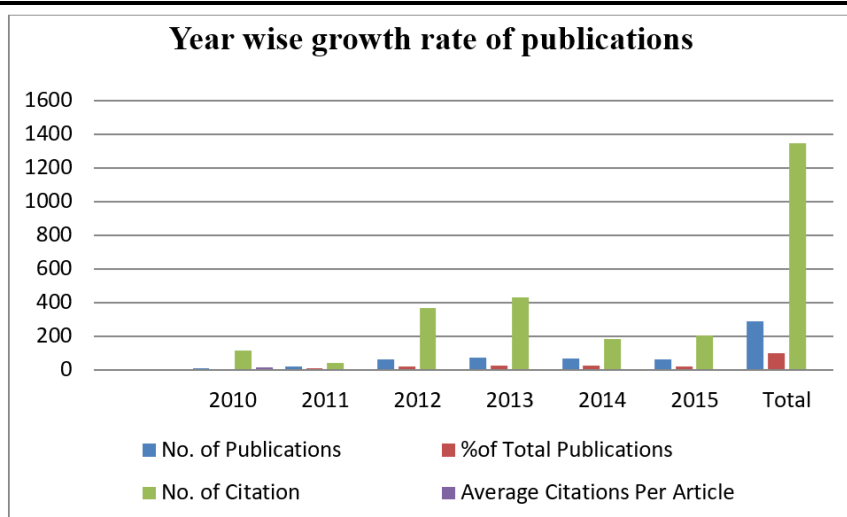
6. ANALYSIS AND DISCUSSION

Table 1 Year wise growth rate of publications

Sr. No	Year	No. of Publications	%of Total Publications	No. of Citation	Average Citations Per Article
1	2010	7	2.43	116	16.57
2	2011	20	6.96	42	2.1
3	2012	59	20.55	366	6.20
4	2013	71	24.73	431	6.07
5	2014	67	23.34	182	2.71
6	2015	63	21.95	206	3.20
	Total	287	100	1343	4.67

Above table 1 shows Year wise growth rate of publications, highest publication year 2013

Recorded the maximum of publications (71 i.e.24.73%) and lowest publications had the minimum publication (7 i.e. 2.43%). The highest citations were in 2013(431) and lowest citations were in 2011 (42). The highest average citation per article was 20 2010 (16.57) and lowest was 20 11 (2.10).



Graph 1 Year wise growth rate of publications

Table 2 Year wise citation received

Sr. No	Year	No. of Citation
1	2010	116
2	2011	42
3	2012	366
4	2013	431
5	2014	182
6	2015	206
	Total	1343

Above table 2 shows Year wise citation received, highest Citation were received in 2013(431 citations) & lowest Citation were in 2011 (42 citations) there is a significant rise in citations after 2011 and raise in 2013 followed by a decline.

Table 3 College wise details of publications

Year	N. M.D. College Gondia	M B Patel College Sakoli	M B Patel College Salekasa	S N Mor College Tumsar	Manoharbhairam Patel Ins. of Pharmacy, Gondia	Total Publications no.
2010	0	0	5	0	2	7
2011	3	0	8	0	9	20
2012	11	3	7	25	13	59
2013	7	4	15	30	15	71
2014	7	6	20	31	3	67
2015	3	10	34	15	1	63
	31	23	89	101	43	287

Above table 3 shows College wise details of publications, highest publications came from S N Mor College Tumsar (101 publications 35.19 %) which followed by M B Patel College Salekasa (89 publications 31.01%). The lowest contribution is received from M B Patel College Sakoli .

Table 4 Type of publications preferred by the faculty members

Sr. No	College Name	Peer Review	Books.	Books Chapter.	Conf. Proceed.	Total
1	N. M.D. College Gondia	31	0	0	0	31
2	M B Patel College Sakoli	23	0	0	0	23
3	M B Patel College Salekasa	59	0	0	30	89
4	S N Mor College Tumsar	50	0	0	51	101
5	Manoharbhai Patel Ins.of Pharmacy	43	0	0	0	43
Total		206	0	0	81	287

Above table 4 shows type of publications preferred by the faculty members, out of 287 publications 206 (71.8%) are peer reviewed journal articles which is followed by 119 (41.4%) are conference proceedings. The highest contribution is S N Mor College Tumsar (101 publications 35.25) & the least contributor is M B Patel College Sakoli.

7. CONCLUSION

In this study, a bibliographic analysis of the research output following conclusion drawn.

A total of 287 publications were published during the 5-year period, with 2013 recording the highest productivity (72 publications). Among the colleges S. N. Mor. College, Tumsar accounted for the largest share (35.2%), followed by M. B. Patel College, Saleksha (31.0%) and Manoharbhai Patel Institute of Pharmacy, Gondia (28.2%).

- 1) The citation analysis revealed that the publications received a total of 1,343 citations during this period, with 2013 having the highest citations (431 citations), indicating significant scholarly impact in that year. The distribution of document types shows that peer-reviewed journal articles dominate the research output (71.8%), while conference proceedings contribute 41.4% and no contributions in the form of books or book chapters are reported.
- 2) The present study highlights the steady growth of research culture in institutions, with a visible peak in both productivity and impact in 2012-2013.
- 3) The findings show that faculty members are increasingly participating in scholarly dialogue through prestigious journals and conferences, thereby strengthening the academic visibility and reputation of Gondia Education Society colleges. Continued encouragement, research collaboration and institutional support can increase both the quantity and quality of publications in the future.

CONFLICT OF INTERESTS

None.

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