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RESEARCH PRODUCTIVITY ANALYSIS OF ARTS, SCIENCE & SOCIAL SCIENCE FACULTY TEACHERS OF SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI (2011-2013)

Sonal D. Utane

Research Scholar, Dept of Libraray and Information Science, SGB, Amravati University
Amravati

ABSTRACT

Research publications are the embodiments of the intellectual thought contents expressed in published literature whose key objective is to transmit innovative ideas or information to any specific field of knowledge towards the further development of a subject or a discipline. In this respect bibliometric study is regarded as one of the crucial areas of research in the field of Library and Information Science. Moreover, bibliometric study is used as an instrument in the collection building policy by providing the precise and much needed information to the managers to take the right decision in right time as to what documents they should select and what documents they should discard from the existing collections of their respective libraries.

KEYWORDS: *intellectual, innovative ideas, Research publications, experimental development*

INTRODUCTION

Research publications are the embodiments of the intellectual thought contents expressed in published literature whose key objective is to transmit innovative ideas or information to any specific field of knowledge towards the further development of a subject or a discipline. In this respect bibliometric study is regarded as one of the crucial areas of research in the field of Library and Information Science. Moreover, bibliometric study is used as an instrument in the collection building policy by providing the precise and much needed information to the managers to take the right decision in right time as to what documents they should select and what documents they should discard from the existing collections of their respective libraries. Rudolph Rummel says, "... no researcher should accept any one or two tests as definitive. It is only when a range of tests are consistent over many kinds of data, researchers, and methods can one have confidence in the results." Research and experimental

development (R&D) comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications." (OECD (2002) Frascati Manual: proposed standard practice for surveys on research and experimental development, 6th edition. It is used to establish or confirm facts, reaffirm the results of previous work, solve new or existing problems, support theorems, or develop new theories. A research project may also be an expansion on past work in the field. To test the validity of instruments, procedures, or experiments, research may replicate elements of prior are documentation, discovery, interpretation, or the research and development of methods and systems for the advancement of human knowledge. Approaches to research depend on epistemologies, which vary considerably both within and between humanities and sciences.

Sant Gadge Baba Amravati University, Amravati in small span of two decades has made significant contributions in different field of study. Its faculty members have consistently contributed their views and ideas to different seminars, conferences, and work shop. Their views are based on the research, and independent thinking which is indicator of strong academic side of the university.

REVIEW OF LITERATURE

B. S. Kademani (2005).

In their study, 'Publication Productivity of The Bio-Organic Division at Bhabha Atomic Research Centre: A Scientometric Study.' Explained about the study Attempts to analyse quantitatively 475 papers published by the Bio-Organic Division of Bhabha Atomic Research Centre during 1972-2002 in various domains like Synthesis (202), Bio-organic Chemistry (100), Biotechnology (70), Natural Products (53), and Waste Management (30). Supra-molecular Chemistry (18) and Organic Spectroscopy (2), The highest number of publications in a year were 38 in 2001. The average number of publications per year was 15.3 and the highest collaboration coefficient 1.0 was found in the years 1972, 1976-1977, 1980- 1985, 1987, 1989-1990 and 1993. The most prolific authors were: A. Banerji (125), V. R. Mamdapur (93), S. Chattopadhyay (86), M. S. Chadha (61), S. K. Nayak (37), A. Chattopadhyay (30), L. P. Badheka (26), G. J. Chintalwar (26), S.K. Ghosh (25), and N. B. Mulchandani (25). The core journals preferred by the scientists to publish their papers include: Indian Journal of Chemistry-B (56), Tetrahedron Letters, (20), Synthetic Communications (15), Journal of Organic Chemistry (14), Biotechnology Letters (12), and Phytochemistry (12). Tetrahedron Asymmetry (11), Journal of Chemical Society- Perkin Transactions -I (10) and Molecules (10).

V. L. Kalyane (2003)

In their article, 'Research Productivity of Tibor Braun: An Analytical Chemist-Chm-Scientometrician.' Explained about the study, Research on 'eminent individual scientist' as a unit of information generation has opened up diversified vistas in understanding the process of R&D innovation communication. Quantitative documentation on Tibor Braun encompasses his papers (single-authored 40; and multi- authored 140) during 1954-1995. Productivity coefficient is 0.78. Tibor Braun had 80 collaborators of which Schubert, Glanzel, Zsindely and farag were the most active. Author productivity in the research group of Tibor Braun follows the trend of Lotka's Law. He had used 49 channels of communication to disseminate the results on his research of which Scientometrics (33 papers) top the list followed by Anal chim Acts (21 papers). The publication concentration is 10.2 and publication density 3.7. His core areas of work among

others related to: foam, analytical chemistry, citation analysis, bibliographic indicators, cold fusion, research impact, chromatography, etc.

WHAT IS BIBLIOMETRICS AND SCIENTOMETRICS?

Bibliometrics and scientometrics are two closely related approaches to measuring scientific publications and science in general, respectively. In practice, much of the work that falls under this header involves various types of citation analysis, which looks at how scholars cite one another in publications. This data can show quite a bit about networks of scholars and scholarly communication, links between scholars, and the development of areas of knowledge over time.

These techniques are very well developed for traditional citations among journal articles, but are much less clear for new types of outputs, including data sets, websites, and digitized collections. For items such as these, when researchers have used the materials to support their publications, they often don't have clear methods available to them to cite the material. Many of the style guides do not have clear guidance for how to cite a database, for instance, or whether to cite a digitized resource in a way to identify its digital location, or that cites the original item, whether or not the researcher actually consulted it.

Bibliometric

Bibliometrics is the statistical analysis of texts and information. In a research environment a common example of bibliometrics is the use of citation analysis to determine how many times a researcher's work has been cited in key literature.

Importance of Bibliometrics

Increasingly bibliometrics are being used as a measure of research impact or research influence. Bibliometrics analyses quantitative and qualitative data to describe publication patterns within a field of research. This information can be used to evaluate the influence/productivity of a researcher and to provide a comparison between researchers. More broadly, the results also help to determine university rankings and have an impact on university funding. According to Fairthorne, bibliometric is the "Quantitative treatment of properties of recorded discourse and behavior appertaining to it." According to Potter, bibliometric is "The study and measurement of the publication patterns of all term of written communication and their authorship. According to Pitchard bibliometric is "The application of mathematical method to books and other media of communication."

Scientometrics

Scientometrics is the science of measuring and analysing science. In practice, scientometrics is often done using bibliometrics which is a measurement

of the impact of (scientific) publications. Modern scientometrics is mostly based on the work of Derek J. de Solla Price and Eugene Garfield. The latter founded the Institute for Scientific Information which is heavily used for scientometric analysis. Methods of research include qualitative, quantitative and computational approaches. One significant finding in the field is a principle of cost escalation to the effect that achieving further findings at a given level of importance grow exponentially more costly in the expenditure of effort and resources. However, new algorithmic methods in search, machine learning and data mining are showing that is not the case for many information retrieval and extraction based problems. Related fields are the history of science and technology, philosophy of science and sociology of scientific knowledge.

STATEMENT OF PROBLEMS

The intention of the researcher behind the selection of the present topic entitled “Research Productivity in Arts, Science and Social Science Faculty of Sant Gadge Baba Amravati University, Amravati (2011-2013)”. With the help of this topic two points may be cover. 1. Researcher and student of Art , Science and Social Science was get Knowledge about research productivity of Sant Gadge Baba Amravati University. 2. Motivation level of the employees will improve.

OBJECTIVES

1. To determine year wise distribution of research article’s in the subject field. 2. Degree of collaboration in all conference, seminars, journal, workshops.3. To study the subject wise break-up and to find out the major trends in publication. 4. To measure the scientific productivity of authors. 5.To determine the prominent author in the field in all subjects. 6. To find out College wise contribution of article.

SCOPE AND LIMITATION OF THE STUDY

The present study was covered all the arts, science, and social science colleges affiliated to Sant Gadge Baba Amravati University, Amravati. To achieve the objective of present study researcher has selected three faculty viz Arts, Science, and Social science.

In the study the researcher was consider the entire arts, science, and social science faculty working in these arts, science, and social science colleges. Further the researcher is considered arts, science, and social science faculty in terms of their publication in the journals conference proceeding as well as research.

Following departments are affiliated to Sant Gadge Baba Amravati University, Amravati which is taken in to consideration during the study.

METHODOLOGY

The research paper publication of teachers was the important source for research study was traced

from the 29th and 30th Annual Report (2011-2013) of Sant Gadge Baba Amravati University, Amravati.

HYPOTHESIS

1. Single author contribution is more than multiple authors in all fields. 2.To trace subsequent findings, if any.

ANALYSIS

In the last step of 20th Century faculty is some forward as one of the most emerging subjects in the universe of Knowledge. Authors are showing keen interests etc. are the documents in which these authors are contributing their thoughts or ideas. In the present study the researcher has considered journals and conferences proceedings to study the contribution of Arts Faculty of Sant Gadge Baba Amravati University Amravati in the academic. The researcher has identified research papers which have been published during 2011 to 2013 on arts, social science and science for collecting required data.

The research highly found in subject Marathi having 288 (45.5%) research papers in the year 2011-2013, followed by English with 213 (33.49%) research papers, Music Subject having 61(9.62%) research papers, 56 (8.84.%) research papers in Hindi, Sanskrit having 12(1.89%) , Urdu 4 (0.63%) It can be concluded that most of the research work was found in Languages. The research highly found in subject Chemistry having 310 (19.06 %) research papers in the year 2011-2013 , followed by Computer Science having 297 (18.26%), Physics with 200 (12.30 %) research papers, Zoology 182 (11.19 %) research papers, Botany having 176(10.82%), Microbiology Subject having 149 (9.16%) research papers ,Mathematics having 105 (6.45%) research papers, Electronics with 85 (5.22 %), Chemical Technology with 46 (2.82 %) Papers, Bio-Technology with 33 (2.02%), Basic Science with 28 (1.72 %) i.e. 5 (0.03 %). The research highly found in subject Economics having 213 (24.26) research papers in the year 2011-2013, followed by, History having 157 (17.84%) Political Science with 136 (15.45%) Research papers, Home Science Subject having 88 (10 %) research papers, 85 (9.65 %) research papers in home Economics, Sociology Subject having 82 (9.31%) research papers, Library & Information Science 69 (7.84%), Geography having 29 (3.29%) research papers.

It was Found Dr.H.N.Sinha College Patur Distt.Akola Published (7.26 %) Research In Sources Of Publications Followed Shri Arts Commerce & Science College Akola (6.63%), Smt. Radhabai Goenka College Akola (5.98%), S.G.B.Amravati University Amravati 5.16% ,Smt. Radhabai Goenka College Akola,(5.98%), S.S.K.R. Innani College Karanja Lad, (3.47%), Dr.Gopalrao Khedkar Mahavidyalaya Gadegaon Akola (3.46%),

Smt.Kesharbai Lahoti College Amravati(3.46%),Takshshila Mahavidyalaya Amravati(3.25%), Radhabai Sarada College ,Anjangaon Surji (3.14%), Sitabai Arts College Akola, (3.04%), Shri Shivaji Arts Commerce College Amravati(3.3%), Shankarlal Khandelwal Commerce Sci College Akola,(2.18%) ,Smt.Kokilabai Gawande Mahila College Daryapur,(2.8%) ,Dr.Babasaheb Ambedkar College Amravati(1.81%), B.S.P.College Paratwada (1.48%), Mahila Mahavidyalaya Amravati (1.32%), Govt,Vidharbha Ins.Of Science &Humanities Amravati(0.99%), contribution in research, and followed by other affiliated colleges. It be can be concluded that majority of the research in contributed by reputed colleges where the research undertaken on large scale.

It was found S.G.B.Amravati University, Amravati has published (28.39%) Research In Sources Of Publications Followed Shri Shivaji Arts Commerce & Science College Jarud(10.85%),Shri Shivaji Scienc College Amravati (9.72%),H.V.P.M College Of Eng.(8.02%), Brijlal Biyani College Amravati(4.82%), Shankarlal Khandelwal Arts ,Commerce & Science College Akola (3.14%),Shri Shivaji Arts Commerce & Science College Akola (2.66%),Shri R.L.T.College Morshi (2.41%), S.S.K.R.Innani College Karanja Lad (2.29%),Mahatma Fule Arts Commerce & Sitaramji Chaudhari Science College Warud (2.22%), College Of Eng, & Tech. Damangaon Railway(1.74%), Dr.R.G.Rathod Arts & Science College Murtijapur(1.66%) Contribution in research & followed by other affiliated colleges. It be can be concluded that majority of the research in contributed by reputed colleges where the research undertaken on large scale.

It was found Shri Shivaji Arts Commerce & Science College Akola has published (10.75%), Research In Sources Of Publications Followed Shrimati Radhabai Goyanka College of Women Akola (4.61%), Govtt. Vidharbha Institute Of Science & Humanities (3.92%), Sitabai Arts College , Akola (3.79%), Appasaheb Adhau Mahavidhyalaya , Shendurjana (3.21%), Bharatiya Mahavidyalaya, Amravati (3.07%), Matoshri Vimalabai Deshmukh Mahavidyalaya, Amravati (3.04%), Dr. H.N. Sinha College Patur (3.02%), S.G.B.Amravati Univercity, Amravati (2.97%), Takshshila Maha. Amravati (2.59%), Bhagwanrao Shivaji Patil Maha.Achalpur (2.47%), Contribution in research & followed by other affiliated colleges. It be can be concluded that majority of the research in contributed by reputed colleges where the research undertaken on large scale.

It was found that the research publication of arts faculty published found 507 in year 2012-13 & 127 in 2011-12. Mostly research is published in 2012-13 year.

It was found that the research publication of science faculty published found 1128 in year 2012-13 & 498 in 2011-12. Mostly research is published in 2012-13 year.

It was found that the research publication of social science faculty published found 709 in year 2012-13 & 171 in 2011-12. Mostly research is published in 2012-13 .

It was found that Research Paper Presented in International Conference Held at broad by the Teachers of Affiliated Colleges SGBAU Dept. 2012-13. Mostly research paper is published in Science Faculty.

CONCLUSION

This studied highlight the Research productivity of Arts, Science and Social Science subjects research paper is at highest level, research output of department and colleges affiliated to Sant Gadge Baba Amravati University Amravati. Year 2011-2013. Sant Gadge Baba Amravati University Amravati needs to increase its output and bring about improvement in the quality of its research efforts. The Research Paper seen to be popular among the research scholars of the Sant Gadge Baba Amravati University Amravati as seen from the highest number of contributions received from them. According to Research papers in the year 2012-2013 was more productivity in Arts, Science and Social Science Subjects and in science there was little difference between 2011-2012.

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