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AUTHORSHIP PATTERN OF CITATIONS IN AGRONOMY PH.D THESIS AT AGRICULTURAL UNIVERSITY OF DR. PANJABRAO DESHMUKH KRISHI VIDYAPEETH, AKOLA, MAHARASHTRA. INDIA

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ABSTRACT:

The purpose of the study is to analysis Authorship Pattern of Citations in Agronomy Ph.D Thesis at Agricultural University of Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola. To accomplish the present study was conducted on 85 samples from Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola.The data obtained were satisticaly analysis with help of applied Chi-Square Test. The finding of the result concluded that there were positive of Authorship Pattern of Citations in Agronomy Ph.D Thesis at Agricultural University of Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola. Shows that most of the two author citation which was publishes where as second position had citation of single authors. It was significant as $p<0.05$ suing chi-square test. (Chi-Square = 570.453, d. f. = 16, p=0.001)

KEY WORD: ***Authorship Pattern, Agronomy, Citations, Agriculture.***

INTRODUCTION

Bibliometrics is a set of techniques devoted to the quantitative analysis of scientific and technical activities. These techniques implement statistical and mathematical tools to measure the data that measure researcher's contributions to science and technical development.

1) The data used for bibliometric studies mainly stem from information produced by the activity of researcher's communication. These quantitative studies of researcher's communication activities tend to have a better understanding of phenomena of construction, dissemination and use of scientific and technical knowledge. Bibliometrics is considered as a standard tool of science policy and research management in the last decades. All significant compilations of science indicators heavily rely on publication and citation statistics and other, more sophisticated bibliometric techniques. The aim of bibliometric studies was to measure national research performance in the international context or to describe the development of a science field with the help of bibliometric means.

2) Today, bibliometrics is one of the rare truly interdisciplinary research fields Extended to almost all scientific fields. Bibliometric methodology comprises components from mathematics, social sciences, natural sciences, engineering and even life sciences. Both bibliometrics and scientometrics are a set of methods used for measuring the production and dissemination of scientific knowledge. Derek de Solla Price and Vasilij Vasilevich Nalimov

were the originators of the discipline, which they developed for the 2 purpose of providing research tools to historians and sociologists of science. The present study focuses attention on the scientometric analysis of the pattern of publication, authorship and citation analysis by Engineering scientists contributed in the journal IEEE Transactions on Control systems Technology.

Agronomy:

Means the art and science of applying the agricultural sciences for the evaluation, improvement and / or management of human, economic and natural resources, for cultivation or production, processing and marketing of plants are animals terrestrial or aquatic other than marine, treating the soil as a biological entity.

Bibliometrics

Allan Pritchard was the first man who coined the term Bibliometrics in 1968 but it became more popular during 1980s. According to D.T. Hawkins "quantitative analysis of the bibliographical features of body of literature". 3

Nicholas and Ritchie (1978), in their book entitled "Literature on Bibliometrics", stated that bibliometrics "Provide information about the structure of Knowledge and how it is communicated?"4

More recently Sengupta had defined this term as the "organization, classification and quantitative evolution of publication patterns of all macro and micro communications along their authorship by mathematical and statistical calculus". 5

Statement of Problem

Interest in the analysis of scientific research in Agronomy has been growing in recent years. User citations are a source for determining information use by a library's potential public and can be viewed as a simulation of user demands. The most direct alternative for studying information use by a university's researchers is the bibliometric mining of their publications (Martin and Sanz, 2001).

In such cases several questions are considered: what type of publications should be included, and how should they be identified? Depending on the answers to these questions, the source publications may vary widely in nature. Any analysis of library users entails deciding whether to take account of all types of source documents (theses, journal articles, congress papers and so on) and in that case whether their use is to be stratified, or whether on the contrary priority is to be given only to the documents that best reflect research tasks. Hence the researcher has selected the topic "Authorship Pattern of Citations in Agronomy Ph.D Thesis at Agricultural University of Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola: A Bibliometric Approach**"** to identify the most used documents for research purpose.

HYPOTHESIS :

1) It is hypothesized that there will be more second author citation collection than others

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METHOD OF THE STUDY:

The references appended to 85 theses submitted to Dr.p.k.v.akola during the period 1986-2010 were contacted for the per pose of citations analysis. All the references which are cited at the end of chapter and footnotes are taken in to consideration of the study.

STATISTICAL ANALYSIS OF DATA.

A database covering all the theses and cat ions has been cited with details of the citations using MS-Excel in order to draw tables and calculations. To study whether there is temporal changes in seeking behavior for different sources we prepared the cross table and applied Chi-Square Test.

DISTRIBUTIONS OF CITATIONS

While having closer look at the citation appeared in 85 theses which is of the study, one can identify different from of literature used by researchers in field of Agronomy .The list bibliographic forms are as follows:

a) Journals

b) Books

c) Conference Proceeding

d) Report

e) References

f) Theses

g) News Paper

h) Abstracts

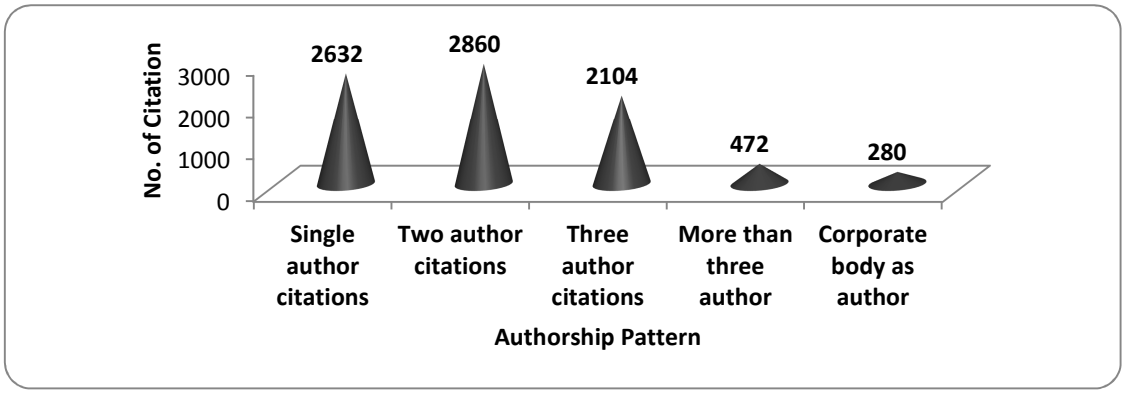
The distribution of citations has been critically examined on their bibliographic forms and categories various sources of information are used by LIS Researchers. Analysis of citations appended to these in LIS was done according to subject country of origin and language. In order to identify the predominant medium of scientific communication, language wise distribution of citations has been presented in the study.

To study whether there is temporal changes in seeking behavior for different sources we prepared the cross table and applied Chi-Square Test.

	Authorship Pattern of Citations in the Thesis				
Sr. No.	**Authorship Pattern**	**No. of Citation**	**C.F.**	**Percentage**	**Cumulative %**
1	Single author citations	2632	2632	31.53	31.53
2	Two author citations	2860	5492	34.26	65.79
3	Three author citations	2104	7596	25.20	90.99
4	More than three author	472	8068	5.65	96.65
5	Corporate body as author	280	8348	3.35	100.00
	Total	**8348**		**100.00**	

significant as $p<0.05$ (Chi Square = 1003.64 d. f. = 28 p value = 0.001)

In the study of Authorship pattern, Table reveals that citations with two authors were cited most (34.26%) where as citations with more than three authors are least (5.65%).The corresponding figures for single author citations and three authors citation were 2632 (31.53%) and 2104 (25.20%). The same figure for Corporate Body as Author was 280(3.35%). This data is exhibiting a surprising authorship pattern that the more the authors of citation, the less they are cited. This pattern may be due to the reason that researchers prefer to publish the article in his own single name to get the full credit of it and hence maximum citation were available with single author as compared to other counterpart.



Authorship Pattern of Citations

Finding:

Authorship Pattern and Collaboration:

The distribution of citations authorship wise indicates same pattern in Agronomy and Sub-disciplines. Two authored were the maximum in number. Among single authored papers were in second largest it is more than three author and corporate authorship.

The relationship between authorship and reference period (05 years intervals) in Agronomy and its sub-disciplines have been presented with the application of Chi- Square test.

The authorship wise distribution on books cited in the present study indicates a similar pattern in Agronomy and its sub-disciplines. Books authored by two authors are the maximum. However we can observe an increasing trend in multi authored books was observed.

To test statistically, whether the authorship pattern shows changes over a period of time, Chi-square Test was used. The null and alternative hypotheses were formulated as below.

Ho: There is no significant difference between the citations of number of authors used for references.

H1: There is significant difference between the citations of number of authors used for references.

Shows that most of the two author citation which was publishes where as second position had citation of single authors. It was significant as $p<0.05$ suing chi-square test. (Chi-Square = 570.453, d. f. = 16, p=0.001)

Bibliographic form wise Authorship Pattern:

Data reveals that single author citation pattern mostly used in conference proceedings. Two author citation pattern used in Journals and three author citation pattern used also in journals. It found that more than three citations used in conference proceeding also corporate body as a author used in annual reports

CONCLUSION:

On the basis of the findings of the study the following conclusion are drawn- Shows that most of the two author citation which was publishes where as second position had citation of single authors. It was significant as $p<0.05$ suing chi-square test. (Chi-Square = 570.453, d. f. = 16, p=0.001)

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