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## SCIENTOMETRIC ANALYSIS OF “ANNALS OF LIBRARY AND INFORMATION STUDIES”

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**Abstract :**

*Annals of Library and Information Studies had taken for this study covers from 2009-2013. The paper analyses the authorship pattern, the range and frequency of articles published. The maximum number of paper published in "Annals of Library and information Studies" during the study period is 44 research paper published in 2010 and minimum number of papers is 27 in 2012. The results indicate that the trend is towards two authorship 46.62 and average length of paper as above 10, degree of collaboration as 0.668.*

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**KEYWORDS :**

Scientometrics, Library Science.

**1.INTRODUCTION -**

Scientometrics is part of the sociology of a science and has application to science policy making. It involves quantitative studies of scientific activities, including among others, publication and so overlaps bibliometrics to some extent. Scientometrics is a branch of the 'Science of Science'. Nalimove and Mulchenko define this term 'as a sub-field which applies quantitative methods to the study of science as an information process [1969] Haitun Treats 'Scientometrics', as a scientific discipline, which performs reproducible measurements of scientific activity and reveals its objective quantitative regularities. The Annals of Library and Information studies most important journal of library science is selected for this study.

**2.OBJECTIVES :-**

The following are the objectives for this study to find out:

- Year wise distribution of papers
- The nature of Authorship pattern
- The average length of papers
- The degree of collaboration
- The subject wise distribution of articles

**3.REVIEW OF LITERATURE:**

Mukherjee (2008) analyzed the authorship pattern of scientific productions of the four most productive Indian academic institutions for the five year period from 2000 to 2007. The results show that among four universities, the authors of Delhi University contributed the highest number of articles, followed by Banaras Hindu University. There is also an increasing tendency toward collaborative research among Indian authors as well as more frequent collaboration with international authors. Biochemistry and molecular Biology are two of the most prolific research areas in these four Indian Universities. The average rate of references per item is 28 and the citations received per item are 3.56. Tian, Wen & Hong (2008) conducted a bibliometric analysis to evaluate global scientific production of Geographic Information system (GIS) papers from 1997 to 2006 in Science citation index. Results indicated that GIS research steadily increased over the period and

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the annual paper production in 2006 was about three times higher comparing to 1997 paper productions.

Dutt, Garg and Boli (2003) analyzed 1317 papers published in the first fifty volumes of the International journal of scientometrics during 1978 to 2001. They found that the U.S.A. share of papers in constantly declining while that of the Netherlands, India, France and Japan is on the rise. The research output is highly scattered as indicated by the average number of papers per institution.

#### 4.SOURCE AND METHODOLOGY :-

The journal 'Annals of library and information studies' has been selected as the source journal. It is a quarterly publication of the NISCAIR (formerly INSDOC) India. The data has been compiled from Annals of library and information studies articles from 2009 to 2013 for each article, the following data has been noted: a) Number of author, b, number of page, C, degree of collaboration. All the collected data are tabulated year wise for the period of 2009-2013.

#### 5.ANALYSIS AND INTERPRETATION :

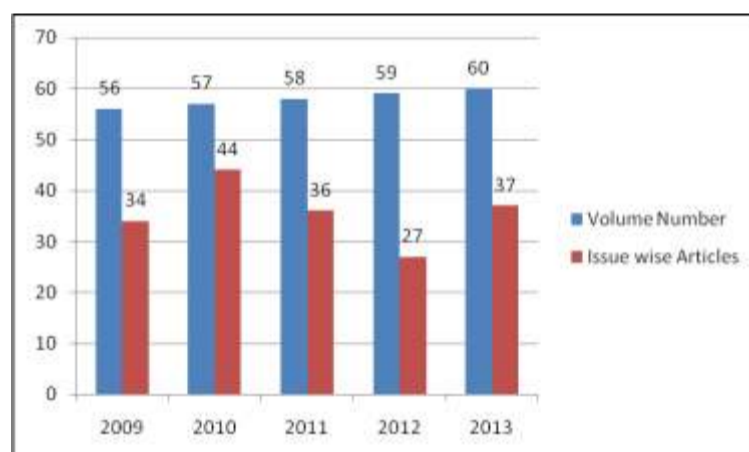
The total number of papers published in five years (2009 to 2013) is 178. The observed data are clearly tabulated and figured in the following pages.

**1.TABLE-1**Year-wise Distribution of papers. Table-1 provides the details regarding the distribution of 178 articles in the volume 56-60 of Annals of library and information studies. The maximum number of paper 44 was published in 2010 and minimum number of papers 27 in 2012.

**Table – 1**  
**DISTRIBUTION OF ARTICLES**

Year	Volume Number	Issue wise Articles				Total	%
		1	2	3	4		
2009	56	7	8	9	10	34	19.10
2010	57	10	9	15	10	44	24.71
2011	58	10	10	9	7	36	20.22
2012	59	6	6	8	7	27	15.16
2013	60	9	9	9	10	37	20.78
TOTAL						178	100

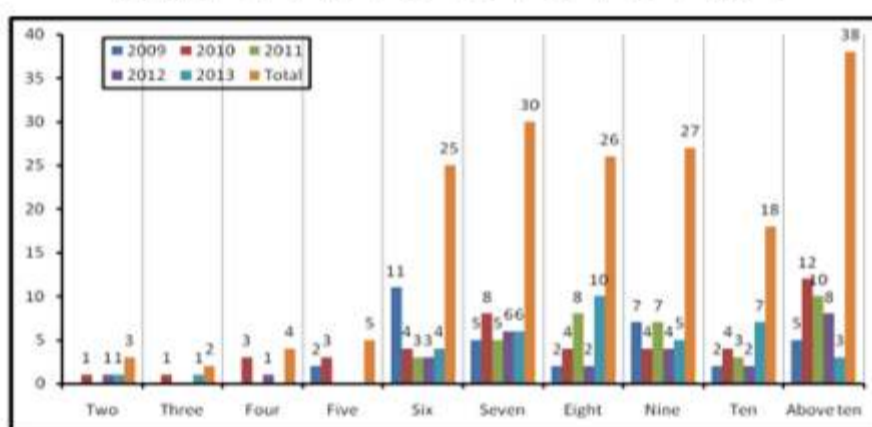
**Figure – 1**  
**Year-wise publication of articles**



**2.Length of the articles :**Table-2 depicts the details regarding the number of pages published during the study period. From the observed data 38 (21.34%) articles covers above ten paper and 2(1.12%) articles cover three paper. then, average number of paper observed as above ten.

**Table – 2  
LENGTH OF THE ARTICLES**

Number of pages	2009	2010	2011	2012	2013	Total	%
Two	0	1	0	1	1	3	1.68
Three	0	1	0	0	1	2	1.12
Four	0	3	0	1	0	4	2.24
Five	2	3	0	0	0	5	2.26
Six	11	4	3	3	4	25	14.04
Seven	5	8	5	6	6	30	16.85
Eight	2	4	8	2	10	26	14.60
Nine	7	4	7	4	5	27	15.16
Ten	2	4	3	2	7	18	10.11
Above ten	5	12	10	8	3	38	21.34
<b>TOTAL</b>	<b>34</b>	<b>44</b>	<b>36</b>	<b>27</b>	<b>37</b>	<b>178</b>	<b>100%</b>

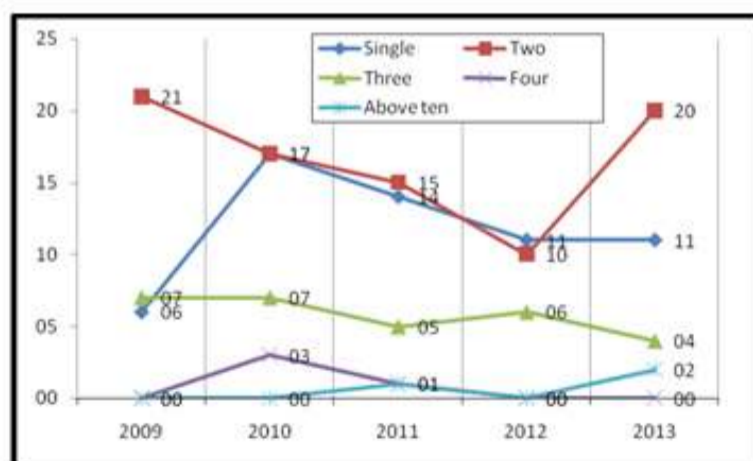


**3. Authorship Pattern :-**Table-3 indicates the details about the authorship pattern. Out of 178 articles 59 (33.14%) articles was contributed by single author, 83 (46.62%) was by two authors, 29 (16.29%) articles was by three authors, 4 (2.24) articles was by four authors and 3 (1.68%) articles was by above four authors.

**Table – 3, AUTHORSHIP PATTERN**

Authorship	2009	2010	2011	2012	2013	Total	%
Single	06	17	14	11	11	59	33.14
Two	21	17	15	10	20	83	46.62
Three	07	07	05	06	04	29	16.29
Four	00	03	01	00	00	04	2.24
Above ten	00	00	01	00	02	03	1.68
<b>TOTAL</b>	<b>34</b>	<b>44</b>	<b>36</b>	<b>27</b>	<b>37</b>	<b>178</b>	<b>100%</b>

**Figure – 2  
Distribution of Authorship Pattern**



**4.Degree of Collaboration :-**To analyze the nature of the researcher's participation in research activity , author productivity is tested, Degree of collaboration enables one to examine the research trends in terms of author productivity.

In order to determine the collaboration in quantitative forms, k. subramaniyam formula

$$C = Nm / (Nm + Ns)$$

Where C = Degree of collaboration of author

Nm = Number of multiple authored papers,

Ns = Number of single authored papers

Was tested from the Table- 04 the degree of collaboration in publications during the study period is calculated as 0.668 Percent

$$C = \frac{119}{119+59} = C = \frac{119}{178} = 0.668$$

**Table - 4, DEGREE OF COLLABORATION**

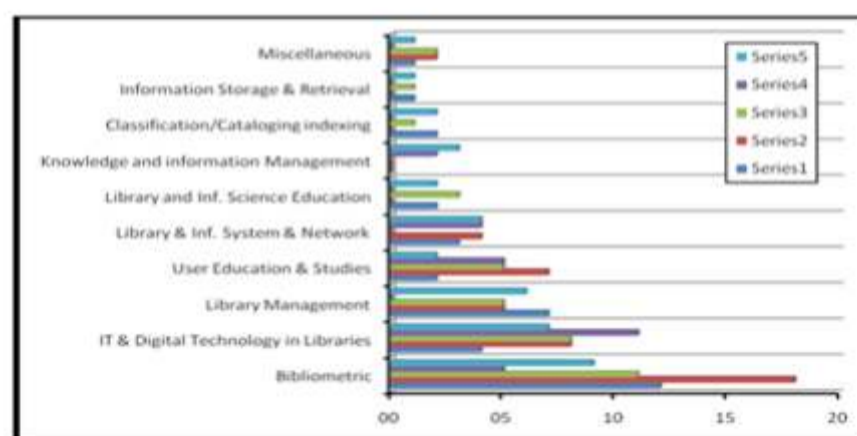
Year	single Author Paper	Multiple Author Paper	Degree of Collaboration
2009-2013	59	119	00.668

**5.Findings And Conclusion:-**The Following Findings and conclusion can be drawn from the present study :

The average length of papers is above ten, which cover 38 (21.34%) articles. Maximum number of articles are in bibliometric with 55 (30.89%) articles most of the articles are contributed by two authors with 83 (44.62%) papers. Hence, it can be concluded that single authorship trend is decreasing and joint authorship is getting increased.

**Table-5, SUBJECT-WISE DISTRIBUTION OF ARTICLES**

Sl. No.	Subject	2009	2010	2011	2012	2013	Total
1	Bibliometric	12	18	11	05	09	55
2	IT & Digital Technology in Libraries	04	08	08	11	07	38
3	Library Management	07	05	05	-	06	23
4	User Education & Studies	02	07	05	05	02	21
5	Library & Inf. System & Network	03	04	-	04	04	15
6	Library and Inf. Science Education	02	-	03	-	02	07
7	Knowledge and information Management	00	00	00	02	03	05
8	Classification/Cataloging indexing	02	00	01	00	02	05
9	Information Storage & Retrieval	01	-	01	-	01	03
10	Miscellaneous	01	02	02	00	01	06
	<b>TOTAL</b>	<b>34</b>	<b>44</b>	<b>36</b>	<b>27</b>	<b>37</b>	<b>178</b>



**5.Subject-wise Distribution of Articles** –Table-5 deals with the subject-wise Distribution of Articles during the study period. Out of 178 articles Bibliometrics occupy first place as 30.89 with 55 articles. It and Digital Technologies in libraries occupy second place as 21.34% with 38 articles.

Table – 5, SUBJECT-WISE DISTRIBUTION AT ARTICLES

Sl. No.	Subject	2009	2010	2011	2012	2013	Total	%
1	Bibliometric	12	18	11	05	09	55	30.89
2	IT & Digital Technology in Libraries	04	08	08	11	07	38	21.34
3	Library Management	07	05	05	-	06	23	12.92
4	User Education & Studies	02	07	05	05	02	21	11.79
5	Library & Inf. System & Network	03	04	-	04	04	15	8.42
6	Library and Inf. Science Education	02	-	03	-	02	07	4%
7	Knowledge and information Management	00	00	00	02	03	05	2.8
8	Classification/Cataloging indexing	02	00	01	00	02	05	2.8
9	Information Storage & Retrieval	01	-	01	-	01	03	0.68
10	Miscellaneous	01	02	02	00	01	06	3.37
<b>TOTAL</b>		<b>34</b>	<b>44</b>	<b>36</b>	<b>27</b>	<b>37</b>	<b>178</b>	<b>100%</b>

The minimum number of articles was in information storage & Retrieval each sharing with 3 articles.

**Figure - 3**  
**Subject-wise publication of Articles**

Table-5 show that various fields of subject in library and information science.

Out of 178 contributions, highest number of contribution are from the field of Bibliometric with 55 (30.89%) contributions that include articles on bibliometric, scientometric studies, webometric, study of dedication pages, citation analysis, citation profile of Scientist & institutions and others related aspects.

Next comes to IT & Digital Technologies in libraries which includes 38 (21.34%) contributions covering aspects IT and its application in library and information central, digital and virtual libraries, digitalization. Metadata and its standards, digital object identifiers, electronic resource sharing, information security in electronic environment etc.

Out of 178 contributions, 23 (12.92%) contribution that includes articles on cost benefit analysis - database management, auditing and control of digital library system etc.

User Education & Studies has total 21 (11.79%) contribution out of 178 contribution that include various aspects of user studies, user education techniques, user orientation programmes in electronic and web environment covering different domains of knowledge.

Library information systems & Network has total 15 (8.42%) contributions out of 178 contributions that mainly consists articles on library networking, resource sharing, subscription of e journals etc.

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