



Transmission and Storage of Information for Library Professionals in Sri Lanka: A Bibliometric Analysis

K.P.K.Dambawinna

University of Peradeniya, Sri Lanka.

E- mail: Kamanid@pdn.ac.lk,

Abstract

This analysis presents valuable insights into an annual publication named Sri Lanka Library Review. Eleven issues (11) published during the period from 2002-2012 were quantitatively analyzed to examine a variety of attributes of articles contained in. The study revealed that there were eighty seven (87) articles in either English, Sinhalese or Tamil languages, English being the dominant. Thirteen articles as the highest number in 2009. But there were no significant growth pattern of articles. Many articles were in the category of “other LIS topics”. Single authorship is predominant. Mr. N.U. Yapa is the notable author with highest productivity. Majority of authors were affiliated to universities in Sri Lanka. The majority of articles were in the range of 6-10 pages. There were fewer articles based on research studies. Many research articles were based on surveys. The data collection methods of surveys were diverse but prominent was the questionnaire method. Study recommended that the LIS professionals in government sector and paraprofessionals in all sectors should be encouraged to contribute their new knowledge to LIS literature. The editors should concern to get more research articles contributed to development and advancement of the LIS field with 11-15 page of pages. The editorial board should categorized the articles on the average length of the article as full articles and short communications etc and try to get maximum of 12-15 full articles per issue.

Keywords- Sri Lanka Library Review, Bibliometric study, LIS literature, Transmission of information, information storage, Library professionals

Introduction

The Ceylon Library Association was established in 1960 by S.C. Block, Librarian of the University of Peradeniya and by some others. It was renamed as Sri Lanka Library Association (SLLA) in 1972. (Wanasundara, 2010). SLLA is the only professional body of Library professionals in Sri Lanka. It is also a member of the Professional Association (OPA) of Sri Lanka.

The first publication of SLLA is the Journal of the Ceylon Library Association in 1962. In 1968 this Journal was renamed as “Ceylon Library Review” until 1972. (Perera and Talagala, 2003). At present it is an annual publication as Sri Lanka Library Review (SLLR). It is the sole channel or communication medium for library professionals, paraprofessionals, researchers,



students and concerned parties to share and transmit knowledge, findings, ideas, views and experiences. It is also a printed medium of storage of intellectual work.

Articles in a serial publication in LIS are the indicators of the interests, trends and developments of the knowledge of LIS field.

Dr. S. R. Ranganathan coined the term librmetry and presented his concept in 1948 at the ASLIB conference held at Lemington Spa. He said that “there is a need to develop this subject on the lines of Biometry, Econometry, Psychometry, etc. He used the term to include statistical approaches to the study of library and its services. (SLET guide, 2012).

Bibliometrics is a quantitative analysis of a variety of characteristics of literature in a

particular topic. Bibliometric has been introduced since 1969 by Pritchard. He defines bibliometrics as “the application of mathematical and statistical methods to books and other media of communication” (Pritchard, 1969).

ALA glossary of Library and Information Science defined bibliometrics as “ the use of statistical methods in the analysis of a body of literature to reveal the historical development of subject fields and patterns of authorship, publication and use”. (ALA glossary, 1983).

It is observed that in the past bibliometrics was used to evaluate the usage of materials in a library and to examine the historical developments of a specific literature of any discipline.

Significance of the study

A bibliometric study of Sri Lanka Library Review was carried out in 2002; ten years back by Ms. Nanda Perera and Ms. Deepali Talagala. This study again may project professionals towards bibliometrics after a decade. This is beneficial to researchers, information seekers, knowledge managers and professional policy makers, educators to

understand research trends, subject areas of interests and gaps of the LIS literature. It also explores the extent of contributions from various sectors which may awake the silent majority. This would make the SLLA council to find as to why a significant decline of number of articles after 2010 has been occurred.

Objectives of the Study

- To examine the publishing pattern of the journal
- To study the year wise and language wise distribution of articles.
- To find out Authorship patterns of articles, author productivity, professional positions and affiliations of authors, and list of productive authors
- To analyze the subject wise distribution of articles.
- To assess the distribution of articles by type of articles
- To reveal the research strategy and data collection methods of research articles.
- To examine the length of articles.



Review of related literature

There were many bibliometric studies of LIS literature published in journals. The most recent and relevant studies were cited here.

Bibliometric analysis of the Library and Information Science Research Electronic Journal from 2004-2010 was carried out. Study revealed that 61 articles were published. Twelve articles (12) as the highest number in 2008. Most articles were in general subject are of Library and Information Science. Most articles were single authored. The degree of collaboration was 0.279. Many authors affiliated to universities (Isiakpona, 2012).

The Journal named Annals of Library and Information Studies; 2002-2010 were bibliometrically analyzed and revealed that there was a steady rise in number of articles from 18-43 from 2002 to 2010. 43 is the highest in 2010. Total of 36 issues carrying 247 articles which had 4056 citations. 47.9% articles were joint authored and 32.3% were single authored. B.K. Sen was the leading author with 20 contributions (Jene and others, 2012).

Bibliometric analysis of the Journal DESIDOC journal of Library and Information Technology 2006-2010 presented that out of 199 total articles 58.29 % was joint authored while 41.71% single authored. Most of contributors were from

Methodology

The source journal was Sri Lanka Library Review. Eleven issues from volume 15(2) to volume 26 published annually from 2002 – 2012 were analyzed using bibliometric method. The full contents of all the articles except articles in Tamil were analyzed. Tamil articles were taken in to consideration

India (93.91%) others (6.03%) were from others countries (Thanuskodi, 2012).

A study examined 5 Journals from 2005-2009 of Library Philosophy and Practice which had a short history of 12 years. 249 articles published during the period of study. The Maximum number of contributions was single authored with 31.32%. Highest number of articles was in the area of computer application in LIS. 96.85% articles contained journals, books, conference proceedings and dissertations as the references. (Thanuskodi, 2010).

Eighteen issues of Sri Lanka Library Review published during 1985-2001 were analyzed. There were 106 articles; 96, 8 and 2 in English, Sinhalese and Tamil languages respectively. The articles published did not grow steadily and rapidly. Maximum number of articles was published in 1996 and 1997 being nine (9). All articles were single authored. Many articles (58) had 6-10 pages. One articles had 21-25 pages. In citation analysis there were 32 articles with no references. The maximum number of citations being 50 was found in one article. There were 104 references in all 106 articles. This did not seem a positive trend. Authors have used more books than journal articles as their reference tool. After 1998 only authors started citing www. URLs. (Perera and Talagala, 2003).

when examining the year wise and language wise distribution of articles, authorship patterns of articles, author productivity, professional positions and affiliations of authors, list of productive authors and length of each article. Tamil articles excluded from subject analysis, analysis of methodology &



data collection method. The LIS topics and classification of research strategy and data collection method adopted by K. Jarvelin and P. Vakkari (Jarvelin and Vakkari, 1990)

in their study of content analysis of journal articles in Library and Information Science in international journals was used for this study. (Appendix 1, 2 & 3)

Findings

1. Publishing Patterns

The journal was supposed to be a biannual publication earlier (Perera & Talagala, 2003). But this study revealed that it has been an annual publication from 2002 up to date. Only in 2002 publication was

classified as Volume 15(2) & Vol.16 (1). But there was no issue as volume 16 (2). From 2003 to 2012 volume 17 to volume 26 were annually published. 2010 issue was named as “Golden jubilee Issue”.

2. Year wise and language wise distribution of Articles.

There were 87 articles in 11 issues. The Table 1 and figure 1 show the number of total articles and distribution of articles in 3 languages; English, Sinhalese and Tamil in each year. The maximum number of articles, being 13 was published in 2009. The second rank was in 2010 with 12 articles. Mrs.

Suwarna Jayatilaka was the publication officer of these two issues. There was no significance growth pattern of articles from 2002-2012. There was a significance decline in 2011.

Table – 1 Year wise and language wise distribution of Articles

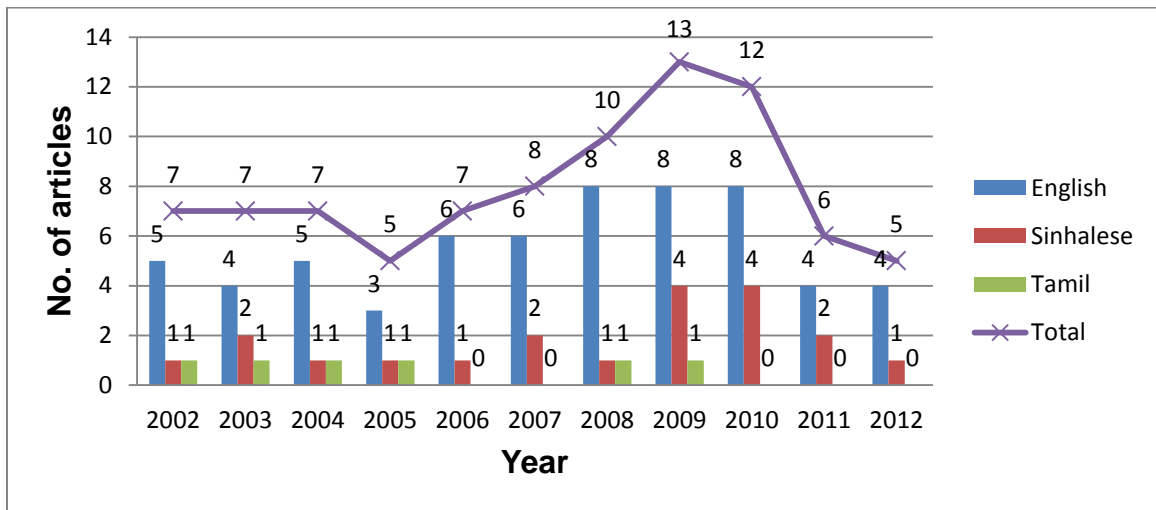
Year	Volume No.	No. of Articles	No. of articles in Different Languages		
			English	Sinhalese	Tamil
2002	15(2)&16(1)	7	5	1	1
2003	17	7	4	2	1
2004	18	7	5	1	1
2005	19	5	3	1	1
2006	20	7	6	1	0
2007	21	8	6	2	0
2008	22	10	8	1	1
2009	23	13	8	4	1
2010	24	12	8	4	0
2011	25	6	4	2	0
2012	26	5	4	1	0
Total	11 issues	87	61	20	6



There was no consistency in appearing articles in different languages. Many articles were of English language (70%). In each year there was at least one Sinhalese article. There were no Tamil articles in some years. All together there were only 6 Tamil

articles. These were authored by Mr.M.B.M. Fairouz attached to Department of Senses and Statistics in Sri Lanka (4/6) and Ms.T.Sritharan (2/6) attached to National Library and Documentation Services board.

Figure 1. Year wise and language wise distribution of Articles



3. 1 Authorship patterns of articles. (Number of authors per publication)

Figure 2- Total Authorship patterns during the period 2002-2012

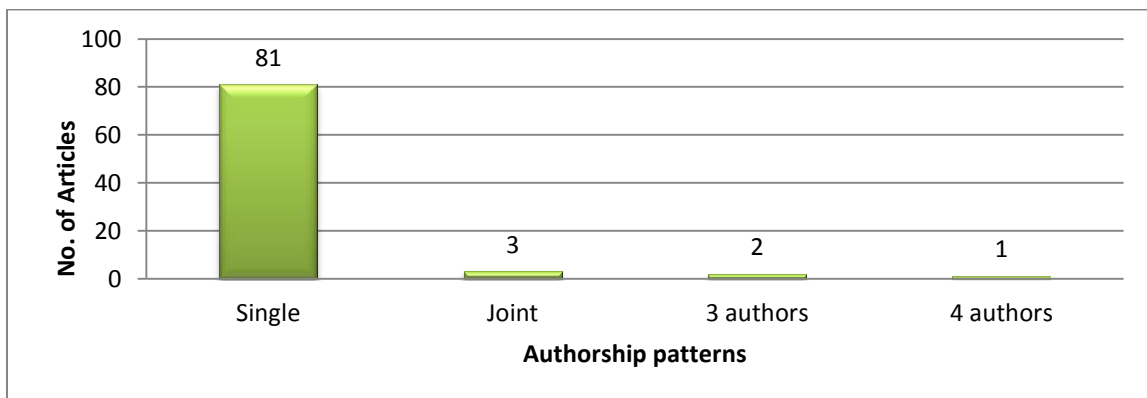


Table 2 & figure 2 presents the authorship patterns of articles. Single authorship is predominant with 81 articles.

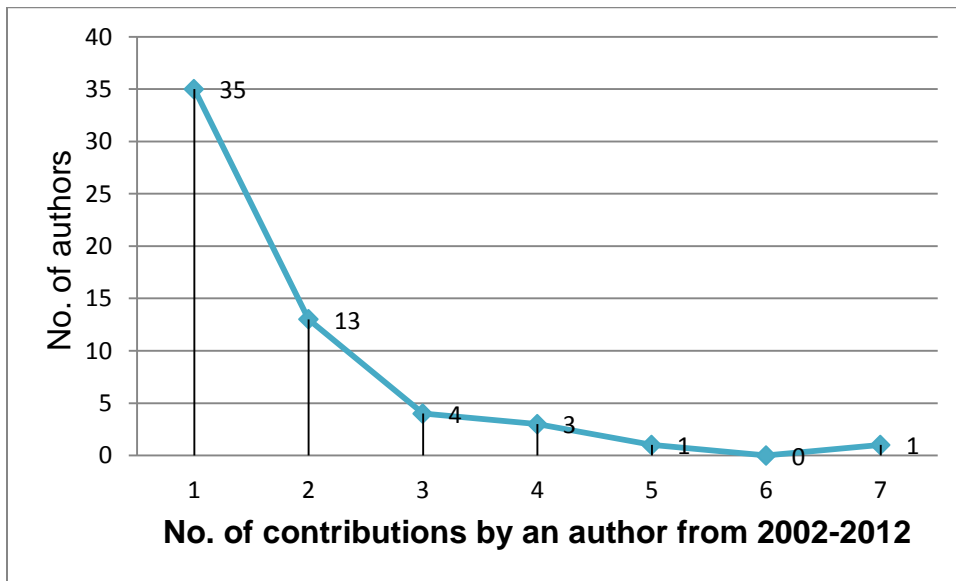
Table 2 – Distribution of Articles under each authorship patterns



Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	
No. of articles in each authorship	Single	7	5	7	5	6	7	9	13	12	6	4
	Joint	-	2	-	-	-	-	-	-	-	-	1
	3	-	-	-	-	1	-	1	-	-	-	-
	4	-	-	-	-	-	1	-	-	-	-	-

3.2 Author Productivity

Figure 3- Author productivity



The figure 3 above displays the number of authors contributed to different number of articles during 2002-2012. The total number of authors contributed to 87 articles was 57. The maximum number of articles

contributed by an author during the period was 7. 37 authors have contributed to single article each. 12 authors have contributed 2 articles each.



3.3. Professional positions and affiliations of authors.

Table 3 presents the number of authors under various positions and different affiliations. The majority was attached to universities in Sri Lanka.

Table 3- Author's positions and affiliations

Professional positions	Affiliations	No.of Authors	No.of contributions
Librarians/Senior Asst. Librarians	Universities in Sri Lanka	23	43
Lecturers/Senior Lecturers	Universities in Sri Lanka	4	6
LIS members bearers	Attached to SLLS	3	5
LIS professionals	Government or non government organizations	17	32
LIS para professionals	Government or non government organizations	1	1
Other professionals	Government or non government organizations	4	5
Foreign authors	Attached to foreign universities	4	4
LIS qualified writer	-	1	1

3.4 List of Productive authors

Table 4- List of Productive authors

Rank	Name of the author	Positions and affiliations	No.of articles
1	Mr. N.U. Yapa	Librarian or retired Librarian-International Water Management institute	7
2	Dr. Ruwan Gamage	Senior Asst. Librarian-University of Moratuwa	5
3	Dr. Pradeepa Wijetunga	Senior Asst. Librarian University of Colombo/ Librarian University of Peradeniya	4
3	Mrs. Sriyani Illeperuma	Senior Asst. Librarian, University of Peradeniya	4
3	Mr. M.B.M. Fairouz	Librarian, Senses & Statistics Department, Colombo	4
4	Mr. R.D. Ananda Tissa	Senior Asst. Librarian, University of	3



		Kelaniya	
4	Prof.Piradasa Ranasingha	Senior Lecturer, University of Kelaniya	3
4	Ms. Dolitha Andradi	Librarian, Judge's library, Supreme court, Colombo	3
4	Mrs.Dilmini Warnasooriya	Head- Information service centre, Industrial Technology Institute	3

Mr. N.U. Yapa who is not with us today was the eminent author during this period. He has continuously contributed one article each form 2002- 2008. If his demise not occurred in 2009 he would have contributed some more. At this juncture the researcher expresses a great salutation and appreciation to him.



4. Subject wise distribution of articles

Many articles fell in to “other LIS topics” Next rank was under the subject “profession” with 10 articles.

Subject	Year											Total
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	
Profession	1	-	1	1	1	-	2	2	1	-	1	10
Library history	-	-	-	1	-	-	-	-	1	-	1	3
Education in LIS	1	-	-	-	-	-	-	-	1	3	-	5
Library & Information service activities	-	-	1	-	-	1	-	-	1	1	-	4
Collections	-	-	-	-	1	-	-	-	1	-	-	3
Information or reference services	1	-	-	-	-	-	-	-	-	-	-	1
User education	-	-	-	-	-	-	-	-	1	-	-	-
Automation	-	-	1	-	-	-	1	-	-	-	-	2
Other library & information service Activities	1	-	-	-	-	1	-	1	1	1	-	4
Cataloguing	-	-	-	-	-	-	-	1	-	-	-	1
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Classification & Indexing	-	-	-	-	-	1	-	1	1	-	-	3
Bibliographic databases or bibliographies	-	-	-	-	1	-	1	-	-	-	-	2
Information seeking	-	-	-	-	1	-	-	-	-	-	-	1
The use and users of Information channels and sources	-	-	-	1	-	1	-	-	-	-	2	4
Information seeking behavior-persons	-	-	-	-	1	-	-	-	-	-	-	1
Information use	-	1	1	-	-	1	1	-	-	-	-	4
Information Managements	-	-	-	-	1	2	1	1	-	-	-	5
Scientific & professional communication	-	1	-	-	-	-	-	-	-	-	-	1
Scientific & professional publishing	-	-	1	-	-	-	-	-	-	-	-	1
Citation patterns and structures	-	-	-	-	-	-	-	-	1	-	-	1



Other LIS topics (not covered by above)	2	4	1	1	1	1	3	5	3	1	1	23
Total	6	6	6	4	7	8	9	12	12	6	5	81

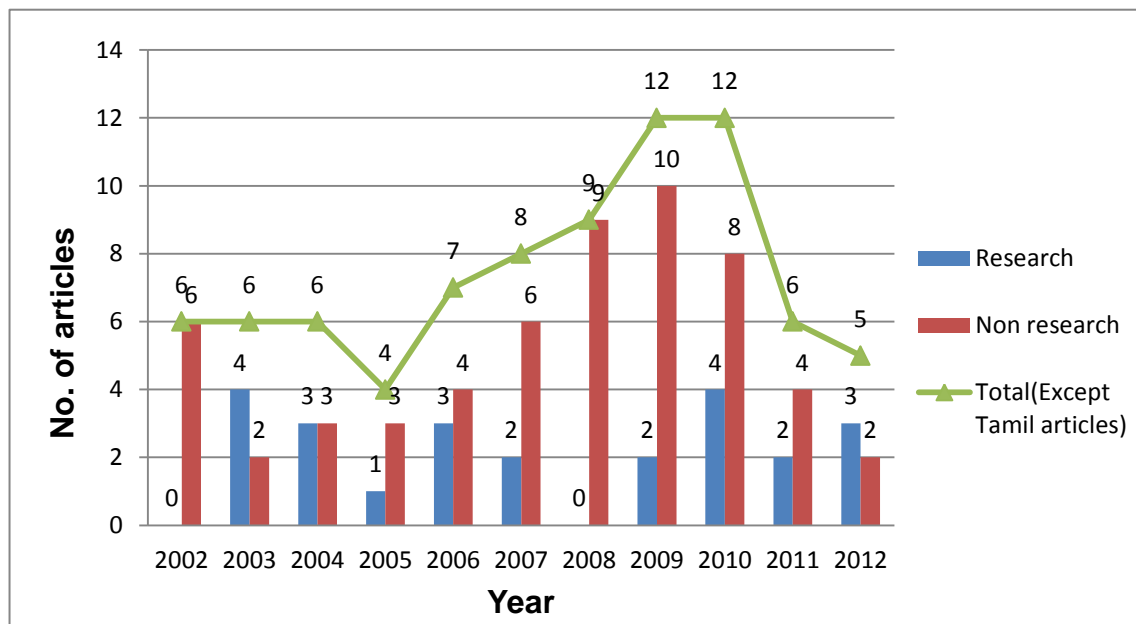


5. Distribution of articles by type of articles

All the articles except articles in Tamil language were categorized by the researcher in to two major types; research articles and non-research articles. A research article is based on a research carried out systematically following a series of

steps and a rigid standard protocol. The distribution of 2 types of articles was shown in Figure 4. There were 81 articles; 24 research articles and 57 non research articles.

Figure 4. Distribution of articles by type of article



7. Research strategies and data collection methods of research articles.

Table 6 display the different types of research strategies and data collection methods of 24 research articles appeared during the period 2002-2012. Survey

strategy was prominent with 14 articles. Out of 14 surveys the main data collecting method was questionnaire only with 7 articles.

Table 6- different types of research strategies and data collection methods

Research strategy	Data collection method	No. of articles
Historical	Historical source analysis	2
Survey	Questionnaire only	7
Survey	Other method(Sweep method)	2
Literature review	Content analysis	2



Survey	Several methods(questionnaire + interview)	2
Survey	Several methods (questionnaire+ interview+observation)	2
Bibliometric method	Citation analysis	1
Case study	Several methods questionnaire + interview+observation+ other	3
Survey	Use of data collected earlier	1
Bibliographic method	Use of data collected earlier	1
Bibliometric method	Content analysis	1

8. Length of articles

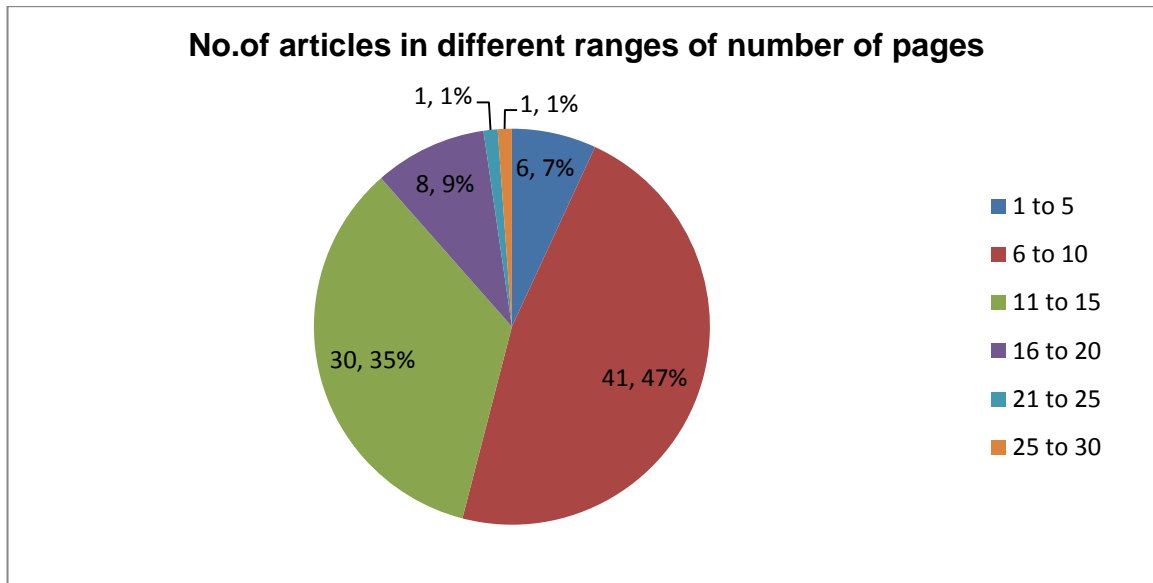
The table 7 and figure 5 shows the number of articles falling in to different ranges of lengths in each year. The majority; 41 articles were in the range of 6-10 pages. The maximum number of pages was 28 pages with one article in 2007.

Length of articles varied from pages 3 to pages 28. Thirty articles (35%) were in the range of 11-15 which is average range of number of pages of a well balanced article. (Single spaced)

Table 7- Year wise distribution of articles according to the length of article

Year	Number of articles under each range of number of pages					
	1-5	6-10	11-15	16-20	21-25	25-30
2002	1	1	3	2	0	0
2003	0	3	4	0	0	0
2004	1	2	4	0	0	0
2005	0	3	0	2	0	0
2006	1	1	3	1	0	1
2007	0	3	4	0	1	0
2008	1	4	4	1	0	0
2009	0	10	3	0	0	0
2010	2	7	2	1	0	0
2011	0	3	2	1	0	0
2012	0	4	1	0	0	0
Total	6	41	30	8	1	1

Figure 5- Distribution of total articles in the period according to the length of article



Conclusion

It was found that SLLR has been an annual publication since 2002. Out of total articles (87) in 11 issues 61 were in English language. Others were in Sinhalese (20) and Tamil (6). Maximum number of articles (13) published in 2009. Single authorship was predominant with 81 articles. Three articles were jointly authored. Two and one were authored by 3 and 4 authors respectively. Mr. N.U.Yapa had contributed to maximum number of articles (7). 35, 13 and 4 authors had contributed to 13,4,&3 articles each.

Many authors (27) were from universities in Sri Lanka. Many articles (23/81) were under” other LIS “topics. Next rank was under “Profession” with 10 articles. The majority (41) of articles were in the range of 6-10 pages .There were 24 research and 57 non research articles. 14 research articles were based on surveys. The data collection methods of surveys were diverse but prominent was the questionnaire method with 7articles.

Recommendation

Analysis revealed that number of contributions from LIS professionals in universities in Sri Lanka was high (43/97). BLS, Phd, Masters and SLLA students in LIS, Lecturers and teachers in LIS and paraprofessionals in LIS should be encouraged to contribute to their knowledge to SLLR. The editors should concern to get more high quality research articles contributed to

development and advancement of the LIS literature. Full articles may be of 11-15 rage of pages. The editorial board should categorize the articles on the average length of the article as full articles and short communications etc so that juniors in LIS will start writing with short communications. It would be better to get maximum of 12-15 full articles per issue.



References

1. Isiakpona, Chidi. Deborah. (2012). Bibliometric Analysis of the Library and Information Science Research Electronic Journal from 2004 to 2010. *Library Student journal* [Online] (international · peer reviewed · open access). URL:<http://www.librarystudentjournal.org/index.php/ljsj/article/view/301/360> Accessed on 25-09-2012
2. Jarvelin, k and Vakkari, P. (1990). Content analysis of research articles in library and information science. *Library and Information Science*, 12, pp 395-421
3. Jene, K.L, Swain, D.K. and Sahoo, K.C. (2012). Annals of Library and Information Studies, 2002–2010: A Bibliometric Study. *Library Philosophy and Practice* 2012[Online]
4. Librametric, Bibliometric, Scientometrics, Informetrics. (2012). Free online UGC NET/ SET/ SLET Guide in Library and Information Science [Online] (URL: <http://www.netugc.com/librametric-bibliometric-scientometrics-informetrics>) Accessed on 25-09-2012
5. Perera, Nanda and Talagala, Deepali. (2003). Sri Lanka Library Review (New Series): A bibliometric Analysis. *Sri Lanka Library Review*, 17, pp. 41-51
6. Pritchard, A. (1969). Statistical bibliography or bibliometrics. *Journal of documentation*, 25(4), pp.348-349 [Online] URL:http://www.academia.edu/598618/Statistical_bibliography_or_bibliometrics Accessed on 25-09-2012
7. Thanuskodi, S. (2010). Bibliometric analysis of the journal Library Philosophy and Practice from 2005-2009. *Library Philosophy and Practice* [Online] URL:<http://www.webpages.uidaho.edu/~mbolin/thanuskodi-lpp.htm> Accessed on 26-09-2012
8. Thanuskodi, S. (2012). Bibliometric Analysis of *DESIDOC* Journal of Library & Information Technology. Book Chapter. Tella, A. and Issa, A.O. (2011)Library and Information Science in Developing Countries: Contemporary Issues. IGI Global. Hersey [Online] URL:<http://www.igi-global.com/chapter/bibliometric-analysis-desidoc-journal-library/60813> Accessed on 26-09-2012
9. Wanasundara, Nanda P. (2010). The 50th Anniversary of the Sri Lanka library Association (SLLA): 1960 – 2010. *Sri Lanka Library Review*, 24, pp. 1-5
10. Young, Heartsill and Belanger, Terry. (1983). The ALA Glossary of Library and Information Science. Ediciones Diaz de Santos [Online] URL:http://books.google.ca/books/about/The_ALA_glossary_of_library_and_informat.html?id=0drtLloSlnAC Accessed on 25-09-2012



Appendix 1- Classification Scheme of Topics of Jarvelin & Vakkari

Jarvelin, k and Vakkari, P. (1990). Content Analysis of Research Articles in Library and Information Science. *Library and Information Science*, 12 p 395-421

Professions	Buildings or facilities	<i>Research on information seeking</i>
Library history	Administration of planning	Study on Information dissemination
Publishing and book history	Automation (except when concerned with some particular activity)	The use/users of information channels/sources
Education in LIS	Other L&I service activities	The use of L&I services (no other channels considered)
Methodology	Several interconnected L&I activities	Information seeking behavior (focus on persons)
Analysis of LIS	<i>Research in IS&R</i>	Information use (whether (and how) used)
L&I service activities	Study on Cataloguing	Information management
Circulation or interlibrary loans	Classification and indexing (process or languages)	Research on scientific and professional communication
Collections	Information retrieval	Study on Scientific or professional publishing
Inf. or ref. service	Bibliographic databases or bibliographies	Citation patterns and structures
User education	Non bibliographic data bases (textual, numeric..)	Other aspects of communication
		Other LIS Topic

Appendix 2- Classification Scheme of Research strategies of Jarvelin & Vakkari

Empirical research strategy	Conceptual research strategy
Historical method	Verbal argumentation, criticism
Survey method	Concept analysis
Qualitative method	Mathematical or logical method
	System/software analysis/design
Evaluation method	Literature review
Case or action research method	Discussion paper
Content or protocol analysis	Bibliographic method
Citation analysis	Other method
Other bibliometric method	
Secondary analysis	
Experiment	
Other empirical method	



Appendix 3- Classification Scheme of Data collection methods of Jarvelin & Vakkari

- Questionnaire
- Interview
- Observation
- Thinking aloud
- Content analysis
- Citation analysis
- Historical source analysis (primary and secondary sources)
- Several methods of collecting
- Use of data collected earlier
- Other method of collecting