AWARENESS AND USAGE PATTERN OF LITERATURE MANAGEMENT TOOLS AMONG FACULTY AND RESEARCH SCHOLARS: A SURVEY

Mahendra K. Sahu*

Abstract *Literature management tools are very important application software to make the academic assignment much easier. It helps the user to manage the entire process of the research work with ease. The main objective of the paper is to know the awareness level and the usage pattern among the faculties and research scholar of Odisha. The study also identifies the perception among the faculties and research scholar in regards to the usefulness of those tools as well as the available sources from where they could learn about those tools. In this connection a case study has been conducted from the faculties and research scholar at the selected university of Odisha. Apart from the 225 questionnaire distributed, 188 responses were obtained from the faculties and research scholar.*

Keyword: *Literature Management Tools, Important of LMT, Data Analysis & Data Interpetion*

INTRODUCTION

Literature is a collected creative writing about nature, people, group or culture, which often seen in most of the academic field. It is a high standard fiction writing on a particular subject and published in the form of a book, journal, magazine, proceedings,etc. Writing literature involves documentation of resources in the form of searching information, archiving them and then generate bibliographic references such as, references, citations, footnotes, end notes, etc.. The rapid growth of the information and communication technology majority of sector has been affected and academic research is not abandoning from it. In the present era, a research scholar writes a paper on a particular topic most of the most of the resources can be found in online. Since library catalogues have come online, research scholar has been trying to establish a logical and efficient method of keeping track of resources and references by means of bookmarking, copying and pasting to relevant format, saving URLs through email, and printing hard copies for annotation. None of these, however, have been efficient when it comes to organizing academic literature. The appearance of the web and the rising of online publishing have given birth to a new class of web application called literature management tools. It is an online application, which enable researchers to organize and manage huge volumes of resources in a systematic manner by means of searching a relevant document, archiving, conducting online surveys, plagiarism checking and generates bibliographic information. There are varieties of tools available, which suited the different function of academic literature. The main purpose of this study was to establish the amount to which authors are using literature management tools to produce systematic academic literature, recognize which web applications are used most frequently and rate their ease of use, and evaluate the degree to which software usage is documented in published studies.

WHAT IS LTM

A literature Management Tools are a set of application software which supports the academic research in terms of searching scholarly publication generates citation, creating online surveys, plagiarism checking, etc. In the digital era, most of the scholars are depending up on the scholarly publication and this LMT helps them to make their research with ease and most qualitative. There are varieties of software available both free and commercial depending upon the process of academic writing. Google, Knimbuz, Wikipedia, etc., are some of the famous searching engine tools. Similarly, Mandeley, Zotero Endnote, Google Scholar are most accepted LMT by the researchers, which help them to archiving the scholarly publishing and generating citation from it. There are other archive tools like, Dropbox, Google Drive, etc,, helps to preserve and access information as and when if an internet connection is available. Google drive, surveymonkey.com are some popular online survey tools allows user to create professional survey online. The final process of the research is plagiarism checking, tools

* Librarian, Gandhi Group of Institutions, Gunupur, Odisha, India. Email: sahumahendrak9@gmail.com

like Plagiarisim Checker, SEO tools, Turnitin, etc., helps the user to detect automatically and efficiently duplicate content analysis.

Important of Literature Management Tool

LMT is an essence of the world wide web, for conducting research online. It creates conversations between researchers, allow them to analysis their innovation and connects them with others. The followings are some of the key features of LMT.

- Creating and sustaining research
- Collaborations and discovering
- Analyzing, processing, publishing
- Archiving and sharing research data and information.
- Integrating with people, laboratories, workplaces,
- Plagiarism checking
- Information sources together
- Organize & Annotate
- Cite anywhere
- Creating online survey
- Access information anywhere online
- Read the papers on the go, with our new iPhone app

LITERATURE REVIEW

(Ram, 2014) in his study defines that there is a need for strengthening the awareness of BMS at the institutional level and also hands-on experience is needed for library professionals to help in the process of research writing and advocate for adopting correct referencing style (citation style) while writing scholarly articles. The study was conducted through an online survey with an aim to assess the perception, awareness and use of BMS by the Library and Information Science (LIS) professionals in India (Alhoori, 2011) Carried out a study with a goal to take in more about the dynamic information needs, information seeking behavior, utilize of information and other of insightful activities of researchers. He emphasized on the collaborative and social usage and on the social reference managers. He compared the current practices and strategies of scholars and researchers from multidisciplinary research areas. The findings give valuable insights and augment the understanding of how the social web is having a significant effect on the current researchers' activities and digital libraries. (Haglud, 2008) has performed an observational study was at three colleges in Stockholm, Sweden.to better comprehend the information needs of young researchers of the university. The perceptions revealed that the greater part of the researchers utilized Google for everything, that they were confident that they could manage all alone, and that they depended vigorously on immediate access to electronic information. They had very little contact with the library, and little knowledge about the value librarian competence could add. One important conclusion of the project is that librarians have to leave the library building and start working in the research environment, as well as putting some thought into the fact that library use is considered complicated, but Google (etc.) is easy. The findings of this project will impact changes in library services in both near and in a more distant future.(Francese ,2012)in his paper presents an an online survey taken in May 2011 at Tallinn University (TLU , Estonia, planning to determine the use of Reference Management Software (RMS) in a scholarly environment. The simple grasps the entire corpus of TLU researchers: PhD understudies, scientists, instructors.(Childress,2011) in his paper describes in recent years libraries have seen an increase in the number and complexity of citation management programs like Zotero, RefWorks and Endnote, and with this an expanded role for libraries in support of citation and research management.(East, 2001)in his survey on websites of Australian universities, the author gives an outline of the level of level gave by libraries and different departments inside in Australian universities for users of the EndNote individual bibliographic tools. The ramifications of these support activities are quickly conversed from a library administration point of view. (Fitzgibbons,2010) identified in his survey that the use of bibliographic management software and its internal search interfaces is now pervasive among researchers. In his study compares the results between searches conducted in academic databases' search interfaces versus the EndNote search interface. The results show mixed search reliability, depending on the database and type of search performed.(McGrath ,2006) setup a small scale pilot project to investigate whether the introduction of web-based bibliographic software at King's College London would prove useful to undergraduate and taught postgraduate students, and to establish the support and training requirements. Customization of the interface and extensive local preparation aimed to make the service as easy to use as possible, and to test whether it could be used successfully with the minimum of extra training. He revealed a high degree of satisfaction with the service. Some would have liked specific training, but many were happy to receive support in a variety of different ways.

AIMS AND OBJECTIVE OF THE STUDY

The primary objective of this study is to gather practical knowledge about the various literature management tools among the faculties and research scholars in odisha. The details objectives of the study are formulated below.

- To know the awareness level among the Faculties and research scholar while using online tools for literature management and their application.
- To access the frequency of use of literature management applications among faculties and researcher scholar.
- To understand the usage pattern of different literature management tools using for Academic literature
- To evaluate the perception of faculty and research scholar towards usefulness of literature management applications.
- To evaluate the source of knowledge of faculty and research scholar to learn about literature management tools.

METHODOLOGY

In the current environment literature management tools play an important role while writing various types of academic assignment i.e. articles for journal, conference. Dissertation, Patent,etc., The increase number of scholarly journal led the literature management tools more popular and there are many kinds of LMT are available for managing the academic writing. To define which tools are most relevant ant most potential, while writing of academic assignment a survey has been conducted on literature management tools. An online questionnaire was designed and distributed among the selected faculties and research scholar in Odisha belongs to Social science and management background. Various methods have been deployed to analysis these questionnaires.

SAMPLE AND DATA COLLECTION

A pilot survey was conducted on the research scholars and faculties' related to social science and management background of odisha. For which online question was designed and distributed to respondents, comprises of faculties and research scholars. Descriptive approach was imposed to deep analysis the study. There were six open ended questionnaires were designed in this survey and most of the questions were multiple dichotomous. Survey monkey.com was adopted for design the questionnaire, which established one of the most popular online tools available free and user friendly in the current environment. The final questionnaire was prepared in the mid of April and distributed to the pupils through e-mail, social network and various forums. Data was collected anonymously via email without connecting to the pupil. There was an additional format was given to know their consent to participate the training / workshop on Literature Management Tool, if arranged in the future. Most of the pupil were shown their interested to participate such program.

POPULATION OF THE STUDY

There were only 180 respondents comprise of 126 faculties and 54 research scholars was responded the questionnaire. However, from 180 only 116 respondents were aware of the literature management tools. Hence the study was taken only 116 respondents for the analysis.

DATA ANALYSIS

Collected data of the faculties and researchers through questionnaire was tabulated and interpreted by utilizing a simple statical method using SPPS-21. 225 online questionnaires have been distributed by using survey monkey.com application tools. Only 188 pupils have respondend and out of 188 respondents only 116 respondents were aware of the literature management tools.. Therefore the study is confined to 116 respondents only.

Awareness of Literature Management Tools

Table-8.1

	Awareness of LMT	
Designation	Respondend	Frequency
Professor	57	32
Asso. Prof	46	29
Assist. Prof	43	26
Scholar	42	29
Total	188	116

Respondents were asked about the awareness of Literature Management tools, the above table-1 depicts that (116, 62%) out of 180 respondents were aware of LM tools out of which the most (32, 17%) professor, (29, 15%) Asso. Prof and Research scholar and (26, 14%) Assist prof were aware of the literature management tools.

Frequency of use LMT

In order to know the frequency of most three used LMT by researchers and faculties, table-8.2 revealed that highest sum is 297 and the mean is 2.5603 Google used most frequency followed by SEO Tools (mean-2.2069,sum= 256) and Survey monkey.com (mean-2.1983,sum= 255) respectively.

Table-8.2

Frequency of use LMT					
LMT	**Never**	**Some Time**	**Frequently**	**Mean**	**SUM**
Google	11	29	78	2.5603	297.00
Wikipedia	44	26	46	1.9828	230.00
Google Scholar	33	51	32	1.9914	231.00
Mandeley	53	38	25	1.8534	215.00
Zotero	62	29	25	1.7759	206.00
Endnote	107	5	4	1.1121	129.00
Knimbuz	78	12	36	1.5517	180.00
Google Drive	54	28	34	1.7759	206.00
Google Doc	58	28	30	1.7586	204.00
Survey Gizmo	100	9	7	1.1983	139.00
Survey Monkey.com	28	37	51	2.1983	255.00
Form Site	95	16	5	1.2241	142.00
Dropbox	41	24	35	2.0862	242.00
CiteUlike	76	21	19	1.5086	175.00
Bibme	82	14	20	1.4655.	170.00
Dupli Checker	96	10	10	1.2586	146.00
Plagiarism Checker	80	15	21	1.4914	173.00
Turnitin	101	4	11	1.2241	142.00
SEO Tools	33	26	57	2.2069	256.00

Usage Pattern of LMT

To know about the usage pattern of the respondents to words different LMT for their academic research, 4 questionaires were designed and distributed among the respondents according to the tools they used.

What Tools do You Use Mostly, While Searching of Relevant Document?

Search the relevent document			
LMTools	Respondend	Search	%
Google	116	107	92.24%
Google Scholar	116	83	71.55%
Wikipedia	116	72	62.07%
Mendely	116	45	38.79%
Zotero	116	44	37.93%
Knimbuz	116	48	41.38%
CiteUlike	116	32	27.59%

A questionnaire has collected about the tools used for searching relevant research document, the above table 3.1 presents that most (107, 92%) respondents have been using Google search engine for search relevant document followed by (81. 71.55%) Google Scholar, (72, 62.07 %) Wikipedia,(45, 38.79%) Mendely, (44. 37.93%) Zotero, (44, 37.93%) Knimbuz and (32,27.59%) CiteULlike.

What tools do you use mostly for archiving the document?

Table-8.3.2

Archive Document		
LMTools	Frequency (n=116)	%
Mandely	63	54.31%
Zotero	54	46.55%
Knimbuz	41	35.34%
CiteUlike	40	34.48%
Google Drive	62	53.45%

The above table-3.2 revealed that the highest (64, 54.31%) of respondents have been using Mandalay tools followed by (54, 46.55%) Zotero , (41, 35.34%) Knimbuz, (40, 34.48%) CiteUlike and (62,53.45%) have been using Google Drive for archiving the research document

Tools use for Online Survey

Table-8.3.3

Survey (Online)		
LMTools	Frequency (n=116)	%
Survey monekey.com	88	75.86%
Google doc	58	50.00%
SurveryGizmo	16	13.79%
FormSite	21	18.10%

Online survey tools help the users to create surveys with ease. In this regards table-3.3 depicts that (88,75.86%) respondents have been using Survey Monkey.com tools, whereas (58,50%) Google.doc, (21,18.10%) FormSite and (16, 13.79%) respondents have been employed SurveyGizmo tools.

Tools for generating citation and bibliographic references?

Generating citation and reference are mandatory for any kinds of publication and research work, i.e Book, Journal, PhD thesis,Patent,etc. Using online citation / reference management tools make user easy to generate bibliography information in different formats. In this connection questionnaire were asked to all respondents in this survey. Table-3.4 depicts highest (63,54.31%) respondents are using Mandeley tools. While Zotero (54,46.55%), Knimuuz (41, 35.34%), CiteUlike (40,34.48%) and (9,7.76%) respondents are using Endnote to generate bibliography information for their research work.

Table-8.3.4

Used tools for Generating Citations & References		
Tools	Frequency (n=16)	%
Mendeley	63	54.31%
Zotero	54	46.55%
EndNote	9	7.76%
CiteUlike	40	34.48%
Knimbuz	41	35.34%
Bibme	34	29.31%

Table-8.4. Perceived of LMT application into academic assignment by respondents

LMT	Not useful	Strongly not useful	Neutral	Useful	Strongly Useful	Test Value = 0 t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		Rank
	5	4	3	2	1					Lower	Upper	
Google	11	12	10	40	43	31.370	115	.000	3.7931	3.5536	4.0326	3
Wikipedia	12	14	22	40	28	29.721	115	.000	3.5000	3.2667	3.7333	9
Google Scholar	14	13	21	35	33	28.375	115	.000	3.5172	3.2717	3.7628	8
Mandeley	9	11	14	39	43	33.084	115	.000	3.8276	3.5984	4.0568	1
Zotero	13	14	20	29	40	28.385	115	.000	3.5948	3.3440	3.8457	6
Endnote	15	12	29	31	29	27.813	115	.000	3.4052	3.1627	3.6477	12
Knimbuz	13	12	28	29	39	28.522	115	.000	3.5345	3.2890	3.7800	7
Google Drive	21	17	25	28	25	24.313	115	.000	3.1638	2.9060	3.4216	16
Google Doc	14	16	22	32	32	27.570	115	.000	3.4483	3.2005	3.6960	11
Survey Gizmo	21	17	19	27	32	24.066	115	.000	3.2759	3.0062	3.5455	13
Survey Monkey	10	11	14	38	43	32.158	115	.000	3.8017	3.5676	4.0359	2
Form Site	17	21	31	28	19	25.800	115	.000	3.0948	2.8572	3.3324	18
Dropbox	14	18	29	38	17	28.216	115	.000	3.2241	2.9978	3.4505	14
CiteUlike	16	14	46	19	21	27.010	115	.000	3.1293	2.8998	3.3588	17

Bibme	19	15	39	23	20	25.649	115	.000	3.0862	2.8479	3.3245	19
Dupli Checker	14	14	24	33	31	28.038	115	.000	3.4569	3.2127	3.7011	10
Plagiarism Checker	16	21	24	31	24	25.934	115	.000	3.2241	2.9779	3.4704	15
Turnitin	11	13	14	39	39	30.736	115	.000	3.7069	3.4680	3.9458	5
SEO Tools	12	11	15	35	43	30.386	115	.000	3.7414	3.4975	3.9853	4

Perceived of LMT Application

Individual opinion received from the respondents about the usefulness of LMT in an academic assignment. To rank the opinion, 5 point likert's scales used with one sample T test formula imposed for analysis the descriptive data.

The table-8.4 represents that the highest T-value & confidence level among the above tools are 33.084 and 4.0568 respectively. Hence, it is found that Mandeley is placed top between the table, followed by Surveymonkey. com, Google and so on.

Source of Knowledge

Table 8.5

Source	Respondent (n=116)	%
Worshop/ Seminar	47	40.51%
Self Study	26	22.41%
Interaction with other staff	17	14.10%
On Job experience	26	22.41%

A questionnaire were asked to the 116 respondents about the source of knowledge of literature management tools, the most (47,40.51%) respondents recorded that workshop/ seminar was the major source of knowledge about the literature management tools. Similarly, (26, 22.41%) each were self study and on the job experience respectively and interaction with other staffs (17, 14.10%) were indicated by very few respondents as their major source of knowledge about literature management tools.

Interested to Participate in the Training Programee of LMT

Table 8.6

Designate	Respondents	Interested to participate
Professor	57	45
Asso.prof	46	39
Asst.Prof	43	38
Scholar`	42	32

Table-8.6 represents that most of the respondents are interested to participate the training programee of Literature Management Tool if arranged in the future.

FINDING & SUGGESTION

It is found from the study, most of the faculty members are aware of the literature Management Tool then the students. It is the responsibility of the faculty members to teach their concerned students about the tools. They should conduct the awareness programme of LMT very often.

Most of the respondents are using frequently Google for searching the relevant contents, SEO tools for plagiarism Checking and Survaymonkey.com for online survey. There are few less respondents are using frequently citation management tools like, Mandeley, Zotero, Google Scholar, etc and other tools like Drop box , Gooogle drive etc.

The Google search engine is most popular LMT for discovering relevant contents among the respondent then other LMT.

In regards to archiving the browsed contents for academic writing, most of the respondents are using Mandeley reference management tools. Mandeley reference management tools are also used by a high number of the respondents for generating citation. SurveyMonkey.com is the popular tool for online survey. Similarly, more respondents are using SEO tools for checking the plagiarism.

It is found that most of the respondents are keen to participate in the training / workshop, conduct on the Literature Management Tools in the future.

From the above study, it is found that there are different kinds of application tools having their own attributes, helps the researcher to manage their academic assignments most organized and efficient manner. It is also found that there are not any specific application tool having all the characteristics of the different tools. Therefore, it would be better to develop a new tool having all the quality and characteristics of the academic writing process, which make the user not to rely upon the different application tool.

CONCLUSION

The rapid use of ICT in the area of scholarly writing, particularly in the archive, search and retrieval of scholarly

publication and the widely accessibility of electronic journals and books, have brought about an increased number of research articles being composed of research scholars. The use of LMT helps to generate academic literature in an organized, systemic and disciplined way. It is the responsibility of the faculties and researcher to advocating and practicing the various LMT to make their academic assignment more streamline. The disadvantage to this excess of scholarly writing is the wrong way of utilizing referencing style in the distribution of research and the likeliness of plagiarism and misconduct. Hence, this study boost in making awareness of the value of LMT in content writing, especially among the professional of Social science and management background.

REFERENCES

Trivedi, D., Martins, R. N. (2011). New lexicon and criteria for the diagnosis of Alzheimer's disease. *Lancet Neurology, 10*(4), 299-300.

East, J. W. (2001), Academic Libraries and the Provision of Support for Users of Personal Bibliographic Software. *LASIE, Library Automated Systems Information Exchange,* 32(1) 64-70.

Fitzgibbons, M., & Meert, D. (2010). Are bibliographic management software search interfaces reliable?, *The Journal of Academic Librarianship,* 36(2), 144-150

Francese, E. (2012). The usage of reference management software (rms) in an aca- demic environment?: A Survey at Tallinn University. *Advances on Information Processing and Management* 1,293-296.

Haglund, L., & Per, O. (2008). The impact on university libraries of changes in information behavior among academic researchers: A multiple case study. *The Journal of Academic Librarianship* 34(1), 52-59.

Jisc., Telstar , Technology Enhanced Learning supporting Students to achieve Academic Rigour, Project available at: http://www.jisc.ac.uk/whatwedo/programmes/institutionalinnovation/telstar.aspx http://www.jisc.ac.uk/whatwedo/programmes/institutionalinnovation/telstar.as px (2010). (Accessed on 28th March, (2015)

Lawrence, D., & Ashwell, S. (1993). Reference Management Software. Libraries Can Help You. . .and They Do. *BMJ. British Medical Journal* 3(1), 569.

McGrath, A. (2006). RefWorks investigated: An appropriate bibliographic management solution for health students at King s College London? *Library and Information Research News,* 30(94), 66-73

Olle, C., & Borrego, A, (2010) , Librarians perceptions on the 'use of electronic resources at catalan academic libraries: Results of a focus group. *New Library World,* 111(1) 46-54.

Sahu, M. K., & Mahapatra, R. K. (2014), *Research 2.0*: A useful web platform for academic research, in the proceeding of the paper presented at National conference on academic librarianship in digital era 2014(pp.45-51).

Sahu, M. K. (2015). Citation Management Tools: a use full web gizmo for managing academic research, in the proceeding of the paper presented at a national level seminar (ELPES) organised by NIT, Rourekala during 13-14,feb,2015.

Ram, S., & John Paul Anbu K, (2014). The use of bibliographic management software by Indian library and information science professionals. *Emerld,* 42(3), 499-513

Table-Childress, Dawn, (2011). Citation tools in academic libraries: Best practices for reference and instruction. *Reference & User Services Quarterly,* 51(2), 143-152.