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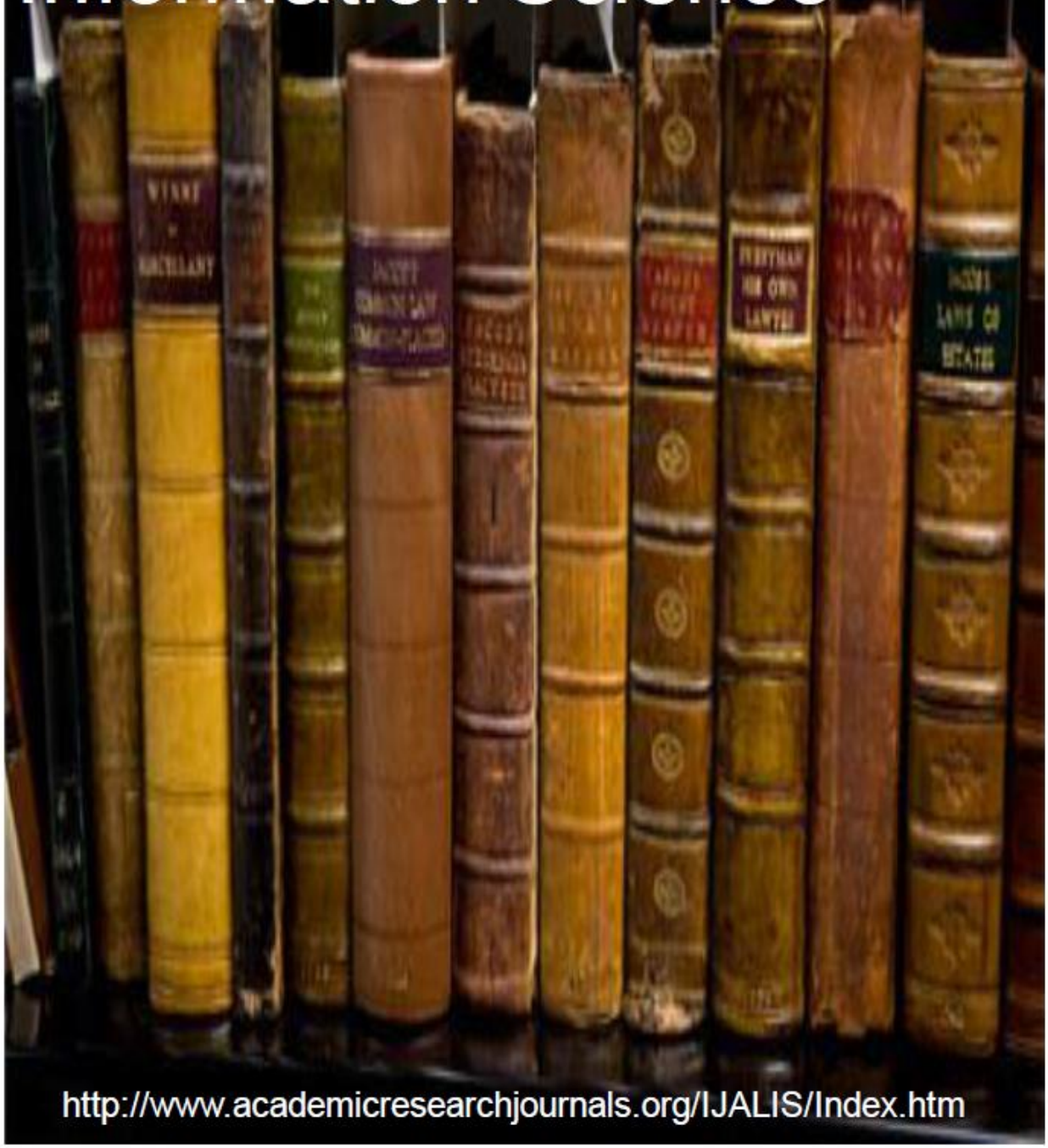

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Full Length Research

Strategic collection development and management for information services in the institutions of higher learning

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The paper examined some basic concepts, objectives and theoretical framework of collection development. It highlighted various strategies by which collection development and management can be actualized and utilized. Challenges affecting effective management and utilization of information services were also considered. The paper made some recommendations such as materials resources should be ordered for library without waiting for accreditation exercise before embarking on acquisitions; Education Trust Fund (ETF) for book intervention should not be divested and should be timely accessed; and librarians in the institutions of higher learning should insist on having a written and functional policy to collection development of information resources. It was also recommended that librarians in the institutions of higher learning should be encouraged to attend professional programmes such as seminars, workshops, and conferences to increase their knowledge on collection development and management towards information resources delivery. Equally, it was also recommended that proper keeping of statistical data of librarians and students will enhance the management of information resources. The preservation and conservation of library resources were discussed and the summary of the study were also provided.

Keywords: Strategic, Management, Collection Development, Collection Management and Information Services.

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INTRODUCTION

Different libraries have different objectives, but all focus to provide the services which users are in needs for. Library operates to meet users' needs which may include usefulness and comprehensiveness, currency, speed, validity and effectiveness (Bakewell, 1997). Libraries acquire and preserve the knowledge that is available in different documentary formats-printed and electronic forms. Modern libraries are concerned with provision of information to satisfy the demands of users (Adomi, 2008).

Library resources, information services, and operations have been greatly influenced by rapid advanced technological innovations over the years by the western countries. However, the way information is disseminated, captured, collected, stored and transferred has provided a new impetus to library functions and services (Saddiqui, 2003; Adomi 2008). The wide adoption of computers and internet facilities for communication requires libraries to adapt with the new demands from their users to make collection accessible from within and outside the Library

building (Mutula and Makando, 2003). With the effects of developments in Information Technology (IT), Libraries can now provide broad access to global information and become less dependent on printed collections (Kiondo, 2004; Adomi, 2008). Kiondo (2004) posited that Libraries must be able to become an "access organization" providing access to an array of information resources in the institutions of higher learning. This means having access as the right to utilized it and not ownership of the resources.

DEFINITION OF CONCEPTS

Concept of Strategy

Strategy has to do with the formulation of basic organizational missions, purposes and objectives; policies and programme to achieve; and the methods needed to ensure effective implemented of organizational goals. To Robson (1997) it is the pattern or plan that integrates an organization's major goals, policies and actions sequences into a cohesive whole.

Concept of Management and Information Services

Management is the act of getting people together to accomplish desirable goals. It comprises planning, organizing, resourcing, directing, and controlling an organization, institution or effort for the purpose of accomplishing the set objectives. Resourcing encompasses the deployment and manipulation of human resources, financial resources, technological resources, material resources and natural resources. Some scholars (Charles, 1990; Kanwal, 2005) see management as a group of people or individuals in an organization. The authors further posited management as a process that demand for the performance of a specific function. Paul (2009) maintained that management is the process of planning and organizing the efforts of organizational or institutional members and using all other organizational resources to achieve its set goals". However, the foregoing definitions of management are in compatibility with Uloma (2011) which the author refers as the process of organizing and coordinating people to achieve the desired goals and objectives with the available resources. For the purpose of this paper, the concept of management can be defined as a process by which an institution can adapt to achieve desirable results through efficient utilization of human and information resources". Also, in the context of this study, management of information resources can be refers as the process that has to do with planning, organizing, creating, maintaining, stimulating, controlling and unifying information resources in order to achieve predetermined educational objectives in the institutions libraries. Looking at the overview of the concept of management, the researcher is of the viewed that there is need for proper management and utilization of information resources in the institutions of higher learning in order to achieve the educational goals and objectives for which they were set for. Information services in this study has to do with the management of extensive library collections that can support teaching, learning and research needs of the staff and students in the institutions of higher learning.

Concept of Collection Development

Collection development is the process of building and maintaining the library's entire materials collection, encompassing print, non-print, electronic and remote formats. Print and audio-visual resources purchased with library funds are for the library circulating and non-circulating collection only. It includes the formulation of guidelines and procedures, coordination of acquisition activities, budget formulation and allocation, needs assessments, collection evaluations, selection, resource sharing and de-selection. According to Aina (2004) it is one of the fundamental functions of the Library and Information Profession. It involves selection and acquisition of information resources that will enable Library and Information practitioners to perform their myriad functions to the users effectively. In a similar study, To Olaojo and Akewukereke (2006) and Aina (2004), averred that collection development includes everything that goes into acquiring materials which includes selection, ordering and payment. Collection development serves as a foundation upon which other Library services are built. Akewukereke (2006) further explained that it is a planned, systematic development of a collection based on the objectives of the Library. Collection development and collection management are terms that have often been used almost synonymously though they differ.

In a related research on Harrods Librarians Glossary and Reference Book, Prytherch (2000), posited collection development as the process of planning a stock acquisition programme not simply to cater for immediate needs but to build a coherent and reliable collection over a number of years; to meet the objectives of the services; the term demands a depth and quality of stock and includes related activity towards exploitation of the collection through publicity. Emphasizing the exploitation of Library stock, Adewuyi (2005), posited that while collection development places emphasis on just ownership of information material, collection management goes beyond that by placing emphasis on effective exploitation of information materials. In a similar study carried out Peggy (2009) cited collection development as a term that represent the process of

systematically building of library collections to serve study, teaching, research, recreational, and other needs of library users. The process includes selection and de-selection of current and retrospective materials, planning of coherent strategies for continuing acquisition, and evaluation of collections to ascertain how well they serve user needs. The author further stipulated that the goal of any collection development organization must be provide the library with a collection that meets the appropriate needs of its client population within the limits of its fiscal and personnel resources (Peggy, 2009). To reach this goal as suggested by the author (Peggy, 2009), the researcher is of the viewed that each segment of the collection must be developed with an application of resources consistent with its relative importance to the mission of the library and the needs of its patrons.

For the purpose of this study, collection development can be defined as part of collection management that primarily deals with decisions about the acquisition of information resources. Also, the looking at the various definitions cited above by scholars, the researcher is of the opined that those who practice collection development and management can be known as selectors, bibliographers, collections librarians, subject specialists, subject liaisons, collection development librarians, collection managers, and collection developers. While the primary purpose of collection development and management is to meet the informational needs of learners in the institutions of the higher learning. It is also important to note that the processes of collection development must include selection and de-selection of current and retrospective materials, including gifts-in-kind; planning of coherent strategies for continuing acquisitions; input into preservation decisions; evaluation of collections to ascertain how well they serve user needs. These processes are guided by a Collection Development Policy which establishes priorities, supports efforts, and facilitates decisions.

Concept of Collection Management

Collection management is the systemic, efficient and economic stewardship of library resources. To Peggy (2009) defined collection management as a process of information gathering, communication, coordination, policy formulation, evaluation, and planning. These processes, in turn, influence decisions about the acquisition, retention, and provision of access to information sources in support of the intellectual needs of a given library community. Singh (2004) stated the different between collection development and collection management. The author suggested that collection development involves the selection and acquisition of library materials while collection management is much more than collection building. It also involves managing the use of the collection, its storage, organization and making it accessible to library users.

It is clear from the foregoing concepts that collection management is more embracing than collection development. Collection development is concerned with planning for acquisition through user's assessment and design of collection development policy, selection and acquisition of information resources to meet the needs of the user's community, while collection management incorporates these activities of collection development and includes also the organization and maintenance of library information resources, keeping the needs of the users a prime objective (Singh, 2004). From the above difference, it is therefore more appropriate to use the terms collection development and management together.

Ogunrombi (2005) suggested that collection development and management involves development policies, users' needs assessment, selection of information materials, acquisition, collection evaluation and assessment, de-selection or weeding, intellectual freedom, conservation and preservation of library and information resources. Basically, this paper will focus on these issues in discussing Strategic for collection development and Management for effective Information service in the institutions of higher learning.

Theoretical Framework for Collection Development

Ranganathan Law's of Theory

This theory was propounded by Ranganathan in 1967. Ranganathan theory was proposed to detailing the principles of operating a library system. Therefore, the theoretical framework for collection development in Libraries of institutions of higher learning would be based on Ranganathan's Five Laws of Library Science, namely:

- Books are for use.
- Every book its reader.
- Every reader his (or her) book
- Save the time of the reader.
- The library is a growing organism

First Law: Books are for use

The First Law emphasizes use and access – not materials for their own sake. Of course, Ranganathan believed in preservation and conservation but the focus in this Law is use. Ranganathan observed that books were often chained to prevent their removal and that the emphasis was on storage and preservation rather than use. He did not reject the notion that preservation and storage were important, but he asserted that the purpose

of such activities was to promote the use of them. On the other hand, it also means that books in libraries are not meant to be shut away from its users (Noruzi, 2004; Koehler, Wallace, Jitka, Wanda, and Joanna, 2000).

Second Law: Every reader his/her book

This law suggests that every member of the community should be able to obtain materials needed. Ranganathan felt that all individuals from all social environments were entitled to library service, and that the basis of library use was education, to which all were entitled. These entitlements were not without some important obligations for both libraries/librarians and library patrons. Librarians should have excellent first-hand knowledge of the people to be served.

Third Law: Every book its reader

This principle is closely related to the second law, but it focuses on the item itself, suggesting that each item in a library has an individual or individuals who would find that item useful. Ranganathan argued that the library could devise many methods to ensure that each item finds it appropriate reader. The third law also means that a library's books have a place in the library even if a smaller demographic might choose to read it (Noruzi, 2004; Koehler, Wallace, Jitka, Wanda, and Joanna, 2000).

Fourth Law: Save the time of the reader

This law is recognition that part of the excellence of library service is its ability to meet the needs of the library user efficiently. To this end, Ranganathan recommended the use of appropriate business methods to improve library management. He observed that centralizing the library collection in one location provided distinct advantages. The fourth law of library science explained that all patrons should be able to easily locate the material they desire quickly and efficiently.

Fifth Law: The library is a growing organism

This law focused more on the need for internal change than on changes in the environment itself. Ranganathan argued that library organizations must accommodate growth in staff, the physical collection, and patron use.

However, the above Laws have been applied to different aspects of library services in the institutions of higher learning such as: web resources are for use; every user has his or her web resource; every web resource its user; save the time of the user; and the web is a growing organism (Noruzi, 2004; Ogunrombi, 2005).

Objectives of Collection Development Process

To determine the quality standard of collection development and management of information resources in the institutions of higher learning, Michael (1995) highlighted some of the basic objectives to enhance effective implementation of collection development process, such as follows:

- To provide bibliographic control over print and non-print materials using accepted standards and practices;
- To organize print and non-print materials into collections cataloged according to the Library of Congress Classification System;
- To acquire and organize materials that support a diverse community, encourage academic achievement, student success, lifelong learning, and enhance teaching excellence;
- To evaluate, select, acquire and organize print materials, audiovisual materials, serials, electronic resources, and information technologies as appropriate for classroom and research support;
- To select and deselect materials considering, as appropriate, course assignments, faculty recommendations, standard lists, publishers' catalogs, student requests and review journals;
- To promote literacy and the enjoyment of reading; and
- To maintain adequate and appropriate materials for programme accreditation requirements (Michael, 1995; College Learning Council, 2010).

Suggested Strategies for Actualizing Virile Collection Development and Management

Collection Development Policy

A collection development policy establishes ground rules for planning, budgeting, selection, and acquiring library materials. These documents provide a framework for coordinated collection development programme in libraries. Collection development policy helps the library to serve the user community better (Olaojo and Akewukereke, 2006). Collection development policy explains the content and intent of collection development

which include the definition of the scope of a library's existing collections, plan for the continuing development of resources, identify collection strengths, weaknesses, and outline the relationship between selection philosophy and the institution's goals, general selection criteria, and intellectual freedom (IFLA, 2001; Arizona State Library, Archives and Public Records, 2003 and The American Library Association, 1987), According to Kiodo (2004) and Adomi (2008), collection development policy guides libraries on issues and processes of selecting information materials to satisfy users needs. It also provides criteria for monitoring and evaluating the effectiveness of a developed collection, in meeting the needs of the library patron. It spells out issues related to content of the collection, format, responsibility for selection and acquisition of library information resources.

A collection development policy should not only concern itself with selection; planning, public relations and cooperation and resource sharing (consortia); it should address the following elements to be effective:

- Community profile
- Community Needs Assessment
- Collection Goals
- Selection Responsibility
- Selection Criteria
- Acquisitions
- Collection Evaluation and Assessment.

It is imperative to have a written policy. A clear acquisition policy should be formulated in line with the objectives of the library and needs of the users.

Budgeting/Collection Development

Collection development is a function of funds. This means that library can only build its collection to the extent that funds are available. According to Stacey (1993), strategy implementation is held to depend upon an effective budgeting system. The budget converts strategy into a set of short-term action plans and sets out the financial consequences of those action plans for the year ahead. For a library budget especially in relation to collection development to be successful, it must be directional and must be based on a plan so that there is value for the money spent. Money available for collection development is always limited and heads of libraries go cap in hand to the chief executives of their institution or establishment, almost on their knees to ask for more funds. Acquisitions! Collection Development should not be at the mercy of heads of institution. Therefore realistic budget should be made for collection development in libraries if they (libraries) must procure, organize and make available to their numerous users both current and adequate information resources.

Selection of library Information Resources

The selection of library stock should obviously reflect and be geared to the needs of the users of the library/information service-be they the general public, the staff and student of an academic institution, the members of the professional body etc. Bakewell (1997) opines that in order to qualify for purchase, a book must (a) be relevant to the organization's interest, (b) fill a gap in coverage or provide a significant extension of current knowledge (c) justify its cost, bearing in mind such matters as the importance of the item, size, price, state of the budget etc. According to Bakewell (1997) those who select should consider such criteria of expression, board coverage and appeal when evaluating those materials. In the case of academic libraries, selection should be based on institution and the needs of staff and student, not forgetting part-time students.

Acquisitions of Information Materials

Acquisition is the implementation of selection decisions: ordering, receipt, and payment. These must be done according to a procedure that is guarded by the collection development policy (Olaojo and Akewukereke, 2006). Acquisition forms a vital link in the circle of publishing, selection, request and providing materials for use. The imperatives for acquisitions staff are to acquire information materials as quickly and as economically as possible, while offering an efficient and responsive service.

Acquisition and collection development focuses on methodical and topical themes pertaining to the acquisition, purchase, de-selection of print, other traditional format of library materials (by purchase, gift, exchange, legal deposit), and electronic information resources. Specialized interest include collection development policies, collection development methods, techniques and practices for collection assessment, usage statistics, and pricing ownership vs. access issues, the open access, format duplication, scholarly communication and librarian relations with publishers and vendors. As access to materials becomes an increasingly viable, alternative to ownership, acquisition staff should work closely with serials, cataloguing and circulation section, and any advisory committees that facilitate discussions between libraries and publishers and/producers of electronic resources. Of critical importance to acquisition department should be cooperative collection development (consortia) and application of information technology (IT) to acquisition and collection development process. In formulating its

goals, the acquisition section should be flexible and responsive to changing condition in the professional environment as well as in the information industry (IFLANET, 2006).

The Internet and Acquisition in Libraries

The internet, especially its graphical world wide web (www) has become one of the most potent tools of information storage, retrieval and dissemination of information in the contemporary society (Adomi, 2008). Access to internet include electronic mail (email), UseNet, www, remote login (telnet), file transfer protocol (FTP), online chat and e-conferencing, provide those connected to it with an unprecedented amount of information that can be used to their advantages. The information on the net is seemingly limitless as massive volume of information is added to it every day. As information providers, libraries of all types, and documentation and information centers should be the main beneficiaries of the massive amount of internet resource that can be used to noticeably enhance the quality of services and at the same time to save time and money. Internet enhances library cooperation's and services, especially when budget cut by many parent bodies or institutions, fluctuations in exchange rate of currencies, and rapidly growing cost of periodicals; and on the contrary, information needs of users are increasing and diversified. In addition, information explosion has become a dilemma for libraries as they need to be more selection than to be comprehensive when acquiring library resources (Adomi, 2008; Hundie, 2003).

The Online Public Access Catalogue (OPAC) that is gradually replacing the traditional Card Catalogue has been appreciated as the easiest and most effective way of communicating Library stocks to users. Researchers (Webb and Grimwood, 2004; Adewuyi 2005), state that if "Information is to be a widely available resource, it must be organized so that it is easily accessible physically without too many imposed restraints". Ifidon (1997) earlier postulated that "beautiful buildings, well trained staff and modern information storage and retrieval system can only be appreciated if excellent services are given to users. These services cannot be given without live collections". This means that a live collection is the one that has been procured, processed, organized and maintained.

Collection Assessment, Preservation and Conservation

It is not enough to procure, process and organize information resources for the purpose of meeting the needs of users, it is imperative to periodically assess library resources to determine their relevance and utility at the moment. According to the Arizona State Library, Archives and Public (2003), collection assessment (also known as collection evaluation) is an organized process of analyzing and describing a library's collection systematically. It is the assessment of the extent to which a collection meets the library's objectives. As professionals, librarians should try to build and maintain collection development goals that are appropriate for their information seekers. Agee (2005) sees collection assessment as one important measure of collection development and management. As important as this function is in libraries, Librarians are hardly engaged in it. How else do librarians ensure that they are building useful collection that will provide a good return on their financial investments? (Adomi, 2008).

Weeding of Resources

Weeding has to do with the process of removing unwanted materials form the shelves either for discard or relegation to remote storage. This is an important element of collection management that ensure that library resources are useful considering the fact that community needs and goals change, institution's curriculum or the faculty changes and large parts of the collection may fall into the seldom used category (Adomi, 2008). The analysis and evaluation of the collection as a whole emphasizes the necessity of weeding the collection systematically to keep it responsive to patron's need (Buckingghan, 1994). Librarians should weed their collection frequently, if the library will not soon become the burial ground for old textbooks, and other items patrons' no longer find useful. Chikezie (2003) identifies problems of collection development in libraries to be poor funding, the tyranny of distances, high prices of library materials, poor accommodation facilities, negative actions of readers, and high illiteracy rate.

Intellectual Freedom and Access

Hannabuss and Allard (2003) assert that the wider issue is that of intellectual freedom and access, and the role of information work and of libraries. The American Library Association (ALA) (2005) states that freedom of expression is an inalienable human right and the function for self government, freedom of expression encompasses the freedom of speech and corollary right to receive information, that libraries and librarians protect and promote these rights by selecting, producing, providing access to, identifying, receiving, organizing, providing instruction in the use to and preserving recorded expression irrespective of the format or technology (IFLA,

2003). Major challenge for the libraries and information profession is commitment to intellectual freedom and adherence to the principles of intellectual freedom, unrestricted access to information and freedom of expression and to recognize the privacy of library user. Any attempt by a member of the community to remove resources form the library's collection or restrict access to the m is a challenge to intellectual freedom which the library should vehemently discourage

Preservation and Conservation of Library Resources

The very core aspect of collection development and management is conservation of preservation of information resources. Library and Information resource are undoubtedly very expensive, thus, there is need to ensure that they are always in good condition (Aina, 2004, Adomi 2008). Otherwise, it will be a great waste of time and fund to select and acquire materials without taking adequate and proper steps to ensure their longevity. Researchers, (Trinity College Dublin, 2007; Chester Beatty Library, 2007 and Adomi, 2008), posit that preservation activities are those aimed to minimize deterioration of prevent changes to the collection. This includes buildings maintenance, environmental control, providing safe storage, security, handling skills training, exhibition conditions, and disaster preparedness planning. One of the main goals of the library is to make it collections available for use by eligible users. This must be balanced at all times with the need to ensure the preservation of the resources.

CONCLUSION

The following conclusions have been drawn from the research of the study; collection development and management is not an adhoc activity, rather it is a planned, continuous, and cost-effective acquisition of quality, relevant materials to meet the information needs of users and the corporate objectives of libraries and their parent institutions. Collection development is not only growth in volumes and titles but in the quality of acquired materials in enhancing effective information delivery in the institutions of higher learning. It is only from this perspective that the word 'development' could be meaningful in relation to collection development to have live, virile and responsive collection.

RECOMMENDATIONS

The following recommendations have been made based on the research of this paper:

- Librarians in the institutions of higher learning should be encouraged to attend professional development programmes such as seminars, workshops, conferences to increase their knowledge on collection development and management towards information resources.
- Materials should be ordered for library continuously without necessarily waiting for accreditation exercise to embark on fire brigade approach to acquisitions.
- Efforts should be made by heads of library to refuse to be intimidated by overcoming any social, political, economic and environmental factors.
- Librarians should observe due process principles in relation to collection development to avoid unnecessary bottle necks and delays.
- Library automation and internet connectivity should be of high priority for all types of libraries in the institutions of higher learning.
- Librarians should insist on having a written and functional policy to guide information recourses.
- Nigeria Library Association (NLA) should formulate a standard policy and ensure compliance by all academic libraries to enjoy increased findings.
- Library Development Funds (LDF) in academic libraries should be resuscitated.
- Education Trust Fund (ETF) for book intervention should not be divested and should be timely accessed;
- High proficiency in acquisition processes and collection development management can improve the status of an academic library.
- Institutions libraries should have proper keeping of statistical data of librarians and students to enhance the management of information resources in their various institutions.

REFERENCES

Adewuyi OW (2005). Collection management practices in Nigerian university libraries: A study of
six selected libraries in South-Western Nigeria. *Gateway Library Journal*, *8* (1-2), 69-80.
Adomi EE (2008). collection development and management. Benin: Ethiope Publishing Corporation.
Agee J (2005). collection evaluation: a foundation for collection development. Collection building, *24* (3), 92-95.

Aina LO (2004). Library and information science. Text for Africa. Ibadan: Third World Information Services Limited.

ALA (2005). Access to electronic information, services and networks: and interpretation of the library bill of rights. Retrieved on February 17, 2006 from, *Httpp://www.ala.org/cif/statement spots/statements/interpretations/access electronic information/.pdf.*

Arizona State Library, Archives and Public Records (2003). Overview of collections and development. Retrieved on May 24, 2094 from ttp://www.dlapr.lib.azus/cdtcal/manhtm.

Bakewell KGB (1997) *Managing user-centered libraries and information services*. London: Mansell Publishing Ltd.

Buckingham BJ (1994) Weeding the library media center, Collections. Des monies: State of Iowa Department of Education Retrieved January 14 2005 from *http://www.iema-ia.org/IEMA20g.htmi/.*

Chester Beatty Library (2007) preservation, exhibitions storage. Retrieved December 11, 2008, from *http://wwtv.cbl.ie/collections/preservations .conservation/presservationn.aspxsss*.

College Learning Council (2010). Collection Development Procedure, Valencia Community College Library. Retrieved on May 20, 2015, from: http://www.valenciacc.edu/curriculumcommittee/

Charles BO (1990). Collection Development and Management in Academic Libraries: Research Perspectives, (ed.) Mary Jo Lynch, 1–37, ACRL Publications in Librarianship No. 47, Chicago: American Library Association.

Hannabuss, Allan M (2001). Issues of Censorship. *Library Review*. *50*(2), 81-89.

Hundie K (2003) Library operations and internet resources. *Electronic Library. 21*(6),555-564.

Ifidon SE (1999) A practical approach to library collection development. Ekpoma: Edo State University Library.

IFLA (2003) IFLA Statement on libraries and intellectual freedom. Retrieved February 17, 2006 from *http://www.ifla.org.faife/policy/iflastative.htm.*

IFLANET (2008) Acquisition and collection development section: strategic plan 2008-2009. Retrieved December 11, 2008 from **Error! Hyperlink reference not valid.**.

Kanwal A (2005). Developments in the Philosophy of Collection Management: A Historical

Review," *Collection Building 24*(4),112–16.

Kiondo E (2004). around the world to the University of Dares Salaam Libraries: Collection Development in the Electronic Information Environment. *Library Hi Tec News*, *21*(6),19-24.

Koehler, Wallace, Jitka H, Wanda D, Joanna W (2000). Ethical Values of Information and Library Professionals: An Expanded Analysis." *International Information & Library Review 32* (3/4), 485–506.

Michael RG (1995). *Collection Development and Evaluation: A Sourcebook.* Lanham, Md.: Scarecrow, pp. 3.

Mutula SM, Makando FS (2003). IT Skills Needs for collection. Development at the University of Botswana Library. Library Hi Tech. *27*(1),94-101.

Noruzi A (2004). Application of Ranganathan's Laws to the Web. *Webology*, 1(2), Article 8. Retrieved from, *http://www.webology.org/2004/v1n2/a8.htm*

Ogunrombi SA (2005) Incidence of theft Reference Materials in Nigerian University Libraries. *SCAULWA Newsletter 5*(2),21-22.

Olaojo PO, Akewukereke MA (2006). Collection Development. *Policies Ground Rules for Planning University Libraries.* Retrieved on December 11, 2008 from http://www.webpages.uidaho.edu/%embolin/olatunji.htm.

Paul H, Mosher (2009). Collection Development to Collection Management: Toward Stewardship of Library Resources," *Collection Management 4*(4),45.

Policies Ground Rules for Planning University Libraries (2008). Retrieved on December 11, 2008 from http://www.webpages.uidaho.edu/%embolin/olatunji.htm.

Prytherch RJ (2000). Harrods Librarians Glossary and Reference Book. 9th ed. Aldershot Gowen.

Peggy J (2009). Fundamental of collection development. Second Edition. United States of America, Chicago: East Huron Street. Retrieved from: http://www.alastore.ala.org

Ranganathan SR (1969). Five laws of Library Science 2nd ed. *Madras Library Association, 5*(6),336-338.

Robson W (1997). strategic management and information systems: an integrated approach 2nd ed. London: Financial Times/Pitman Publishing P.4.

Saddigui MA (2003). Management for change in acquisitions in, demic of Libraries. The Electronic library. *21* (4),352-357.

Singh SP (2004). Collection Management in the Electronic Environment: The Bottom line. *Managing Library Sciences. 17*(2), 55-60

Stance R (1993) strategic management and organizational dynamics. London: Pitman Publishing. 67.

Trinity College Dublin (2007) preservation and conservation of library collections. Retrieved from http://www.tcd.ie/library!preservation/pres and con.php.

Uloma OC (2011). Challenges to effective management and utilization of teaching resources in Nigerian schools. *ABSU Journal of Arts, Management, Education, Law and Social Sciences (JAMELSS) 1*(1),118-127, Retrieved from, http://www.absujamelss.com/

Webb SP, Grinwood-jone D (2004). Personnel Development in the Information and Library Professional, 3rd ed. Europe: Oxon Publication Limited.

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Use of Web 2.0 by Library Professionals in Tamil Nadu

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Web 2.0 technologies have gained increased popularity over the last decade. They have transformed user engagement on the World Wide Web and have made inroads in education. However, adoption of these technologies by library professional is good sign and it shows healthy competition in digital environment. The study tries to find out that how the library professionals are using the web technologies for their personal work and library service. This research paper clearly pictured that majority of the library professional in Tamil Nadu state having awareness and knowledge about social networking sites and web tools like Blogs, RSS, Social Book Marking, Podcasting, Wikis, Facebook, flickr, LinkedIn etc. The result of the study is encouraging the library professional in use of web technologies in libraries service.

Key Words: Web 2.0 tools, Web Technologies, Blogs, RSS, Library Professionals, Tamil Nadu.

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INTRODUCTION

Web application development has been around for a long time. In fact, it has been around long enough that a new term, web 2.0, is being used to describe the next generation of web applications. Web 2.0 is an intersection of new business models, new ideas, and multifaceted sharing and collaboration with iterative development techniques getting new features to users at a much faster pace.

The term Web 2.0 was coined by Tim O'Reilly in 2004. Wikipedia defines Web 2.0 as follows: the changing trends in the use of World Wide Web technology and web design that aim to enhance creativity, communications, secure information sharing, collaboration and functionality of the web. Web 2.0 concepts have led to the development and evolution of web culture communities and hosted services such as social networking sites, video sharing sites, wikis, blogs, folksonomies.

Understanding Web 2.0

Web 2.0 is more about how use of the Internet is changing than about a new version of web technologies. The Internet is becoming more of a platform for existing technologies, many of them collaborative, and a perpetual beta site for new technologies. So-called "mashups" of existing technologies, combined with growing numbers of knowledgeable users, and the proliferation of how-to data, is opening doors to threats that didn't previously exist. Web-based communities and hosted services such as social networking sites, wikis, and blogs, aim to facilitate creativity, collaboration, and sharing among users; but the very openness of these

Figure 1: The Web 2.0 Tag Bubble Map

sites makes them vulnerable to new, multi-layered malware attacks.

"The web 2.0 tag bubble map" made by ace designer Markus Angermeier, shown in Figure 1, gives an idea of the technologies, ideas, and uses that comprise web 2.0.

Why use Web 2.0 Tools in Libraries?

These tools have penetrated all facets of communications including business, social, scholarly, health and many more. Libraries need a communication strategy which is cost effective and convenient both to users and service providers. Capitalize the importance of integrating web 2.0 systems into library and information services as it support, promote and extend information services to patrons or user community. Web2.0 tools can be used to promote services, share information, and engage with users and network with colleagues, on a global scale. In this perspective, librarians and information professionals could not be left behind in utilizing the power of the web in communication.

OBJECTIVES

The study was an attempt to find out the awareness and usage Web 2.0 technology among the library professionals in Tamil Nadu. The study was designed and conducted to achieve the following objectives.

1. To observe the awareness and use of Web 2.0 technology library professionals.
2. To study the purpose and level of use of the Web 2.0 technologies by library and information professionals.
3. To study the knowledge and application of Web 2.0 tools.
4. To study the knowledge and use of social network sites towards the library services.

LITERATURE REVIEW

Since Web 2.0 is a new phenomenon for libraries there are a few studies on the content surveys of library websites regarding the adoption of these technologies.

Xu et al. (2009) studied the applications of Web 2.0 in the academic library. The survey, conducted 81 academic library websites in New York State, revealed that forty-two percent of them adopted one or more Web 2.0 tools for various purposes. Instant messaging (IM) was the most frequently used tool followed by blogs, RSS, tagging, wikis, social networking services (SNS) and podcasts. According to Web 2.0 refers to a perceived second generation of web development and design that facilitates communication, secure information sharing, interoperability, and collaboration on the World Wide Web such as blogs, wikis, online social networking, virtual worlds and other social media forms.

Sandip Majumdar (2012), has studied that web 2.0 tools in national importance universities library web pages in West Bengal. He found that out of 18 state universities five universities do not have any dedicated library webpage, though these universities maintain and update their official websites regularly. P. Hangsing and

Table 1. Awareness of Web 2.0 Tools

S.No.	Web 2.0 Tools	Librarian	Asst. Librarian	Library Assistant	Total
1.	Blogs	87	56	28	171 (100%)
2.	Forums News Groups	87	56	28	171 (100%)
3.	Wikis	87	56	28	171 (100%)
4.	Podcasts and Vodcasts	87	54	16	157 (91.81%)
5.	RSS	87	56	28	171 (100%)
6.	Social Book Markings	87	56	28	171 (100%)
7.	Social Networking sites	87	56	28	171 (100%)
8.	Folksonomies, Tagging	62	49	12	123 (71.93%)
9.	Others like SNS, Instant Message, Meshups etc…	87	56	28	171 (100%)

Lalditum Sinate, studied the application of web 2.0 technology in 44 Central University library websites in India. They found that only 11 universities deployed one or more Web 2.0 tools. Blogs/microblogs were the most popular tools used among these universities.

Manorama Tripathi and Sunil Kumar (2010), have contacted a survey about use of web 2.0 tools in academic libraries in reconnaissance of the international landscape. It is found that 211 libraries (76.2%) had adopted at least one of the Web 2.0 tools, whereas 66 of them (23.8%) did not use any of the Web 2.0 tools. According to the findings indicated high level of awareness of the existence of Web 2.0 technologies among library and information professionals and that only few were not aware of the existence of these technologies due to lack of publicity. Fred Gochi Gichora and Tom Kwanya find that the use of the web 2.0 tools in academic libraries in Kenya has increased the users interests in the library resources and services promoted learning as well as enriched library promotion and marketing programmes.

Purpose of study

The aim of this study is to have a clear picture about the extent of implementation of Web 2.0 technologies by library professionals in TamilNadu. It also tries to understand how library staffs are responding to the much talked about phenomenon namely social networking.

RESEARCH METHODOLOGY

The researchers relied upon the survey methods for collecting data for this study. The sampling method was used in the present study. A structured questionnaire was prepared by researchers and distributed the same for 200 library professionals in and around of Tamil Nadu. But out of 200 respondents, 171 questionnaires were dully filled in by the user's community and the overall response rate was 85.50 per cent. The collected data were classified, analyzed and tabulated by using statistical methods.

Survey Results

There were 87 librarians, 56 assistant librarians and 28 library assistants. This study was carried out to know the awareness and use of Web 2.0 tools like RSS, Wikis, SNS, Instant Message, Blogs, and Social Book Marking etc. among library professionals. Table 1, the respondents were asked to point whether they aware of Web 2.0 tools. From the analysis it was observed that all the participated library professionals are having sufficient knowledge to compete the present technological environment. But 91.81 % library professionals aware of Podcasts and Vodcasts and followed by 71.93 % of library professionals have knowledge of Folksonomy.

Table 2, it is observed that 1167 (96.05 %) of male library professionals aware of Web 2.0 technologies followed by 310 (95.68 %) of female library professionals aware the same. Table 3, a question was posed regarding purpose of Web 2.0 tools in library activities. It is observed and all the library professionals accepted that to share the ideas, announcement of new activities in library, library instructions, library tour, to get feedback from the users and promoting general library services.

The respondents were asked to indicate whether they use Web 2.0 tools in library activities. On the analysis of table 4, it is observed that only RSS (4.68%) and Blogs (2.92%) used for library activities by the library professionals. Yet, there are still most who do not use the Web 2.0 Technologies. Table 5 revealed that use of Web 2.0 tools in their personal work. Majority of the web 2.0 tools are used for their personals works but few tools are

Table 2. Genderwise Distribution – Awareness of Web 2.0

S.No.	Web 2.0 Tools	Male	Female
1.	Blogs	135	36
2.	Forums News Groups	135	36
3.	Wikis	135	36
4.	Podcasts and vodcasts	126	31
5.	RSS	135	36
6.	Social Book Markings	135	36
7.	Social Networking sites	135	36
8.	Folksonomies, Tagging	96	27
9.	Others like SNS, Instant Message, Meshups etc…	135	36

Table 3. Purposes of web 2.0 tools by library professionals

S.No.	Purpose	Yes	No
1.	To sharing the ideas	171	-
2.	For announcing new developments and events taking place in library	171	-
3.	Library tour	171	-
4.	How to access the library resources	171	-
5.	To get the feedback	171	-
6.	Promoting general library services	171	-

Table 4. Application of Web 2.0 tools in library

S.No.	Web 2.0 Tools	Librarian	Assistant Librarian	Library Assistant	Total
1.	Blogs	5 (5.75%)	2 (3.57%)	1 (3.57%)	8 (4.68 %)
2.	Forums News Groups	-	-	-	-
3.	Wikis	-	-	-	-
4.	Podcasts and vodcasts	-	-	-	-
5.	RSS	2 (2.29%)	2 (1.78%)	1 (3.57%)	5 (2.92 %)
6.	Social Book Markings	-	-	-	-
7.	Social Networking sites	-	-	-	-
8.	Folksonomies, Tagging	-	-	-	-
9.	Others like SNS, Instant Message, Meshups etc…	-	-	-	-

not used by the library professionals i.e. 39.77% (68) of Podcast and Vodcasts , 9.94% (17) of Folksonomy and 2.92% (5) others tools like SNS, IM etc.

Table 6 shows that which RSS reader mostly used by the library professionals. It observed that 53.22 % (91 nos.) of respondents used Google reader, followed by 47.37 % (82nos.) used My Yahoo, 3.51 % (6nos.) used Omea Reader, 2.92% (5nos.) used RSS Bot, 1.17%

Table 5. Use of Web 2.0 tools in personal work

S.No.	Web 2.0 Tools	Librarian		Assistant Librarian		Library Assistant		Total	
		Yes	No	Yes	No	Yes	No	Yes	No
1.	Blogs	87	-	56	-	28	-	171 (100%)	-
2.	Forums News Groups	87	-	56	-	28	-	171 (100%)	-
3.	Wikis	87	-	56	-	28	-	171 (100%)	-
4.	Podcasts and vodcasts	53	34	41	15	9	19	103 (60.23)	68 (39.77)
5.	RSS	87	-	56	-	28	-	171 (100%)	-
6.	Social Book Markings	87	-	56	-	28	-	171 (100%)	-
7.	Social Networking sites	87	-	56	-	28	-	171 (100%)	-
8.	Folksonomies, Tagging	49	13	56	-	24	4	154 (90.06)	17 (9.94)
9.	Others like SNS, Instant Message, Meshups etc…	87	-	56	-	23	5	166 (97.08)	5 (2.92)

Table 6. Best RSS Reader among Library Professionals

S.No.	RSS Readers	Librarian	Asst. Librarian	Library Assistant	Total
1.	My Yahoo	**46**	**34**	**2**	82 (47.37%)
2.	Omea Reader	**1**	**4**	**1**	6 (3.51%)
3.	FeedDemon	**1**	**1**	**-**	2 (1.17%)
4.	Google Reader	**62**	**23**	**6**	91 (53.22%)
5.	Thunderbird	**-**	**-**	**-**	-
6.	RSS Bot	**2**	**3**	**-**	5 (2.92%)
7.	Digg Reader	**-**	**-**	**-**	-

Table 7. Most popular Social Networking among Library Professionals

S.No.	Social Networks	Librarian	Asst. Librarian	Library Assistant	Total
1.	Facebook	87	56	28	171 (100%)
2.	Youtube	87	56	28	171 (100%)
3.	LinkedIn	87	56	19	162 (94.74%)
4.	Twitter	35	15	6	56 (32.75%)
5.	Flickr	19	8	7	34 (19.88%)
6.	Goodreads	18	16	3	37 (21.64%)

(2nos.) and no one use the Thunderbird and Digg Reader.

This study further explored to determine which social network is popular among the library professional and table 7 revealed the same. This Study found that 100% (171 nos.) used facebook and youtube, 94.74% (162nos.) used linkedIn network, followed by Twitter 32.75% (56nos.), Good reads 21.64% (37 nos.) and Flickr 19.88% (34nos.).

The respondents were asked to indicate most popular library blogs and table 8 revealed that 97.08% (166nos.) using lislinks blog and liswiki 24.56% (42nos.) is lowest user. Table 9 shows that advantages of Web 2.0 for library professionals. All the respondents are agreed with

Table 8. Most popular Library Blogs among Library Professionals

S.No	Library Blogs	Librarian	Asst. Librarian	Library Assistant	Total
1.	Lislinks	87	56	23	166 (97.08%)
2.	Library Soup	45	21	9	75 (43.86%)
3.	libraryscience4ugcnet	32	39		74 (43.27%)
4.	Infolibrarian	64	53	22	139 (81.29%)
5.	liswiki	26	12	4	42 (24.56%)

Table 9. Advantages of Web 2.0

S.No.	Advantages of Web 2.0	Librarian	Asst. Librarian	Library Assistant
1.	Good relationship with users	87	56	28
2.	Faster time to market	87	56	28
3.	Knowledge / Information Sharing	87	56	28
4.	Introduction of personal learning environment	87	56	28
5.	Information can flow freely	87	56	28
6.	Professional development	87	56	28

the web 2.0 tools useful to create good relationship with users, professional development, knowledge sharing etc.

CONCLUSION

During last two decades rapid technological development has affected each and every profession and the library professionals not exempt. Use of Web 2.0 technologies in learning and teaching emerges as considerable but patchy, driven for the most part by the professional interest and/or enthusiasm of individuals or small groups of staff. This situation is replicated in other spheres of university business: administration, student support, and advertising and marketing. This research is aimed to drive a picture of Web 2.0 technologies presently being used by library professionals in TamilNadu. Only a minority of library people using the Web 2.0 technologies to library activities. But they wish to use it for their personal work. This research pointed out that library professionals appreciate learning experience where new technologies add value to enhance the library services. As academic library people strive to reposition themselves in the digital environment and try reconfigure their role with use of Web 2.0 technology.

REFERENCES

Fred Gochi Gichora and Tom Kwanya. (2015). The Impact of Web 2.0 tools on academic libraries in Kenya. International Journal of Library and Information Science, 7(2), 21-26.

Hangsing, P, and Lalditum Sinate. (2012). Use of Web 2.0 in Academic Libraries in India: A survey of Central University Library Websites. International Seminar on 'Digital Libraries for Digital Nation' Organized by Library Association of Bangladesh, 17-18 October, 46-61.

Manorama Tripathi and Sunil Kumar. (2010). Use of Web 2.0 tools in academic libraries: A reconnaissance of the international landscape. The International Information & Library Review, XX, 195-207.

Olasina, G. (2011). The Use of Web 2.0 Tools and Social Networking Sites by Librarians, Information Professionals, and Other Professionals in Workplaces in Nigeria. PNLA Quarterly, Spring, 75(3).

Sandip Majumdar. (2012). Web 2.0 Tools in Library Web Pages: Survey of Universities and Institutes of National Importance of West Bengal. DESIDOC Journal of Library & Information Technology, 32(2), 167-170.

Sarah Okonedol et al. (2013). A Survey of the Awareness and Use of Web 2.0 Technologies by Library and Information Professionals in Selected Libraries in South West Nigeria. International Journal of Library Science, 2(4), 61-68.

Xu, C. et al. (2009). The academic library meets Web 2.0: Applications and implications. The Journal of Academic Librarianship, 35(4), 324-331.

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Full Length Research

The Electronic Library Journal: A bibliometric study (2010 to 2014)

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The present paper deals with a bibliometric study of five volumes which contained 30 issues and a total number of 259 articles appending 7,397 citations published during the year 2010 to 2014 in the "Electronic Library Journal". The bibliographic details with regard to each article such as types of articles, number of articles in each issue, number of citations in each article, authorship patterns, publication date and the name of the journals were collected and taken into consideration for studying and analyzing. Findings showed that the highest numbers of articles (57) were published in the year 2010 and the articles published in 2014 contain the highest number of citations (1,807), around 78 percent of contributions were categorized as research studies followed by case study. The average length of articles published in The Electronic Library is 15.5 pages per article. the majority of authors cited journals (4,516 citations; 61.1%) followed by web resources (1,170 citations; 15.8%). Also the single authors (43.883 percent) have made major contribution followed by joint authors (26.895 percent), and "The Electronic Library" which is the source journal leads the table with a record number of 409 citation with 9.063 % followed Library Hi Tech (119 citations).

Key words: Bibliometrics, Citation Analysis; Electronic Library Journal.

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INTRODUCTION

Bibliometrics is an important area of research in the library and information science. The word "Bibliometrics" has been derived from two Greek words "Biblio" means books and "metric" means measure which refers to the application of mathematics to the study of bibliography. Pritchard (1962), defined Bibliometrics as the application of mathematical and statistical methods to the whole scientific literature. Similarly, Roy (1983) stated that Bibliometrics is the study of the process of information use by analyzing the characteristics of literatures and their distribution by mathematical methods.

During the last decade Bibliometrics gained magnificent growth due to its important role in the library and information science field. As it plays crucial role in the area of research evaluation, scientific research assessment and publication rankings (Mattson, 2008). Furthermore, bibliometrics can be a standard for weeding and collection development in a library. As stated by

Thanuskodi (2010), that bibliometrics analysis serves as a useful tool in evaluation the quality of a journal and it contents. Bibliometrics studies is mainly applied to scientific researches and deal with various metadata elements such as author, year of publication, title, publication, subject, place of publication and other core elements of metadata. This kind of study yield helpful indication of scientific productivity, trends, researcher performance for publication, and journal ranking (Jacobs, 2001).

The current study is the bibliometric analysis of a high ranked international journal "The Electronic Library" published by Emerald renowned publisher. The Electronic Library established in 1983 publishes bi-monthly, by year 2014 The Electronic Library had successfully published 32 volumes with some 8 or 9 articles per issue. In this study we will analyze articles published during the period of 2010 and 2014.

REVIEW OF LITERATURE

(Alhamdi, Khaparde & Kanekar, 2014) They attempted on a bibliometric analysis of ten volumes (57-66) in the field of journal of Documentation. It is based on the references appended to International Journal of "Journal of Documentation" during 2001-2010. The present study is based on 15150 references appended to 364 articles contributed by the authors in Journal of Documentation. It was found that Journals Citations are more in number than other citations. Also it was found that Solo Researchers are Predominant than Collaborative Researchers. The extent of collaboration was not much popular among the Journal of Documentation. The mean relative growth for articles and citation in the first five years 2001 to 2005 is reduced according to the last five years 2006 to 2010.The value of group co-efficient (g_p) was only 0.46. It was seen that researchers cited latest documents. Out of 364 articles there are 175 articles have pages length from 11 to 20.

(Alhamdi, Khaparde & Shesharao, 2014) They conducted a Scientometric analysis of 56 papers published in the Library and Information science & Technical Abstract (LISTA) on internet use in the subject of library &Information science during the period 2004 - 2013. The study focused on various aspects: such as document types, growth Rate (GR) and doubling time (DT) of publications and citations, year-wise, authorship pattern, institutions involved, most prolific authors of the journal. The study revealed that most of the papers (71.4%) of papers were contributed by multiple authors. USA is the top producing country with 8 (14.3%) publications of the total output. All the articles were published in English language. The mean doubling time for the first five years (i.e. 2004 to 2008) is only (1.05) which is increased to (6.07) during the last five years (2009 to 2013). Maximum 35 (62.5%) out of 56 of the authors are not mentioned their email address in the paper.

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OBJECTIVES

This study aims to comprehend the patterns of publication of "The Electronic Library" published during 2010 to 2014 with the following objectives:

- To identify the number of articles published per volume in each specific year;
- To study authorship patterns;
- To examine the year wise citation;
- To find out the length and type of articles published during specified period;
- To find out the journals that have been mostly cited by authors;
- To identify different type of information resources cited by the authors.

METHODOLOGY

For this study data collected from the "The Electronic Library Journal". Each Five volumes which contained 30 issues and a total number of 259 articles appending 7,397 citations published during the year 2010 to 2014 has been taken up for the analysis. The bibliographic details with regard to each article such as types of articles, number of articles in each issue, number of citations in each article, authorship patterns, publication date and the name of the journals were collected and taken into consideration for studying and analyzing. In order to achieve precise result of journals' ranking, full citations of each article was entered into MS Office Excel.

Table 1: Year Wise Distribution of Articles

Year	No. of Volume	No. of Articles	Average no. of articles per issue	No. of Citation	No. of Citation per Article
2010	28	57	9.50	1,321	23.18
2011	29	51	8.50	1,267	24.84
2012	30	50	8.33	1,621	32.42
2013	31	49	8.17	1,381	28.18
2014	32	52	8.67	1,807	34.75
Total	**5**	**259**	**8.63**	**7,397**	**28.56**

Table 2: Types of Contributions

Volume	Research Paper	Case Study	General Review	Technical Paper	Literature Review	Viewpoint	Conceptual Paper	Total
2010	42	8	2	2	1	1	1	57
2011	32	8	1	2	2	4	2	51
2012	38	4	3	2	2	0	1	50
2013	42	6	0	0	0	0	0	49
2014	47	5	0	0	0	0	0	52
Total	201	31	7	6	5	5	4	259

Moreover, the type of publication and the authorship patterns were done manual and double checked for yielding the most accurate result of this study.

Data Interpretation:

After examining the data, the authors have presented the result under various headings. The detailed results of the analysis of The Electronic Library during period 2010 to 2014 are depicted as below:

Year wise distribution of articles:

Table 1, shows the year wise distribution of articles published during period 2010 to 2014 in 5 volumes in The Electronic Library. It has been noticed that the highest number of articles (57) were published in the year 2010 and the lowest number of articles (49) were published in the year 2013. The articles published in 2014 contain the highest number of citations (1,807), whereas the lowest number of citations (1,267) was recorded in the year 2011.

The earlier study of bibliometrics analysis for the same journal “The Electronic Library” from 2003-2009 by Jena et al. (2012), reported (310) articles published from 2005-2009 which are more (51) from the current study (259). Which means that the number of the articles published from 2010-2014 are slightly decreased compare to number of the articles published from 2005-2009. However, the number of citations recorded from 2005-2009 by Jena et al. (2012) were 6,050 which are fewer (1,347) from the current study (7,397).

Types of Contributions

From Table 2 it observed that articles published in “The Electronic Library Journal” were under several categories named: research papers, case study, general review, conceptual paper, technical paper, view point and literature review. It has been noticed that, around 78 percent were research studies followed by (31) case studies. These results were corroborating the findings of earlier studies which founded that research study occupied the top position among the types of contributions (Jena et al, 2012; Swain and Rautaray, 2013).

Length of Articles

From Table 3 it revealed that the average length of

Table 3: Length of Articles

Article Type	Number of Pages Per Year				
	2010	**2011**	**2012**	**2013**	**2014**
Research Paper	610	505	632	648	809
General Review	42	15	40	19	0
Case Study	105	106	66	79	62
Literature Review	15	36	36	0	0
Technical Paper	29	35	17	0	0
Conceptual Paper	11	35	13	0	0
Viewpoint	6	44	0	0	0
Total	818	776	804	746	871

Table 4: Bibliographical forms of documents

Year	Journal	Web	Books	Conference	Report	Seminars	Thesis	Other	Total
2010	723	169	151	95	113	24	19	27	1,321
2011	697	214	140	101	64	15	6	30	1,267
2012	1,035	228	112	139	52	23	10	22	1,621
2013	883	241	91	85	46	4	17	14	1,381
2014	1,178	318	118	71	54	2	14	52	1,807
Total	**4,516**	**1,170**	**612**	**491**	**329**	**68**	**66**	**145**	**7,397**

articles published in The Electronic Library is 15.5 pages per article.

Bibliographical forms of documents

Table 4 depicts the types of information resources and the year wise distribution of citations respectively. It has been revealed that majority of authors cited journals (4,516 citations; 61.1%) followed by web resources (1,170 citations; 15.8%), books (612 citations; 8.3%), conference proceeding (491 citations; 6.6%); reports (329 citations; 4.4%); seminars (68 citations; 0.92%), Theses (66 citations; 0.89%)

These results corroborate the earlier findings by Jena et al. (2012), who reported, in their bibliometric analysis study of "The Electronic Library" between 2003-2009, the most citation (49.033%) were from journals followed by books we resources (19%) and book (15.97%). Khaparde (2011), in her study of "bibliometric study of Electronic journal of Academic and Special Librarianship" also reached to the same results that Journals gained highest (33.88%) citations.

Authorship Pattern of Citations

Tables 5 and 6 depict that distribution of citations according to number of authors per each volume. Table No. 6 depicts the distribution of authors during the stated period, which reveals that single authors (43.883 percent) have made major contribution followed by joint authors (26.895 percent) and three authors (13.249 percent). Numerous bibliometrics studies reported that single authors followed by joint author have made high position in citations (Khaparde, 2011; Jena et al. 2012; Tella & Olabooye, 2013; Singh et al, 2007; Swain et al, 2013).

The degree of collaboration in the "The Electronic Library" can be calculated by using Subramanyam's (1983) formula as:

DC = NM / (NM + NS)

Where:

DC = Degree of collaboration.

NM = Number of multiple authored papers.

NS = Single authored papers.

Here:

DC = 3,637 / (3,637 + 3,246) = 0.528

As DC value is more than 0.5, it is evident that multiple

Table 5: Authorship Pattern of Citations Per Year

Author	Citations Per Year					Total
	2010	2011	2012	2013	2014	
Single Author	658	544	662	595	787	3,246
Joint Authors	333	332	441	383	493	1,982
Three Authors	141	172	249	174	244	980
Four Authors	50	76	102	74	103	405
Five Authors	14	26	41	22	21	124
Six Authors	8	16	24	12	18	78
Seven Authors	4	7	6	9	4	30
Eight Authors	3	2	4	1	4	14
More Than Eight Authors	1	6	8	3	6	24
Associations/Organizations/ Un-specified Authors	111	85	83	101	134	514
Grand Total	1,323	1,266	1,624	1,376	1,821	7,397

Table 6: Authorship Pattern of Citations

Author	No. of Authors	Cumulative No. of Citations	Percentage	Cumulative Percentage
Single Author	3,246	3,246	43.883%	43.883%
Joint Authors	1,982	5,228	26.795%	70.677%
Three Authors	980	6,208	13.249%	83.926%
Four Authors	405	6,613	5.475%	89.401%
Five Authors	124	6,737	1.676%	91.077%
Six Authors	78	6,815	1.054%	92.132%
Seven Authors	30	6,845	0.406%	92.538%
Eight Authors	14	6,859	0.189%	92.727%
More Than Eight Authors	24	6,883	0.324%	93.051%
Associations/Organizations/ Un-specified Authors	514	7,397	6.949%	100%

authored articles occupy the prominent position indicating the supremacy of solo research in the “The Electronic Library”.

Year wise Authorship Patterns

Table 7 reveals that year 2005 to 2008 evidenced highest (5,104) number of authors. Followed by year 2009 to 2012 which contained (3,379) authors. While the lowest (3) number of authors was from year 1800 to 1900.

Journal Ranking

Table 8 reveals that the total number of 1,258 journals has been cited for a cumulative number of 4,516 times. Table 3 shows that “*The Electronic Library*” which is the source journal leads the table with a record number of 409 citation with 9.063 % followed *Library Hi Tech* (119 citations), *Journal of the American Society for Information Science and Technology* (96 citations), *College and Research Libraries* (81 citations) and *The Journal of Academic Librarianship* (72 citations). Jena et al. (2012),

Table 7: Year wise Authorship Patterns

Year	Years					Total
	2010	2011	2012	2013	2014	
1800-1900	0	0	2		1	3
1901-1950	1	6	5	2	1	15
1951-1980	9	22	35	24	34	124
1981-1990	52	63	79	36	53	283
1991-2000	406	330	423	238	280	1,677
2001-2004	570	543	732	427	531	2,803
2005-2008	977	1,045	1,094	909	1,079	5,104
2009-2012	99	371	826	822	1,261	3,379
2013-2015	0	0	0	4	22	26

Table 8: Journal Ranking

Sr. No	Rank	Name of Journal	SNIP	No. of Citations	Cumulative Citations	Percentage	Cumulative Percentage
1	1	*The Electronic Library*	1.040	409	409	9.063%	9.063%
2	2	*Library Hi Tech*	1.108	119	528	2.637%	11.700%
3	3	*Journal of the American Society for Information Science and Technology*	2.148	96	624	2.127%	13.827%
4	4	*College and Research Libraries*	2.868	81	705	1.795%	15.622%
5	5	*The Journal of Academic Librarianship*	1.646	72	777	1.595%	17.217%
6	6	*Program: Electronic Library and Information Systems*	0.846	57	834	1.263%	18.480%
7	7	*Library Review*	0.959	56	890	1.241%	19.721%
8	8	*Online Information Review*	1.062	55	945	1.219%	20.940%
9	9	*D- Lib Magazine*	1.392	53	998	1.174%	22.114%
10	10	*Computers and Education*	3.292	49	1047	1.086%	23.200%
11	11	*Journal of Documentation*	1.467	46	1093	1.019%	24.219%
12	12	*Library Management*	1.140	45	1138	0.997%	25.216%
13	12	*New Library World*	0.807	45	1183	0.997%	26.213%
14	12	*Library Journal*	2.226	45	1228	0.997%	27.210%
15	12	*Journal of Academic Librarianship*	1.646	42	1270	0.931%	28.141%
16	12	*Information Processing and Management*	1.706	42	1312	0.931%	29.072%
17	13	*Journal of the American Society for Information Science*	2.148	36	1348	0.798%	29.869%
18	14	*Scientometrics*	1.535	35	1383	0.776%	30.645%
19	15	*Information Technology and Libraries*	1.331	34	1417	0.753%	31.398%

Table 8: Continues

20	16	*MIS Quarterly*	5.076	32	1449	0.709%	32.107%
21	17	*Computers in Libraries*	-	29	1478	0.643%	32.750%
22	17	*Communications of the ACM*	5.077	29	1507	0.643%	33.392%
23	18	*Information Today*	-	28	1535	0.620%	34.013%
24	18	*Aslib Proceedings*	0.723	28	1563	0.620%	34.633%
25	19	*Reference Services Review*	1.390	27	1590	0.598%	35.232%
26	19	*Information Research*	0.751	27	1617	0.598%	35.830%
27	20	*Library and Information Science Research*	2.310	25	1642	0.554%	36.384%
28	20	*Journal of Information Science*	1.533	25	1667	0.554%	36.938%
29	21	*Computers in Human Behavior*	2.406	24	1691	0.532%	37.470%
30	21	*Lecture Notes in Computer Science*	0.516	24	1715	0.532%	38.001%
31	21	*Ariadne*	-	24	1739	0.532%	38.533%
32	22	*Library & Information Science Research*	2.310	23	1762	0.510%	39.043%
33	22	*Webology*	0.380	23	1785	0.510%	39.552%
34	23	*Library Hi Tech News*	0.648	22	1807	0.487%	40.040%
35	23	*International Journal of Information Management*	2.859	22	1829	0.487%	40.527%
36	23	*Library Trends*	0.427	22	1851	0.487%	41.015%
37	24	*First Monday*	1.114	21	1872	0.465%	41.480%
38	24	*Serials Review*	0.410	21	1893	0.465%	41.945%
39	24	*Information and Management*	2.403	21	1914	0.465%	42.411%
40	24	*Management Science*	2.439	21	1935	0.465%	42.876%
41	25	*Collection Building*	0.563	20	1955	0.443%	43.319%
42	25	*OCLC Systems & Services*	0.449	20	1975	0.443%	43.762%
43	26	*Journal of Knowledge Management*	2.010	19	1994	0.421%	44.183%
44	27	*Journal of Library Administration*	1.388	18	2012	0.399%	44.582%
45	27	*Journal of Librarianship and Information Science*	0.909	18	2030	0.399%	44.981%
46	28	*Portal: Libraries and the Academy*	1.605	17	2047	0.377%	45.358%
47	28	*Journal of the Medical Library Association*	1.110	17	2064	0.377%	45.735%
48	28	*Journal of Business Ethics*	1.418	17	2081	0.377%	46.111%
49	28	*Expert Systems with Applications*	2.362	17	2098	0.377%	46.488%
50	29	*Information Development*	0.710	16	2114	0.355%	46.842%
51	29	*International Journal of Human-Computer Studies*	2.366	16	2130	0.355%	47.197%
52	30	*Internet Research*	1.371	15	2145	0.332%	47.529%
53	31	*The International Information and Library Review*	0.873	14	2159	0.310%	47.840%
54	31	*Library Technology Reports*	-	14	2173	0.310%	48.150%
55	31	*Libri*	0.626	14	2187	0.310%	48.460%
56	31	*Information & Management*	2.403	14	2201	0.310%	48.770%

Table 8: Continues

57	32	*Performance Measurement and Metrics*	0.664	13	2214	0.288%	49.058%
58	32	*The International Information & Library Review*	0.873	13	2227	0.288%	49.346%
59	32	*International Journal on Digital Libraries*	0.856	13	2240	0.288%	49.634%
60	32	*Internet Reference Services Quarterly*	0.483	13	2253	0.288%	49.922%
61	33	*Journal of Management Information Systems*	1.616	12	2265	0.266%	50.188%
62	33	*Journal of Marketing*	4.362	12	2277	0.266%	50.454%
63	33	*Information Systems Research*	1.990	12	2289	0.266%	50.720%
64	33	*American Libraries*	-	12	2301	0.266%	50.986%
65	34	*Online*	-	11	2312	0.244%	51.230%
66	34	*Annual Review of Information Science and Technology*		11	2323	0.244%	51.474%
67	34	*Collection Management*	1.512	11	2334	0.244%	51.717%
68	34	*Journal of Digital Information*	0.267	11	2345	0.244%	51.961%
69	34	*Cataloging and Classification Quarterly*	0.982	11	2356	0.244%	52.205%
70	35	*Reference and User Services Quarterly*	0.863	10	2366	0.222%	52.426%
71	35	*The Information Society*	1.837	10	2376	0.222%	52.648%
72	35	*Decision Support Systems*	2.265	10	2386	0.222%	52.869%
73	35	*Documentaliste – Sciences de l'Information*	-	10	2396	0.222%	53.091%
74	36	*7 Journals (9 each)*	-	81	2477	1.795%	54.886%
75	37	*9 Journals (8 each)*	-	72	2549	1.595%	56.481%
76	38	*19 Journals (7 each)*	-	133	2682	2.947%	59.428%
77	39	*21 Journals (6 each)*	-	126	2808	2.792%	62.220%
78	40	*24 Journals (5 each)*	-	140	2948	3.102%	65.322%
79	41	*41 Journals (4 each)*	-	172	3120	3.811%	69.134%
80	42	*71 Journals (3 each)*	-	240	3360	5.318%	74.452%
81	43	*161 Journals (2 each)*	-	324	3684	7.179%	81.631%
82	44	*832 Journals (1 each)*	-	832	4516	18.436%	100.000%

in their bibliometric analysis study of “The Electronic Library” between 2003-2009 have also founded “*The Electronic Library*” the most cited (270 citations, 7.399%) journals.

Bradford’s Law of Scattering

Bradford’s (1985) Law of scattering predicts the increasing productivity of journals from one zone to the next (in the expression 1: n: n2: n3), the total numbers of citations can be divided into three equal zones as per Bradford’s law. The total number of citations 4,516 will be divided in to three equal zone, result 1,505. It was found that, on an approximation, the first zone contains 22 journals which is considered as Bradford’s zone of core journals. The second zone contains the next 131 journals, and the last zone contained the next 1,105 journals. Hence, the distribution partially complies with Bradford’s law. The zone wise distribution of journals in depicted in following figure 1.

FINDINGS

The analysis of this study yielding the following findings:

1. The average number of articles per issue in

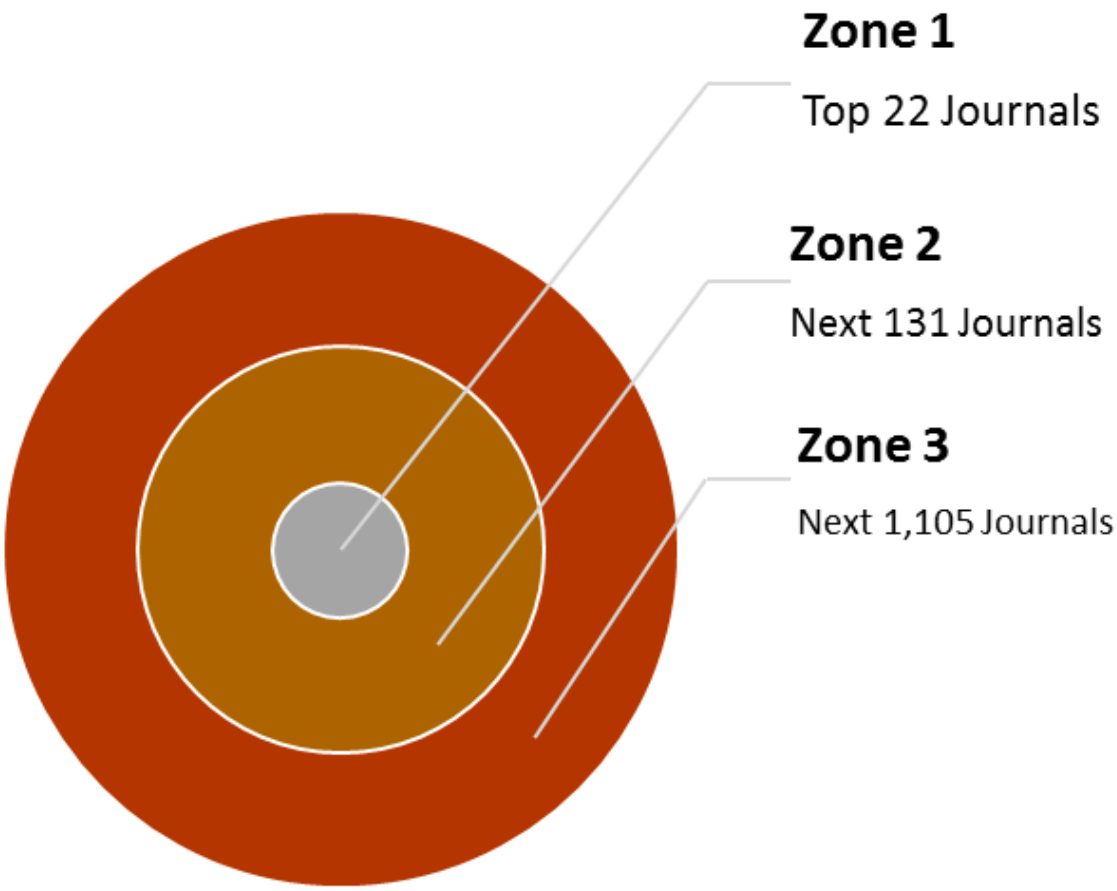

Figure 1

the Electronic Library Journal was 9 (8.633).
2. The average number of citation per articles was 29 (28.560).
3. The study revealed that the highest articles (57) published in the year of 2010.
4. The study revealed that the highest citations (1,807) received in year 2014
5. The study revealed that average length of articles was 16 (15.502) papers.
6. The study revealed that the majority of authors have cited the journals followed by e-contents and books.
7. The study revealed that the research papers occupied top position among the type of contributions.
8. The Electronic Library remained at the top in journal ranking following by Library Hi Tech, Journal of the American Society for Information Science and Technology, College and Research Libraries and The Journal of Academic Librarianship.
9. The study revealed that the single authored articles placed highest position followed by two authors.
10. The study reveals that years from 2005 to 2008 evidenced highest (5,104) number of authors.

Suggestions for future research

The authors endeavored to make this study as comprehensive as possible, however the authors believe that adding certain factors would make this study more attractive and useful. Hence, the followings are the authors' suggestions for the future researches:

1. The Electronic Library may be re-visited after some years for a different time scope and the study could be expanded to involve authors' productivity pattern, degree of authors' collaboration and Impact Factor

based on citations which can further be compared with the corresponding impact factor of Thomson Reuters (ISI) for a given year.

2. The study could be extended to gender wise distribution of authors and geographical distribution of articles.
3. A comparative study may be conducted between two or more single journals of relatively similar standard with reference to the metrics used in this study.

CONCLUSION

The Electronic Library is an international high ranked journal, highlights the lasted research in digital libraries, library technology and library services for online and remote access. It is indexed in ISI, Scopus, computer science index and Ulrich. This study analysis five volumes (2010-2014) of The Electronic Library and yielded magnificent findings such as number of citation per year, authorship patterns, type of contributions, bibliographical forms of documents and many more. It is expected that the findings of this study will assist in enhancing collection development policy.

The Electronic Library may be re-assessed after some more years and the range of the study could be expanded to include the measure of authors' self-citation and gender wise distribution.

REFERENCES

1. Alhamdi, F. A, Khaparde, F & Shesharao, W. R. (2014). A Scientometric Profile On "Internet Use" Of Library & Information Science Subject In (LISTA). *e-Library Science Research Journal*, *3* (1). 1-5.
2. Alhamdi, F. A., Khaparde, V. (2015). Authorship and Collaborative Patterns in the Annals of Library and Information Studies, 2007-2013: A Scientometric Study. *International Journal of Digital Library Services*, *5*(1). 117-129.
3. Alhamdi, F. A., Khaparde, V., & Kanekar, B. V. (2014). Journal of Documentation: A Bibliometric Study (2001-2010). *Excel's International Journal of Social Science & Humanities*, 1(2). 57-70.
4. Jacobs, D. (2001), Abibliometric study of the publication patterns of scientists in South Africa 1992-96, with particular reference to status and funding. *Information Research*, *6* (3). Retrieved on 07, July, 2015 from http://www.informationr.net/ir/6-3/paper104.html
5. Jena, K. L., Swain, D. K. & Sahu, S. B. (2012). Scholarly communication of The Electronic Library from 2003-2009: a bibliometric study. *The Electronic Library*, *30* (1). 103-119.
6. Khaparde, V. (2011). Bibliometric Study of Electronic Journal of Academic and Special Librarianship. *British Journal of Humanities and Social Science*, *1*(2). 33-43.
7. Khaparde, V. S. (2011). E-journals in library and information science: A Bibliometric study. *International journal of Humanities and Social Sciences, 1*(11). 99-106
8. Mattsson, P.2008. Bibliometrics-as important tool in research evaluation. *The euroscience, 1*(5).
9. Pritchard, A. (1969). Statistical bibliography or bibliometrics. *The Journal of Documentation*, 25 (4). 338-349.
10. Roy, P. M. (1983). Towards a theory of citing in citation analysis studies. in Sharma, C.D. and Vyas, K. (Eds). *Developing Horizons in Library and Information Science*, *1*. 232-235.
11. Singh, G., Mittal, R. & Ahmad, M. (2007). A bibliometric study of literature on digital libraries. *The Electronic Library*, 25 (3). 342-348.
12. Swain, C. Swain, D. & Rautaray, B. (2013). Bibliometric analysis of Library Review from 2007 to 2011. *Library Review*, *62* (8/9). 602-618.
13. Tella, A. & Olabooye, A. (2014). Bibliometric analysis of African Journal of Library, Archives and Information Science from 2000-2012. *Library Review, 63* (4/5). 305-323.
14. Thanuskodi, S. (2010). Bibliometric analysis of the journal library philosophy and practice from 2005-2009. *Library Philosophy and Practice*.

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