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## Role of Library Automation System (ICT) in Library's Routine Operations

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## **ROLE OF LIBRARY AUTOMATION SYSTEM (ICT) IN LIBRARY'S ROUTINE OPERATIONS**

### **ABSTRACT**

The expansion and enlargement of Information and Communication Technology (ICT) is having essential part in area of information studies and library automation specifically. The library is observed key of any educational institutions. A well-furnished and well-nurtured library is the basis of a present time teaching and training institutions. Educational libraries are having a major part in giving information resources to clients. Educational libraries are epicenters of education and learning and at that place everyone wants more information related to books, magazines, journals, periodicals etc. Libraries are well known for make use of ICT both to automate their normal functions and to provide search services to end users. Library advancement is a common term for ICT approach used to replace the physical system in the library. Computers are progressively being used in libraries for both internal functioning and for retrieving the details contained in the library. Computer applications avoid duplication of tasks and help to save time for all. The rapid growth of knowledge has made the physical process unnecessary and the need for computer data storage. Effective management of most information is exclusively feasible through the use of systems, which considered enumerate benefit of more precise and provides valuable information.

**Keywords:** Information and Communication Technology, ICT Approach, Library Advancement, library personnel's, effective management.

## INTRODUCTION

Information and Communication Technology (ICT) enhances the workflow of the library which helps reducing manual work, with this, it proliferates the library services. One of the most prominent advantages of ICT is to provide ICT-based information services to meet the users' demands (**Woodward, 2009**). Emerging ICTs have changed traditional libraries into knowledge centres and librarians function more like consulting information engineers or knowledge managers (**Sampath Kumar 2010**). From housekeeping operation to users management, have been largely achieved through the applications of internet and library software. Basically, ICT is used in libraries, efforts to provide various services, such as - access to OPAC, library databases, automated circulation of library materials, etc.

Automation is the procedure of applying mechanism to make it easier to operate and save human energy and time. The prime aim of the automated library is to liberate library and its employees and enable them to play an active role in disseminating information and knowledge. In it technologies related to the design of processes and systems that reduce need for human intercede in their functioning.

Library automation means to make use of a computer to automatically perform common library processes like classification and distribution. In automated library system, the library creates usage of computers and additional mechanization to carry their methods and procedures. It is known for transformation of its processes from manual to computer system, which considered several aspects like e-distribution of cards, OPAC system etc.

The latest styles of library advancement incorporate an enlarge value of "add-ons" especially associated to digital content delivery, better integration. The use of computerized storage and retrieval systems started with the mass making of computers and printed indexes of science and technology books in the 1960s. Later, a few organizations began using computers not only to create and print indices but also to create computer-readable data. From last 20 years there is advancement in computer system technology. As a result, affordable computer systems are now readily available in libraries. Computers are increasingly used to perform a variety of library functions using a standard non-shelf or specific software package available in a various range of library automation.

## **Definitions**

### **Information and Communication Technology (ICT)**

Information and Communication Technology (ICT) means as the application of computers and communication technologies to the acquisition, organization, storage, retrieval and dissemination of information process.

### **Library Automation**

Automation is the “application of automatic control to any branch of industry or science by extension, the use of electronic or mechanical devices to replace human labour”.

Automation is defined as “the performance of an operation, a series of operation or a process by self activating, self controlling, or automatic means. Automation implies use of automatic data processing equipment such as a computer or other labour saving devices”.

“Library Automation is the use of automatic and semiautomatic data processing machines to perform such traditional library activities as acquisitions, cataloguing and circulation. These activities are not necessarily performed in traditional ways, the activities themselves are those traditionally associated with libraries; library automation may thus be distinguished from related fields such as information retrieval, automatic indexing and abstracting and automatic textual analysis”.

### **Need & Purpose of Library Automation**

Library advancement is a common term for ICT approach used to replace the physical system in the library. It is most important in today’s scenario because of the following reasons:

1. Computers are progressively being used in libraries for both internal functioning and for retrieving the details contained in the library.
2. Computer applications avoid duplication of tasks and help to save time for all.
3. The rapid growth of knowledge has made the physical process unnecessary and the need for computer data storage.

4. Effective management of most information is exclusively feasible through the use of systems, which considered enumerate benefit of more precise and provides valuable information.

## **REVIEW OF LITERATURE**

**Singh, Y. (2003)** attempts to find out the numerous factors that affect advancement of library like concern of administration, material accessible, level of expertise of employees, accessible of appropriate software etc.

**Haneefa (2007)** investigated the application of information and communication technologies (ICT) in special libraries in Kerala, India. In the study, it is found that the library catalogue was the utmost popular area for automation.

**Bansode & Periera (2008)** do the research to identify the condition of automation in college libraries of Goa. The study reveals that all the colleges are advanced in terms of its automation.

**Mulla (2010)** study focused that various colleges are automated with various software tools of modern days. The uses of these softwares are efficiently done by the colleges to provide better facilities for their users and other stakeholders.

Use of ICT applications can assist in creating, storing, transferring and using tacit and explicit knowledge (**Okumus, 2013**).

**Jayamma, K.V. & Krishnamurthy, M. (2015)** has highlighted on the scenario of library automation in the college libraries of Bangalore city in Karnataka state.

**Kamble, A. (2015)** in his study entitled "Status of library automation in the Institutions of Higher Studies in Punjab" concisely specifies the reason of automation and represent present presiding approaches.

## **OBJECTIVE OF THE RESEARCH PAPER**

- To identify the role of library automation system in library's routine operations.

**RESEARCH METHODOLOGY:** Research methodology shows the set-up of the research, the design of the research and the pattern of the research. It is blue print and planning sheet of

the whole research. Methodology is required for every researcher for getting the information related to research work.

### **RESEARCH DESIGN**

In the present research study researcher used descriptive research method to identify the role of library automation system in library's routine operations.

### **SAMPLE DESIGN**

In the present study, researcher used convenience sampling to collect the information from different libraries. The Sample used in the Study:

**Total number of Libraries- 15**

### **COLLECTION OF DATA**

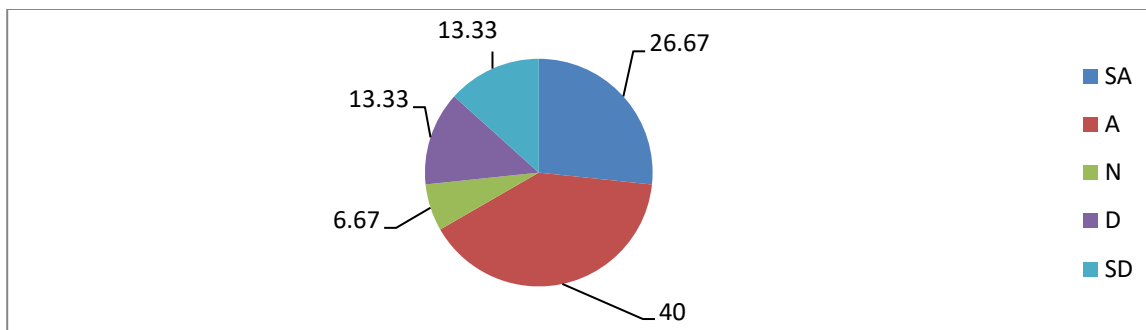
**Primary Data:** Data has been gathered from 15 libraries at different centers of Lucknow

**Secondary data:** Secondary data have been collected through the internet, magazines, research papers, journals, reviews for articles etc.

### **Analysis of Data related to Role of Library Automation System in Library's Routine Operations**

**Table 1:** Do you think that library automation plays an important role in handling large data.

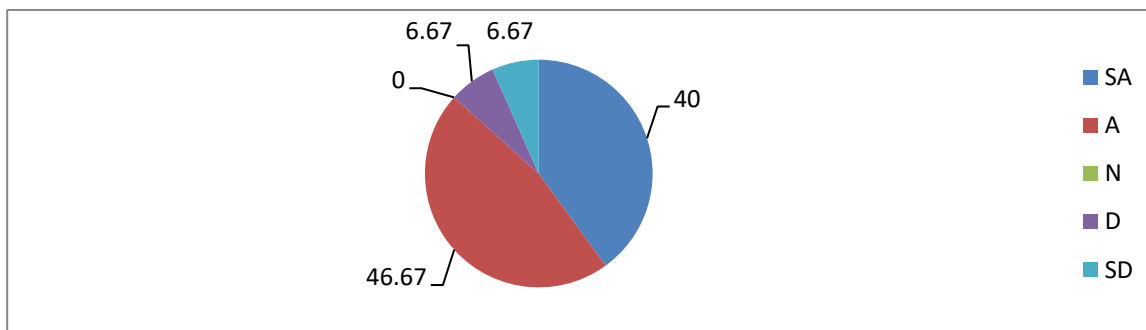
<b>Particulars</b>	<b>No. of Libraries</b>	<b>In Per Cent</b>
SA	4	26.67
A	6	40
N	1	6.67
D	2	13.33
SD	2	13.33



**Figure 1:** Do you think that library automation plays an important role in handling large data.

**Table 2:** Do you think that library automation plays an important role in ease in functioning.

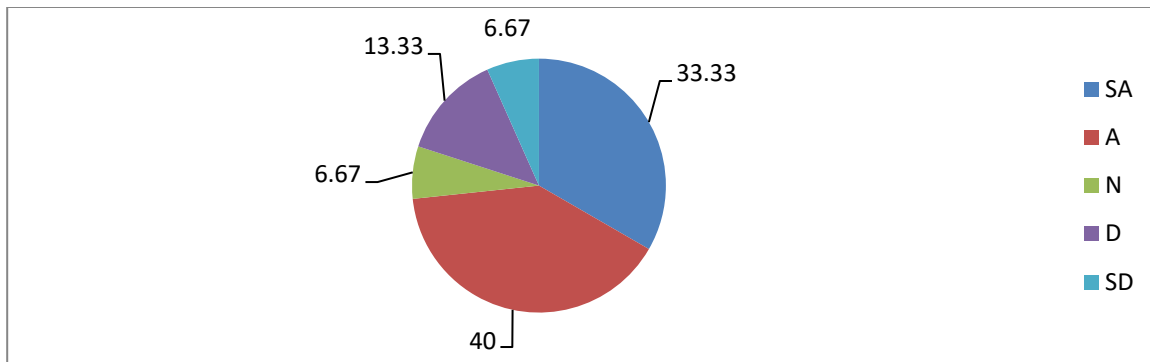
Particulars	No. of Libraries	In Per Cent
SA	6	40
A	7	46.67
N	0	0
D	1	6.67
SD	1	6.67



**Figure 2:** Do you think that library automation plays an important role in ease in functioning.

**Table 3:** Do you think that library automation plays an important role in saving the time.

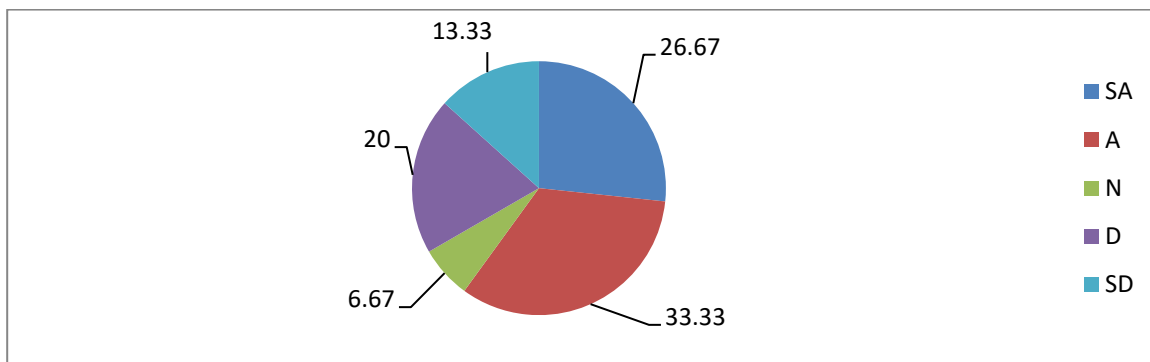
Particulars	No. of Libraries	In Per Cent
SA	5	33.33
A	6	40
N	1	6.67
D	2	13.33
SD	1	6.67



**Figure 3:** Do you think that library automation plays an important role in saving the time.

**Table 4:** Do you think that library automation plays an important role in avoiding duplication of work.

Particulars	No. of Libraries	In Per Cent
SA	4	26.67
A	5	33.33
N	1	6.67
D	3	20
SD	2	13.33

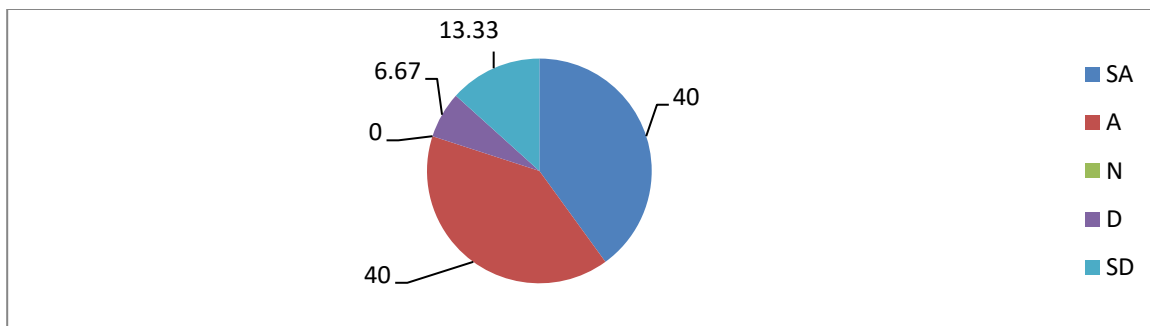


**Figure 4:** Do you think that library automation plays an important role in avoiding duplication of work.

**Table 5:** Do you think that library automation plays an important role to operate at greater speed and promptness.

Particulars	No. of Libraries	In Per Cent
SA	6	40
A	6	40
N	0	0
D	1	6.67
SD	2	13.33





**Figure 5:** Do you think that library automation plays an important role to operate at greater speed and promptness.

## CONCLUSION AND FINDINGS

Library automation means to make use of a computer to automatically perform common library processes like classification and distribution. Library Automation is the use of automatic and semiautomatic data processing machines to perform such traditional library activities as acquisitions, cataloguing and circulation. These activities are not necessarily performed in traditional ways, the activities themselves are those traditionally associated with libraries; library automation may thus be distinguished from related fields such as information retrieval, automatic indexing and abstracting and automatic textual analysis. Libraries are well known for make use of ICT both to automate their normal functions and to provide search services to end users. Library advancement is a common term for ICT approach used to replace the physical system in the library. Computers are progressively being used in libraries for both internal functioning and for retrieving the details contained in the library. The prime aim of the automated library is to liberate library and its employees and enable them to play an active role in disseminating information and knowledge. The use of computerized storage and retrieval systems started with the mass making of computers and printed indexes of science and technology books in the 1960s. Later, a few organizations began using computers not only to create and print indices but also to create computer-readable data.

The analysis shows the following results:

1. Majority of the respondents i.e. 66.67 per cent agreed that library automation plays an important role in handling large data.

2. Highly majority of the respondents i.e. 86.67 per cent agreed that library automation plays an important role in ease in functioning.
3. Majority of the respondents i.e. 73.33 per cent agreed that library automation plays an important role in saving the time.
4. 60 per cent of the respondents agreed that library automation plays an important role in avoiding duplication of work.
5. Highly majority of the respondent's i.e. 80 per cent that library automation plays an important role to operate at greater speed and promptness.

## **BIBLIOGRAPHY**

- Anas, M., Iqbal, J, Ahmed, P. (2014). Impact of automation on library management services of four selected management institutes at Aligarh, *The Electronic Library*, 32(3): 296–307.
- Bansode, S. Y., & Periera, S. (2008). A survey of library automation in college libraries in Goa state, India, *Library Philosophy and Practice*, 1-7.
- Bhanja, M., & Barik, N. (2009). Library Automation: Problems and Prospect, Paper presented at 10th National Convention of MANLIBNET organized by KIIT University.
- Cholin, V.S., & Prakash, K. (1997, March). Status of Computerization and Networking of University Libraries in India. Paper presented at 4th National convention for Automation of Libraries in Education and Research of INFLIBNET on I.T. Application in academic libraries, Patiala.
- Deshpande, J. (2013). Library automation in the academic institutions, *International Journal of Science and Research*, 4(3), 1500-1501.
- Emasealu, H.U. (2019). Automation of academic libraries and web development: A reverie or reality, *International Journal of Knowledge Content Development and Technology*, 9(1), 43–56.
- Gupta, R.C., & Dass, Shir (1991). Computerization of Serials Control- a practical approach using a personal computer, *IASLIC Bulletin*, 36, 17-22.
- Haneefa, M. (2007), "Application of information and communication technologies in special libraries in Kerala (India)", *Library Review*, 56(7), 603 – 620.

- Harinarayana, N.S., (1991). Concept of Library Automation, *Herald of Library Science*, 30, 174-183.
- Jain, S.L. (1987). Computerization of Information work, *IASLIC Bulletin*, 32, 115-121.
- Jayamma, K. V. & Krishnamurthy, M. (2015). Automation of College Libraries in Bangalore City: A Study, *International Journal of Advanced Research in Computer Science and Management Studies*, 3 (9),32-40.
- Kumar, A. and Gurpreet, S. (2010). Status of Library Automation in the Institutions of Higher Studies in Punjab, *In Library and Information Science Compendium*, 1-11.
- Kimber, Richard.T., (1968). Automation in Libraries. Oxford: Pergamon Press. 64.
- Kumar, S. & Biradar, B.S. (2010). Use of ICT in college libraries in Karnataka, India: a survey. *Program*, 44(3), 271–282.
- Large, John Andrew., (2006). ICT for Library and Information Professionals: A training package for developing countries. <http://www.unesdoc.unesco.org/> accessed on 02/07/2010
- Mulla, K.R. and Chandrashekara,M. (2010), Use of Integrated Library Software: A Survey of Engineering College Libraries in Karnataka, *International Journal of Information Science and Management*, 8 (2), 99-111.
- Matoria, R.K., Upadhyay, P.K. & Madaswamy, M. (2007), "Automation and networking of public libraries in India using the e-Granthalaya software from the National Informatics Centre", *Program*, 41(1), 47 – 58.
- Mahapatra, Piyuskanti (1985). Computer in Library Services. Calcutta: World Press.125.
- Manjunath, G.K., (2006). Library Automation: Why and How.
- Manjunatha, K, Rekha, D.P., Saji, K.M. (2007). Impact of technology on quality of services in technical and management libraries in Karnataka. Sponsored by Dept. of Scientific and Industrial Research, Govt. of India, New Delhi, Under Technology Information Facilitation Programme Scheme.
- Nayana, J. (2019). A study on library automation status among the aided college libraries in Bengaluru, *Library Philosophy and Practice (e-journal)*, 3048.

- Okumus, F. (2013). Facilitating knowledge management through information technology in hospitality organizations, *Journal of Hospitality and Tourism Technology*, 4(1), 64–80.
- Pandey, S. & Sharma, K. (1995). *Fundamentals of Library Automation*. New Delhi: Ess Publications.
- Raval, A.K. (2013). Problems of Library Automation, *International Journal of Multidisciplinary research*, 2(2), 1-6.
- Ramesh, L., (1998). Technical Problems in University Library on Automation-an overview, *Herald of Library Science*, (37), 165-172.
- Singh, Y., (2003). Library Automation in Academic Libraries in India: Problems and Prospects.
- Singh, Y. (2003). Library automation in academic libraries in India: Problems and prospects. *CALIBER – 2003*. Retrieved Dec 10, 2015, from <http://dspace.inflibnet.ac.in/bitstream/1944/188/3/03cali19.pdf>.
- Upadhyay, A., Pandey, V.B. & Sgrivastava, C. (2012). Status, Problem And Prospects Of Library Automation In Engineering Colleges of Jabalpur City: A Study, *International Journal of Engineering Research and Applications (IJERA)*, 2 (4), 2066-68.
- Venkatesha, S., Sarasvathy, P. (2018). Users perception on library automation in the university libraries a comparative study in Karnataka and Tamil Nadu, *International Journal of Library and Information Studies*, 8(2), 13–15.
- Veeranjanyulu, K., Kumar, A. & Rathinasabapathy, G. (2017). Status of Library automation in Agricultural universities in India: A study, In *National Conference on Digital Libraries, Library Automation and Open Courseware: Issues and Best Practices: Mysore View publication*.
- Woodward, J. (2009). *Creating the Customer-Driven Academic Library*. Chicago: Amer Library Assn Editions.