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# **A STUDY ON LIBRARY AUTOMATION STATUS AMONG THE AIDED COLLEGE LIBRARIES IN BENGALURU**

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## **ABSTRACT:**

The growth and development of Information and Communication Technology (ICT) is playing vital role in the field of library and information science and library automation in particular. The present paper is showing the status and problems of library automation in aided degree colleges affiliated to Bangalore university, Bengaluru. The study was clearly presents that 81.81% of Libraries are automated and main problems for not being automated are inadequate staff, lack of infrastructure, insufficient funds and lack of training to library staff. This study also gives a status view of the software packages used by libraries and modules used library automation software. It is evident from the study out of 36 libraries 12(33.33%) libraries are using EasyLib software, The study mainly focuses on the availability, applicability and problems faced during the process of implementation and utilization of Library automation software.

## **KEYWORD:**

Library automation, Aided college libraries, Problems of Library automation

## **1.1 INTRODUCTION:**

Library is considered as heart of any learning institution. A well-equipped and maintained library is the foundation of modern education structure. Academic libraries play a significant role in providing information services to the patrons. Academic libraries are centres of learning and teaching activities where students

and teachers search vast quantity of information. In traditional libraries users have to spend large amount of time for searching the Information with the help of library staff. But in the present age of ICT, computers are used for daily operations of Library which saves time and avoid duplication of work and makes library services smooth and effective.

In the information technology age, the academic libraries are expected to use ICT to give information more expeditiously and systematically than before. Mechanization of library 'housekeeping' operations is a significant function in this context, "Automation", when performed in a library refers to the computerization of activities (Harinarayana, 1991).

Library Automation is process of automating the traditional functions/activities of libraries and services such as acquisition, cataloguing, circulation, serial control system and other related activities. The current information age demands libraries to adapt to automation services in library operations and services for enhancement of effective and efficient services to the user community. Such automation not only provides considerable support for the library staff for their routine work performance, but also provides facilities like easy operations through database connectivity across geographies using internet.

In the computer age, the functioning of library operations and management has been highly productive and as well users are able to easily process large quantity of data. From collection to dissemination, a touch of timelessness and accessibility of material through computers provide an added impetus and dynamism to the entire library network. Hence, Automation of Library system leads to great facility of work and environs.

## **1.2 NEED FOR LIBRARY AUTOMATION IN AIDED COLLEGE LIBRARIES**

There are 44 Aided College libraries affiliated to Bangalore University, Bengaluru. The libraries need to be automated for effective use of library facilities by the students and faculty members. Automation not only eases out the job of librarians. It also helps library in providing better services to the students and faculty members. It is also mandatory for any college for undergoing NAAC accreditation/ re-accreditation. Following are some points will clear that the need of library computerization:

- Save the time of the users and library staff.
- Capable of handling enormous amount of Information.
- Helps in managing library circulation.
- Speedy processing of information and its retrieval.
- Error free services
- Keep up to date records.
- Give modern IT bases services to the users like OPAC and use of barcode technology.
- Standardization of library procedures and proved new services.

## **1.3 REVIEW OF LITERATURE**

Yogendra Singh (2003) tries to analyze the various factors that directly or indirectly affect the progress of library automation such as management issues, resources available to the libraries, level of skill of staff, availability of suitable software, and geographic location area. He also discusses the areas in which automation has taken place and why. The role of INFLIBNET has also been discussed. He concludes that those things were changing for the betterment of library operations and services.

Haneefa (2007) conducted the study to investigate the application of ICT in special Libraries in Kerala and found that though the libraries had hardware, software, and communication facilities to some extent, ICT-based resources and services were

not reaching the users to the expected extent. The ICT-based resource used by the largest percentage of the users was the e-mail. Most of the libraries were hampered by lack of funds, lack of infrastructure, and lack of skilled professionals to embark on automation of all library management activities and application of ICT..

Matoria, Upadhyay and Moni (2007) paper is a case study of design, development and implementation of the e-Granthalaya software in India's public libraries. The author found that there is a requirement for greater orchestration of funding provision, acquisitions of systems, data entry of catalogues, hosting and so on.

Bansode & Periera (2008) carried survey on the status of library automation in college libraries of Goa State. The study found that the all the colleges are automated and most of the colleges are using NewGenLib software. The authors suggest that library professionals must upgrade their skills to meet the growing expectations of users from libraries.

Mulla (2010) conducted the survey on Engineering College libraries in Karnataka using the questionnaire as a tool. The study reveals that the most of the colleges are automated with proprietary software like Libsoft and EasyLib . The colleges are effectively using all the modules of the Software for providing better services. The major problems faced by few college libraries which are not automated are Lack of funds and lack of Computer facility.

Upadhyay (2012) studied the status, Problems and Prospects of Library automation in Engineering Colleges in Jabalpur City. The study reveals that most of the colleges are partially automated and few colleges are not automated. The major problems faced during the pre and post automation process are the lack of trained Staff, Lack of support by management, lack of Computer facility and Lack of

funds. The prospect is both positive and negative, the positive prospects are improved productivity in terms of work output and information retrieval and helped in extending library services. The negative prospects are more finance is required for the implementation.

Raval (2013) mainly discussed on the problems occurred during pre and post automation process. According to author, the major three problems faced during Pre and Post Automation process are technological, economical and attitudinal problems. Technological problems include both the hardware and software issues, economical problems includes the cost involved in the process of establishment and maintenance of the software and the attitudinal includes lack of knowledge of the Librarian on potential and consequences of Library automation.

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

Ajay Kamble (2015) in his study entitled "Status of library automation in the Institutions of Higher Studies in Punjab" gives an overview of major facets of automation activity and surveys the current state of computer application in 6 areas of library work. For each area discussion briefly indicated the motive of automation and describes current dominant approaches citing examples of representative products and services.

Veeranjaneyulu (2017) studied the present status of library automation and digitization of Agricultural University libraries in India. The parameters investigated include the status of automation, status of digitization, membership in KrishiKosh institutional repository, membership in AgriCat Union Catalogue and

implementation of RFID technology in the agricultural libraries. The study reveals that 80% of the libraries are automated in agricultural University.

#### **1.4 OBJECTIVES OF THE STUDY**

- To find out what softwares are being used in Automated Libraries in Bengaluru city
- To find out which areas are being automated.
- To find the problems faced by librarians in using the software.
- To find out the impact of automation on Libraries.

#### **1.5 METHODOLOGY**

The study is mainly focused on Use of Library Automation Software packages in Aided degree college libraries affiliated to Bangalore University, Bengaluru, survey method was found more suitable for the study. Hence, Survey method was endorsed for the present work. There are two commonly used tools for collecting the data in survey research; the Questionnaire method, and the Interview method. Primarily questionnaire is used as a major tool in this study. However, this has been complemented with the informal interviews as and when required. The questionnaire were distributed to 44 libraries out of which only 36 libraries were automated.

#### **1.6 EVALUATION OF STATUS AND PROBLEMS OF LIBRARY AUTOMATION:**

The growth and development of ICT is playing major role in the field of library and information science in general and library automation in particular. The below table 1.1 shows the status of library automation among the Aided college libraries in Bengaluru.

**Table 1.1: Status of Automation**

<i>Automation Status</i>	<i>Frequency N</i>	<i>Percentage (%)</i>
Completely Automated	17	47.22
Partially Automated	19	52.78
Initially Automated	0	0

It is observed from table 1.1 that, the status of automation in the 36 libraries that were surveyed, 17 (47.22%) are completely automated and 19 (52.78%) are partially automated. It indicates that majority of the libraries are partially automated by using both the proprietary and open source softwares based on their requirements.

### **1.7 TYPES OF THE SOFTWARE**

It is necessary for any library automation to use software that performs the required function in automating the library activities and services. The type of software depends based on the requirements and it may be as simple as to perform the activities of acquisition or cataloguing or integrating the library management software that can perform the services of acquisition, cataloguing, circulation, serial control and others. All such software can either be purchased over the counter, or developed in house, or open source can be used. The libraries that are using different types of software either open source, free, proprietary or indigenous are grouped and represented in table 1.2

**Table: 1.2 : Type of Software**

<i>Type of the Software</i>	<i>Frequency N</i>	<i>Percentage</i>
Open source software	2	5.56
Proprietary Software	30	83.34
Free Software	1	2.78
Indigenous Software	3	8.34



Majority of libraries are using proprietary software 30(83.34%), followed by Open source software 2(5.56%), Indigenous software 3(8.34%) and free software (2.78%).The majority of the aided college libraries are using proprietary softwares. This is mainly because of the training and the other technical support and maintenance offered by the vendors.

## 1.8 SOFTWARE USAGE

Software is the important component for automating the Library. Selection of software is most important for any type of Library. Software will be selected based on their requirement, available infrastructure, manpower and financial support. Easylib is the most highly used software in aided college libraries in Bengaluru. The software used for automation is represented in table 1.3.

**Table 1.3 software usage**

<i>Name of the Software</i>	<i>No. Of Libraries</i>	<i>Percentage (%)</i>
EasyLib	12	33.34
Libsoft	8	22.24
Libsys	6	16.67
Koha	3	8.34
NewGenLib	1	2.77
IDENiZEN	1	2.77
EMAs	1	2.77
GCC Library	1	2.77
Pupilpad	1	2.77
Vijaya	1	2.77
e-Granthalaya	1	2.77

Majority of the libraries covered under study are using EasyLib 12 (33.34%) software, followed by Libsoft which is used by 8 (22.24%).Libsys is also used in 6 (16.67%) libraries, Koha is used in 3(8.34%) and NewGenLib is used in 1(2.77%) libraries . There are other software such as e-Granthalaya, IDENiZEN, EMAS, GCC library, Pupilpod, Vijaya each being used by one or other libraries. Majority

of the Libraries are using Easylib software, because the software is available at lesser price when compared to other proprietary softwares, another reason is its technical support at regular intervals.

## 1.9 INSTALLATION OF THE SOFTWARE

The ICT supports activities involving information such as gathering, storing and retrieving. Full integration of technology or e-library into the library operations that would bring about effective utilization and dissemination of information to users is essential. The implementation of such facility is capital intensive and requires high level technological skills. The installation of library software is the first leg of automation project.

**Table: 1.4 : Installation of the software**

<i>Nature of the Software</i>	<i>Installation of the Software</i>				
	<i>Library Staff</i>	<i>IT Staff</i>	<i>IT Staff from Vendor</i>	<i>Total</i>	<i>Percent (%)</i>
Proprietary Software	0	0	29	29	80.55
Open Source Software	1	1	2	4	11.11
Indigenous Software	2			2	5.55
Free Software	1			1	2.77

The above table 1.4 shows the installation approaches followed by libraries. As for the open source software and its installation is concerned, 1(2.77%) is installed by Library staff, 1(2.77%) installed by IT staff and 2(5.55%) installed by technical staff from Vendor, as for the Free software is concerned, it is installed by Library staff, as far the Proprietary software is concerned they are installed by the technical

staff from the vendor and as far the Indigenous software is concerned,2(5.55%) are installed by Library staff.

### 1.10 MODULES USED IN LIBRARY OPERATIONS

Previous tables and figures have shown the implementation and use of Library automation software, their status of implementation, the type of software used, software and hardware facilities and installation. Though these efforts are laid down in the background, the actual usage of the software is more critical for making the library automation successful. Accordingly, the objective was to identify the kind of modules that are being used such as acquisition and budget allocation, cataloguing, circulation control, serial control, library, OPAC etc. Table 1.5 shows how the libraries have used the automation software for such services.

**Table: 1.5: Modules in library operations**

<i>Modules in the software</i>	<i>No. Of Libraries</i>	<i>Percentage (%)</i>
Acquisitions & budgets allocation	7	19.44
Cataloguing	17	50
Circulation	17	50
Serial Control system	3	8.33
Library Catalogue (OPAC)	16	44.44
All the modules	17	47.22

It is found that, out of 36 libraries, 17(50%) libraries have used cataloguing module and circulation control module, 16 (44.44%) have used OPAC, 7 (19.44%) used it for acquisition and budget allocation,3 (8.33%) used it for serials control. It is also seen that 17 (47.22%) libraries have used all the modules in the software for providing services in their libraries. The same is represented in table 1.5. The study shows that the majority of the libraries are using Cataloguing and Circulation

modules. Cataloguing and Circulation modules are essential for day to day activities of the library when compared to other modules.

### 1.11 IMPACT OF AUTOMATION ON LIBRARY DEVELOPMENT

With the introduction of computers and Information technology tools, libraries are on the threshold of automation. The implementation of automation software in libraries would provide tremendous improvement in terms of increasing the efficiency and a positive impact on library development, table 1.6 provides analysed data.

**Table 1.6: Impact of Automation**

<i>Impact of Automation</i>	<i>No. Of Libraries</i>	<i>Percentage (%)</i>
Large data can be handled with ease and accuracy	16	44.44
Ease in functioning	14	38.88
Labor saving	10	27.77
Save the lot of time both user and staf	11	30.55
Avoid s/eliminates duplication of work	11	30.55
enhanced user' s satisfaction	12	33.33
Operates at a great speed and promptness	10	27.77
High rate and better quality in perf rman ce	8	22.22
Enab led selfissue /selfretur n	6	16.66
All the above factors	21	58.33

Table 1.6 shows the feedback of respondents for such activities. Out of the 36 libraries who have implemented automation, 16 (44.44%) feel that large data can be handled with ease and accuracy, 14(38.88%) says that ease in functioning ,10 (27.77%) felt that automation is labor saving, 11 (30.55%) see that it saves a lot of time for both user and staff , 11 (30.55%) find the technology avoids/eliminates duplication of work, 12(33.33%) provides enhanced user satisfaction, 10(27.77%)

believe that the software operates at a great speed and promptness, 8(22.22%) find that the performance is at high rate and better quality, and 6 (16.66%) see the benefit of self-issue or self-return enabled feature. Apart from above, 21 (58.33%) believe that all the above features have been positively impacted with the automation development in their library environment.

### 1.12 PROBLEMS FACED DURING POST AUTOMATION PROCESS

Library automation helps the library staff to effectively and efficiently service the users, but it is also important how the automation system is maintained and the kind of problems faced after installation. The major challenges could be lack of funds for improvement and training, hardware and software compatibility over years, user awareness, technical problems, upgrading to latest version, etc. These challenges are listed in Table 1.7.

**Table: 1.7: Problems faced during post automation process**

<i>Impact of Automation</i>	<i>No. Of Libraries</i>	<i>Percentage (%)</i>
Lack of funds for improvements	13	36.11
Lack of funds for staff training	9	25
Lack of compatability between the hardware and the software	6	16.66
Technical problems encountered	23	63.88
Lack of awareness among the users	14	38.88
Lack of facility for the improved version of the software	8	22.22

All the above	2	5.55
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Table 1.7 shows that, the major problem faced in post automation period is that 23(63.88%)libraries faced Technical problems, followed by 14 (38.88%) libraries have faced with lack of user awareness in using the automated system,13(36.11%) libraries are to suffer from non-availability of funds for improvement,9(25%) libraries faced with deteriorating funds/financial crunch for staff training, 8(22.22%) find problems with hardware and software compatibility,8(22.22%) find it difficulty in upgrading for improved version of software and another 2(5.55%) respondents feel all the above mentioned problems exist in their libraries.

### **1.13 FINDINGS**

1. Majority of the libraries are partially automated.
2. About of 30(83.34%) are using proprietary software for automating the Library operations.
3. EasyLib (33.34%) is the most highly used proprietary software.
4. Majority of the softwares i.e. both the proprietary and open source software are installed by the Vendor.
5. Cataloguing ,Circulation and OPAC modules are highly used when compared to other modules.
6. The impact of library automation on services of responded libraries has increased in terms of ILL, users visit to library, circulation, and will be helpful in building the good collection.
7. Technical problem is major problem faced during the process of automation.

### **1.14 SUGGESTIONS**

1. On job trainings are to be conducted to the staff members at regular intervals. This helps library staff to keep themselves updated of the latest developments in the concerned areas.
2. The computers and related hardware should be made available to the libraries. The librarian should demand these facilities from their authorities, which is the basic requirement to initiate automation.
3. The purchased hardware should be compatible with the software.
4. Due to lack of budget, the small libraries are suggested to install free/open source software available in the market like NewGenLib, Koha etc.
5. Libraries are suggested to use open source Operating Systems. This would reduce the major cost involved in entire automation process.
6. The Library professionals should follow the standardized Library guidelines for effective management of resources and for resource sharing.
7. Librarians should use standard cataloguing format which will be helpful for resource sharing and copy cataloguing.
8. Web OPAC facility should be provided both within and outside the campus and create awareness among the users about the use of library catalogue (OPAC) for the effective utilization of library resources.
9. All the libraries should provide all the services such as Circulation of Books & Periodicals, Reference Services, OPAC, Bibliographic service, Current awareness services, Inter-Library loan, Newspaper clipping and List of new arrival for better utilization of library resources.

#### **1.14 CONCLUSION**

In the present era Library automation is very essential for all the libraries. Based on their budget availability the Libraries started using automation softwares. Most of the academic libraries use proprietary software, because they will get enough

support and regular updates from the vendor, whereas in open source software the Library staff should update themselves with the help of technical staff. Most of the time, the library staff will not get enough support from the technical staff, so they adopt proprietary software for the management of the resources. Before selection of the any software, the library staff should do proper evaluation of the software.

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