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## STATUS OF GOVERNMENT UNIVERSITY'S LIBRARY AUTOMATION : SPECIAL REFERENCE OF GUJARAT STATE

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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 Library Automation Status of Government university libraries: Special reference of Gujarat state. The study was clearly presents that 100% of Libraries are automated. This study also gives a Which software packages used by libraries and modules used library automation software of Government university library of Gujarat state. It is evident from the study out of 20 libraries 20(100%) libraries are automated, The study mainly focuses on the status of library automation of Government University library in Gujarat state*



**KEYWORDS:** Library Automation, Automation, Library Automation of Government University,

### 1. INTRODUCTION

Library is a growing organization, which requires constant change in order to maintain a high degree of relevance to the environment. Stringency of resources, information and document explosion, increase in clientele and their demand for consistent, responsive, prompt, assured, tangible, processed, repackaged, and value added services have Tremendously forced the university librarians to find solutions for efficient

and effective management of their libraries. Like five laws of library science, quality improvement programmes have become the talk of the day and implies exhaustive, expeditious and pin-pointed services. Technological stage of mankind kept on influencing the information handling activities of libraries. Keeping in view the global developments in information technology (IT) library automation is in the fifth phase, i.e. digitization of information. The first phase was dominated by local systems in the 1960's. The second phase, of 1970's, was dominated by large-type and multipurpose library systems, e.g., OCLC in 1978 was a

consortium of regional libraries that shared an automated system of bibliographic databases. The third phase in 1980's was again dominated by local systems. CD's came in the libraries in late 1980's as a new information management technology as well as a viable and cost effective alternative to books, paper, micro-images, magnetic disks, videos and audios for storage and distribution. CD-ROM networks provided multiple accesses to many large databases. CD-ROM is still one of the best technologies for developing countries like India but at global level CD-ROM technology is being viewed as an intermediary technology and Web and other online sources

have become more compatible. The fourth phase of library automation of 1990's was dominated by library modernization and networking. Present phase is dominated by electronic and digitization of the learning resources for sharing at global level.

During the last one decade, many university libraries in India have automated some of their functions and activities and are providing different range of computer-based services. In order to have a bird eye view of automation scenario in Indian university libraries, a sort research was carried out in twenty four Government university libraries of Gujarat state.

## 2. OBJECTIVES :

1. To know the status of library automation of Government University library in Gujarat state .
2. To identify software available/use in the Gujarat State University libraries.

## 3. DEFINITIONS :

### 3.1 Library Automation :

Library automation requires planning, designing and implementation. Library automation reduces the drudgery of repeated manual efforts in library routine. The use of library automaton helps in eases and comfort in collection development, storage, administration, processing, preservation, and communication etc. It increases productivity in terms of both works as well as in services.

- According to the Webster's dictionary "automation is the technique of making an apparatus, a process or a system operates automatically". In other words, it is the machinery that mathematically manipulates information storing, select, presents and records, input data or internally generated data. Automation word is used for automatic technical process.
- Automation is a technique to make system automated means self active. For these electronic machines are used to automate the libraries.
- Library automation means the application of machines to perform the different routines, repetitive and clerical jobs which involve various functions and services of the libraries.

### 3.2 University libraries :

A university library is a part of a university set up. Therefore, it exists to serve the objectives of its parent organization. Every library programme must support universities total programme. The University Library should aim to advance the functions of that university.

### Functions of University Library:

#### The universally recognized basic functions performed by a university library are:

1. By procuring comprehensive range of documents including books, manuscripts, journals, magazines, newspaper etc. on various subjects;
2. In order to organize huge collection of documents it keeps them in different sections on the basics of their categorization like text book section, reference section, journal section, thesis section;
3. It provides facility of inter library loan to its users if document desired by user is not available in the library;
4. A modern university library interacts with different information networks to give easy access to e-sources/ date to more users so that they could access the desired information even from their workplace.
5. It also provides entertainment and healthy leisure to user by providing different newspapers, magazines, short story books, internet facility etc;
6. It gives the user orientation training to new enrolled users to make them fell at home and to acquaint them with the library system so that they could make maximum use of library services;
7. With the help of display of new arrivals, old book exhibitions, information bulletins about new library services etc. it keeps the users updated with the library activities;

8. It provides reference service through reference section to establish a contact between the right reader and the right document in a personal way to attract more users.

#### 4. LITERATURE REVIEWS :

Literature review mainly focus on methodology and result section of the available study. It is used to explain and summarized current state of knowledge and complete study on particular topic on basis of available literature, which are found from books, magazine, and journals. This type of literature can be found from published and unpublished literature.

**Bavakutty, Salih&Haneefa, (2006)** in his book "Research on Library computerization" highlights Modern libraries have become more and more aware of the revolutionary impact of developments in Information and Communication Technology (ICT) on their major activities. The application of ICT facilitates to provide pinpointed, expeditious and exhaustive information at the right time to the right user. It provides opportunities for libraries and information centers to widen the scope of their resources and services and to increase their significance within the organization they serve. The increasing availability of information in machine readable form allows much information needs to be satisfied with decreased involvement of libraries and librarians. This book have two parts one part is 'Computerization of University Libraries' and second part is 'Application of Information Communication Technology in Libraries'. This book will also be extremely helpful to the students, the researchers and the faculty in library and information science who would like to carry out research studies on library computerization and allied subjects.

**Gurusamy (2011)** in her research on "Open source software adoption in the Australian Public Sector" investigated various factors that may enable or inhibit OSS adoption in public sector organizations. The study used two major technology adoption theories: Diffusion of Innovation (DOI) theory and the Technology Acceptance Model (TAM). The study observed that maturity of OSS products was an enabler for OSS adoption as organizations tended to adopt mature OSS products. The respondents agreed that most of the open source software they use was very mature and well documented. Characteristics of the software were identified as an enabler and were represented by the ability to add new features, prompt fixing of software bugs, availability of source code, and product maturity.

**Pradhan (2012)** in her study elaborated the modernization aspects of management libraries using technologies. The study is focused towards resource sharing and automated services in management libraries.

**Malik, Anit (2013)**. The present paper focus on automation and digitization in university libraries, it also examine the present status and challenges faced in the process of digitization. Paper also discussed about different aspects of document conversion from print to electronic format. He found that computer technology is inevitable for library. He concluded that digital technology would bridging the gap in digital divide and will work for uplifting the level of knowledge management.

**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.

#### 5. RESEARCH METHODS :

The study is mainly focused on status of Library Automation in Gujarat State University libraries, 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 20 libraries out of all libraries were automated.

**Table- 1 State University Libraries in Entire Gujarat State**

<b>Sr. No</b>	<b>Name of State University</b>	<b>Year of Establishment</b>	<b>Name of State University Library</b>	<b>Used Lib. Abbreviation</b>
1	Maharaja Sayajirao University of Baroda	1949	Hansa Mehta Library, M. S. University of Baroda	HMLMSUB
2	Gujarat University	1950	Gujarat University Library	<b>GUL</b>
3	Sardar Patel University	1955	Bhaikaka Library, Sardar Patel University	BLSPU
4	Saurashtra University	1955	Saurashtra University Library	SUL
5	Veer Narmad South Gujarat University	1965	Veer Narmad South Gujarat University Library	VNSGUL
6	Gujarat Ayurveda University	1968	Gujarat Ayurved University Library	GAUL
7	Sardarkrushinagar Dantiwada Agricultural University	1972	Dantiwada Agricultural University Central Library	SDAACL
8	Maharaja Krishnakumarsinji Bhavnagar University	1978	Maharaja Krishnakumarsinhji Bhavnagar University Library	MKBUL
9	Hemachandracharya North Gujarat University	1986	ShivabhaiUmedbhai Patel Library, Hemachandracharya North Gujarat University	SUPLHNGU
10	Dr. Babasaheb Ambedkar Open University	1995	Vivekanand Library, Dr. BabasahebAmbedkar Open University	VLDBAOU
11	Dharmsinh Desai University	2000	Dharmsinh Desai University Library	DDUL
12	Gujarat National Law University	2003	Gujarat National Law University Library	GNLUL
13	Anand Agricultural University	2004	Anand Agricultural University	U
14	Junagadh Agricultural University	2004	Junagadh Agricultural University Library	JAUL
15	KarntiguruShyamji Krishna Verma Kachchh University	2004	KarntiguruShyamji Krishna VermaKachchh University Library	KSKVKUL
16	Centre for Environment Planning and Technology University	2005	Centre for Environment Planning and Technology University Library	CEPTUL
17	Shree Somnath Sanskrit University	2005	Shree Somnath Sanskrit University Library	SSSUL
18	Gujarat Technological University	2007	Gujarat Technological University Library	GTUL
19	Gujarat Forensic	2008	Gujarat Forensic Sciences	GFSUL

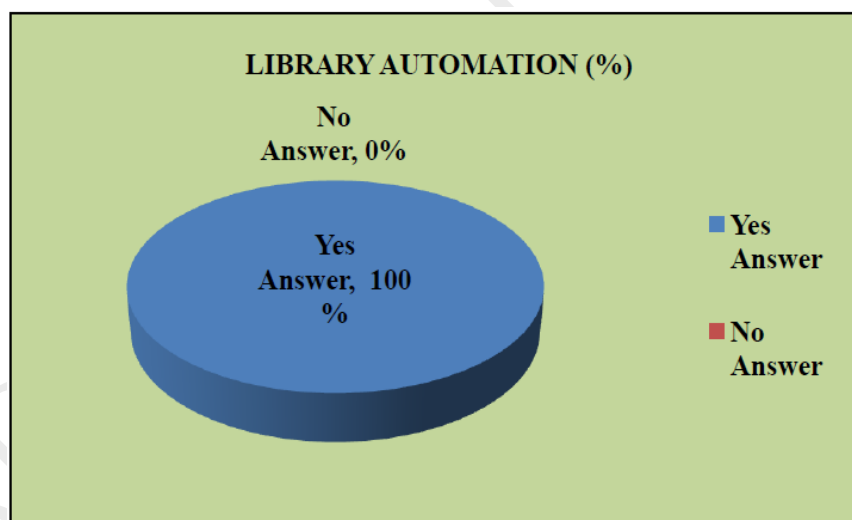
	Sciences University		University Library	
20	Children's University	2009	Children's University Library	CUL
21	Indian Institute of Teacher Education	2010	Indian Institute of Teacher Education Library	IITEL
22	Raksha Shakti University	2011	Raksha Shakti University Library	RSUL
23	Swarnim Gujarat Sports University	2011	Swrnim Gujarat Sports University Library	SGSUL
24	Kamdhenu University	2015	Kamdhenu University Library	KUL

**6. DATA ANALYSIS :**

To identify the status of automation in the state universities library in Gujarat, data was collected and the results are presented in **Table- 2 and pie-chart**.

**Table- 2 Library Automation**

Library Automation	No. of Libraries	Percentage (%)
Yes Answer	20	100%
No Answer	0	0%
<b>Total</b>	<b>20</b>	<b>100%</b>



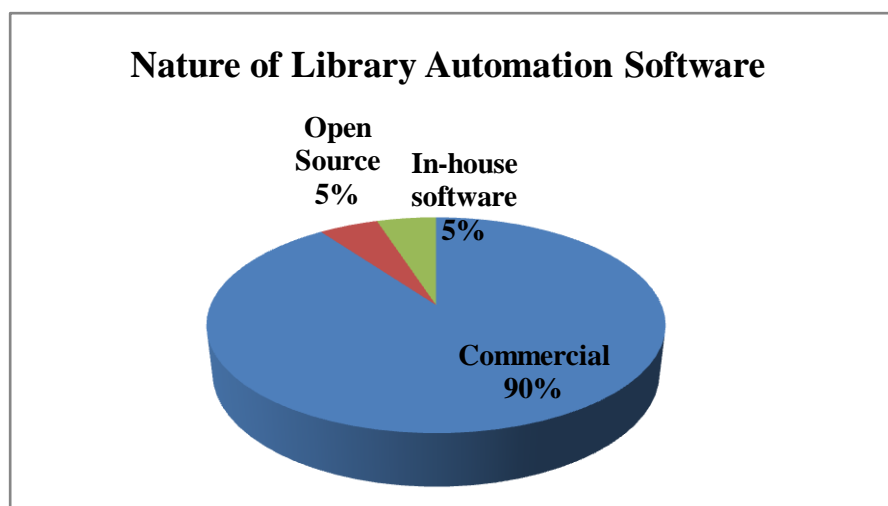
**Data Interpretation:** The **Table- 2** and Pie-chart shows that all **100% (20)** state university libraries in Gujarat have automated, researcher satisfied with this result.

**Nature of Library Automation Software:**

There are various types of software used for automating the services in academic libraries. In general, there are three types commercial, open source and in-house. The study has further been extended to the type of universities and the same is shown in **Table- 3** and chart.

**Table- 3 Nature of Library Automation Software**

Sr. No	Nature of Software Used	No. of State University Libraries	Percentage %
1	Commercial	18	90%
2	Open Source	1	5%
3	In-house software	1	5%
	<b>Total</b>	20	100%



**Data Interpretation:** Figure- 3 Nature of Library Automation Software % Table- 3 and Figure- 3 show that most of the **90% (18)** state university libraries in Gujarat used commercial software, **5%** state university library are used open source software and in-house software.

**Name of the Library Automation Software:**

Various software is available for automating the library services in commercial as well open source. The study identifies the name of the software which is widely used among the state universities for automation in their libraries. The values have been presented in **Table- 4**.

**Table- 4 Name of the Library Automation Software**

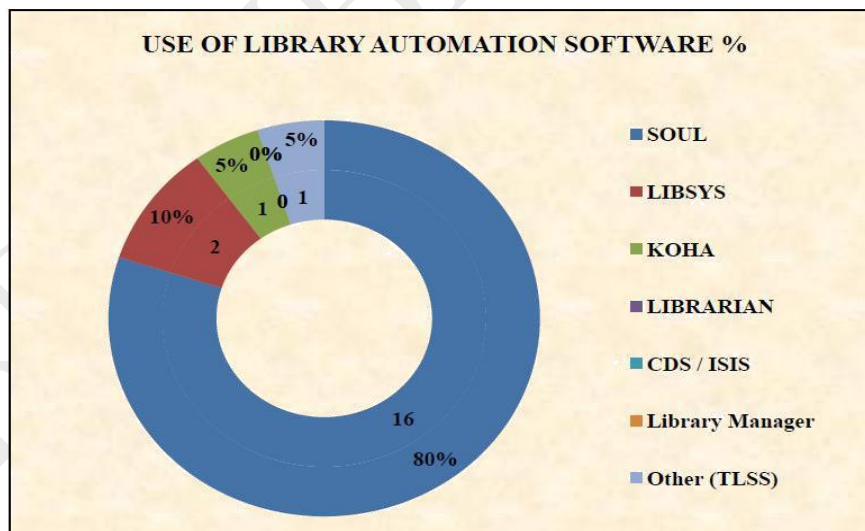
Sr. No.	Name of State University Library	Name of Automation Software
1	BLSPU	SOUL
2	CEPTUL	KOHA
3	DDUL	SOUL
4	DMDPLAAU	LIBSYS
5	GAUL	SOUL
6	GFSUL	SOUL
7	GNLUL	LIBSYS
8	GUL	SOUL
9	HMLMSUB	SOUL
10	IITEL	SOUL
11	JAUCL	SOUL
12	KSKVKUL	SOUL
13	KUL	SOUL
14	MKBUL	SOUL

15	RSUL	SOUL
16	SDAUCL	TLSS
17	SUL	SOUL
18	SUPLHNGU	SOUL
19	VLDBAOU	SOUL
20	VNSGUL	SOUL

**Data Interpretation:** Table- 4 indicates that using library automation software in state university libraries of Gujarat state, **16** state university libraries used **SOUL software** (BLSPU, DDUL, GAUL, GFSUL, GUL, HMLMSUB, IITEL, JAUCL, KSKVKUL, KUL, MKBUL, RSUL, SUL, SUPLHNGU, VLDBAOU and VNSGUL), **2** state university libraries used **LIBSYS software** (DMDPLAAU, GNLUL), **one** state university library (CEPTUL) used opensource software **KOHA** and **one** state university library (SDAUCL) used in-house developed **TLSS (Total Library Software Systems) Software**.

**Table- 5 Use of Library Automation Software (%)**

Name of Software	No. of University Libraries Used	No. of University Libraries Used %
SOUL	16	80%
LIBSYS	2	10%
KOHA	1	5%
LIBRARIAN	0	0%
CDS / ISIS	0	0%
Library Manager	0	0%
Other (TLSS)	1	5%
<b>Total N=20</b>	<b>20</b>	<b>100%</b>



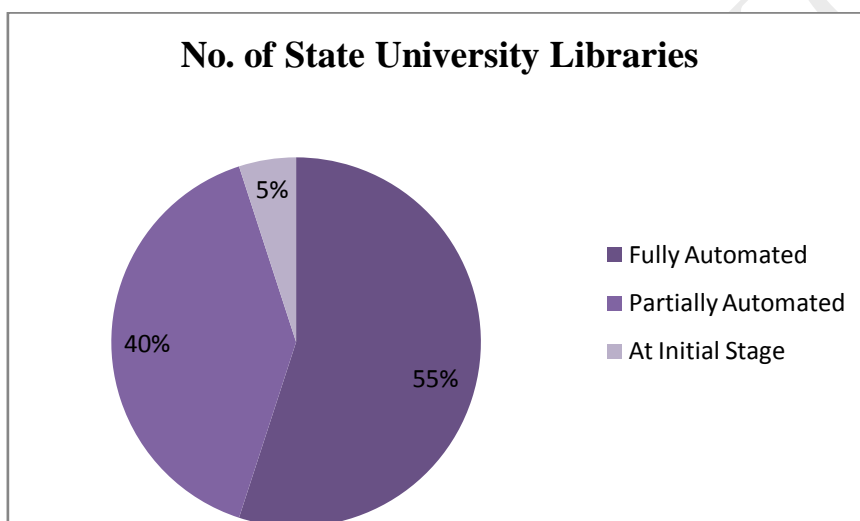
**Figure- 5 Use of Library Automation Software (%)**

**Data Interpretation:** It is seen from **Table- 5** and **Figure- 5** that out of 20 (100%) state university libraries, **16 (80%)** state university libraries are using **SOUL software** (BLSPU, DDUL, GAUL, GFSUL, GUL, HMLMSUB, IITEL, JAUCL, KSKVKUL, KUL, MKBUL, RSUL, SUL, SUPLHNGU, VLDBAOU and VNSGUL), **2 (10%)** state university libraries are using **LIBSYS software** (DMDPLAAU, GNLUL), **1 (5%)** state university library (CEPTUL) are using open source software **KOHA** and **1 (5%)** state university

library (SDAUCL) are using in-house developed TLSS (Total Library Software Systems) Software. LIBRARIAN, CDS/ISIS and Library Manager Automation Software not used any state university libraries in Gujarat.

**Table- 6 Status of Library Automation (%)**

Sr. No	Status of Library Automation	No. of State University Libraries	Percentage (%)
1	Fully Automated	11	55%
2	Partially Automated	8	40%
3	At Initial Stage	1	5%
	<b>Total (N=20)</b>	<b>20</b>	<b>100%</b>



**Figure- 6 Status of Library Automation (%)**

**Data Interpretation:** Table- 6 and pie-chart- 6 indicates that in status of university library automation of Gujarat, 55% (11) state university libraries are fully automated. These state university libraries are namely CEPTUL, DDUL, DMDPLAAU, GNLUL, GUL, JAUCL, KSKVKUL, SDAUCL, SUL, SUPLHNGU and VNSGUL. 40% (8) state university libraries are partially automated. These state university libraries are namely BLSPU, GAUL, GFSUL, HMLMSUB, IITEL, MKBUL, RSUL and VLDBAOU. Only 5% (1) state university library (KUL) automation is at initial stage.



**Table- 7 Areas of Library Automation %**

Sr No	Name of State University Library	House Keeping Activities						
		Processing Book/Data	Acquisition	Circulation	Cataloguing	Control Serial	OPAC	Bankbook
1	BLSPU	Y	N	Y	Y	N	Y	N
2	CEPTUL	Y	Y	Y	Y	Y	Y	N
3	DDUL	Y	Y	Y	Y	Y	Y	Y
4	DMDPLAAU	Y	Y	Y	Y	Y	Y	N
5	GAUL	Y	Y	Y	Y	N	Y	Y
6	GFSUL	Y	N	Y	Y	N	N	N
7	GNLUL	Y	Y	Y	Y	Y	Y	N
8	GUL	Y	Y	Y	Y	Y	Y	Y
9	HMLMSUB	N	N	Y	Y	Y	Y	N
10	IITEL	Y	Y	Y	Y	Y	Y	Y
11	JAUCL	Y	Y	Y	Y	N	Y	Y
12	KSKVKUL	Y	Y	Y	Y	N	Y	Y
13	KUL	N	N	N	N	N	N	N
14	MKBUL	Y	Y	Y	Y	N	Y	N
15	RSUL	Y	Y	Y	N	N	Y	Y
16	SDAUCL	Y	Y	Y	Y	N	N	N
17	SUL	Y	Y	Y	Y	N	Y	N
18	SUPLHNGU	Y	Y	Y	Y	Y	Y	N
19	VLDBAOU	Y	Y	Y	Y	N	Y	N
20	VNSGUL	Y	Y	Y	Y	Y	Y	Y
	<b>Yes Ans</b>	<b>18</b>	<b>16</b>	<b>19</b>	<b>18</b>	<b>9</b>	<b>17</b>	<b>8</b>
	<b>(N=20)</b>	<b>-90%</b>	<b>-80%</b>	<b>-95%</b>	<b>-90%</b>	<b>-45%</b>	<b>-85%</b>	<b>-40%</b>
	<b>No Ans</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>11</b>	<b>3</b>	<b>12</b>
	<b>(N=20)</b>	<b>-5%</b>	<b>-20%</b>	<b>-5%</b>	<b>-10%</b>	<b>-55%</b>	<b>-15%</b>	<b>-60%</b>

(Note: Multiple answers were permitted Y=Yes, N=No)

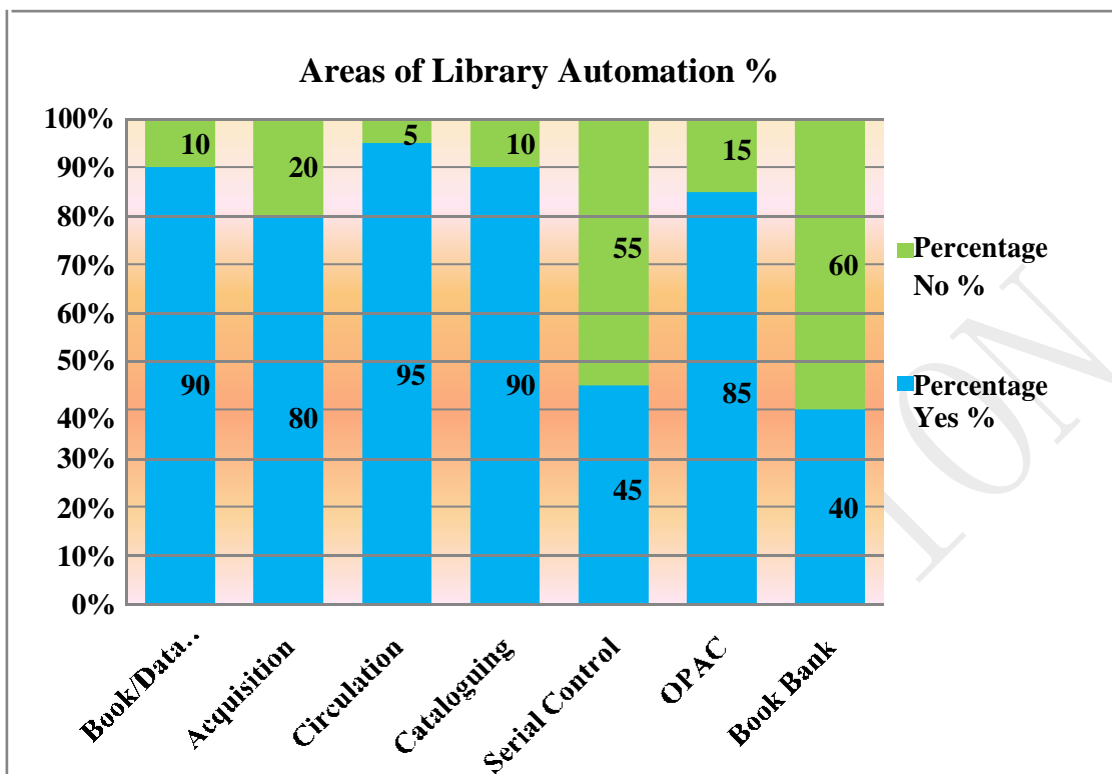


Figure- 7Areas of Library Automation %

Various housekeeping activities/sections in the libraries that have been automated among the state university libraries in Gujarat are shown in **Table- 7**. It is seen from Table-6.39 that out of **20 (100%)** state university libraries in Gujarat State,

**Book/Data Processing:** **90% (18)**state university libraries have automated their Book/dataprocessing section. These state university libraries are namely BLSPU, CEPTUL, DDUL,DMDPLAAU, GAUL, GFSUL, GNLUL, GUL, IITEL, JAUC, KSKVKUL, MKBUL, RSUL, SDAUCL, SUL, SUPLHNGU, VLDBAOU and VNSGUL. Remaining **10% (2)** state university libraries it means HMLMSUB and KUL have not automated their data processing section.

**Acquisition:** **80% (16)**state university libraries have automated their acquisition section.These state university libraries are namely CEPTUL, DDUL, DMDPLAAU, GAUL, GNLUL, GUL, IITEL, JAUC, KSKVKUL, MKBUL, RSUL, SDAUCL, SUL, SUPLHNGU, VLDBAOU and VNSGUL. Remaining **20% (4)** state university libraries BLSPU, GFSUL, HMLMSUB and KUL have not automated their acquisition section.

**Circulation:** **95% (19)**state university libraries have automated their circulation section.These state university libraries are namely BLSPU, CEPTUL, DDUL, DMDPLAAU, GAUL, GFSUL, GNLUL, GUL, HMLMSUB, IITEL, JAUC, KSKVKUL, MKBUL, RSUL, SDAUCL, SUL, SUPLHNGU, VLDBAOU and VNSGUL. Remaining 5% (1) state university library it means Kamdhenu University Library- KUL have not automated their circulation section.

**Cataloguing:** 90% (18)state university libraries have automated their cataloguing section.These state university libraries are namely BLSPU, CEPTUL, DDUL, DMDPLAAU, GAUL, GFSUL, GNLUL, GUL, HMLMSUB, IITEL, JAUC, KSKVKUL, MKBUL, SDAUCL, SUL, SUPLHNGU, VLDBAOU and VNSGUL. Remaining 10% (2) state university libraries KUL and RSUL have not automated their cataloguing section.

**Serial Control:**only45% (9)state university libraries have automated their serial controlsection. These state university libraries are namely CEPTUL, DDUL, DMDPLAAU, GNLUL, GUL, HMLMSUB, IITEL, SUPLHNGU and VNSGUL. Remaining 55% (11) state university libraries have not automated their serial

control section. These state university libraries are namely BLSPU, GAUL, GFSUL, JAUCL, KSKVKUL, KUL, MKBUL, RSUL, SDAUCL, SUL and VLDBAOU.

**OPAC:** 85% (17)state university libraries have automated their OPAC section. These state university libraries are namely BLSPU, CEPTUL, DDUL, DMDPLAAU, GAUL, GNLUL, GUL, HMLMSUB, IITEL, JAUCL, KSKVKUL, MKBUL, RSUL, SUL, SUPLHNGU, VLDBAOU and VNSGUL. Remaining 15% (3) state university libraries GFSUL, KUL and SDAUCL state university libraries have not automated their OPAC section.

**Book Bank:** 40% (8)state university libraries have automated their Book Bank section. These state university libraries are namely DDUL, GAUL, GUL, IITEL, JAUCL, KSKVKUL, RSUL, and VNSGUL. Remaining 60% (12) state university libraries BLSPU, CEPTUL, DMDPLAAU, GFSUL, GNLUL, HMLMSUB, KUL, MKBUL, SDAUCL, SUL, SUPLHNGU and VLDBAOU have not automated their Book Bank section.

## 7. FINDINGS AND SUGGESTIONS :

### FINDINGS

1. Library Automation a. Library Automation (%) - It is found that all 100% (20) state university libraries in Gujarat have initiated library automation. (Table- 2)
2. Nature of Library Automation Software- It is found that most of the state university libraries in Gujarat are used "commercial" library automation software (90%). A very few state university library are used in "open source" (5%) and "in house developed" (5%) library automation software. (Table- 3)
3. Use of Library Automation Software- It is noticed that out of 20 state university libraries in Gujarat, 2 (10%) state university libraries are used LIBSYS library automation software, 1 (5%) state university library are used KOHA, 1 (5%) state university library are used in-house develop software TLSS and remaining 16 (80%) state university libraries are used SOUL library automation software. (Table- 4 and 5)
4. Status of Library Automation (%) - It is observed that out of 20 state university libraries in Gujarat, 55% (11) state university libraries are fully automated, 40% (8) state university libraries are partially automated and remaining only 5% (1) state university library (KUL) automation is at initial stage. (Table- 6)
5. Areas of Library Automation (%) - It is observed that book/data processing section (90%), acquisition section (80%), circulation section (95%), cataloguing section (90%) and (85%) OPAC section is the top five sections which have been automated in state university libraries. A very few state university libraries have automated their serial control (45%) and (40%) book bank section. (Table- 7)

### SUGGESTIONS :

From the analysis and interpretation of the data, the resulting findings and observations have contributed to the formulation of suggestions as follows:

1. University Librarians or staff should ready to learn ICT related skills, techniques and necessary functions through orientation and refresher programme, workshop, seminar, and short term courses organized by UGC, INFLIBNET, Universities, DELNET and other agencies.
2. University librarian should convince their higher authority or management authority or university authority for the favorable decision relating to the ICT policy in the university library.
3. All state university libraries should be made available free and open source latest updated digital library or institutional repository or digital repository software like a Dspace, Eprints, Fedora, Invenio, SobekCM, Greenstone, etc. for digitize their library collections or resources and functions including development of digital library.
4. The government should organize various training programme or workshops on ICT applications for librarian working in any library irrespective of its types through UGC, ILA, DELNET, INFLIBNET or any other organization or institutes.

### CONCLUSION :

In the present era Library automation is very essential for all the libraries. An automated library can provide better library services to their users and can maintain the library more properly which a

manual library can't do. The record keeping activities and various report generation becomes very easy in an automated library system. But the success of any library automation programme depends upon its proper planning and execution. Hence library professionals need to take right initiatives in right direction. Also selection of the any software, the library staff should do proper evaluation of the software Modules for better services.

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