Library Management Software Packages: A Case Study of Central University of Jammu and SMVDU-Katra

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Abstract- Due to the changing scenario of the 21st century and because of the rapid advancement in the information technology, the role of university librarian has become very vital and significant. Automation and digitization of the libraries have become an essential factor for achieving the objectives of the users of the present and future generations. During the past decade we have seen many changes around the world in the library and information field. Various libraries and information centers are managed to improve their efficiency, capability, services and productivity by using the latest technologies. This study has been presented with the types of library management software packages being used in the Central University of Jammu and Shri Mata Vaishno Devi University (SMVDU) - Katra. The main purpose of the study is to provide some basic idea to librarians which help them in selecting the suitable library management software package for their respective libraries.

Keywords - Software, Automation, Libsys, Koha, Etc.

I. INTRODUCTION

The advent of information and communication technology has changed the needs, requirements and entire perspectives of academic pursuits. It has been found in the present work that in the decades of 1990's, the libraries of advanced scientific and technological institutions, research institutes and libraries of corporate organizations took initiative steps towards the automation of their respective libraries.

Various library management software packages were developed for the automation of libraries [3]. Some studies related to the use of library management software packages have been made by scholars in India and abroad. Their findings and suggestions helped the librarians and policy makers to cope up with the emerging problems in library services.

On account of increase in number of documents, massive growth in numbers of users and advancement in various fields of learning, the proper management of libraries became the need of the time. The library house-keeping operations such as, acquisition, cataloguing, classification and circulation which were earlier done by manual operations became the part of library management software packages [1].

Rest of the paper is organized as follows, Section I contains the introduction of Library Management Software packages, Section II contain the Objectives of the study, Section III

contain Research Methodology, Section IV explain the Area of the study, section V Contains the Data interpretation and Analysis, Section VI contain the suggestions, and Section VII concludes research work with future directions.

II. OBJECTIVES OF THE STUDY

- To evaluate the Library Management Software Packages being used in Central University of Jammu and Shri Mata Vaishno Devi University (SMVDU) - Katra.
- To make a comparative study of the different features of the Library Management Software Packages against some checklist points.
- To find out the librarians' opinion on the functioning of the Library Management Software Packages in use.
- To assess librarians' level of satisfaction with the Library Software and the Vendor

III. RESEARCH METHODOLOGY

The approach adopted for the research is analytically descriptive. For the completion of the proposed study, both primary and secondary sources being consulted. The survey method with questionnaire as a tool being used to gather primary data from the Librarians of the University Libraries of Jammu region.

The other sources consulted for data collection includes, reference books, text books, reports, journals, World Wide

Web, etc. Data so collected for the research being suitably arranged and classified.

IV. AREA OF THE STUDY

Following University libraries were surveyed for the present study, which includes:
1. Central University of Jammu
2. Shri Mata Vaishno Devi University (SMVDU) - Katra.

V. DATA ANALYSIS AND INTERPRETATION

The questionnaire has been prepared to fulfill the objectives of the study. The data analysis and presentation is based on the response received from the librarians. Besides this, the literature written on respective library management software package and personal interviews with the librarian's have been used in collecting the desired data.

1. **The abbreviations used and the address of the institutions under study**

Table-1

S.No.	Name of the Institution/ Library	Abbreviation Used	Address
01	Central Library, Shri Mata Vaishno Devi University, Katra	SMVDU	Katra, Jammu (J&K)- 182320
02	Central Library, Central University of Jammu	CUJ	Rahya Suchani, Samba, Jammu (J&K)- 181143

2. Library management software package (LMS) used and the year of commencement

The software packages used to manage the house-keeping operations of the libraries are known as library management software packages [2]. There are various LMS available for the automation of libraries and as for as the University Libraries under study are concerned, it is found that SMVDU is using LIBSYS library software and CUJ is using KOHA library software for the automation of their libraries.

Table-2

S.No	Name of the Institution/ Library	LMS used	Year of commencement
01	SMVDU	Libsys	2008
02	CUJ	KOHA	2015

Further the study reveals that SMVDU started library automation in 2008 whereas, CUJ started their library automation in 2015.

3. Retrospective Conversion

Retrospective conversion is the process of converting the existing records of a library into machine readable form, or in simple terms, it is the process of entering the library data in the library management software packages.

Table-3

S.No.	Name of the Institution/Library	Retrospective Conversion
01	SMVDU	Completed
02	CUJ	Completed

From table-3 it is clear that SMVDU and CUJ have completed their library retrospective conversion.

4. Value added features

The process of library automation involves the fully computerization of all the library activities starting from the acquisition to circulation. The library management software packages offer a vast variety of value added features to fully automate the libraries. These features are the backbone of any library software package. Further, as for as the library software packages under study are concerned, some of the important value added features like content acquisition, Content organization and management, User interface, System platform, Search facility, Storage features, Interoperability and Standard Compliance are taken into consideration. (Table.4)

Table-4

S.No.	Features	KOHA	LIBSYS
01	Content acquisition	No	Yes
02	Content organization and management	No	Yes
03	User interface	Yes	No
04	System platform	No	No
05	Search facility	Yes	Yes
06	Storage features	No	Yes
07	Interoperability	Yes	No
08	Standard Compliance	Yes	No

Table-4 clearly indicates that most of the value added features are missing in KOHA and LIBSYS library software packages. In Libsys software the features like content acquisition, content organization and management, search facility and storage features are available and the features like user interface, system platform, interoperability and standard compliance are not available.

5. Acquisition Module

Acquisition is one of the basic functions of any library. It is the process of building library collection. The acquisition module takes care of all the operations associated with the acquisition section. The main function of acquisition module is selection, ordering, receiving and accessioning of documents. Acquisition module helps to keep track of documents received from vendors after proper approval. There are many features associated with the acquisition module. Some of the important features associated with acquisition modules (as listed in Table-5) are studied in connection with the LMS used in university libraries under

study and it is found that almost all the features associated with acquisition module are available in both the LMS packages except the online indenting and approval which is not available in both of the library Software packages.

Table-5

S.No.	Features	KOHA	LIBSYS
01	Facilitate easy preparation of purchase orders	Yes	Yes
02	Centralized procurement	No	Yes
03	Online indenting and approval	No	No
04	Enable accurate and up-to-date record of orders	Yes	Yes
05	Facilitate easy accessioning and invoice processing	Yes	Yes
06	Enable to keep up-to-date vendor database	Yes	Yes
07	Help in preparation of orders	Yes	Yes
08	Help in preparation of reminders to vendors	Yes	Yes

6. Cataloguing Module

A library catalogue is an organized record of a library/institution. It is concerned with the technical processing of the library documents. Cataloguing is the process of creating metadata by representing information resources such as, books, CD's, DVD's, etc. Cataloguing module contains information such as, author, title, subject, publisher, etc. in the form of bibliographic databases. The process of cataloguing produces library catalogues. There are many features associated with the cataloguing module. Some of the important features associated with the cataloguing modules (as listed in Table-6) are studied in connection with the LMS used in university libraries under study and it is found that all the features associated with cataloguing module are available in all the library software packages.

Table-6

S.No.	Features	KOHA	LIBSYS
01	Facilitate Net cataloguing	Yes	Yes
02	Enable import and export of data	Yes	Yes
03	Generate and maintain authority file	Yes	Yes
04	Support international standards	Yes	Yes
05	Generate list of new catalogue records	Yes	Yes
06	Generate catalogue cards	Yes	Yes

7. Circulation Module

Circulation is the very important part of library management. Transactions of the library documents manually in circulation desk are very hard and time consuming. Often there are seen very long queues on the circulation desk. Therefore to save the time of the users and library staff and also to minimize the requirements of labour, library management software packages are very necessary for the management of library housekeeping operations. Circulation Module keeps track of library members, such as, registration, check-in, check-out, renewal, reservation of documents and sending reminders, etc. There are many features associated with the circulation module. Some of the important features associated with the circulation modules are studied in connection with the LMS used in university libraries under study and it is found that the entire important features (as listed in Table-7) related to circulation module are present in all the library software packages under study.

Table-7

S.No.	Features	KOHA	LIBSYS
01	Create membership database of different categories with different parameters	Yes	Yes
02	Generate patron ID cards with required personal details	Yes	Yes
03	Support automatic generation of due date slips and issue reminders for overdue books	Yes	Yes
04	Compatible with security system like RFID/Bar Code for self Check in and Check out	Yes	Yes
05	Support automatic generation of fine	Yes	Yes
06	Support stock verification	Yes	Yes
07	Generate statistical report	Yes	Yes

8. Serial Control Module

Serial control system is an integral part of the library automation. The emergence of e-journals has made serial control management as further complicated. The main function of serial control modules are selection, subscription, ordering, payment, sending reminders, reporting of missing issues, etc. [8]. There are many features associated with the Serial control module. Some of the important features associated with the Serial control modules are studied in connection with the LMS used in university libraries under study and it is found that almost all the features are available except one as listed in table-8.

Table-8

S.No.	Features	KOHA	LIBSYS
01	Enable easy input of serial data for check-in	Yes	Yes
02	Enable easy subscription of new journal and avoids duplication	Yes	Yes
03	Support renewal, cancellation and extension of subscription	Yes	Yes
04	Keep records of missing issues	Yes	Yes
05	Support invoice processing	Yes	Yes
06	Enables to send automatic reminders to claim issues not received	Yes	No
07	Support search and retrieval facility	Yes	Yes
08	Generate list of serials holding	Yes	Yes

9. OPAC Module

An OPAC is a database of bibliographic records describing the holdings of a particular library. It allows fast and accurate retrieval of data through the different access points such as, author, title, subject, publisher, accession no. keywords, etc, and offers online access through the public access terminals [7]. Data can be retrieved by selecting the requisite terms from the access point dictionaries, where the user need not to type out the query or through string search facility which permits the user to search on any part of the title. In keyword searching the Boolean Operators like, "AND, OR, NOT" can also be used. There are many features associated with the OPAC module. Some of the important features associated with the OPAC modules are studied in connection with the LMS used in university libraries under study and it is found that some of the important features are not supported by the LIBSYS library software, whereas KOHA supports all the features under study.

Table-9

S.No.	Features	KOHA	LIBSYS
01	Multiple Search strategy	Yes	Yes
02	Multimedia access	Yes	Yes
03	Filtering	Yes	Yes
04	Sorting	Yes	Yes
05	Patron empowerment	Yes	No
06	Z39.50 compliant	Yes	No
07	Multi-lingual access through Unicode	Yes	No
08	Security	Yes	Yes
09	Full-text retrievals	Yes	No

10. Software compatibility with MARC 21, DUBLIN CORE, RFID and BAR CODE

Table-10

S.No.	Software	Compatibility
01	KOHA	Yes
02	LIBSYS	Yes

Table -10 shows that both the software packages under study are compatible with Marc 21, Doublin core, RFID and Bar code as they are developed in-compliance to the said standards.

11. Features supported by RFID/Bar Code

Security system is very important in the library management software packages. Now a day the software packages are developed in accordance with the security features like sensor gates, identification of membership, Stock Verification, theft detection, etc. [6]. From the table-11, it is found that all the important features associated with RFID/BAR CODE are available in all the library management software packages as they are developed in-compliance to the latest standards.

Table-11

S.No.	Features	LIBSYS	KOHA
01	Self Check-in/check-out	Yes	Yes
02	Stock Verification	Yes	Yes
03	Sensor gates	Yes	Yes
04	Issue of No dues certificates	Yes	Yes
05	Users Statistics	Yes	Yes
06	Identification of membership	Yes	Yes

12. Training Facilities by the software vendor

Training facilities are necessary for the growth and development of the institution and also necessary to cope up with the changing atmosphere. From the study it is clear that software vendor didn't provide training facilities to the CUJ. However the vendor is in contact with the SMVDU for sometimes.

Table-12

S.No.	Institution/Library	Training Facilities
01	CUJ	NO
02	SMVDU	Sometimes

13. Software Updation service by the vendor

Today is the era of IT and because of this many companies are launching new versions of the software to survive in this changing and competitive environment. So it becomes necessary for the libraries to update their existing software package from time to time.

From the table-13, it is clear that, the library of SMVDU is getting the same service occasionally and not regularly.

Further, through the personal interview with the Librarian of CUJ, it is found that, there is no need of trainings and updation facilities as they manage the software (KOHA) by themselves.

Table-13

S.No.	Institution/Library	Updation service
01	CUJ	NO
02	SMVDU	Sometimes

14. Time required in getting the service engineer

For the updation and maintenance purpose, service engineer required day time in SMVDU library, whereas there is no need of service engineer in CUJ, as they manage the software (KOHA) by themselves.

Table-14

S.No.	Institution/Library	Time required
01	CUJ	No need of service engineer
02	SMVDU	One Day

15. Satisfaction level of the librarian about the customer support services

The relationship of vendor with the customer/ librarian is very important in making the library automation a success. Customer support service plays a very crucial role in the smooth functioning of library management software packages.

Table-15

S.No.	Institution/Library	Level of Satisfaction
01	CUJ	No
02	SMVDU	To some extent only

16. Impact of software in saving the time of the users and the library staff

Transactions of the library documents manually in circulation desk are very hard and time consuming. Often it's seen that there are very long queues on the circulation desk [4]. Therefore to save the time of the users and library staff and also to minimize the requirements of labour, library management software packages are introduced for the management of library housekeeping operations. Table-16 shows that both **t**he librarians of the libraries under study are of the same opinion that the software installed in these libraries has saved the time of the users as well as the library staff.

Table-16

S.No.	Institution/Library	Librarian's opinion	
		Users	Library Staff
01	SMVDU	Yes	Yes
02	CUJ	Yes	Yes

17. Impact of software on library services

The main aim of library management software package is to get the best result by improving the performance of library services. According to the librarians of the SMVDU and CUJ, the software installed in these libraries have enhanced user satisfaction level, increased circulation, saved the time of the users and staff and enabled self check-in and check-out.

Table-17

S.No.	Impact	KOHA	LIBSYS
01	Enhanced user satisfaction level	Yes	Yes
02	Increased circulation	Yes	Yes
03	Save the time of the users and staff	Yes	Yes
04	Enabled self check in/ check out	Yes	Yes

18. Problems faced in operating the software

There are many complexities in using the library software, as they follow different search engines [5]. The librarians often face many problems in operating the software. Some of the problems as listed in table-18 are discussed with the librarians of the libraries under study and it is found that CUJ have none of the above mentioned problems in operating the software, whereas SMVDU is facing the problem with serial control and acquisition.

Table-18

S.No.	Problems	SMVDU	CUJ
01	Slow speed	NO	No
02	Problem with acquisition	YES	No
03	Problem with cataloguing	No	No
04	Problem with circulation	No	No
05	Problem with serial control	Yes	No
06	Compatibility issue with RFID/Barcode system	No	No

19. Improvement in library services by using the software

For the smooth and efficient running of the library services, the effectiveness of the software installed is an important factor. Table-19 shows that librarian of CUJ is of the opinion that the software has greatly improved the services of their library, whereas according to the librarian of the SMVDU library, the library services are improved to some extent only.

Table-19

S.No.	Institution/Library	Improvement level
01	CUJ	Greatly improved
02	SMVDU	Improved to some extent only

20. Satisfaction level after using the software

The library software packages used for automation help to increase the efficiency and accuracy of the work done in the libraries. It also helps in providing the real time information

to the users by sharing the bibliographic records over the web through its WEB OPAC. According to the table-20, both the libraries are satisfied by using the software.

Table-20

S.No.	Institution/Library	Improvement level
01	CUJ	Strongly satisfied
02	SMVDU	Satisfied

VI.   SUGGESTIONS

The following suggestions are made by the researcher. The suggestions are made to serve as a guide to the University Libraries. The suggestions are for University Librarians and policy makers:

- The standard library management software should be used in the University libraries to satisfy the present and future needs of the users. Because such type of software are more reliable, flexible, efficient and user friendly.
- There should be proper training programs for the university librarian's. Training is the most important activity which plays an important role in the development of the librarians and the libraries.
- Librarians should be taught skills, which will enable them to identify the suitable software package for the automation of their libraries. The most important peoples in making library automation successful are librarians.
- There should be adequate funds to purchase standard software package. Sometimes due to the dwindling budget, librarian's has to compromise with the poor software package. Further funds are also required to purchase accessories associated with the software packages.
- There should be need for proper software training to the librarians/Library professionals who are operating the library software because it has been found from the survey that some librarians lack the knowledge of some modules.
- The value added features are very important for the successful running of library automation. From the study it is found that some important value added features are not available in the software packages under study. So the librarians are suggested to keep in mind all the value added features while selecting the library management software package.

VII. CONCLUSION

Various library management software packages were developed for the automation of libraries. As for as the status of library management software packages used in the university libraries of SMVDU and CUJ are concerned, it is concluded that both the software packages are suitable and reliable. However, in libraries where there is financial crunch, the KOHA (OSS) library software is very suitable, as the same is available free of cost. The study will be very beneficial to the librarian's/ policymakers in the selection of suitable software packages for their libraries.

REFERENCES

[1] Sanjay, Kataria. *"Emerging Technologies and changing dimensions of Libraries and information services"* KBD publications, New Delhi 2010.
[2] A.P. Khan & Others. *Automated Library Data Tracking System By Smartphone*. International Journal of Computer Sciences and Engineering. Vol.6, Issue. 4, pp. 379-382.2018
[3] Vikash Kumar Shukla & Others. "*Android Based Management System for Library*", International Journal of Computer Sciences and Engineering. Vol.4, Issue. 4, pp. 102-105, 2016
[4] www.shodhganga.inflibnet.ac.in
[5] www.doaj.org
[6] www.emeraldinsight.com
[7] www.iosrjournals.org
[8] www.scholar.google.co.in

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