CHAPTER 6
CONCLUSION, SUMMARY AND FINDINGS

6.1 Introduction

Numerous Library Management Software Packages are currently available in the software market. Each of them is competing against the others. The software companies are continually upgrading their products by fixing software bugs and optimizing the features as per user feedback. Information and communication technology (ICT) movement has made it necessary for the libraries to change their conventional outlook and adapt the fast and speedy workflow in this ICT environment. The introduction of library automation has helped maximum number of libraries to go with the ICT flow. Indian software companies have also developed a number of LMS packages which are as competitive in the market as their International counterparts. Koha is one of the best known international open source LMS package. It was developed in 1999 in New Zealand. It is used worldwide. Some of the important library software packages developed by Indian software companies are Granthalaya, Libsys, SOUL 2.0, Librarian etc. While majority of these LMS packages are developed by commercial companies, a few of them are developed by government organizations. For example, SOUL is developed by INFLIBNET.

Another important issue is the selection of appropriate software package for library automation that will fulfil the requirement and needs of the libraries. The responsibility of selection of library software package for the library lies on the librarian. It’s a difficult responsibility for the librarian since he has to compare all the features and attributes of the available LMS packages and select the one most suitable according to needs of his library. Though the software market often confuses the users by giving some misleading advertisement, only a few LMS packages are truly competitive in the market offering plethora of features and following international standards.
The institutes of Higher Learning in Assam are mainly using Koha, Libsys and SOUL 2.0 for library automation purpose. In fact all the libraries of 8 (eight) major institutes of Higher Learning in Assam with highly automated library operations, are using one of these three LMS packages. That is why the researcher has chosen these three LMS packages for the study. Each full-fledged Integrated LMS package offers the following common modules for library operations:

- Administration
- Acquisition
- Cataloguing
- Circulation
- Serials
- OPAC
- WEB OPAC

The study was undertaken to understand the use of LMS Packages in the Libraries of Institutes of Higher Learning in Assam with reference to Serial Control Module. The study also attempts to get an idea of the preferred LMS package in terms of real world user satisfaction.

Regular interval of publication is the key feature of serials. Serials cover magazines, newsletters, newspapers, annual reports, proceedings, scholarly journals etc. Proper management of serials is very complicated and requires regular moderation. Since automation in most of the library areas is helping the library operations to complete quickly, the librarians are implementing automation facilities in serial control also. The function of automated serial control will vary from library to library depending on the size of the library and its serial management. Serials processing control involves acquisition, claims controls, cataloguing, circulation, binding, weeding out etc. Serial control means procurement and management of serials in a library. Generally functions of an automated serials control system comprises of putting the information of the journals when the library receives it, ordering new serials and renewing subscribed journals, Sending reminders, accessioning, cancellation and binding of issues.
6.2 Meeting the Objectives

The researcher has carried out the study with the intent to understand the use of Library Software Packages in the Libraries of Institutes of Higher Learning in Assam with reference to Serial Control Module. Four objectives were set by the researcher keeping in mind the study at the time of preparing the theses. The results are obtained according to the objectives set by the researcher.

Objective 1: To know the automation scenario in Institutes of Higher Learning

The researcher has found that all the 8 (eight) surveyed libraries are automated. Library staffs of all the surveyed libraries are doing their best to make the library automation successful which is also helping them to uplift the services they are offering to their patrons. Some of the surveyed libraries are partially automated and some are fully automated. The following are some of the findings and summaries taken from chapter 5, regarding the automation. In Table 5.9 and Table 5.9(A) the ICT facilities in Institutes of Higher Learning in Assam and areas of automation are clearly visible.

a) Krishna Kanta Handiqui Library of Gauhati University is the first library under the study to start automation in 1995 followed by IITG in 1996, DU in 1997, TU in 1998, AAU and CU in 2005, NIT in 2006 and AU in 2011 (Table 5.8).

b) Among the 8 (eight) surveyed libraries 6 (six) (75%) libraries are fully automated while 2 (two) (25%) libraries are partially automated. Partially automated libraries are AAU library and CU library (Table 5.9). Circulation and Cataloguing modules are practiced by all the libraries under study i.e., these modules are 100% in use and Acquisition module is being practiced by 6 (six) libraries (75%) whereas 6 (six) libraries (75%) i.e., AU, DU, GU, IITG, NIT and TU are using serial control module.
c) All the libraries i.e., 8 (eight) libraries under study are offering OPAC facility and 7 (seven) libraries (88%) under study are offering Web OPAC facility, (Table 5.9 (A)).

d) It is seen that 100% surveyed libraries are using Barcode technology and only IITG has recently started RFID technology using Libsys smart in IITG library (Table 5.9 (A)).

e) 100% surveyed libraries are having internet connectivity and only IITG, DU and TU libraries have Wi-Fi facility (Table 5.9 (A)).

f) Delcon, Delnet and E-Sodh Sindhu are dominant consortium in the libraries under study (Table 5.5), (Fig 5.2).

**Objective 2: To study the features of different library software packages used by the Institutes of Higher Learning.**

a) The credibility of library software packages is evaluated on the basis of salient features and the facilities available in the software. The salient features and facilities of the three LMS packages being used by the institutes under study are compared by calculating the mean value of weightage given by librarians for each LMS package. A total of 24 (twenty four) common features and facilities are rated by librarians of each institute library. Assuming similar weightage to each such feature and facilities, the sum of scores is divided by total number of attributes i.e., 24 (twenty four) to obtain the final score which should indicate overall user satisfaction level of the studied software package in terms of features and facilities. The scores thus calculated (Table 5.10), (Fig 5.4) indicate SOUL 2.0 to be more user friendly to the library staff with an overall score of 4.56 out of 5 followed by Koha (4.36 score out of 5) and Libsys (4.17 score out of 5) respectively.

b) Even though SOUL 2.0 is found to be more user-friendly software in terms of overall features, it may also be noted that for some individual features
Libsys and Koha scores equally well. For instance, when features like Searching facilities and Web OPAC are compared, Koha is found to be highly satisfactory. Being open-source software, price affordability score for Koha is also satisfactory under study. Whereas Libsys has highest score in terms of Web OPAC and user friendliness.

**Objective 3: To study and compare the sub-sections of serial control module of LMS packages**

6 (six) surveyed libraries have started using serial control module. IITG is the first library to start serial control module in 1996. However in 2014 they updated to libsys7 version and implemented the latest version of serial control module as well. The latest entrant into serial control automation is Assam University library which started working with serial control module in 2015 (Table 5.11).

General features of serial control remains same for all the software. Hence for the purpose of this study the researcher takes the liberty to use the key generalized features of all three software viz, Koha, Libsys and SOUL for comparison. The budgetary part of the serial control module is not included in the study because it’s not used in the libraries except for one. The only library using the budget part of serial control is Gauhati University library. The serial control module is hence divided into five sub-systems:

i. Acquisition Sub-system
ii. Cataloguing Sub-system
iii. Issue Management Sub-system
iv. Back Volume Management Sub-system
v. Reporting Sub-system

6 (six) surveyed libraries under the study are using these 5 (five) sub-sections of serial control module. Hence key attributes of each subsection are identified. If the librarians are found to be satisfied in these key attributes under each sub-section, it can be concluded that they are overall satisfied in that particular sub-section.
Moreover, the final score obtained by averaging the satisfaction scores given by the librarians should indicate their overall satisfaction level too. Likert scale principle is used in this conversion of qualitative to quantitative attributes. The calculations are shown in each of the tables under each sub-section.

a) The Final average score calculated for acquisition sub-section (Table 5.12) indicates that SOUL 2.0 stands out as the most user satisfactory and supportive LMS package followed by Libsys and Koha in terms of acquisition sub-section of serial control module (Fig 5.5).

b) The final average score for cataloguing section of serial control (Table 5.13) indicates that SOUL is the most satisfactory LMS package followed by Libsys and Koha for a librarian while doing cataloguing of serials (Fig 5.6).

c) The final average score for each Issue Management subsection of Serial Control (Table 5.14), (Fig 5.7) shows that SOUL is highly satisfactory, followed by Koha and Libsys. Although in some of the particular attributes like ‘compliance of international standards for serials title Identification’, ‘claiming of missing issues’ and ‘missing issue reminders’ Libsys’ Issue management sub-system is found to be quite satisfactory (mean value 4.5) (Fig 5.7(A)). In terms of particular attributes like ‘overdue reminders’ and ‘missing issue reminders’ (Fig 5.7(A)), Koha also received excellent user satisfaction score.

d) The final average score for each Back-volume Management of Serial Control (Table 5.15) shows that SOUL is the most satisfactory LMS package in terms of Back-volume Management of Serial Control followed by Libsys and Koha.

e) Report generation feature helps the libraries to generate list of holdings, list of serials acquisition, list of cancelled serials etc. The final average score for each Reports Subsystem of Serial Control (Table 5.16) displays that
SOUL and Libsys are equally satisfactory in terms of Reports Subsystem of Serial Control followed by Koha.

f) Among all the subsystem of serial control module, the libraries under study preferred the use of cataloguing subsystem of serial control. Cataloguing sub-system is fully utilized by the surveyed libraries.

Objective 4: To find out the problems faced by the librarians while working with the serial control module.

After thorough study of various aspects of serial control automation in the libraries covered by the study, the researcher had identified a set of problems faced by the libraries and discussed the same with the librarians during interview phase. The main problems faced by the librarians are as follows:

a) 100% of the surveyed libraries deal with the problem of advanced payment which is difficult to maintain through the software. Delay in delivery time and misplacements, and decreasing number of printed journal subscriptions are few other problems faced by all the libraries under study (Table 5.17), (Fig 5.10).

b) Irregular intervals of periodicals and Missing Issues are the problem faced by 75% of the surveyed libraries.

c) 63% of the libraries under study deal with the problem of Lack of Trained Manpower in handling the serial control module.

d) 50% of the surveyed libraries are facing the problems with irregularity of binding.

e) 38% of the surveyed libraries are facing problems like Merger of serial Issue and Change of journal title.
Objective 5: To suggest ways to improve the current scenario of automation in serial control as well as overall use of Library Management Software Packages based on findings of the study

Following suggestions are put forward based on the findings of the study:

a) Advanced payment during the serial subscription seems to be the primary problem while working with the serial control module. Since payments are handled by a different department independent of the library, the libraries remain dependent on the finance department in payment related issues. The actual payment status and status of payment acknowledgement received from the publisher needs to be manually entered into the LMS for each serial. The LMS package should be improvised to automate these two crucial steps.

Automatic payment status updating can be done by customizing the software to integrate the payment sections of LMS to access data directly from finance department’s database of transactions. This kind of solution, although fully automatic and technically feasible, requires administrative approval from authorities. The other solution is to partially automate the process by allowing the concerned finance person to update the payment status in the LMS system through remote login. The payment acknowledgement from vendor is usually received through emails. By customizing the LMS system to allow access to the mail inbox of library’s official email ID, the payment acknowledgement from the vendors can be automatically updated into the LMS database. These updated data though machine reading can be later verified by library professionals at their convenience.

Another non-technical approach to mitigate advance payment related issue of serial control is to empower the libraries to make certain amounts of payments directly to publishers/vendors without finance intervention. These payments can be audited at financial year ending as per regulation. The
option of converting regular serial subscription into standing order subscription may also be evaluated by discussing the same with vendors/publishers. Since standing order subscriptions doesn’t require advance payment, the payment processing can be done at the time of billing as per actual.

b) Regular binding of the back volumes must be done before making data entry into back volume management sub-section of serial control. Actual physical back volume binding and corresponding data entry in the LMS system has to be accurate to harness the benefits of back volume management feature of serial control module.

The libraries should classify all their subscribed serials and journals in terms of periodicity of publication. And depending on the volume of subscription, a suitable interval for regular back volume binding has to be decided.

c) Publisher should be very particular regarding the date of delivering the journals. Assurance supply of serials can be considered as one of the suggestions. The subscription representatives should take the responsibility to supply the serials one after the other and regularly. They must ensure to replace the unpublished issues without any cost and refund for unsupplied issues.

d) Changes of title creates the problem for librarians to continue with the previous details of serials so option must be available in the module of LMS packages so that even after change of the serial title they can continue with the details.

e) The Serial control module of LMS packages should be able to automatically track order expiry of serial subscriptions and produce claim notices if the order is not renewed within a pre-specified period of time. Similarly, the
system should be able to track issue receipt of subscribed serials and generate alert if a particular issue is not received within expected time frame. The kinds of alert notifications may be displayed as pop-up messages in the LMS system interface whenever the concerned library operator logs into the system. The alerts may also be configured to be sent to librarians’ email and mobile through SMS if the subscription renewal and issue receipt is not updated within the grace period.

6.3 Recommendations

1. For serials automation, most of the training directed towards staff can be broken down into two broad categories: An early, basic introduction to the system and Detailed systems training. The basic introduction to the system might consist of one or two short sessions presented by a member of the library management team. In addition to information about the system, this is a useful opportunity to keep staff informed about the timetable for implementation and the programme for further training which provides useful detailed checklists of automated serial functions. Most of the library staffs are very much well acquainted with the basic knowledge of automation but the detailed and all round training specially on serial control module and management is very important for the library personnel to make good use of the facilities available in the LMS package. In-house training on use of LMS packages and its modules should make mandatory once in a year. Librarians should take interest and associate themselves with various automation workshops, discussions and take opinions of other librarians about their experience of library management software packages before selecting software for their library.

2. Although all LMS packages provide software documents as standard along with their software, implementation in the actual library may often be subject to requirements of the library. Hence, the standard software documentation can only guide as a generic document to the users of the LMS package. It is often quite time consuming to go through the standard
software documentation for a LMS package operator in the library. Hence it is a good practice to produce a working documentation specific to the actual implementation and day-to-day usage pattern of the library. Such documentation can be used as a practical handbook by all the library professionals working in that library.

3. According to Librarian of some Institutes of Higher Learning, new appointment of the trained manpower with technical skills is essential for the development and upgradation of library and for complete utilization of all modules available in the software packages.

4. It is found from the study that the 63% of the libraries are facing the problem of management disinterest in the library. This creates various problems for the librarians since most of the major institutional decisions are taken by the management without consulting the librarians. So the librarian should try to convince the management by showing the benefits of adapting different technique like Library automation which will help the librarian to cater the needs of users at the earliest.

5. The budget system should be separate for the library. It is found that most of the libraries has to deal with the monetary constrain while updating their library, sometimes the parent organization set little amount of budget for the library for all the library spending like purchase of books, purchase of journals, purchase of furniture etc. This ultimately limits the freedom to use the money for development of the library. Serial subscriptions being a continuous source of expenditure, it’s more difficult to convince the management to subscribe to them.

6.4 Scope for further Research

In the course of research, the researcher apprehended that similar studies may be carried out on other types of libraries and therefore suggested the following topics for further research.

1. A similar study can be conducted for colleges of Assam.
2. So far one more similar study may be carried out with more coverage taking all the modules of LMS using in Libraries of Institutions of National Importance in North East India.

3. Problems faced by the library personnel in serial control module of SOUL 2.0 in the college libraries of Assam.

4. Statistical analysis of OPAC search keywords used by different categories of users and its use to improve availability of resources in the library.

6.5 Conclusion

Periodicals are vital source of contemporary information for any research worker. Hence it's also considered as an important asset for academic institutes. Automated serial control module helps in controlling and managing the serials. The libraries under study are found to be in various phases of implementation of serial control module. The overall aim is to achieve complete utilization of the module for the respective LMS packages, so as to extract the benefits for its users as well as the library professionals. Intricate nature of serials, in terms of their frequency of issue and publication, stretching of multiple volumes and resulting inconsistencies in some cases, is found to be the biggest obstacle of implementation of automated serial control in the libraries under study. However it's encouraging to see the continuous efforts being made by almost all the libraries to reach higher degree of automation in serials control module. The pioneering library in this regard is the Gauhati University library using SOUL 2.0. Another important aspect of serial management, as observed by the researcher, is a direct consequence of inherent economic nature of e-journals as compared with printed journals. The e-journals are considerably cheaper to procure, manage and maintain in a library compared to its printed counterpart. Moreover, time consuming tasks like back volume binding, storage and retrieval are virtually unnecessary in case of e-journals. These conveniences of e-journals have encouraged the libraries to opt for electronic version of periodicals, e.g. IITG library has converted most of their print journals to online journal. Simply by implementing this single step, they have been able to save approx. eighty (80) lakh rupees from their total expenditure. Perpetual
availability of periodicals, once subscribed, and higher number of users opting for electronic version of journals for convenience has made this conversion successful. This trend however, can’t be generalized to all other libraries under study and early adoption of electronic version of journals by users can probably be attributed to high technological exposure in the institute, which again can be a topic of further study in the future.

All three Library Management Software packages covered in the study offers order placing feature under serial control module. However, it’s found to be difficult to utilize fully, even for pioneering libraries like Gauhati University Library and IITG library. Diverse nature of journals, intricacies of financial implication of automated order placing through LMS due to changes in vendors/agents for indirect subscription of periodicals, and perpetual financial restrictions placed on library staffs by institute’s finance department are primary factors behind underutilization of the feature. Personal interview with the librarians during the study has revealed that serial control module for printed journals, is a less preferred module in libraries. As per experience of the librarians, the search activities of general users indicate their inclination towards books and other Medias, instead of journals and serials. Again, the researcher feels that there’s ample scope of future study in statistical analysis of OPAC search keywords used by different categories of users and its use to improve availability of resources in the library. Serial control module is generally used by the libraries only as a catalogue, and serial management tools for internal activities like creation of serial database and to maintain statistics. Also each library has their own policies regarding journal access and circulation. Access to the databases of e-journals does not necessarily depend on the automated serial control module of library software. It is usually guided through the publisher’s website, display and hyperlink to subscriber’s webpage. Usually software upgrades include new features and improve upon existing features. The LMS package updates follow a similar trend.