# Chapter 01
# Introduction

# 1.0 Introduction:

Information Technology by far has been accepted and anointed as the greatest boon to mankind not only for its capability to expedite and improve processes but more poignant in its capability to streamline and reduce the human effort in general. Rarely there are business processes which have not been computerized and results prove without an iota of doubt that all the business processes being exposed to the advent of Information Technology have not been successful. Higher education in particular has been totally redefined and all the components associated including imparting of knowledge and transfer of knowledge and information from source to destination which varies from a teacher to a student or a peer to peer have seen a revamp of process owing to the advent of information technology practices being increasingly embedded in to it. Inside higher education campuses, the classroom and the academic library are seen as the temples of knowledge where information is being shared to disseminate knowledge. The class rooms majorly across the reputed higher education institutions have been totally been associated with Information technology enabled tools which have resulted in improving the learning experience altogether over the past few decades.

Academic libraries on the other hand, which are considered to be complimentary to classroom learning are by themselves in a piquant situation and have been reeling under unforeseen challenges owing to the challenges posed by information technology. The diverse and ever increasing information needs coupled with the search for efficient and easy means of acquiring them as expected by the stakeholders have exerted a lot of pressure on the libraries to keep up with the demands. The big question lies in how the growing influence of information like all aspects and business process would indeed imply upon the library as

well. There are lot of skepticism and concerns on how the information technology can affect the nature as well the quality of their work. Especially in case of higher education institutions, the libraries are highly affected and scrutinized in their capabilities of providing services and more importantly it is the service function which has been prone to maximum change and improvements. The traditional functions of a library which had previously been totally manual have today ceased to exist and are replaced by automation to make the academic libraries not to be left behind in the information technology bandwagon.

The ancient methods of operating a library including maintaining and managing it are no longer considered to be dynamic and efficient to satisfy to justify the existence of a library in itself. The application and implementation of modern technologies by the efficient use of information technology enabled hardware and software has been absolutely indispensable for proving expeditious retrieval as well as dissemination of information in order to provide better service and experience for the clients who look upon to them. What one needs to understand is the impact of information technology in simplifying eh library related functions. The researchers conducted earlier on libraries, offices and industries have been instrumental in showing the impact of technology and more precisely on how and why technology is being used rather focusing on the technology in itself. Library management systems are increasingly being used in all education related institutes. The basic advent of a Library management system is to make sure that a computerized and network library provides the users with quick and prompt service.

The primary functions of a library which include the house keeping functions such as

- Acquisition control
- Serials control
- Cataloguing classification
- Circulation control

And when these functions are mechanized and automated it leads in to assuming that the library is an automated library. Automation also covers the effective integration and sharing of the resources of a library to another library both tangible and intangible or to an information provider is made possible through proper networking. Innovations and best practices are embedded in to a system there by making sure that the entire library operations

are not more a liability which utilizes resources rather act as an asset that would lead in to value addition to the institute that the library is a part of. There are numerous ready to use suite available from multiple IT vendors to manage the automation of libraries. On the other hand there are also other options available to institutions who have an affordability issue or those institutes which are very particular about customizing the software to their requirements. There are institutes which develop their library management systems or hire experts to develop one for them based upon their requirements. In short a library management system can be considered as a modern innovation which is enables the circulation registration of registered users as well as processed books and resources. on the other hand, the computer facilities in a libraries are responsible for the nature and efficiency of the information services being provided in the library. The demands of the users cannot be satisfied unless there exists the required infrastructure and networking in the library. So it is imperative for the institutions to utilize the IT infrastructure which is available to ensure that they build the libraries of the future in their institutions failing which the libraries can only be existing as liabilities and not assets to the institutes and help in the developmental needs of all the stakeholders. An automated library provides the following benefits to the institutions:

- Saves the time of the readers as well as the library staff
- Real time information updated and precise
- Proper utilization of human resources
- Saves a lot of paper as well as printing costs
- Delimits the no of users using the library at a point of time
- Reduction in manual errors
- Records stored in real time and updated
- Give the users a peasant experience of learning

Thus it becomes imperative for organizations to ensure that they automate their libraries not only because the stakeholders expect it but rather as a means to improve their won processes and provide superior customer experience.

This research study entitled **" Use of Library Management Software(LMS),Across AICTE approved management institutes in Mumbai City",** is an effort to understand the usage of Library management software across the Management Institutes in Mumbai city.

These institutions considered to be the qualified service providers of quality higher education need to adhere to various norms as prescribed the All India Council for Technical Education (AICTE). AICTE has prescribed various norms in terms of student- faculty ratio, curriculum, pedagogy, and most importantly the infrastructure requirements in order to get the institutions affiliated. Adherence to these norms would ensure that these institutions are approved by AICTE which gives a sense of trust among the parents and students who would contemplate the student's pursuing their management degree from them. An important part of the regulations govern the library functions as well. Institutions are required to adhere to various norms and the usage of processes as laid down by the AICTE to ensure affiliation. This study would be concerned more on how the institutions have fared in adopting the norms and ensuring that their libraries as prescribed by the norms specified. More importantly after implementation of the Library Management Software, what is imperative is to understand that whether the software's are used in line with all the stakeholder expectation of services and how far are they effective in managing the usage of these software's. Also it has to be understood whether the LMS id capable enough to take care of all the requirements of the library and what are the pros and cons of the LMS being used. Also an effort would be made to understand whether the LMS in these institutions are cost effective and are they financially viable considering the service cost and annual maintenance. Upon completion of this research, the most important outcome would be to understand how the libraries in selected management institutes in Mumbai city are used and their effectiveness and efficiency would be understood.

In this introduction chapter, the following sections would be discussed which would lead in to developing the basic premise of the research.

1.1 Introduction to Library and Library functions

1.2 Library automation

1.3 AICTE norms for libraries

1.4 Need and Significance of the study

1.5 Statement of the Research problem

1.6 Objectives of the study

1.7 Scope of the Study

1.6 Chapter Schema

## 1.1 Introduction to Library and Library functions:

Merriam Webster one of the world's renowned dictionaries for English language defines a Library as *" A place in which literary, musical, artistic or reference materials ( Such as books, manuscripts, recordings or films) are kept for use but not for sale".* Libraries have been in existence since the ancient times and socio- economic conditions in a society have always been enabling the libraries to thrive over these many centuries. Jean Key Gates (1990) suggests the following socio-economic conditions which were favourable for the libraries to prosper:

- Whenever there is a recognition and understanding towards the value of preserving, transmitting as well as enlarging the body of knowledge.

- When people have the prosperity as well as enough time to get themselves engaged and a will to pursue intellectual and cultural activities.

- Whenever there are times where the society is filled with an urge for intellectual creativity as well as high scholarly activity

- When the well informed citizens in a society are motivated by the society towards self improvement

- Particularly when the urban centers grow which have the enough financial capability to support libraries as well as an increasing interest in intellectual and cultural activities

- Whenever the economic conditions in a society is favorable for substantiality in individual wealth creation and corporate wealth accumulation which eventually increases the donations towards charity
- When it is accepted and understood that the prerequisites for sustaining the economic growth together with maintaining national power and status is the proper distribution as well as the use of knowledge and power

## 1.1.1 Categories of Libraries:

Libraries in general are categorized in to four types. They are

1. Academic Libraries
2. Public Libraries
3. School Libraries
4. Special Category Libraries

## 1. Academic Libraries:

Academic libraries are majorly responsible for providing secondary education in any educational institution that they are a part of. It is solely responsible for supporting the parent institution in delivering the educational institution. Academic libraries vary from university libraries which contains books and reference materials concerning all courses being a part of the university's curriculum and of the affiliated colleges associated with it  to college libraries which contains books and reference materials associated with all the courses in the college to departmental libraries which contain both online and offline information of resources pertaining to specific departments. The basic difference lies in the breadth of the collections and archives being stored in the library. The funding happens at the university level, college level and departmental level in these libraries. The academic libraries are discussed in detail in the following section.

## 2. Public Libraries:

Public libraries which are the most familiar kind of libraries to general public which ideally exist to serve the informational as well as recreational needs of them. The government grants

and municipal taxes are used for funding the libraries. These types of libraries are generally operating at a municipal and regional level and are governed by the authorities which fund them. Usually a board is being constituted which is responsible for management and funding for these kind of libraries. The staff for these libraries are being appointed and funded by the respective advisory boards which are being constituted.

## 3. School Libraries:

School libraries are generally present support the co -curricular educational needs of children from a kinder garden level to a grade twelve level which complement the text book conceptual learning. The typical school library usually consists of a variety of educational resources in different formats together with the growing importance being given to audio visual aids which support the learning process which has made them to be considered as media centers also in certain kind of schools. Usually administered by a teacher-librarian these school libraries are also housing lots of novels, storybooks and games which are instrumental in developing the knowledge base of the kids.

## 4. Special Libraries:

All those libraries which do not fall under the purview of academic, general or school libraries tend to be classified as special libraries. The definition of a special library varies from a country to country and what kind of libraries being included in it. The expression special library refers to a "Library which is usually concerned exclusively with the literature of a particular subject or a group of subjects ( Wright,1968). According to the special libraries association of the US they are defined as " A library or an information center which has been maintained by either an individual or a corporation or an association or an government agency for their specific needs. Also a special library can be a specialized departmental collection within a library ( Special Libraries by laws - Special Libraries association,1995). The basic difference lies in the collection of resources being put in a special library wherein primarily the collections are defined in a way to further the objectives of the parent organization more than the readers. Special libraries generally are kept in the purview of administrative division or the research and development division if they are patronized by an organization or a governmental agency. Special libraries are generally

smaller being managed with a lean staff and updated regularly for specific need of the entity promoting them.

Having understood the kind of libraries the next step is to understand the roles and functions of a library and the task of a librarian who is the most important entity in a library set up.

**1.1.2 Objectives and Functions of a Library:**

**1.1.2.A. Objectives of a Library:**

The basic objectives of a library are as follows:

- To provide the sources of information which is essential for students faculty and other stakeholders in the community.
- To effectively organize the information sources in such a way what once they are arranged they can be stored received and used in a way which reduced the overall effort.
- To borrow library materials to the beneficiaries together with providing them access to space for reading
- To provide the right information to the right users at the right time
- To provide relevant and latest information on all subjects concerned which is up to date and authentic
- To act as alternate gateway for continuous learning enhancing knowledge, self improvement and cultural as well social development of the individuals.

**1.1.2 .B. Library operations:**

The key functions of a library are divided in to two major functions. They are

- Public Services
- Technical Services

**1.1.2. B.1 Public Services:**

All those activities which are to be performed by the staff in the library with direct contact with the library users come under public services. It is the point where the " Service Encounter" happens and the customers experience the first "Moment of Truth". Proper adherence of these services will ensure a long term patronage of the library users towards the

library. Conversely a not so positive experience will lead to loss of patronize to the library and its service in the future.

The public service activities of a library can be grouped under:

    A. Circulation

    B. Information services ( Reference Work)

    C. Document delivery (Interlibrary Loan)

    D. Library Promotion

**A. Circulation:**

The circulation of a function of a library consists of the following tasks including

→ Registering new borrowers

→ Charging out renewing items

→ Discharging items

→ Returning items to proper location

**Registering new borrowers:**

This task includes the registering the borrowers for the library by the library staff in deciding who are the individuals who should be permitted to borrow resources from the library and hw the privileges are bestowed upon them on the basis of either fee or subscriptions. The registration function is considered to be most essential because it is used as the base to understand which resource has been borrowed by whom. The following set of borrowers are generally considered to be registered in the four different types of libraries.

- Students and faculties - In case of academic libraries
- General Public - Residents of the community or town or region
- Students, teachers and administrative staff of the school
- Employees of the organization which has promoted the library and general public or departmental staff in case of governmental department initiated libraries

**Charging out:**

Charging out is an activity wherein the borrower's record is linked to the item being borrowed and assigning a due date as per the norms specified by the library norms. This particular task requires high precision without which the margin of error might lead in to wrongly accusing

the borrowers of charged overdue for skipping due dates leading to fines being imposed and many cases making the borrowers liable for resources never being borrowed by them. The inverse might also happen and the library will be at a loss. The other important task is to update records of renewed items. These are highly monotonous jobs which might result in fatigue leading to lack in performance of library staff causing delays and longer queues at the counters.

**Discharging:**

Discharging function in a library is the exact opposite of the charging out function where in when the borrowers return the items the records are to be updated and cancelled against the borrowers name which is actually delinking the items record and the borrowers record.

**Return items to their proper location:**

This activity which is otherwise called as shelving where the items are kept in a particular order based upon their importance and easy access required based upon priority. This function also requires a high level of precision because any item which is misplaced misses the eye of the patron of the library. It becomes then a time consuming process if required for a new borrower or for internal audit purpose. Discharged items in a library if not shelved properly would be considered missing.

**B. Information Services:**

The information services were previously called as reference work which included the following activities:

- Answering direct questions
- Information retrieval
    a) Ready or quick reference
    b) In -depth research
    c) Information referral

- Reader's advisory

**Answering Direct Questions:**

Whenever there are any queries from the library users with relation to either the books or references or queries regarding any additional services required, there has to be enough care to the displayed from the library staff in ensuring the queries are handled well. More likely the individual would increase the patronage towards a particular library or the library staff if the customer service is exciting .


**Information Retrieval:**

**a) Ready or Quick service:**


Whenever a library needs assistance in finding answers to a query which can be answered through referring to a dictionary or a encyclopedia or any ready made reference then that activity is called as providing ready or quick reference. Many questions require simple, straight forward and factual answers through a reference tool and verified by a source. When the library staff are able to propose this then it increases the satisfaction level of the library user.


**b) In-depth Research:**

On the other hand there are very many questions which may require extensive research using multiple sources and formats. In case of these kinds of queries if the library users require assistance and the library staff are able to use any of the following resources in order to assist the library user, it is categorized as in-depth research.

- → Books
- → Periodicals
- → Magazines
- → Newspapers
- → Video and audio resources
- → Online and offline indexes


**c) Information referral:**

Whenever a library is devoid of any information and if that information is required then the staff of the library are required to direct the source of information from outside which can be

another library or an authority or an association or a social agency to the patrons. The patrons are happy if they get the right information that they need rather than being left empty. This creates a positive perception regarding the library when the library staffs take the effort in directing them to the source of information that they need.

**Reader's advisory:**

These are generally used in public library services where the library staffs are requested by the patrons to required books or resources from outside and the library staff assist the patterns by adhering to their request.

**C. Document Delivery:**

These services previously called as inter -library loan refers to the action of a particular library is getting a required item from another library if it is not available in their own library and there are staff members called as document delivery staff who determine where it is available and they get it for their patrons whomsoever needs it. Consider the budgets of libraries shrinking as well as lack of infrastructure; this method works better in case where cost is not criteria and the patrons are more concerned about acquiring the required resource. A fee charged for these kinds of services have been accepted at situations based upon the urgency and criticality of the resource to the patron. In certain cases the libraries don't always depend on other libraries to get a inter-library loan and they directly acquire the items from a supplier itself which has made these services to be called as document delivery services.

**D. Library promotion:**

With deficit reduction and fiscal restraints becoming the order of the day it is imperative for libraries to ensure positive customer relationships and also to other stakeholders including publishers and suppliers. It is also important for the library to be considered as critical asset by the parent institute that it is a part of and the management should also understand its importance else the libraries would cease to exist at that institution very soon. So it is quintessential to ensure that the library is being promoted properly. Some of the important steps in promoting the libraries are:

- Providing best in class service to the clients to ensure continued patronage so that repeat customer take care during periods of recession or budget constraints

- Promote their services to the prospective patrons to encourage better awareness
- Associating with corporate social responsibility campaigns
- Getting involved in fund raising campaigns

These activities would promote the libraries towards increased patronage.

### 1.1.2.B.1 Technical Services:

Technical services include all those services which can be categorized as services which makes sure that the library materials are available to the public. These services are also called as the "House- keeping Services in Library science". These services are majorly categorized under four heads. They are

A. Collection Development

B. Acquisitions

C. Cataloguing

D. Processing

### A. Collection Development:

The first step in a library being operational is the allocation of a budget which is always under a constraint. The collection development which is also called as selection is concerned with deciding which are the materials to be acquired for the library within the allocated budget. The collection department policies are being framed in order to allocate the scarce resources. The policies are framed under the following heads.

- Emphasis to be placed on multiple media
- Subject areas to be allocated
- The level of audience
- Decision of number of copies to be purchased and when
- Criteria to weed out unnecessary purchases
- How to handle the gifts in the library and unnecessary materials

Proper functioning of the collection development ensures that there library operates in a professional way and there is no scope for resource shortages.

**B. Acquisitions:**

Once the collection development tasks are completed the next step is to acquiring or purchasing them. The following are the activities involved in acquisitions:

- The first is bibliographic verification which includes the author, title and price
- To check against the library's existing catalogue for avoiding duplication
- To choose the best supplier for best price
- To create purchase orders
- To maintain order files containing order details and received statuses
- Maintain the accounts to ensure proper billing and payments and more importantly to adhere to budget
- Checking and receiving the items in order and check bulk purchases specifically
- Payment of invoices

Thus proper maintenance of acquisition records will ensure the budget is utilized properly.

**C. Cataloguing:**

Once the items are being received then the next step is to create bibliographic records for all items in the library's collection. Cataloguing once a manual process was very tedious in increasing man hours. Nowadays due to the advent of technology this cataloguing process is simplified. Some big libraries have started outsourcing the cataloguing process. Another important activity in cataloguing process in maintaining the catalogue is to check and update the bibliographic records for missing items as well as items which have been removed from the collection and they must be removed as well from the catalogue.

**D. Processing:**

The last step is to make the items be ready to use after cataloguing. The steps involved include:

- Assigning Call numbers

- Fixing bar codes

- Apply protective measures including plastic covers and laminations

- Minor repairs including taping torn pages, loose pages, reinforcing hinges and binding tapes

These are the basic functions of a Library and library automation is precisely concerned about the technical or house-keeping functions of library.


### 1.1.3 Academic Libraries:

A library which is ideally forming a part of any educational institution namely a university or a college or any educational institution can be termed as a academic library which is different from a public or a special library in its objective of working as an auxiliary to the parent institution that it is  part of in ensuring the needs of education and other important intellectual resource of the learning community. India traditionally, has been the epicentre of learning and its boasts of the world's oldest higher education system. The oldest educational institutions as well as libraries belong to India which includes Taxila, Nalanda and Kashi. These universities were considered to be the oldest universities and had excellent libraries which were regarded as "Intellectual capital of Higher education" ( Gul, 2008).

A country is said to be developed when the higher education in that country is developed together with the ability of its people to reflect on social, economic, moral, critical and spiritual issues which face humanity (Devarajan, 1999). Academic libraries in higher education institutions are repositories of knowledge and are an integral part of education. In higher education institutions academic libraries have a close relationship with learning and research and they influence the academic environment in institutions. In order to improve the quality of education in higher education institutions require responsiveness of the students and faculty which can be provided by the academic library which can aid the research with the help of its collection development by resource sharing ( Weiner, 2005).

The history of academic libraries in India starts from the ancient chained and closed access processes to the modern day libraries which are totally automated. The roles of the librarians have also evolved over the period tome from being just storekeepers of the library holdings to the level of a information officer or a navigator of modern library sciences (Mahajan, 2005). The role and objectives of academic library include:

- Serving the needs of the educational institution

- Offers the course of instruction beyond the basic degree

- Established for a homogenous purpose and serves the users

- Has a significant relationship between teaching community

Thus academic libraries have been instrumental in increasing the importance of intellectual community, social and economic development of a nation.

## 1.2 Library Automation:

Having understood the roles and function of a library together with the importance of academic libraries the next logical step is to understand the library automation process. The detailed explanation of how an automated library works and how an LMS works is described in the literature review chapter. A basic premise of library automation is discussed here.

Before getting in to the details of automation and improvements in libraries it is imperative to understand the basic premise of library science.

## Laws of Library Science:

Librarians all over India acknowledge Dr S R Ranganathan as the father of library science. He in his constant endeavors in improving libraries and making them knowledge treasure chests have made the laws for library science which acts as a holy gospel for librarians till date of how to manage their libraries.

The five laws that Ranganathan (1931) proposed are:

1. *Books are for use*
2. *Every reader has his or her book*
3. *Every book has its reader*
4. *Save the time of the reader*
5. *The library is a growing organism*

Simple to comprehend but with deep rooted meanings these laws are used by experts in library management over the globe in developing strategies for effective management. The last law which states that the " Library is a growing organism" states the importance of libraries being adaptable and ready to upgrade themselves has lead in to the idea of 'Library automation' as a starting point for the library to be evolving and changing themselves to be libraries of the future.

The term 'Automation' has been derived from the Greek word "automose" which means 'something which has the power of spontaneous motion or self improvement. Being introduced by D.S Harper in 1936 while being associated with eh General Motors in U.S, the term was coined by him for explaining the automatic handling of parts in between progressive production processes running simultaneously. This term automation has increasingly being used in modern literature wherever processes and systems are reducing human intervention and work is conducted seamlessly.

Uddin (2009) , describes library automation as " when the traditional library housekeeping functions such as acquisition, circulation, cataloguing & reference and serial control activities are being performed by the application of automatic and semi-automatic data processing machines ideally computers. In the present context the most common term used for describing the mechanization of library activities is called as library automation".

**Need for automation:**

The growing need for library automation was necessitated and the transition from an manually operated library system in to an automated system was felt owing to the following reasons.

- An automated environment will ensure that the record keeping activities of the library can be done efficiently

- The process of issue, return and renewals can be done faster and more effectively

- The searching of documents aided by a Online Public Access Catalogue (OPAC) will reduce the time consumed to a greater extent and it is a efficient tool for library automation

- The automated system would be cost effective in the long run

- Easy to maintain bibliographical records in a computerized format

- A single enumerative process would be enough to give the entire library's bibliographic details

- Repetition in technical processes of housekeeping operations can be greatly reduced

- Access to information can be greatly expedited

- Easy to share the resources through the library networking

- Implementation of latest IT processes to provide high quality information

- Time, effort and resource allocation in manual processes can be greatly reduced

- Entries can be programmed to have control over the entire operation

**Advantages of automated libraries:**

- Whenever a machine readable automatic catalogue is prepared during the process of acquisition it can be used for multiple purposes as data can be integrated

- The staff won't be burdened much on the routine and redundant tasks and focus on library improvement

- Human errors in the processing are greatly reduced thereby improving the satisfaction among the patrons of the library

- Better and improved control ensures the library collection activity to be improved

- Cataloguing process can be done faster so that there is instant access to non-records

- Effective circulation control process is achieved

**The following is a simple timeline of automation process:**

- 1930s Punch card for circulation (IBM) 1950 Infov & Docu. Center America
- 1961 Invention of IC by Rober Noyce (Intel) and Jackv Kerby (Texas)
- 1961 KWIC H. P. Luhan IBM
- 1966 MARC-I and in 1968 it was converted in MARC-II by Henriette Avram
- 1965 Indian Science Abstract: author index by INSDOCv
- 1970s Many library networks establish in India

From these developments now the libraries are totally computerized using an integration of software and hardware. They are called as Library Management Software (LMS).

**Library Management Software:**

A library management software or system which is other ways referred to an 'Integrated Library System (ILS), is more of an Enterprise Resource Planning (ERP) software implemented in any library which integrates all the library functions and is used to track the items owned, the orders which the library has made , the bills it had paid and have to be paid

and the details about the patrons who have borrowed. The system is usually built up of the following components.

- A relational Data base
- A software to interact between the data base
- A Graphical user Interface one for the patrons and one for the staff of the library
- Modules which can act separately or integrated to ensure the seamless functioning on housekeeping operations

Library Management software are majorly classified in to three major categories.

- In-House
- Commercial
- Co-operative

The major Library management Software's used predominantly in the Management institutes in Mumbai include the following:

1. Libra 2000
2. Librarian
3. Libris
4. Libsuite
5. Libsys
6. SLIP+++
7. SLIM 21 advance
8. SOUL
9. SWIRL
10. TESION
11. KOHA

This study is based upon how these LMS are being deployed and used in selected AICTE approved management institutes in Mumbai city. Before getting in to the details of the LMS which is discussed in detail in the literature review chapter it is quintessential to understand the norms and guidelines proposed by AICTE for management institutes.

**1.3 AICTE norms for libraries**

The All India Council for Technical education is the organization which gives affiliation to all the professional courses in the country and it has laid down norms for the institutions who want to be affiliated towards AICTE. The norms which govern the professional institutions are given in Annexure -1 of AICTE guidelines Specifically, the Appendix 5 talks about Norms for Books, Journals, Library facilities, Computer, Software, Internet, Printers and Laboratory Equipments for Technical Institution.

The library requirements are given in section 5.3. Books Journals and Library facilities for technical institutions which cover management institutions which have MBA, MCA and PGDM as under.

Here the student strength is represented as B which is the No of division in first year in both shifts + no of divisions in second year in both shifts

B:

*Number of Books : = 100*

*Volumes =  500 X B*

*National journals -= 12 X B*

*International Journals = As desirable*

*E Journals = Required*

*Reading room facility = 25% of the total students up to maximum of 100 at a time*

*Multimedia PCs for Digital library/ internet surfing located in the reading room = 1% of the total number of students*

**Apart from these the following guideline shave been stated mandatory**

- Book titles and volumes required at the time of starting new Institution.

- Yearly increment. Component for additional division / course.

- Journals and Books shall also include subjects of Science & Humanities.

- Digital Library facility with multimedia facility is essential.

- Reprographic facility in the library is essential.

- Document scanning facility in the library is essential.

- Document printing facility in the library is essential.

- Library books/non books classification as per standard classification methods is essential. Availability of NPTEL facility at the library is essential.

- Computerized indexing with bar coded / RF tagged book handling is desired

These norms are mandatory for the management institutes to adhere to in order to ensure being affiliated through AICTE which would ensure trust on their institute and course from

the parents and students. When we look at the specified norms it can be understood that an Integrated Library System (ILS ) or a LMS is essential for the libraries of management institutes to ensure adherence. All the institutes comply with these norms and implement the systems in place. But what needs to be understood is the fact that whether the LMS being implemented being used to reap the benefits of it and whereas it is able to satisfy the expectations of the stakeholders remains the elusive question which needs to be addressed through this study.

## 1.4 Need and Significance of the Study:

One of the places which the students remember whenever their educational institution comes in to their mind is the library. Libraries have long accepted to be central to university learning and research especially in higher education institutions. Libraries have long been acting not only as a warehouse of information of the past but as centres of learning for really interested students who want available and ready information on their topic of relevance. Libraries across the world in the past few decades have been undergoing a transformational change owing to the digital disruption which has changed them. The now ubiquitous digital technologies have emerged as a source for global access to information at a far more economical and enormous level and also provide an opportunity to store and retrieval of information leading in to new modes of discovering, understanding and sharing of knowledge. This has made a effect on the clients of the library who have shown a change of pattern in their use of a library.

The way how a traditional library operated with the basic functions of acquisitions, circulation, cataloguing, serials control which were predominantly manual processes have now been automated together with adding an additional and key activity which is the online public access catalogue. The steady drop in the physical transfer of information and knowledge and reduced interest among the library clients towards using the physical space in a library has totally changed the dynamics of how a traditional library used to operate. This lead in to a rethinking and reengineering the overall model of library operations to start with and now there is a stage at a global level that libraries are neither what they used to be and nor they operate how they used to operate usually.

Among the five laws of library science as proposed by Ranganathan (1924), the one which has been seen much relevant is the last law which states that " The Library is a growing organism". Libraries across universities and education institutions hold on to this particular

principle have adopted to the next level which is automation. This automation starting with the change of the traditional housekeeping function of libraries has grown to a level where the library acts as a information centre both physical and virtual and the librarians by themselves evolving in to a information scientist.

The role of a library in a management institute not only is limited in providing resources which help in developing conceptual knowledge in the core subjects being taught to the students but also is widening to keep the knowledge if faculty and students updated by providing access to latest developments in the management domain by keeping them abreast of researches being conducted and industry information which is not possible only by updating more test books rather by providing more access to digital information on a real-time basis. Library automation is the starting point of digitization of a library which would eventually transform the library in to a real-time information centre rather than limiting itself to an archive of knowledge. All this has been made possible with the availability of many readymade automation suites as well as customized software's which have been developed for library automation. But the question lies in understanding whether the initial step of automation has been adopted by the libraries or not?

This study entitled **" Use of Library Management Software(LMS),Across AICTE approved management institutes in Mumbai City",** seems appropriate at this point of time to understand how far the libraries in AICTE approved management institutes in Mumbai city have been able to incorporate automation in to their operations. Primarily this study would be dedicated to find out whether the institution is using library software and if so then the following information regarding the software which is being used in the library is being collected from the important stakeholders in the library who are

- The librarians who manage the library
- The students of the institution
- The faculty who use the library extensively

The following information as presented below, which is to be collected as a part of the study would ensure that whether libraries in the AICTE approved management institutes are in line in developing the future libraries which would improve the quality of not the library in itself but also benefit the stakeholders in a positive way.

The information to be gathered will include;

- Which automation software are they presently using?
- Which is the company providing the software?
- What the modules of library operations being incorporated in the software?
- How long have they been using the software?
- Who was the influencer in the purchase decision?
- What is the cost?
- How far is the backup service support being offered for software maintenance?
- How interactive and user friendly the software is?
- Does the service provider have any annual maintenance contract?
- What are the pros and cons of the software being used?
- Whether the software has been able to simplify or complicate the operational processes?
- What is the failure rate and what is the time required to keep it up and running?
- How far it is useful to the faculty and students of the institute?
- Overall feedback and satisfaction with respect to the software being used

**1.5 Statement of the Research Problem:**

The process of identification of research problem is not only the initial step in a research process rather its a guideline to the research process in itself. The study entitled "Use of Library Management Software (LMS), Across AICTE approved management institutes in Mumbai City", will dwell around the following research problems and an attempt would be made to find amicable solutions to solve these problems.

**1. How are the management institutes in Mumbai using Library Management Software's and how effective are they?**

It is imperative that traditional libraries are no more relevant to cope up with the digital disruption caused in improving ICT based technologies taking over traditional functions of an educational institute and more importantly the library. As part of statutory requirements and growing needs of the stakeholders the managements of management institutes in Mumbai city have adopted the usage of Library Management systems as part of their endeavour to digitize their operations. What needs to be primarily understood is the fact that these systems which are being put in place by these management institutions are used by them extensively or not. It should not happen that there is software being available but it is sparingly being used. So it becomes quintessential to understand how extensively are the library management software's being implemented by the institutes are used by them.

Obviously there is an involvement of time, money and effort which is essential to ensure a change in existing mode of operations. After the software's are put in place and being used it is also important to understand effective in making their work relatively easier and have they

been able to perform better. So the first research problem would cover up to understand the usage and effectiveness of the library management software's in Management institutes in Mumbai.

## 2. What are the available modules in Library Management Software's and their level of applicability?

Library management software is built up of multiple modules which cover the entire activities and processes involved in managing a library. These include cataloguing, circulation, administration, serial management, email, bar code and label printing etc., based upon the specific requirements the libraries usually buy a LMS with the required modules embedded in them. The more the modules, the more comprehensive the software is. And many a time the managements buy a software with all modules being incorporated in them but yet there may be some modules which might be either sparingly used or never. Understanding the modules and using them comprehensively will ensure that the investment in a software to manage the library operations will yield the intended benefits to the institute. This leads in to the issue of what at are the modules which are part of the library management their effectiveness on an overall level. It has to be found out whether the software which being implemented and used by specific institutions are actually

software being used in specific institutes and whether they are applicable to the needs of the institute has to be found out.

## 3. Whether the software being purchased is cost effective and how far is the after sales service and annual maintenance from the service provider satisfactory?

Implementation of a software includes an investment leading to cost which is not only the purchase of the software but also the cost of maintaining it in the long run. Majority of the software's are made by external vendors who usually customize the modules and functionalities based upon the client requirements. So this leads in to an agreement which not only is limited to the purchase but more on the maintenance part also. Software's usually are updated regularly and bug fixes happen over time. How far is the vendor helping the clients in managing them is of primary importance. Also if there are any failures or service issues how efficiently are they handled have to be noted. Whenever third party vendors sell a product or service there is usually an annual maintenance contract being enforced owing to the fact that the users may not be completely adept with the maintenance. How far is the AMC agreement working upon and are they properly done. Most importantly is all these activities of maintenance, up gradation and others are cost effective or not has to be found

out. Also primarily is the software being purchased is cost effective or is it adding up to the financial burden by not simplifying the process and is there a chance for the return on investment has to be found too.

**4.What are the advancements in technology and user friendly is the software to the stakeholders?**

It is evolving and so is the software's being developed as a part of it. Any software being released today will be upgraded bugs fixed and improvements happen over a period of time. And there are subsequent advancements in the hardware where the software runs. So it is imperative to understand that whether the software being procured by the institutes are at par with the technological advancements which are happening on a rapid pace.

The next important aspect is the ease of the use of a software among all the stakeholders in a library which includes the students as well as faculty members who are beneficiaries in the process. With their knowledge levels of the  use of the software how far are they compatible in using it and how user-friendly is the software is the primary question to be understood in this regard.

**1.6 Objectives of the Study:**

On the basis of the research problem and the questions being raised, the following are the primary objectives of this research: The validation of these objectives will ensure that the pupose of this research study is fulfilled.

1. To the study the effectiveness and usage of library software in AICTE approved management Institutes in Mumbai.
2. To find out the available modules and their applicability in library software's.
3. To analyse the cost effectiveness of these software's and after sales service for annual maintenance service from the company.
4. To study the advancements in technology and the user friendliness of these software's.

**Objective 1: To the study the effectiveness and usage of library software in AICTE approved management Institutes in Mumbai:**

Upon validating this objective the researcher intends to make the reader understand -

- How far does the AICTE approved management institutes use Library management software in their institute's libraries?
- Has the software's being used are in line with the requirements of the institute ?
- How far is the LMS being used in effective in ensuring automation of the library?
- How extensive is the LMS in making sure that it is effective in reducing the manual efforts?
- What are the positive changes that have happened after the implementation of the LMS?

**Objective 2: To find out the available modules and their applicability in library software's.**

Validation of this objective will propose the following understandings-

- What are the different modules which are embedded in the LMS implemented by the specific institutes?

- What are the library functions which are automated on the basis of these embedded modules?

- How far are the modules covering up the automation of the library functions?

- Has LMS being used covers all the processes considered to be important in the library functions?

- Has the applicability of the modules result in providing the intended benefits?

**Objective 3: To analyse the cost effectiveness of these software's and after sales service for annual maintenance service from the company:**

Upon validating this objective the following points are to be understood-

- On the basis of investment how far is the LMS cost effective?

- What are the fixed and variable and recurring costs associated with the LMS?

- With respect to the investments being done will the institutes be able to get an RI? If so how soon?

- How is the after sales service being offered by the service provider of LMS?

- Is there is any Annual Maintenance contract in place?

- Is the AMC comprehensive in effect to take care of any type of product failures or unexpected up gradations?

- What is the failure rate of the software and what is the time required for it to be back to fully functional?
- How would the stakeholders rate the overall functionality of the library management software?

**Objective 4: To study the advancements in technology and the user friendliness of these software:**

Once this objective is being validated the following questions would be answered as a part of it.

- How often do technological changes happen with reference to the Library management software?
- How the LMS that they have implemented fares with respect to technological advancements which happen on a regular basis?
- How are the stakeholders or the beneficiaries being able to effectively use the software?
- Is the software user friendly or is complicated?
- How is the LMS upgradeable and are the users being able to learn and adapt it.

In order to satisfy these objectives the researcher as a first step would be developing specific hypotheses which would then be validated using the questions developed in order to the validate those hypothesis as a part of the questionnaire being developed for primary data collection. The hypotheses being developed together with the structure of the questions would be described in detail in the research methodology chapter.

**1.7 Scope of the study:**

The scope of this study entitled, " Use of Library Management Software (LMS), Across AICTE approved management institutes in Mumbai City", would be covering up the aspects of the library management software including the following:

- The library management software used in AICTE approved MBA institutes in Mumbai city
- Their functionality and working and modules being used
- The advantages and disadvantages of the software
- Their applicability and acceptability among the stakeholders being involved
- The cost effectiveness of the software
- The service requirements and expectations from the service providers
- The up gradation and adaptability and user friendliness of the software
- The scope is strictly limited to only the AICTE approved management institutes in Mumbai city

- The study is purely for academic purpose and would not include any aspects which would be of commercial interest from wither side of the researcher or the institutes or the software vendors
- The applicability of the research would help the institutes in understanding the nuances of choosing the right software for taking care of the requirements in their libraries