AUTOMATION OF PUBLIC LIBRARIES IN AIZAWL CITY

A dissertation submitted in partial fulfillment of the requirement for the degree of Master of Philosophy

In

Library and Information Science

Submitted by

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2015

DECLARATION

I hereby declare that the dissertation entitled 'Automation of Public Libraries in Aizawl City' submitted by me has not previously formed the basis for the award of any Degree or Diploma or other similar title of this or to any other University or examining body.

Place: Aizawl, Mizoram

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CERTIFICATE

This is to certify that the dissertation entitled "Automation of Public Libraries in Aizawl City" submitted by Ms.R.K.Zohmangaihi for the award of the degree of Master of Philosophy in Library and Information Science is carried out under my guidance and incorporates the student's bonafide research. This is the candidate's original work and is worthy of examination.

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ACKNOWLEDGEMENT

First of all I would like to extend my heartiest to the Almighty God for all His kind blessings and

spirit for enabling me to accomplish my studies as well as my dissertation.

I would like to express deep sense of gratitude and my sincere thanks to my supervisor, Prof.

R.K.Ngurtinkhuma, Head of Department, Library and Information Science, Mizoram University,

who constantly encouraged me and giving new ideas and thoughts to complete the dissertation.

I would like to thank all 79 librarians/library in-charge of Public Library in Aizawl City for

providing data for the research work. It would have been impossible for me to complete my work

without their co-operation and encouragement. My sincere gratitude goes to librarians of four

public libraries for providing me the useful information on automation of their respective library.

I also like to express my sincere thanks to my family who supported and encouraged me to

complete my work.

Lastly, I would like to express my deepest gratitude to all the faculties, Prof, P K Rath, Dr. S. N.

Singh, Dr. R. N. Mishra, Dr. AkhandandShukla, Dr. M. K.Verma, Mr. Amit Kumar and

Dr.Lalngaizuali, Department of Library and Information Science, Mizoram University.

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LIST OF ABBREVIATIONS AND ACRONYMS

CALIBER Convention of Automation of Libraries in Education and Research Institutions

CAS Current Awareness Service

DCL District Central Library

DELNET Developing Library Network

DRTC Documentation and Research Training Centre

IASLIC Indian Association of Special Libraries and Information Centres

ICT Information and Communication Technology

INFLIBNET Information and Library Network

INSDOC Indian National Scientific Documentation Centre

ISBN International Standard Book Number

ISSN International Standard Serial Number

LAN Local Area Network

NGO Non-Governmental Organisations

NISCAIR National Institute of Science Communication and Industrial Research

NISSAT National Institute of Science and Technology

OPAC Online Public Access Catalogue

RRRLF Raja Rammohun Roy Library Foundation

SCL State Central Library

SDI Selective Dissemination of Information

UNESCO United Nations Educational Scientific and Cultural Organisation

YMA Young Mizo Association

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Libraries irrespective of the types, ever since the first light of civilization have proved to be a realistic value and viable platform in promoting teaching, education and research. Public Libraries are no exception to it. It is considered as the centre of learning in promoting reading habits and recreation centre to all classes of society. The public libraries enhance its promotion through books, journals, light reading materials, newspapers, non-book materials such as tapes, audio-visual aids, etc. including transmitting the current political information to the mass. These activities of public library in general optimize the thinking capacity of the public at large. These also facilitate the researchers with adequate information resources through supplying of rare books, Government documents, Gazetteers etc. It can be said that, the public libraries are social institutions offering services based upon books and information for various public groups on social, political, economic, cultural and other matters. Among the different types of libraries evolved by society in modern times, public libraries are the most popular libraries because of the functions they perform. Therefore, the public libraries are considered as effective tool to mould the character of the citizens, which has wider impact on social as well as national development by providing access to information and knowledge. According to S.R. Ranganathan, Father of Library movement in India, Public Library is, "one which is open to any member of the public and annually free from any charge paid as so much service".

The most widely accepted definition of a public library was formulated by UNESCO in 1949 which was revised in 1972. According to UNESCO Public Library manifesto the definitions of public library are follows:

- Public library is financed for the most part out of public funds.
- It charges no fees from the users and yet is open for full use by the public.
- It is intended as an auxiliary educated institution providing a means of selfeducation which is endless.
- It houses educative and informative materials giving reliable information freely and without partiality.

According to Augustine and Devarajan (1990), the public library system in India is the product of western impact which came during the British rule in India 185 years ago i.e., from 1762 to

1947. The stages of development of public library, however, both in Britain and India, were identical though India took longer to move from one stage to another.

The notion of the public libraries is basically the local center of information which extends benefits to the society and serves the public as a whole with free of cost. Public libraries are considered basically in view that they generate everlasting efforts continuously to meet the changing situations and the problems in the society. By taking public library in India, they can be various levels depending upon the organization and set up of government. Nature and levels of public libraries may be different in various states of India. The nature of services provided is of the same by providing information to the community for the development in socio-cultural, education and other walks of life to the society. Some of the levels of public libraries in India were as under:

- > State Central Library;
- > State Library;
- ➤ District Library;
- Sub-divisional Library;
- ➤ Tehsil Library;
- ➤ Taluka Library;
- ➤ Block Library; and
- ➤ Village Library.

In Mizoram, as stated by Ngurtinkhuma (2011) there are three levels of public libraries, Viz.State, District and Village libraries. State and District are established and administered by the state government, but village libraries are established, managed and administered by local bodies, like NGO, Voluntary Organisations' or other local societies.

1.2 Contributions of Raja Rammohun Roy Library Foundation (RRRLF) for Public Libraries in Mizoram

Raja Rammohun Roy Library Foundation (RRRLF), a Govt. of India organization was setup in 1972 by the Central Government to support and promoting a network of libraries which could carry books and the reading habits of the remotest part of the country" Raja Rammohan Roy was

a social reformer and a founding father of the Indian Renaissance. Apart from the above, the other objectives associated with the organization are to:

- ⇒ Function as a promotional agency,
- ⇒ An advisory and consultancy organization
- ⇒ A funding body for public library development in India,
- ⇒ Promote library movement in the country,
- ⇒ Enunciate a national library policy and to help build up a national library system,
- ⇒ Provide financial and technical assistance to libraries,
- Provide financial assistance to organizations, regional or national engaged in the promotion of library development,
- Publish appropriate literature and to act as a clearing house of ideas and information on library development in India and abroad,
- ⇒ Promote research in problems of library development and
- Advise the government on all matters pertaining to the library development in the country.

RRRLF has been considered as country's lifeline in public library services in Mizoram. RRRLF Matching Scheme strengthened, developed and promoted public libraries in the State, particularly in the Village libraries. Since 2005, RRRLF revised Matching Fund share to 90:10 for NE States in which the state government of Mizoram has handsome amount of contribution and the matching share was utilized to help and develop recognized libraries in the state. State Library Committee utilizes the share of RRRLF under the matching scheme to give the best result for the promotion and development of libraries in the state. All the recognized libraries have equal share and received assistance by kind from RRRLF. This assistance is, no doubt, the life centre of the local community of Mizoram by which they receive number of literature to provide their livelihood in different aspects and built recreation centre for the general public.

Reddy (2008) stated that the interface of computer technology with the communication technology made the flow of information easier and faster. The networking of public libraries in order to bring the latest information to the doorstep of the clientele the modernization of their collection and services has become inevitable. The RRRLF is taking steps to provide the best

services to the clientele and come forward to provide computers to all state central libraries (SCLs) and district central libraries (DCLs) of the country. It takes efforts to connect all those SCL and DCL in a phase manner. The initiatives taken up by RRRLF in modernization of the public libraries in the villages will enable rural communities in having access to needy information. It is also desirable to establish a photo digital library to help the public libraries.

1.3 Mizoram Public Libraries Act, 1993

Mizoram became the ninth states of India where Library Legislation was enacted. Mizoram Public Libraries Bill was first introduced at the tenth session of the Second Mizoram Legislative Assembly sitting on 17th March 1992 and was passed in the Twelfth Session of the Second Mizoram State Legislative Assembly on 6th January 1993; however after its twenty-second year of enactment the act was kept in abeyance. The Mizoram Public Libraries Act, 1993 (*Appendix-1*) was not implemented even after fourteen years of its enactment. Preamble of this Act clearly stated its objectives as, "An Act provide for the establishment, maintenance and development of comprehensive public libraries system in the State of Mizoram". The act provides establishment of State, District, Sub-divisional and Village Libraries with provision of financial assistance to recognized Village Libraries as well as recognition of State Library Association by the Council. The Mizoram Public Libraries Act, 1993 does not have the provision of library cess. The total expenditure for the establishment and maintenance of the public library system will be met from the State funds.

1.4 Automation of Public Libraries

Manjunath (2006) Libraries and librarians are using computers communication gadgets and other technological devices to assist in their internal operation. The term "library automation" in the past was used to refer to the mechanization of the traditional library operations like acquisition, serial control, and cataloguing including circulation control. But today it is used to refer computerization of not only traditional library activities but also related activities as information storage, retrieval, semi-auto/ auto-indexing and network of automatic systems. The significant drop in price and impressive increase in the power of micro-computers, made micro-computer based systems become feasible by the mid-1980's, which lead to a large number of libraries resorting to automation of housekeeping operations.

Therefore, from the foregoing discussions, Library automation is defined as the application of computers to perform various activities of library operations which include housekeeping such as, acquisition, circulation, cataloguing, and reference and serials control etc. Automation is used to reduce the amount of staff time devoted to repetitive (and often less challenging) activities that must be done in any properly functioning library. It is to be remembered that, various library operations are automated, not the library as such. Library automation is the application of computers and also connected tools to the processing of data in a library or libraries. The automation might also be applied to some office procedures.

There are 467 Government recognized village libraries at present, including the libraries run by voluntary organizations and other NGOs. The public libraries in Mizoram receive grants and other special assistance through State Library Planning Committee to meet the requirements of the libraries. Though the public libraries of the State ender the discussion are mostly financed by RRLF, the Govt. also shares the matching grant. Out of the 467 Govt. recognized Public Libraries, 97 (20.77%) are within Aizawl City (*Appendix-2*). Moreover, out of the 97 recognised public libraries in Aizawl city only 4 libraries have been automated, namely, (i) Chaltlang YMA Library, (ii) Chanmari YMA Library, (iii) Bethlehem Vengthlang YMA Library and (iv) Mizoram State Library

1.5.1 Chaltlang YMA Library

The library was established in 1986, which is fully automated with a collection of 4890 including Children section. They have volunteered Librarian and they opened at Saturday from 2:00pm to 5:00pm. It is also financed by the RRRLF and used FOXPRO Software which is specially designed by professionals.

1.5.2 Chanmari YMA Library

This library was established in 1992, which is now fully automated with a collection of 9057. The library opens 2 days in a week i.e., Monday and Saturday from 2:00pm to 5:00pm, sometimes they opened at night according to the users. It is also financed by RRRLF and the software used is specially designed by professionals. Chanmari YMA library is organized and

fully looked after by Mr. H. Thantluanga with 23 library staffs and 1 Professionals/having degree in Library Science. It has its own Library building with 120 library members.

1.5.3 Bethlehem Vengthlang YMA Library

It was established in 1991 with a collection of 9370 including children section, and is fully automated. The software used is specially designed by professionals which is very useful for different purposes. The library opens three days in a week and opens only 1 hour.

1.5.4 Mizoram State Library

Mizoram State Library was established in the year 1974. Previously, the Mizoram State Library was under the control of Education Department. After trifurcation of Education Department into three departments Viz. School Education, Higher & Technical Education and Art & Culture Department in the year 1989, the Mizoram State Library is under the control of Directorate of Art & Culture, Government of Mizoram from 1989 till date.

The Mizoram State library is organized and fully looked after by the present Librarian Mr. Lalramliana having 10 supported staffs with 2 Professionals/having degree in Library Science, 3 Ministerial/clerks/typist and, 3 Library attendant/peons/sweepers. The Mizoram State Library followed the normal office hours at present from 9:00 A.M. to 5:00 P.M and opened for 5 days in a week. It has its own Library building and is also fully automated comprising of Libsys Software which functions and used by the users which is an important for the development and functioning of the Library. The library is open for all including Non-members.

2. SIGNIFICANCE AND SCOPE OF THE STUDY

Library software packages are imperative for library automation which is available as, (i) Proprietary Software from the Vendor and (ii) Open Source Software. The proprietary software facilitates with maximum modules for various operations in library which, however, requires exorbitant price. But, to begin with automation, the open source software is conducive for the public libraries even if it does not facilitate with maximum modules.

The significance of the study is that, the libraries in automated environment optimizes multiple operations and provide numerous services to meet the demands of the users. It is more imperative in the public library services which shoulder maximum responsibilities to the librarian such as, (i) Selection of appropriate hardware; software i.e. data base management software and application software; PC and other accessories for developing data bases; network connectivity, etc. (ii) Developing professional building capacities and computer literacy, (iii) Creation of databases and providing multiple services to the users etc.

The present study will be limited to the 4 (Four) Government recognized libraries in Aizawl City i.e, Chaltlang YMA Library, Chanmari YMA Library, Bethlehem Vengthlang YMA Library, and Mizoram State Library to make the study more transparent and no other public libraries in Aizawl will be included in the purview of the study.

3. REVIEW OF LITERATURE

Literature review are secondary sources, and as such, do not report any new or original experiment work. Its ultimate goal is to bring the reader up to date with current literature on topic and forms the basis for another goal, such as future research that may be needed in the area. The scholar scanned multiple literatures in the given field of study and some of them are discussed below.

Patil (2013) stated that the current status and challenges that the public libraries in Maharashtra State are suffering. Libraries all over the world have already transformed themselves from delivering traditional library resources and services to the technology based resources and services. Public libraries are good media for transformation of information to the general public of the society. Users of the public libraries are from child to adult. Unfortunately the public library system in Maharashtra lacks the basic infrastructure to support ICT implementation and also it lags behind in terms of its accessibility to the common man in Maharashtra.

According to Woodsworth and Penniman (2012), the library usage has increased during economic downturns. There was an influential increased of the usage of print materials and inhouse services during the traditional age, which however, gone increasing in different mode of

access in Internet age. In the Internet era, however, the number of roles that public libraries can play in serving their communities has expanded greatly. This chapter provides insights into the ways in which American public libraries are using the Internet to meet patron, community, and government needs in this time of economic crisis.

Alistair Black (2011) relates about the architecture and design of the public libraries in UK. With the emergence of a cyber-society the interest of a public library buildings and the library has been intense, almost matching that is seen during the Carnegie era of mass public library building in the early 20th century. Here the author analyzes evidence collected by the Mass-Observation Archive (MOA) in response to a request for written commentary on public library buildings. From the analyze evidence collected different choices or opinion arises. Some prefer public library to retain their historic style and some other for a new 'flagship' in many places. Some expressed a taste for the provision of up-to-date facilities and interior decoration in historic settings and so on. This article offers a discussion with the MOA evidences in the context of an assessments and commercials on recent public library design.

Jon Vincent (2009) evaluated the development of public library with the provision for black and minority ethnic (BME) communities in the UK since the publication in 1969. From the research the result leads into the needs of 'Indian and Pakistani Communities'. The author also includes some of major societal issues and then sets public library in services in this context. This article highlights the current provisions and includes a suggestion of the next step.

Sudha, A. (2009) describes about the crucial funding level to the success of public libraries in Kerala to fulfill its objectives. In this article the author traces the various sources of finances of the Kerala State Library Council. How the Government contributes and collects taxes as per the primary sources of revenue and per-capita revenue of the council over a period of ten years from 2001-2011. From the study it shows the expenditure of the council towards various services of the public libraries. The article attempts to discuss the important or critical issues in the public library finance and the duty of the government to give due importance for the development of public libraries with the provision of more funds.

Ross, Catherine Sheldrick (2009) defines the importance of reading that is available in the library. It define clearly by giving two models, "Reading with purpose" and 'Only the best' developed within public librarianship, while the others developed variously in education, psychology, mass media studies and sociology. These two models show different result or stories relating to reading and its reader. In this article the author compares both the model; each model of the reading makes its own entailments. There are more models which have greater stories that are more appropriate than others for public libraries since they are now seeking to play more significant role in the leisure structure. In this article two types of reader are compared a romantic reader and a series book reader.

Ngurtinkhuma, R.K. (2008) mentioned about the nature and history of public library system in Mizoram. The article relates about the contribution of Raja Rammohan Roy Library Foundation (RRLF) and Non-Government Organisations (NGOs) and Adult Education Programmes for the development of public library. At the end of the article the author highlights the salient features of Mizoram Public Libraries Act and also reflects an activity of Mizoram Library Associations (MLA) for the development of public libraries in Mizoram.

Arachchi, Kuruppu Theja (2007) examines the automation processes University libraries and the new managerial issues coming on in this technological era. A survey was used ascertain the library automation practices in University libraries and to determine important managerial functions for working with library staff. All the university libraries including faculty libraries were deemed as the study population. The results showed that library catalogue had been computerized in most of the University libraries (89.25%). Acquisition, circulation, serials controls, theses and dissertations processing, selective dissemination of information and interlibrary loans were identified as the processes that need improvements with new technology. The study further indicated that shared motivating vision, open communication, participative management, appropriate staffing and training were important strategies for working with library staff motivating them to provide efficient and effective service in the new technological environment.

Gathegi, N. John (2005) has referred a public library as a limited public forum. From analyzing the public library, the author pointed out narrowly on the issues of whether internet access in the libraries constitutes public forum and determining that it does not, the US Supreme Court not only misses an opportunity to refine the concept of the public forum in modern day terms but also somehow implies that public library activities are different from other speech activities and are subject to the managerial authority of the Government. In this article there is an argument that a redefinition of the public forum doctrine would bring under its scope the public library to join the "traditional" public forum as streets, sidewalks and parks, which is a departure from the current designation of the public library as a limited forum. It also examines how the internet representation he extended and how the forum can expand whether public or limited. This article is based within the framework of the decision in the case of United States via American Library Association.

Ghosh, Matrayee (2004) talks about the situation of Indian Public Libraries and its system in India. The Indian system is in a depressed state and serves as little more than a warehouse of recreational reading materials, a majority of which are in regional languages. In this article the author makes some possible suggestion for remedies on how to transform the situation, and details new technological development which are already showing the potential to change public libraries in rural India for the better.

Gallimore, Alec (1999) discussed an overview of the challenges face by the public library managers in the near future as electronic networking of library services becomes more widespread. Moreover, the author discussed about the external influences on libraries. The public libraries face a lot of challenges with regard to downsizing the issues of lending books coupled with a growing skills gap, specifically related to IT. The major issues faced by the managers were explored which include strategic, budgetary, co-operation, structure, technical, staff and service issues.

Molina, De, MaloTeresa (1999) reviews the current state of computerization of Spanish libraries with reference to the political and institutional support and professional commitment involved. Whereas the first library automation systems were introduced in the UK, USA and Canada in the

early 1970s, the first experiences in Spain dated from the following decade. Lack of institutional support for library modernization tended to be compensated for by the dedication and commitment of professionals across the library system, particularly in the Spanish university and research library sector. The principal problem pending is the modernization of the National Library, which has been in the slow process of reform over the past 20 years. Outlines the steps that should be taken in order to ensure true modernization of libraries in Spain: adopt a global perspective; integrate libraries in institutions; create more flexible library staff; introduce reinforced services; build stable relationships with users; improve communication; provide information that is needed and not that which the library holds; design a real global strategy; take full advantage of new technologies instead of following in the wake of developments; promote interlibrary co-operation by adopting common policies; and find a clear place in the market.

Sharma, J.B. (1995) stated that development of libraries has become a very complex and important phenomenon in the information dominated society of today. The author addresses some key issues related to the development of library. The libraries and the library scientist have to play a great role in the work of information technology and development of the library.

Saffad, William. (1989) describes that llibraries have used technology in general, and computers in particular, to automate a wide range of administrative, public, and technical services tasks. Designed as an overview of major facets of automation activity, this article surveys the current state of computer applications in six areas of library work: circulation control, descriptive cataloguing, catalogue maintenance and production, reference service, acquisitions, and serials control. For each area, the discussion briefly indicates the motives for automation and describes current dominant approaches, citing examples of representative products and services

McCarthy, M. Cavan (1983)study of the major automated libraries and bibliographic information systems in Brazil showed that the most important problems were, in ranked order, lack of experienced personnel, lack of financial resources, lack of official guidelines and government policy, and lack of network and cooperation. Purely technical problems were rank much lower. Lack of education and training was also ranked much lower than lack of experience. No distinction was made by respondents between the two professionals. Lack of finance was

demonstrated by the simplicity of systems, lack of in house computer equipment, and high levels of input to automated systems. There was a lack of national planning, in what was often considered a peripheral area, and the central organs of library and information science were weak. Information was transferred between institutions in an almost random manner. Most automation was done in isolation, and there was no exchange of bibliographic data between libraries. The author proposes a series of small scale projects to spread practical experienced around the country.

There are a number of literatures of library automation in different forms having various approaches. The selected literatures reviewed are of having different concerns that relates about public library automation but in different areas. It is therefore free to take up this problem for research work and hence it is to fill the research gap that arises from the reviewed literature.

4. RESEARCH DESIGN

4.1 Statement of the Problem

All out efforts of the Mizoram Government and NGO in shaping the collection development reached to the apex over the period of time. Further, the initiatives of the Government are commendable in view of the promulgation of the Public Library Act and initialization of automation in the library services in both State and District and these added new vistas in the library services. But lack of awareness, lack of information literacy such as, computer literacy, network literacy etc. among the public posed serious threats while accessing the documents. Moreover due to shortage of professional staffs in most of the libraries also created hindrances in public library service scenario. Added to these constraints, the library professionals are lacking of professional skills to use the library software. Finance also equally also added substantial problems in public libraries with regard to acquisition of books, journals etc. and other infrastructure.

4.2 Objectives

The objectives of the present study are to:

- 1) Ascertain the ICT infrastructures of the public libraries under study;
- 2) Assess the status of automation of public libraries;

- 3) Find out various problems faced by the libraries in automation;
- 4) Suggest measures for the automation of public libraries;

4.3 Methodology

Methodology is a process to obtain the data in the given field of study. Therefore, the scholar will follow the following methodologies to extract data for analysis and draw inferences.

4.3.1 Questionnaire method:

A structured questionnaire meant for the librarian was prepared and distributed to all 97 public libraries as listed in Appendix-I to ascertain the year of establishment, status of librarian, strength of library staffs, library budget, sources of grants for library building, library activities, services, available infrastructures, automation status, sources of finance etc. Out of 97 questionnaires, a total number of 79 filled in questionnaires were received which forms 81.44% response rate. Data obtained through the questionnaire were analyzed to inferences. Statistical techniques were also applied using MS-Excel sheet.

4.3.2 Interview Method:

The scholar also adopted interview method with the staffs/ librarian/ library in-charge of the libraries under study to determine the situation prevailing there which helped the scholar in deducing the inferences.

5. CHAPTERISATION

The present study has been divided into five chapters which discussed various aspects within the scope of study and elaborated thoroughly. Various chapters are highlighted as below:

Chapter 1 of the study deals with Introduction where apart from the threadbare theoretical discussions on public libraries scenario in Aizawl, contributions of RRRLF for public libraries in Mizoram, Mizoram Public Libraries Act, 1993, Automation of Public Libraries, Public Libraries in Aizawl. The chapter also discusses about the significance of the study, review of literature, research design where statement of the problem, objective of the study, research methodology etc. have been discussed. Chapter 2 of the study focuses on detail discussions of public libraries

in Aizawl city, with regards to Government Public Libraries and Non-Governmental Libraries. Chapter 3 deals with library automation especially its issues and needs to serve the users in the present society. Chapter 4 presents the analysis and findings of the study where, the researcher employed various statistical techniques to draw findings. The data used in the analysis are based on the questionnaires. Chapter 5 describes about conclusion of the study followed by suggestions for the improvement in public library services in Aizawl city.

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CHAPTER-2

PUBLIC LIBRARIES IN AIZAWL CITY

2.1 Introduction

The history of Mizoram basically encompasses the account of transition in the occupation of Mizoram which lies in the remotest part of North East India. It is a conglomerate history of several ethnic groups of Chin people who migrated from Chin State of Burma. But information of their patterns of westward migration is based on oral history and archaeological inferences. The recorded history started relatively recently around the mid-19th century when the adjoining regions were occupied by the British monarchy. The land is now inhabited by a mixture of people from Chin Hills and Bangladesh and its history is therefore largely reflected by those of Lusei, Hmar, Lai, Mara, Chakma tribes. Following religious, political and cultural revolutions in the mid-20th century majority of the people agglomerated into a super tribe, Mizo. Hence the officially recognize settlements of the Mizo's became Mizoram.

Lalrinmawia (1995) stated that the earliest documented records of Mizoram were from the British military officers in the 1850's, when they encountered series of raids in their official jurisdiction in Chittagong Hill Tracts from the neighbouring areas. By then they referred the land to as Lushai hills. As a consequence of relentless tribal encroachment and often resulting in human morality, British rulers were compelled to subjugate the tribal chiefdoms. Punitive British military expeditions in the 1871 and 1889 forced the annexation of the entire Lushai Hills. After the Indian Independence from the British Empire in 1947, the land became Lushai Hills district under the Government of Assam. In 1972 the district was declared a Union territory and was given a more culturally inclusive name Mizoram. Ultimately Mizoram became a full-fledge federal State of Indian Union in 1986.

It is the 23rd state of Indian Union is one of the seven sisters of the North Eastern States with square kilometers of 21,081 areas. There are 8(eight) Districts, 3(three) Autonomous District Councils, 23(twenty three) Civil Sub-divisions, 23(twenty three) Rural Development Blocks, 23(twenty three) Towns and 707(Seven hundred and seven) Villages. According to the latest census i.e. Statistical Handbook Mizoram (2014), the total population is 1,097,206 with 5,55,339 Males and 5,41,867 Females with 91.58% of literacy and which is recorded as the 3rd highest literacy state in India. Ngurtinkhuma (2008) stated that Mizoram is the ninth state of India with the Library Legislation. The State Legislative Assembly enacted Mizoram Public Libraries Bill

in 1993, which provides establishment of State, District, Sub-Divisional and Village Libraries, but unfortunately this bill is not implemented so far.

Aizawl is the capital of the state of Mizoram with a resident population of 4,00,309 in persons with 1,99,270 Males and 2,01,039 Females according to Statistical Handbook Mizoram 2014 census(latest). It is located north of the Tropic of Cancer in the northern part of Mizoram. It is situated on a ridge 1,132 meters (3715 ft) above sea level, with the Tlawng river valley to its west and the Tuirial river valley to its east. It is the largest city in the state and it is also the administrative centre containing all the important Government offices, State Assembly House and Civil Secretariat. It came into being as a fortified post on the recommendation of Mr.Dally of Assam Military Battalion in the spring of 1890. It is also the commercial hub of the State and all commercial and economic activities are centered on the city. The population of Aizawl strongly reflects the different communities of the ethnic Mizo people. (Source: Aizawl – The state capital. http://dipr.mizoram.gov.in/page/about-mizoram/aizawl-the-state-capital).

2.2: SLPC (State Library Planning Committee)

Under the guidelines of RRLF on "Books for the Millions at their Doorstep," the State Government constituted a committee known as "State Library Planning Committee (SLPC)" to facilitate better library services in public sector of the state. State Library Planning Committee was established in Mizoram to avail for the proper function of RRLF in the State. The State Library Planning Committee was established during 1980-82, headed by the State Librarian as a convener. The name State Library Committee has been renamed as State Library Committee (SLC) from the present year, 2013. This committee is under the department of Art & Culture of the State Government.

The State Library Committee is head by the Secretary, Art & Culture Department as its Chairman, the Director, Art & Culture as the member secretary, and four other members appointed by the government with one RRLF representative and the State Librarian as convener. The State Library Committee is to conduct a meeting of the committee twice in a year. The functions of the State Library Committee are as follows:

- Prepare perspective and annual plan of library services in the state with particular reference to the assistance programme of RRLF.
- Ensure payment of the State Government contribution and availing of matching grants from RRLF.
- Select books according to the felt of the need of the community and in conformity with the guidelines prescribed by RRLF.
- Scrutinize the recommended proposal for other scheme of assistance to the RRLF
- Ensure proper utilization of assistance by the Foundation.
- Perform any other activity conducive to the development of library movement in the State.

2.3 Public Libraries in Aizawl City

In Aizawl City there are 97 Government Recognised Libraries so far which are mostly run by the largest voluntary organization of the state that is YMA, at different localities, and some are run by other Societies, Students Organisations, Local Youth Organisations and Local Voluntary Organisations and other (*Appendix-2*). The libraries in Aizawl City have their own voluntary librarians however; the less number of librarians are salaried. Out of the 97 public libraries in Aizawl city there are about 13 librarians having library qualifications. The buildings were mainly attached with YMA building which a few of them have separate library building which some library building are rented house. The library in Aizawl City consists of different section like Children section, Women Section and students section which is very useful for the development of library services.

Library collections provides input to the readers to all the communities to meet their information requirements which is generally funded by Raja Rammohun Roy Library Foundation (RRRLF), NGO's, individuals, etc. However the NGO's have come forward to manage the libraries with collections donated/contributed by individuals. Most of the collections were about 1267-58278 books which are important documents and services for the users. The library working day is mainly from Monday to Friday but there are few libraries that opened from Monday to Saturday. Most of the libraries were opened 1-2 hours in a day which is an important significant in the growth and development.

The libraries were mostly classified using Dewey Decimal Classification (DDC) for the maintenance of the collections of books in library. The classification scheme helps the collection to be arranged in a proper sequence which is convenient for the user to search their required materials. The libraries in Aizawl City mostly have their own Library budget which is a very crucial part in developing the collections and other infrastructures in the library. Most of the libraries in Aizawl city have opened new avenues in library services through ICT applications, which 4 libraries are automated using specially designed software which is an important significant in the growth and development in library services.

The State Library Committee has been recognized such libraries on the basis of the criteria formulated in its guidelines. Year wise recognition of public libraries in Aizawl City by the State Library Committee in Mizoram is listed below in Table-2.1 and is supported with Graph-2.1 to give clarity.

Table 2.1: Recognition year of the Public Libraries in Aizawl City

Sl.No	Recognition year	No. of library	Sl.No	Recognition	No. of library
		recognized		year	recognized
1	1981-1982	5	2	1982-1983	2
3	1983-1984	0	4	1984-1985	1
5	1985-1986	2	6	1986-1987	2
7	1987-1988	4	8	1988-1989	1
9	1989-1990	0	10	1990-1991	0
11	1991-1992	14	12	1992-1993	3
13	1993-1994	8	14	1994-1995	1
15	1995-1996	1	16	1996-1997	17
17	1997-1998	6	18	1998-1999	5
19	1999-2000	4	20	2000-2001	5
21	2001-2002	0	22	2002-2003	1
23	2003-2004	0	24	2004-2005	3

25	2005-2006	0	26	2006-2007	0
27	2007-2008	2	28	2008-2009	0
29	2009-2010	2	30	2010-2011	3
31	2011-2012	0	32	2012-2013	0
33	2013-2014	5			

80 60 40 20 1981-1990 1991-2000 2001-2010 2011-2013 2014-2015

Graph No 2.1 Recognition year of the Public Libraries in Aizawl City

2.3.1: Government Public Libraries:

Aizawl would be the world 2019s steepest capital city. Homes at road level might be held there with a rear stilts three times higher than their roofs with eight District capitals which Aizawl is the centre which it contains Public Library and also about 467recognised libraries within the state. Out of these the Mizoram State Library and District Library plays the main role in developing the library system in Mizoram.

Mizoram State Library:

Mizoram State Library was established in the year 1974. Previously, the Mizoram State Library was under the control of Education Department. After trifurcation of Education Department into three departments Viz. School Education, Higher & Technical Education and Art & Culture Department in the year 1989, the Mizoram State Library is under the control of Directorate of Art & Culture, Government of Mizoram from 1989 till date.

The Mizoram State library is organized and fully looked after by the present Librarian Mr. Lalramliana having 10 supported staffs with 2 Professionals/having degree in Library Science, 3 Ministerial/clerks/typist and, 3 Library attendant/peons/sweepers. The Mizoram State Library followed the normal office hours at present from 9:00 A.M. to 5:00 P.M and opened for 5 days in a week. It has its own Library building and is also fully automated comprising of Libsys Software which functions and used by the users which is an important for the development and functioning of the Library. The library is open for all including Non-members.

Raja Rammohun Roy Library Foundation (RRRLF) is the nodal department established in the year 1972 under the Department of Culture, Govt. of India. Through RRRLF it receives assistance every year. The State Govt. avails matching and non-matching scheme of assistance from RRRLF on 90:10 for the development of public libraries especially Rural Libraries recognized by Government of Mizoram. From this scheme books and furniture are purchased and distributed to rural libraries recognised by State Library Planning Committee. The State Library has a Reading Room, Reference Room, Stack Room, Children's Room, Establishment Section, and Distribution Room for RRRLLF Books. At present, there are 5533 nos. members. Total library book collection is 58278 and 25 Journals is subscribed till date.

Aizawl District Library:

The Aizawl District Library was a Sub-Divisional Library established at Aizawl in 1969. The Library building is rented and is situated at Sikulpuikawn which is looked after by Mrs. C.Lalzuithangi the then Librarian having 6 staffs and well organized by the Counter Attendant and Professionals from a recognized University having degree in Library and Information Science. The Library has a good collection of 43188 books till date and is having good number of users and is opened for 5days in a week i.e. from 9:00am to 5:30pm. The library is open for all having 4231 total members and also the library collected membership fee which is Rs 20 per month. The Library receives grants from RRRLF i.e. Raja Rammohun Roy Library Foundation through State Central Library and also receives number of books and infrastructure development. It is very useful for the development of library system in Mizoram.

2.3.2 NGO Public Libraries in Aizawl City:

The NGO (YMA) is well organized having about 3,50,000 members in 747 branches at various corners of the state. The headquarters, known as Central YMA, have a committee called Recreation Sub-Committee, concerning about the establishment, management and development of its branch libraries for the best use of the local people. Student, Organization, Local Youth Organization/Society, and Local Voluntary Organizations are the other agencies that organize rural libraries. The above mentioned rural libraries are run and established on voluntary work and therefore, most of their collections are supplied by the Government from such source meant for the purpose.

> YMA Libraries:

In Mizoram, the Young Mizo Association has played very important role and today the YMA have been recognized by many as the lifeline of the State. Though Mizoram is a small state in India, it poses a number of voluntary organizations. Among them, YMA have the largest member spreading throughout the State. YMA is form and established on the Christian principles by the Welsh Christian Missionary. It played a very important role in this transition period, from tradition to modern, in which the Mizo society is facing with many new challenges.

In the formation of YMA the Welsh Missionary played a very important part along with the Mizo Church leaders in the formation of YMA. YMA was first called the Young Lushai Association. The objectives of YMA are as follows:

- To make best use of leisure time
- Struck for all round development of Mizo people
- To promote good Christian life

The Young Lushai Association (YLA), the then name of YMA, functioned as the right hand of the church in Mizoram. Its headquarters was at Aizawl, and spreading its branches to different villages in and outside the State. In early days, YLA activities were published in the church monthly magazines "Kristian Tlangau" till 1954, which is regarded as the main source of information for its branches in various localities. Since its conception, the association conducted

general conference every year wherein delegates from all branches discuss important matters relating to the development of the youths as well as the state in general. The name, Young Lushai Association (YLA) was eventually changed over to Young Mizo Association (YMA) on October, 1947. It than still become the largest non-political voluntary organizations in Mizoram. It was registered on May 14, 1977 under the Firms and Societies of the State Government.

YMA is very keen for the establishment of the library at various branch levels and in its general conference in 1988, it revolves to establish library at all the branches to equip reading materials of the local people on free of cost. The YMA library plays a very important role in Mizo society in various ways by educating the local community to enhance their life standards through library resources. YMA Library has an integrated role as a cultural unit, constituting as an organic part of the society on a common platform. The group interest can be resolved in terms of the whole society and sectarian lifestyle is substituted by democracy life patterns by opening the mind of recorded knowledge for effective use. The Public Library encourages the community individually a variety and dissent climate tolerance. Out of the 81 recognised libraries there are 97 recognised YMA libraries in Aizawl City.

➢ Mizoram Upa Pawl (MUP) Library:

This library is run by elderly social organizations, established in the year 2006. MUP is an elderly organization which covers all its members within Mizoram. The library is under the incharge of unqualified person, who works as volunteer. It has its own building with reading room and a good collection of 2600 books. The Library also has a headquarter budget of Rupees 5lakhs for Literature Fund and Tlangau Bu.

The library is open to all its members within the State of Mizoram. It is open for five days in a week, i.e. Monday to Friday. It also provides services to its users. The library receives books through donations by individual and procurement by the organization. It also receives grants from Raja Ram Mohun Roy Foundation (RRRLF) through State Central Library under the Government of Art and Culture Department.

> Tlawmngai Pawl Library (MHIP Library):

The library is run by the women organization, the largest women organization in Mizoram, established in 13.8. 2011. It is under the supervision of unqualified library in-charge/librarian who is given salary by the organization. The library has building of its own with reading room, equipped with furniture's and good number 2227 books collected so far.

Opening days of the library is two days in a week, i.e. Monday and Friday. Even though the library is run by women organization, the library is open to all and all the women members registered are also members of the library. The library receives grants from Raja Ram Mohun Roy Library Foundation through the State Central Library under the Government of Art and Culture Department which it receives a number of Books and furniture.

→ Mizoram Journalists Association Library (MJA Library):

The Mizoram Journalists Association Library run and organized one library in its headquarters office building of Aizawl under the name of MJA Public Library. The library is looked after and organized by the Librarian in-charge Lalrempuii with a collection of 4452 books till date. The Library building is rented with reading room, equipped with furniture which is funded by Raja Ram Mohun Roy Library Foundation through State Central Library under the Government of Art and Culture Department. The library is well functioned and has 85 members and used DDC i.e. Dewy Decimal Classification for Classifying books. The Library is opened 5 days in a week from 9:00am to 5:00pm.

2.4 Recognised Libraries in Mizoram

Mizoram, since 1981 to till date has recognized 467 village/local libraries run by NGOs and other organization within the state so far. The recognized Libraries, on the basis of the State Government's contribution under RRLF matching scheme, received certain amount of assistance through State Library Planning Committee, which is equally shared in kind. Out of the 467 organized libraries, 380 libraries are run by YMA (Young Mizo Association), largest voluntary organization of the State at different localities. 295 recognized libraries are in rural area run and managed by YMA. YMA contributions in the establishment of library are complicated at different levels of locality. The NGO (YMA) is well organized having about 3,50,000 members

in 747 branches at various corners of the State. The headquarters, known as Central YMA, have a committee called Recreation Sub-Committee, concerning about the establishment, management and development of its branch libraries for the best use of the local people. Students, Organization, Local Youth Organizations/Society, and Local Voluntary Organizations are the other agencies that rural/village level libraries. The above mentioned rural libraries are run and established on voluntary work and therefore, most of their collections are supplied by the Government from such sources meant for the purpose.

Out of the 467 recognized libraries in Mizoram Phullen YMA Library in Aizawl District is the first to be recognized, which is during the year 1981-1982. This is the library run by the largest voluntary organization of the State; it is also received fund from RRLF, through the State Central of Library of Mizoram. After 1981-1982, the rest of the recognized libraries came into function which also received grants from RRLF, through the State Central Library for their further development in different kind's grants, like building grants, furniture (book case) grants, computer sets, etc.

The State Library Committee is meeting regularly to discuss about the development of libraries within the state. The recognized libraries can received various assistance grants from the government and it helps such libraries by recognizing them and benefited under RRLF matching scheme in kind. District-wise recognition of libraries by the State Library Planning Committee in Mizoram is reflected below in Table-2.2

Table-2.2: Recognised libraries in Mizoram

Sl.No	Districts	No. of	Total	Recognized
		Villages/Towns	Population	Libraries
1	Aizawl	105	4,04,054	175
2	Champhai	64	1,25,370	92
3	Kolasib	34	83,054	27
4	Lawngtlai	149	1,17,444	8
5	Lunglei	158	1,54,094	64
6	Mamit	80	85,757	38

7	Saiha	50	56,366	13
8	Serchhip	34	64,875	50
	Total	674	2,90.052	467

These libraries were run by the Branch YMA invariably by appointing librarian for a period of time on voluntary basis without any financial benefits.

2.5 Establishment

Mizo District (Mizoram) has grown in different aspects. The growth and developments resulted drastic change of social life, cultures and education to the people as a whole. The government took lot of initiatives for the promotion of the people in one or the other areas. Public libraries are under the direction, supervision and control of Education Department till the department was trifurcated in 1998. Following the trifurcated of Education Department into School Education, Higher & Technical Education and Art & Culture; academic libraries were under the Higher & Technical Education and school libraries under the School department. The public library of Mizoram may be grouped into three levels, as State level, District level and Village/local level.

According to Ngurtinkhuma(2011), the first level of public library system in Mizoram, State Library of Mizoram, an apex public library of the state, was established in 1974 at the state capital, Aizawl to cater information needs of the community. It was housed in a rented building for a long time since its inception but now have its own building at the New Secretariat Complex which most of the government offices were housed.

The second level of public library system in Mizoram is district libraries. There are five district libraries, one of each in five districts, but three districts have no district library so far. Aizawl District Library is the first public library established in Mizoram. It came into existence on 12th February 1968 at Aizawl, now Aizawl, under the control and supervision of Director of Public Instruction for Hills, Government of Assam. It was temporarily attached to the office of the inspector of Schools, Aizawl. By that time, District Library was already established in Silchar and consequently it was changed into Sub-Divisional Library on 1 August 1969 and housed in a rented building till today. Later Mizoram being one of the states of India and consequent upon

the formation of Districts in Mizoram and Aizawl as one of them, Aizawl Sub-Divisional Library was upgraded to the status of District Library in 2001. The second district library in Mizoram was Saiha District Library, established in Saiha on 1st May 1975. The third District Library, namely Lunglei District Library was established on 22nd May 1975 by the education department right after the establishment of State Library at Aizawl. It was housed in a rented building for more than twenty years, but now settled in its own site at Saikuti Hall, maintained by the State Government of a storied building at the heart of the town. The fourth District Library, Kolasib District Library was established in 1980 as a sub divisional library but consequent upon the formation of Kolasib District in 1998, it was elevated to the status of a District Library in 2001. The fifth District library in Mizoram was established at Champhai in 1982 under the name of Sub-Divisional Library but consequent upon the formation of Champhai District, it was upgraded o the status of District Library in 2001.

The third level of public library was village/local libraries run and maintained by NGO and other organizations on voluntary basis. So far, most of the villages have library or Continuing Education Centre (CEC) giving reading materials to the local communities on free of cost. CEC is maintained by the Adult Education Department of the state government. It supplies books and other reading materials to its centres, in total it is as much as 400 centres. The collection of reading materials at these libraries and CEC were, apart from the government assistance, done on local contributions, which may be in cash or in kind. Therefore, local/village level librarians may be regarded as the local information or recreation centre giving general information and knowledge to the local community.

2.5.1 Library Administration/ Management

In Mizoram Public Libraries were administered and organized by the Department of Art & Culture headed by the Director and is supported by Joint Director, Deputy Director and other officers and Clerical Staff. One of the Deputy Directors is an independent charge of libraries. State Library is headed by the State Librarian and is supported by other supporting staff and District Libraries were headed by District Librarians and supported by other.

2.5.2 Library Finance

The most important sources for developing Public Library is Finance, without it the library cannot run on its own and is one of the major importance in functioning of the library. The source of finance for the establishment, management and development of public library can be summarized as Budget allocation, Membership Registration Fee, Late fine, Sale of waste papers, Reprographic charges, Assistance from Raja Rammohun Roy Library Foundation under Matching and Non-Matching Schemes

2.5.3 Library Services

The Mizoram public library provides the following services to its varied users to cater their information needs. The most common services used and developed in different libraries in Aizawl city consists of

- ✓ Circulation Service
- ✓ Audio-Visual Service
- ✓ Book Exhibition
- ✓ Reprography
- ✓ Periodical
- ✓ Current Awareness Service
- ✓ Reference Service
- ✓ Children Story Hour's

2.6 Conclusion

There are as much as 467 government recognized libraries in Mizoram and out of which 97 libraries, which forms 20.77% were in Aizawl City. Initiatives taken by the state government for the promotion and development of libraries in the state is commendable. These recognized libraries have incredible contributions for the development of the local community through its various services rendered by providing reading materials of different kinds. Mizoram is one of the most literate states in India and the people of the state are fond of reading good books and other reading materials. At the same time, it is backward in economy and is very difficult to collect reading materials by the people from their own resources. Nevertheless these recognized libraries provided reading materials received from the government which quenches the thirst of

the local information needs. Since most of these libraries were run on voluntary basis, their working hours is limited and could not fully effort to serve various users but their contribution cannot be forget. It can, therefore be stated that government recognized libraries in Aizawl city has tremendous contribution for the education, development and growth of public livelihood in an information society.

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CHAPTER-3

LIBRARY AUTOMATION: ISSUES AND NEEDS

3.1: INTRODUCTION

Library automation refers to use of computers associated with peripheral media such as magnetic tapes, disks, optical media etc. and utilization of computer based products and services in the performance of all type of library functions and operations. Further, computer application libraries carry out multiple operations like content management, services etc. The utilization of computer and related techniques make the provision to provide the right information to right reader at the right time in a right form in a right personal way. Automation of library activities provides the services very efficiently, rapidly, effectively, adequately and economically. The modem libraries and information a center facilitates free communication because access to information has become a fundamental right of the clientele. Library automation leads to achieve economy in libraries. It has become need of the hour in modern libraries to cope up with the requirements of new knowledge due to changing need of the users, management of resources, storage, processing, and dissemination of information. Over and above, its' need has become indispensable in the libraries for on-line services. Application of computers for automation in libraries further precipitate to qualitative and quantitative improvement by venturing in to acquisition of multiple resources and their dissemination to meet the varied needs of the users.

Information / knowledge are of no value unless it reaches to the users. Success depends upon the prolific use of resources by the users where the library takes the responsibility for making information available to the users. Success to this mission further depends upon the skill of the professionals in the library. The present scenario reveals that, there is the need of media application in the libraries for providing visual instructions to the users about the use of library and that could be possible when there is a prolific use of computers and associated technologies which results to qualitative approach in the library services. However, automation in libraries results to bring out new products through amalgamation of various library resources. Even though this has become the essential component in libraries and is fundamental in library services, most of the libraries in higher education scenario have yet to implement. Moreover, while justifying need for library automation more than its cost-effectiveness in the libraries, its need has become paramount to serve the users effectively. Even if, library does not happen to be an economic entity such benefits need to be looked forward in a different perspective. To

appreciate the advantages it becomes necessary to highlight the benefits at different levels of library automation such as:

- 1) Organization of Library catalogue;
- 2) House-keeping operations and networking
- 3) Development of CD-ROM, e-resources / products
- 4) E-mail system and internet

The library catalogue or index is a mirror of the collection of library resources and it serves the users to find a document in the library. Its' function has been seriously felt in view of proliferation of both traditional and electronic resources. The users are more concerned to locate the document whether in the rack or any file or database. It only saves the time of the users but also accelerate the prolific use of the library resources. Hence, it acts as a guide to retrieve the document in the library. The library while using the library software for various operations of the library activities organize the resources and generate catalogue according to pre-defined format or modified fields according to the need. The online catalogue connects to the database of library holdings and the users search the required information through key word, author's name, title of the book, ISBN etc. which are having access points to search the database. Further, when the library provides services on web, it allows the catalogue available on web for searching and it is known as Web OPAC. The second level automation will be to use software which can handle all the house- keeping operations of the library such as acquisition, circulation and serial control thus creating a network within the library or becoming part of the existing network of the institution. Networking of computers within an organization helps the users to browse the cataloguing system from any of the workstation/terminal.

A very handy technology available for library is the CD-ROM products which can be considered at the third level. The development of CD-ROM collection not only conserves space but also provides multi-user access in network environment. There are many self-tutorial CD-ROMS available with multi-media effect. Libraries facing high incidence of mutilation of materials will benefit from such electronic products. Also people doing empirical research can download data and directly take it to other software platform for analysis and making graphical presentation. Other technologies which libraries can make use of is the e-mail system. This not only reduces the recurring expenditure but also effective and fast. Sending reminders for non-receipt of

journals by e-mail has proved to be very cost-effective. In addition to this, the sharing of resources among libraries becomes easy. Few public domain e-mail software are available and there will be no additional expenditure incurred.

Another technology which has revolutionized the information world is the development of internet. Subscribers of internet, in addition to getting access to various public domain databases and services, will also get free e-mail and fax facility. Some publishers have started giving content pages of journals and libraries having subscription to such journals can also have full text of the articles. Many academic and research institutes have given free access to their working papers.

3.2 **AUTOMATION-** The Meaning

The word "automation" has been derived from Greek word "automose" means something, which has power of spontaneous motion or self-movement. The term "automation" was first introduced by D.S. Harder in 1936, who was then with General Motor Company in the U.S. He used the term automation to mean automatic handling of parts between progressive production processes. Automation is technology of automatic working in which the handling method, the process and design of professional material are integrated. This is the effort to achieve an automatic and self-regulating chain of processes.

According to Webster's Third New International Dictionary of English Languages, automation relates to the techniques of making an apparatus, a process or a system operate automatically. In other words, it is the machine oriented operation that mathematically manipulates information storing, selects, presents and records input data or internally generated data. Likewise, Oxford English Dictionary defines automation as application of automatic control to any branch of industry or science by extension, the use of electronic or mechanical devices to replace human labour. According to Encyclopedia of Library and Information Science edited by Kent (1977), automation is the technology concerned with the design and development of process and system that minimize the necessity of human intervention in operation. McGraw Hill Encyclopedia of Science and Technology defines automation as a coined word having no precise generally

accepted technical meaning but widely used to imply the concept, development, or use of highly automatic machinery or control systems.

3.3 LIBRARY AUTOMATION- The Concept

Library automation, stated in single term, is the application of computers and other associated technologies in various operations and functions of different library activities and services for optimum performance results. According to Harinarayana, (1991) there is a tremendous impact of computers and information technology in the libraries which resulted to a change in library services. Modern technologies have altered radically the nature of our society and affect the prevailing economic, political and social values including libraries. Mention may be made that, industrialized countries were the first to realize the concept of application of computer in the context of stock of knowledge and its approaches to storage, retrieval, utilization and dissemination of the information. Compared to the developed countries, our country is still needs to gear up the computer application in library operations and services. However, the situation is fast changing as it was seriously felt by the librarians, educationalists, intellectuals, administrators etc. Conditions are turning to be favorable and also the government is laying great emphasis on modernization, which covers libraries as well. Above all library professionals are getting motivated and showing keenness to get trained to take up computer based work. The National Knowledge Commission in 2007 also has equally emphasized on library automation in all colleges and universities level.

Library automation implies a high degree of mechanization of various routine and repetitive tasks to be performed by human beings. With the advent of automation, the human intervention is reduced to a great extent. The appearance of computer has greatly increased the library automation. In addition to computer advancement, telecommunication and audio-visual technologies gave way to new possibilities in information handling In India; the use of computers is limited to only some specialized libraries unlike the case of developed countries. Library automation includes use of computers and other semi-automatic devices like punched cards to reprography. These are semi-automatic because human intervention is greater in extent. So, when we talk of library automation, these days, it is principally the use of computers;

associated peripheral media (magnetic tapes, disks, optical media, etc); computer based products and services in library work.

3.4 DEFINITION OF LIBRARY AUTOMATION

Library automation has been defined in many ways by different library scientists. Uddin (2009) defined it as the application of automatic and semiautomatic data processing machines (computers) to perform traditional library housekeeping activities such as acquisition, circulation, cataloguing and reference and serials control. Kent (1977) in Encyclopedia of Library and Information Sciences defined Library Automation as the use of automatic and semiautomatic data processing machines to perform such traditional library activities as acquisitions, cataloguing, and circulation. These activities are not necessarily performed in traditional ways, the activities themselves are those traditionally associated with libraries. Library automation, thus, is distinguished from related fields such as information retrieval fields such as information retrieval, automatic indexing and abstracting and automatic textual analysis".

3.5: OBJECTIVES OF LIBRARY AUTOMATION

Multiple objectives are associated with the library automation. The objectives primarily concerned with the library automation are to:

- 1) Maintain bibliographical records of all the materials, in a computerized form.
- 2) Provide bibliographical details through a single enumerative access point of holdings of a library.
- 3) Reduce the repetition in the technical processes of housekeeping operations.
- 4) Provide access to information at a faster rate.
- 5) Sharing of library resources through library networking.
- 6) Implement new IT processes to provide high quality information.

3.6: NEED FOR LIBRARY AUTOMATION

From the above definitions, it is understood the effectiveness of library automation. Need of computers is present in all areas depending upon its usage. They range from acquisition control, serial control, and cataloguing and circulation control. They are also used for library manager's

evaluation of reports, statistics, etc. For the good administration of the library computers are used in all levels of work. Above all, the unique characteristics of computer made it the right choice for the library world. Computers right from the beginning are considered to aid man, in doing various operations. Jain (1987) stress its application in the library helps for:

- Capacity to handle any amount of data and information.
- Participating in network programmers and resource sharing.
- Flexibility in information search.
- Standardization of library procedures.
- Speedy processing of information and its retrieval.
- Provide better bibliographic control at local/regional/national and international level.
- Facilitate interdisciplinary nature of research and information.
- Economic implication of latest information technology.
- Overcome geographical and other barriers to communication.

Its application to library management does not only limit to the above, but also have some implications in library and information centers. The other areas of its use in the libraries relates to:

- Avoiding duplication and inclusion/deletion any matter leading thereby, saving time and loss of human power.
- Retrieval of more precise and accurate information in less time compared to manual search.
- Getting printed list of a specific subject within less time.
- Storage of bulk data

Automation of libraries helps the users and staff in different ways in managing the library and also locating information needs which implicates the fourth law of library science, save the time of the readers. To supplement the above, Verma and Raj (1977) also stated the application of automation in libraries as:

- Instant update of information.
- Increase in research activities, and interdisciplinary specialization.
- Speedy delivery of information.
- Resource sharing through network etc.

Due to the above discussed advantages, application of computer in library could become a universally accepted tool to help the users and staff.

3.6.1. Operational advantages of computer are:

The operational advantages of computer in an automated environment as visualized by Dhiman (2003) are concerned with:

- i. Flexibility,
- ii. Speedy processing of data,
- iii. Greater accuracy, efficiency, consistency and improved work control,
- iv. Reduce repetitive work,
- v. Permit bibliographic control, checking and updating,
- vi. Allowing users to explore unlimited literature and information of interest,
- vii. Trimming down precious time in handling routine and repetitive library operations,
- viii. Generating and providing new services and allowing the users to access multiple resources, and
- ix. Retrieval and dissemination of information to the users in more friendly way.

3.7: ADVANTAGES OF LIBRARY AUTOMATION

Moorthy (2004) stated that many activities of a library are routine in nature out of which, a few are repetitive. Automation helps in managing the library's resources in a better way at the same time saving time, money and manpower. For example, once the bibliographic details like author, title, edition, publisher, price, ISBN number, etc are entered at the time of ordering, the same data can be used for accessioning, cataloguing (OPAC), and circulation. Other important factors associated with automation are speed, and accuracy. One can imagine the time saved in literature searches and in preparing bibliographies. Automation also offers freedom from doing repetitive and routine works as well as enables providing efficient services properly and more efficiently cutting down time and improving productivity Automation also facilitates generation of a number of reports for better decision making in the effective management of the library. Availability of various statistical and other usage reports and performance reports will ensure better appreciation from library users. For example, vendor performance analysis is possible.

Subject-wise or project department-wise budget can be monitored. Circulation data can provide information on titles that are in great demand so that more copies can be procured if needed. Many current awareness services like current additions, contents of books and journals, etc. can also be provided to users.

3.8: STEPS IN LIBRARY AUTOMATION

Since automation of a library is an important and essential step, it should be properly planned and implemented. Hence, while considering library automation a series of steps have to be undertaken as follows:

3.8.1: Feasibility study of the system

The aim of feasibility study is to determine whether it is achievable or not, if the benefits outweigh the disadvantages and to examine alternative solutions. Feasibility study is to be taken before start of automation to avoid problems that may arise after start of the work. Large (2006) stated that the feasibility study is designed to answer these questions:

- 1) Is the proposed system realistic?
- 2) Is it necessary?
- 3) What other options are available?
- 4) Is it affordable?

3.8.2: Hardware

When automating the library, the hardware to be procured should also be given a thought. Today, different types of hardware are available in the market and due to new kinds of hardware available in the market; the earlier ones are getting outdated soon. Also, while procuring the hardware, it should be seen whether the software which will be implemented will be compatible with the hardware procured.

3.8.3: Software

The term software refers to a set of computer programmes, procedures, and associated documents (flow charts, manuals, etc.) that describe the programme and how they are to be used. To be precise, software is a collection of programmes to enhance the working capabilities of the

hardware. According to Pandey (1995), Software is a set of programmes written or developed to enable the computer to do desired operations. It is one of the most important components which should be taken notice of, while automation. Today, a number of application software are available in the market manufactured by different companies of India and abroad with distinct feature and hence while selecting software. Manjunath (2006) has given the following criteria for the library automation software:

- Who has developed the software? Whether institution or company or an individual? In such a case, first preference should be given for an institution and second preference should be given for software developed by a company. Software developed by an individual should be as far as possible avoided because there will be no continuity in the software.
- How many times the software has been revised since its first launch?
- How many parameters are available for each module?
- Whether the software has the facility to import bibliographic data available in ISO 2709 format and at the same time export data in this format.
- Whether the software is user friendly and menu driven to facilitate access?
- Whether training and guidance will be provided after installation?
- If it will be available to operate on major operating systems and in multi-user environment.
- Whether it is web interface able and supports data security through password?
- Whether it can be interfaced with email system of the campus network?
- How many installations it has got in the country, since when and its major clients?
- Whether it can offer OPAC and different rights to different logins?
- Cost of the software has also to be taken into account and compared with different software available in the market. This is important because if particular software provides good facilities but if the cost is very high, and software provides the similar facilities with slightly less cost than the later will be preferred. Therefore, comparative study of the cost factor of different software should be done before installation.

There are different types of software manufactured by different companies and institutions, each of which has distinct features. Mahapatra & Ramesh (2004) has given the following table which provides a list of different software's packages for library automation.

TABLE 3.1
NAME OF THE SOFTWARE AND MANUFACTURER

Sl.	Name of the	Manufacturer	Place of origin
No	Software		
1	ARCHIVES	MIFIFAX Electronics Ltd.	Mumbai
2	CDS/ISIS	UNESCO	Paris
3	DELSIS	Libsys Corporation	New Delhi
4	GRANTHALAYA	NISCAIR	New Delhi
5	LIBMAN	Datapro Consultancy Service	Pune
6	LIBRIS	Frontier I.T. Pvt Ltd.	Hyderabad
7	LIBSUITE	Softaid Computer Pvt. Ltd.	Pune
8	LIBSYS	Libsys Corporation	New Delhi
9	MAITRAYEE	CMC Ltd.	Kolkata
10	NEWGENLIB	Kesavan Institute of Information And	Hyderabad
		Knowledge Management	
11	MINISIS	International Development Research Centre	Canada
12	OASIS for DOS	Softlink Pvt.	Australia
13	SANJAY	DESIDOC	New Delhi
14	SLIM	ALGORYTHMN Co.	Pune
15	SOUL	INFLIBNET	Ahmedabad
16	TULIP	Tata Unisys	Noida
17	WILISYS	WIPRO India	Bangalore

3.8.4: Budget

While planning for library automation and networking sufficient funds has to be provided by the institution or the funding agencies for purchasing of computers, hardware, software, furniture

etc. It should be noted that if sufficient funds are not available for purchasing the entire software, then the library should automate only those areas, which are of utmost importance and then later on go for overall automation modules.

3.8.5. Training

Manpower or personnel of the library is also an essential necessity. To provide effective and efficient services to the users, the staff should be provided training about the computers, how to work on computers, and the essential features of the software adopted and how the software is used.

3.9: IMPLEMENTING LIBRARY AUTOMATION

Library automation, which started in late 70's in few special libraries, has now reached the university libraries. It is yet to take off in college libraries in India. Library automation refers to the use of computers in the routine and important services of a library. Automation of a library has mainly two components, viz. computerization and networking. Computerization will help a library to modernize its in-house operations while networking will allow it to access other libraries for the exchange of information.

3.10: HOUSEKEEPING OPERATIONS:

Housekeeping operations of a library include all operations such as acquisition, cataloguing, circulation and serials control.

3.10.1. Acquisition

Acquisition is one of the important functions of any library. The goal of the library which is to satisfy the users will depend on the acquisition system of the library i.e. the user of the library will be satisfied only if the library acquires reading materials based on the users' demands. Acquisition also results in effective and efficient collection development of the library and hence acquisition of reading materials is an important job and is also highly labour intensive. Therefore automation in this area is very much required. Kimber (1968) has given the major objectives of an automated acquisition system may be:

- Elimination of maintenance of several manual files which consumes a lot time of the staff which intern eliminates may errors in reporting, control etc.
- Improve accuracy in all facets of acquisition process.
- More effective and efficient handling of claims and cancellations.
- More accurate and timely financial data recording, accounting and reporting.
- Eliminating of the need for manual processing of discount. Foreign exchange and other invoice data.
- Improved ability to track orders, receipts, invoice and claims.
- Improved binding control including maintenance of binding data records, provision of binding alerts, production of binding orders and tracking.
- Integration of acquisition with cataloguing and serial control for more effective bibliographic holdings.
- To provide necessary management information reports.
- Improved services to the users through faster, timelier processing of orders and receipts.

3.10.2. Cataloging

The library catalogue is, according to Saffady (1988), considered as a mirror of the library because it reflects the collection of the library i.e. whether the library possesses good, bad or satisfactory collection. It is considered to be the base for most of the library activities such as acquisition, reference, inter library loan etc. In acquisition activity, the catalogue is referred to avoid duplication of reading materials. In reference and inter library loan activities, the catalogue is consulted to see reference and other documents which can be provided on loan or can be consulted to answer reference queries. Hence, the catalogue is considered as an important tool in the library. So, if automation of the catalogue is done, then it will be very much beneficial to the users and the staff wherein they can get the desired information with no time. Similarly if the catalogue is made available in a network environment through LAN, then users can have simultaneous access to the same database. So also the library staff will appreciate the automated system since it will eliminate their job of printing the cards, filing the cards, keeping the catalogue up-to-date, etc. The automated catalogue also conserves space as compared to the large catalogue cabinet, which occupies a lot of space in the library.

Hussain & Raza (2002) stated that OPAC (Online Public Access Catalogue) is one of the existing aspects of library automation. OPAC is a catalogue, which is available for searching online. Such OPAC may be searched from a terminal within the library or at a terminal elsewhere in the organization remotely via national or international telecommunication networks. Today majority of the software which are used for automation in libraries provide a separate module of OPAC. With the latest developments in integrated systems the OPAC is connected to the circulation system so that the used can come to know whether the document he/she is looking for is currently available in the library or on loan. OPAC also promotes resource sharing program and bibliographic search can be done by author, title, accession number, ISBN, Keywords etc. Search in OPAC is by using Boolean logic or by truncation.

3.10.3. Circulation

The main component of a circulation control system is the transaction of documents i.e. issue and return of documents. This database contains bibliographic details of the documents which provide information on titles, authors and publishing details, which are used in notifying the users about the overdue. Circulation involves the charging and discharging of library materials, reservations, statistics, sending of reminders for the over-due material, etc. Rao (1986) has given the following functions of an automated circulation control:

- 1) Provision of information on location of circulation items.
- 2) Identification of items on loan to a particular borrower or class of borrowers.
- Recording of hold or personal reserves for items on loan but desired by another borrowers often with additional provision for notifying the library staff when the item is returned and printing a 'book available notice' for mailing to the persons who requested the item.
- 4) Printing recall notices for items on long term loan.
- 5) Renewal of loans.
- 6) Notification to library staff of overdue items and printing of overdue notices.
- 7) Notification to library staff of diligent borrowers (i.e. those with unpaid fines or overdue books) either at time of an attempted loan or at time a borrower is leaving the institution or on request forms the library.

- 8) Calculation of fines, printing fine notices, recording receipt of fines and sometimes printing of fine receipt.
- 9) Calculation and printing of statistics of various types.
- 10) Analysis of both summary statistics and statistics related to circulation of particular items for use in acquisition, planning of services and for other administration purpose.
- Provision for printing due date slips, automatically generating orders for lost book or needed addition copies and printing mailing labels for remote borrowers.

3.10.4. Serial control

Serials are published at regular intervals and the publication is intended to continue indefinitely. Besides scholarly journals and popular periodicals, serials include magazines and all other periodical publications as newsletters, newspapers, annual reports, proceedings of learned bodies, monograph series etc. the term serial control usually denotes two very distinct aspects: bibliographic control and processing control. Vyasamoorthy (1987) stated that Bibliographic control of serials involve preparation and maintenance of a central master list of all serial publications which includes full title, short title, variation form earlier titles, publishers, ISSN, frequency etc. Serials processing control comprises of acquisition, claims controls, cataloguing, circulation, binding, weeding out etc.

3.10.4 (a) Problems in serials control:

Serial Management is an integral part of the library operations. It has fewer titles to handle as compared to acquisition system but must record more details for each title and hence it is one of the most complex and expensive procedures. Gupta & Dass (1991) has given the following problems in serials control:

- All publishers do not bring out periodicals on a particular date.
- > The frequency of publication may change.
- ➤ There may be a change in title.
- They are sent by post, air-lifted, air-mail or sear-mail and these systems have their own problems relating to delivery time and misplacements.

Foreign journals take about 10-15 weeks to reach the destination by sea-mail and airmail is speeding but costlier. Serial control refers to those jobs, which involve procurement and management of serials in a library.

3.10.4. (b). The functions of an automated serials control system:

- ➤ Input the data when the library receives issues.
- > Ordering new serials and renewing the presently subscribed journals.
- > Sending reminders to follow up missing issues.
- Accessioning of individual issues when the library receives them.
- > Cancellation of presently subscribed journals.
- ➤ Controlling of budget spent on subscription binding etc.
- ➤ Binding of issues when a particular volume is complete.

3.11 AUTOMATED LIBRARY SERVICES:

Information services are provided to assist people and enable them in solving their problems and decision making. Modern libraries and information providing a variety of documentation and information services to support research and development, marketing and trade, management and all other programmes related to the development of institution. Mahapatra (1985) has given the following automated services are:

- 1) Current awareness Service (CAS)
- 2) Online Search Service
- 3) Printed Indexes
- 4) Selective Dissemination of Information (SDI)
- 5) Inter Library Loan
- 6) Stock Verification
- 7) Reference service

3.11.1. Current Awareness Service (CAS)

Current Awareness Services are those services which keep the users abreast of the developments and advances taking place their fields of specialization or in areas of research in which they are engaged. This method is limited to a few, as it is not meant to generate comprehensive review of

all activities in any subject area. CAS can be given in various forms such as by title, current content list, indexing and abstracting etc. In a library by making use of computers the embers can be provided CAS by sending emails, through various databases, CD-ROMs etc.

3.11.2. Online Search Service

Online search is done through online terminal. The search comprises of a series of keywords together with Boolean logic. The search strategy or the search statement should be framed before logging-on. When communication is made by logging-on, data of the system will be displayed on the screen of the terminal and the user will be requested to select the required database. As search proceeds the interaction between the machine and the user goes on and the user gives a series of commands to which the computer responds. Patwardhan (1986) has given the following advantages.

- Search process is interactive i.e. response from the system is almost instantaneous. The results are printed at terminal within few seconds.
- Facility to develop search strategy step by step by evaluating results at each stage.
- Availability of large number of databases providing various types of information like bibliographical data, commercial and full text.
- User need not have knowledge about computer programming and operational to search computer files.

3.11.3. Printed Index

In information retrieval, computers were used for preparation on in-house indexes i.e. within the library and also for production of indexes for major abstracting journals. Index consists of a series of terms arranged in alphabetical order. Tedd (1977) stated different types of computer produced indexes and is supplemented by Sengupta & Chatterjee (1977) as:

1) KWIC (Key Word in Context)

In a KWIC type index, an entry for a document is made under each keyword in the title of the document. The computer must be told how to derive the keywords, these being the words which characterize the subject.

2) KWOC (Key word Out of Context)

In this Index, the keyword remains in the title. This method greatly increases the size of the index but if there are many entries under one term, it sub-divides the entries. It is used by many special libraries for indexing reports, journals, patents etc.

3) PRECIS (Preserved Context Index System)

It allows the user to enter an alphabetical subject index at any one of the significant terms which together make up a compound statement and establish at that point the full context in which has chosen term has been considered by the author.

4) POPSI (Postulate Based Permuted Subject Indexing)

In this index, depends on word order and relational signs. The order of words elements in the chain is predetermined and fixed according to the seats, postulate categories or relational operators.

3.11.4. Selective Dissemination of Information (SDI)

In SDI service, the information in a library is matched against the subject interests of the users; which means that the user receives only that information which is relevant to his research work. In computerized SDI service, a user profile is constructed. Simultaneously, document profile is also constructed when documents are received in the library. Both these profiles are matched by the computer and sent to the user. Feedback is received from the user. In case the user is not satisfied then the profiles are checked and adjusted on the basis of user's evaluation.

3.11.5. Inter Library Loan (ILL)

This is true when number of user increases and means of communication reduce the barrier of distance, language and specialization. So Inter Library Loan is provided. According to Yadagiri (1999), Inter Library Loan in automated era can be provided by:

- Thermal transfer printer with suitable barcode printing.
- Barcode labels.

All the books should be bar-coded. The pre-printed self-adhesive barcode labels are being pasted on all books, one on title page and another on secret page. Each member is provided with barcode and matched with the help of a laser scanner during transaction.

3.11.6. Stock Verification

Sridhar (1991) is of the opinion that stock verification is an important activity in any library. It is one of the most tedious jobs to be done which involves a lot of time. Traditionally, it took many months to complete stock verification for a normal collection but with the impact of information technology, this has been overcome and less time is required comparatively. By using bar-coding technology, all accession numbers can be saved in the barcode scanner memory. The most economical and fast way of entering accession number is to use a mobile bar code reader to scan accession numbers of books from bar code tags in books. This laser scanner is passed over the bar-coded books in the stack. The accession numbers of books available in the stack are recorded in the memory and the accession numbers, which are not in display, are checked if they are on loan and thereby, the number of missing books is known. It is also possible now with the proliferation of personal computer to just key in all accession numbers as and when checked to consolidate the loss in terms of missing accession numbers.

3.11.7. Reference Service

Initially, the reference librarians depended on printed indexing and abstracting services, bibliographic sources and directories to perform literature search and answer questions of factual or bibliographical nature. But today it is seen that the important reference books like encyclopedias, directories, bibliographies, are available in the non-print format either in the form of CD-ROM or are displayed on the internet. They can be used as a database for accessing information for answering queries.

3.12 BARRIERS OF LIBRARY AUTOMATION

Library automation brings great changes in the functioning of the library and proving effective and efficient library services. But in spite of these great advantages, there are many barriers which occur at the time of implementing the automation in libraries. Ramesh (1998) has given the following barriers faced by the library during automation.

- Fear of adverse impact on employment.
- Apprehension that the technology could be too expensive
- The library staff has to undergo extensive training.
- Lack of support from the management, may be owing to budget constraints
- Retrospective conversion of data
- Fear of adverse impact on employment

Let us examine each of the points. If we analyze the various jobs such as book acquisition, technical processing, circulation and reference service one can conclude that human interference is necessary at each and every step. The only area where substantial manpower can be saved is the cataloguing. The data entered at the time of ordering can be used for cataloging with some updating would eliminate multiple card preparation and subsequent filing. The manpower thus saved can be utilized in retrospective conversion and later on for analytical cataloguing or introducing new services. Therefore, there will be no adverse impact on employment.

3.12.1. Apprehension that the technology could be too expensive.

There is an apprehension that the technology, both hardware and software would be expensive and unaffordable. The cost of hardware and software depends on the level of automation. From the user point of view cataloguing system is most important and also forms the base for other library activities. Keeping these two points in view UNESCO developed PC based software titled 'CDS/ISIS' and is available at a very nominal price to all the libraries in developing countries.

This software which works on a simple IBM compatible PC/XT is also available on UNIX and NOVELL platform. Recently the WINDOWS version has also been released. This software can export data in ISO 2709 format and therefore at later stage if one decides to go in for some other software, data transfer poses no problem. INFLIBNET has developed public domain library software titled 'ILMS' which is available on DOS AND UNIX platform.

3.12.2. The library staff has to undergo extensive training.

The in-house training for handling the software is usually provided by the developers and one can choose the software which can suit their budget. However, training for CDS/ISIS is available

at INSDOC, INFLIBNET and DRTC. For further information on training programmes one can contact NISSAT. The training of library staff also depends on the level of automation. If one decides to go only for cataloguing a minimum training of one or two week's duration will enable the librarians to develop a database and maintain it. With this basic training one can easily transfer the same data on a server/main machine in a network environment. The job becomes easy as most of the institutions have systems department with computer professionals maintaining the network.

3.12.3. Lack of support from the management, may be owing to budget.

Constraints lack of support from the management may be owing to budget constraints will be one of the barriers. Here the role of librarians becomes crucial in convincing the management that the users of libraries will also be the major beneficiaries of automation. Also, the skill and initiative play a major role in convincing the management.

3.12.4. Retrospective conversion of data

The reason could be retrospective conversion of data. As mentioned earlier the manpower saved could be utilized for retrospective conversion and later on for analytical cataloguing.

3.13 NETWORKING

Networking, according to Rao, Abhiram & Muralidhar (1997) involves the sharing of computers, peripheral hardware, software and switching all interconnected with communications channels used to establish a connection between network users. The end result is the shared use of information and resources. The intension of the network is to distribute information to the users requiring the network services. Computers and telecommunications may be the tools used for facilitating communication among them. A network mainly consists of three components viz. transmission media, mechanism of control and interface unit to the network. The components provide a mechanism to transport information to and from remote corners. Generally any network must have transport capability, internal switching mechanism and an ultimate user. Communication from the source host to the link or destination host occur through the interaction of two machines through their interface units under a structured set of operation referred to as a protocol.

3.14 CONCLUSION

Automation and networking of libraries are still in their formative stages in India. Their full impact on libraries and library resources will be known in the course of time. INFLIBNET, DELNET, and other metropolitan networks are providing training facilities for computer applications. The Indian Library Association, IASLIC, and NISSAT have jointly helped academic libraries in the choice of software, hardware and in manpower training. Every year, INFLIBNET organizes a conference- CALIBER (Convention of Automation in Libraries) – to discuss issues related to the computerization of academic libraries. In the first convention of CALIBER, held at Ahmedabad in February 1994, the Chairman of INFLIBNET, Professor Yashpal, said that the Government of India should provide more funds for the speedy networking of higher education, research and libraries. It is necessary for librarians to keep a watch on the developments and to choose appropriate technology depending on the needs.

Library automation implies a high degree of mechanization of various routine and repetitive tasks to be performed by human beings. With the advent of automation, the human intervention is reduced to a great extent. The appearance of computer has greatly increased the library automation. In addition to computer advancement, telecommunication and audio-visual technologies gave way to new possibilities in information handling In India; the use of computers is limited to only some specialized libraries unlike the case of developed countries. Library automation includes use of computers and other semi-automatic devices like punched cards to reprography. These are semi-automatic because human intervention is greater in extent. So, when we talk of library automation, these days, it is principally the use of computer based products and services in library work. Also, it is very important for librarians to interact with computer professionals as the library automation at all levels needs good co-ordination among both these professionals.

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CHAPTER-4

DATA ANALYSIS AND FINDINGS

4.1 Introduction

Data Analysis is one of the most important mechanisms in research to find out the results of any research work in the working field. It should be scientific in nature and must be easily understandable through presentations to protect from fallacious or inappropriate in the research results. This chapter discussed about the Analysis of data collected from various sources of information that could match with the research problems and objectives with reasonable findings according to the questionnaires collected from various sources using graph/charts and tables as explained below.

4.2 Analysis of Data

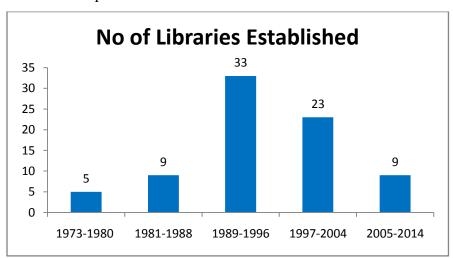
After collection of the data, the researcher turns to the task of analyzing which appears that the recall data were condensed in to a few manageable groups. Out of the 97 questionnaires circulated, 79 questionnaires has been received which constitute 81.44% which happens to be the total population of the study. The questionnaires can be seen in the appendix in details.

4.2.1 Analysis by Year of Establishment of Libraries

Library Establishment year marks out the importance and shows how the society is being concerned about the library. The year of establishment shows the growth and development of Public Library in Aizawl City. The growth of public library in the city commenced from 1973 on public demand in Aizawl. The data on growth of public libraries w.e.f. 1973 to 2014 i.e., 41 years has been grouped into five segments and this has been reflected in the Table-4.1 supported Graph No. 4.1 for clear understanding.

Table 4.1 Year of Establishment of Libraries

YEAR	No of Libraries Established	%
1973-1980	5	6.32
1981-1988	9	11.39
1989-1996	33	41.77
1997-2004	23	29.11
2005-2014	9	11.39
Total	79	100



Graph No 4.1 Year of Establishment of Libraries

Analysis of the above Table-4.1 illustrates that, during 1973-2014, the year 1989-1996 records a stupendous growth of libraries which comes to 33(41.77%) in total out of 79 libraries, followed by 1997-2004 where 23(29.11) libraries were established and in 1981-1998 and 2005-2014, 9 libraries each that constitute 11.39% each were established and thus, forms 1st, 2nd, and 3rd position respectively. It could be observed that there is a diminishing growth rate of libraries during 1997 onwards. It is, however, encouraging to note that, within a span of 41 years, there is a spell bound development of Public Libraries in Aizawl City and this is a healthy sign for use of libraries by the public.

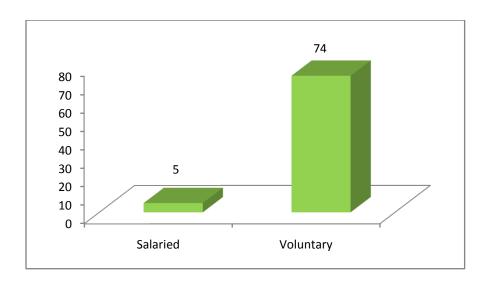
4.2.2. Analysis by Status of the Librarian

The librarian is the indispensable professional who is technically sound to manage the library resources and holds the key position and responsibility to promote information use, teaching to the public at large including the students and the research scholars. The function of the public library depends upon the vision and outlook of the librarian. He contributes immensely in the proper functioning and maintenance of the library and is responsible for the growth and development of the libraries. The status of the librarian of the public libraries of the study has been divided into two groups such as, i. Salaried and ii. Voluntary. Data relating to the component has been placed below in Table. 4.2, supplemented with Graph No. 4.2 for clear understanding.

Table 4.2 Status of Librarian

Status	No of Librarians	%
Salaried	5	6.32
Voluntary	74	93.67
Total	79	100

Graph No 4.2 No of Librarians



While analyzing Table- 4.2 it could be found that out of 79 librarians posted in various public libraries in Aizawl City, 74 librarians (93.67%) constitute the highest who offer voluntary services followed by 5 librarians (6.32%) who are the salaried employees. This shows the interest of various organizations who come forward to provide volunteer information services to the public and this is a sound sign of the growth of society. This otherwise can be understood that, there is an academic spirit involved with the voluntary personal. This shows the significance of the Public Library and it has an important place in the minds of the society.

4.2.3 Analysis by Qualifications of the Librarians

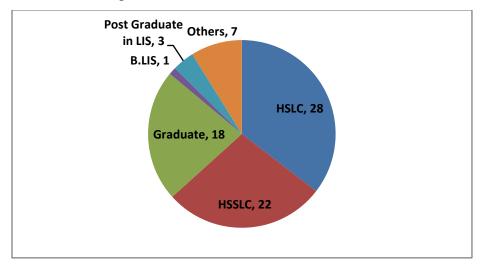
The qualification attached to the Library and Information Service is technical by nature. This being the prime component, technically qualified persons is all the time preferable in library because of the involvement of technical works, e.g. managing resources, technical works like classification, cataloguing, library automation, data entry etc. in the library. The Data relating to

the present study of the librarians having LIS qualification at various levels and other qualifications has been grouped into 6 (six) categories and the same has been shown in the following Table-4.3 with Graph No.4.3 for better understanding.

Table No 4.3 Analysis by Qualifications of the Librarians

Qualification	No of Librarians	%
HSLC	28	35.44
HSSLC	22	27.84
Graduate	18	22.78
B.LIS	1	1.26
Post Graduate in LIS	3	3.79
Others	7	8.86
TOTAL	79	100

Graph No 4.3 Qualifications of the Librarians



While analyzing the data about the qualification of the librarians covered under the study placed in Table-4.3, it could revealed that out of the 79 librarians, 28 (35.44%) are having HSLC qualification followed by 22(27.84%) who are having HSSLC qualification and 18 (22.78%) are graduate. It could be further visualized that the working librarians are meager who are having MLIS qualification i.e., 3 (3.79%) in total out of 79 and 1 (1.26%) having BLIS. However, 7 (8.86%) are qualified in other disciplines. The analysis further shows that, even if technically

qualified personal with MLIS are booming still due to less opportunities in the Govt. sectors, qualified personal are not employed. However, there is an effort among the youngsters to pursue the MLIS.

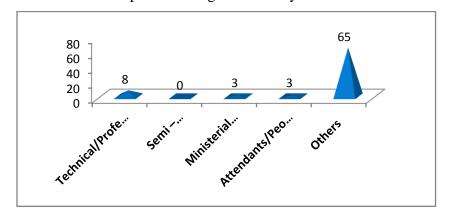
4.2.4 Analysis by Strength of Library Staffs

Human resource is one of the important components in libraries where, they mobilize the resources and impart services to the users. Hence, more the manpower in a library more is better service. Public library in general has seen much meager employment with professionally qualified staffs. This also equally applicable in Aizawl city and this is the onus of the State Govt. to take measures to provide employment to the qualified staffs. Data relating to the component of all the 79 libraries with regard to the staffs is placed in Table- 4.4 supplemented with GraPH-4.4 for clear understanding the issue. Further for convenience of analysis, the data has been grouped into 5(five) categories.

Table 4.4Analysis by Strength of Library Staffs

Position of Staffs	No. of Librarians	%
Technical/Professional(Having	8	10.12
Diploma/Degree in LIS)		
Semi –technical(Mechanics/Operators	0	0
Ministerial (Clerks/Peons)	3	3.79
Attendants/Peons/Sweeper	3	3.79
Others	65	82.27
Total	79	100

Graph 4.4 Strength of Library Staffs



Analysis of Table- 4.4 visualizes that all 79 library Staffs covered under the study have acquired various technical qualification as show in the table. It is surprising to find from the table that, out of 79 a total number of 8(10.12%) library staffs are having Diploma In Library and Information Science qualification followed by 3(3.79%) library staffs are qualified for Clerks/ Peons which is followed by the same number i.e. 3(3.79%) staffs are qualified for Library attendants/ sweepers. The rest 65(82.27) staffs are qualified in other disciplines. It is observed that there must be well looked after the Library which it needed more staffs for the development of the library services. However efforts needs to be initiated by the other groups of library staffs to obtain higher qualification to provide better library and building of carrier as well.

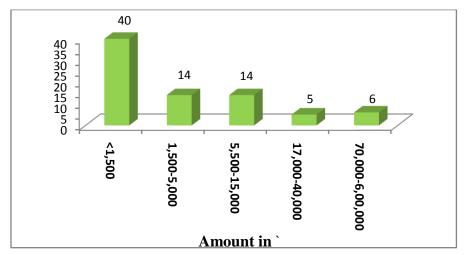
4.2.5 Analysis by Library Budget

Library Budget is crucial in developing the collections and other infrastructures in the library. Finance plays an important role in bring out other developments like getting computers, organization of seminars, conferences for the wider benefit of the public. As already discussed major chunk of the libraries function in volunteer basis and Govt. contributes scanty amount for the development of the public libraries in Aizawl. However, a range of the allocation of library budget for different libraries for all 79 public libraries has been taken by the researcher starting from `1500 to `6,00,000 (Six Lakhs) and data relating to this component has been grouped into five components which is placed in Table- 4. 5. The table has been supported with Graph-4.5 for clear understanding.

Table 4.5 Analysis by Library Budget

Sl.no	Library Budget in `	No. of Libraries	%
1	<1,500	40	50.63
2	1,500-5,000	14	17.72
3	5,500-15,000	14	17.72
4	17,000-40,000	5	6.32
5	70,000-6,00,000	6	7.59
	Total	79	100

Graph 4.5 Library Budget



While analyzing Table4.5- with regards to library budget it was found that, major libraries i.e., 40 (50.63%) out of 79 have their library budget less than less than `1500 which is negligible and it affects very much for the collection development and library services. It is surprising to note that while, 14(17.72%) libraries have their library budget from `1500-`5000, another 14 (17.72%) libraries receive their library budget from `5500-`15000. It shows the variance. Further it could be noticed that while, 5(6.32%) libraries in Aizawl city receive the budget from `17000-`40000, 6(7.59%) libraries are allocated with from `70000-`6,00,000. This visualizes that, even if major libraries are below the adequate budget, still there is an initiation of the Government providing with sufficient budget. This however, depends upon the demand and use of public libraries in the city. The scholar while interacting with the librarian of the respective libraries could ascertained that the budget allocated for the libraries are being utilized for various purposes like collection development, infrastructure development, acquisition of journals, internet services in the library etc, which is a healthy practice of the public libraries in Aizawl City.

4.2.6 Analysis by Library Working Days

Working days in the library equally contributes significantly in taking initiatives by the librarians for providing services to the public. More working hours in the libraries is a healthy practice which provides benefits to the society. The working days of the public libraries under study has been grouped into six components. Data relating to the working days per week of the present

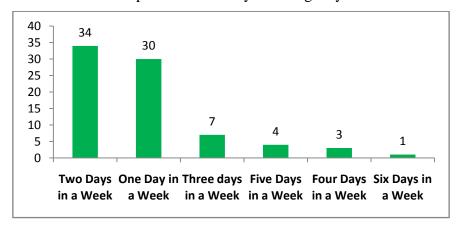
study of all the libraries covered under the study has been tabulated in Table-4.6 which is supplemented with Graph-4.6

Table No 4.6 Analysis by Library Working Days

Working days per week	No. of libraries	%
Two Days in a Week	34	43.03
One Day in a Week	30	37.97
Three days in a Week	7	8.86
Five Days in a Week	4	5.06
Four Days in a Week	3	3.79
Six Days in a Week	1	1.26
Total	79	100

Standard Deviation: 14.77047

Graph No 4.6 Library Working Days



While taking an assessment of the more number of working days from Table-4.6 it could revealed that the library which opens 6 days are the lowest i.e., 1 (1,23%) followed by 4 libraries which constitute 5.06% opens 5 days in a week and 3 libraries (3.79%) which opens 4 days in a week. It could be further pointed out from the table that maximum number of libraries that comes to 34 (43.03%) opens only 2 days in a week followed by 30 libraries which constitute 37.97% libraries opens 1 day in a week. The standard deviation for the present analysis comes to 14.77047. The opening and working hours of public libraries in Aizawl city depends upon the users and the working personals where former search for information from various sources and

the later attends to the users by opening of library. Further, most of the public libraries are run by the volunteer organizations, NGO, they use to fix the timing according to their convenience and the public as well. Moreover, the librarians working in the public libraries are also added with additional responsibilities apart from their own works. Hence this is the scenario of opening of public libraries at Aizawl city. However, Government is taking initiatives to make it functional throughout the week.

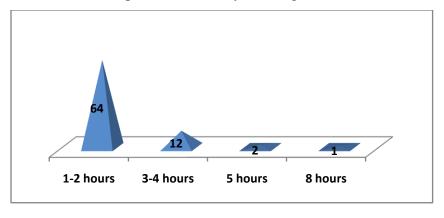
4.2.7 Analysis by Library working hours

The Working hours in the library also represents one of the components for the growth and development of the library and involvement of the working personals. More number of the working hours extends more the benefits to the public. The working days and shifts represent good maintenance of a library as well. Data relating to the working hours per day of the present study of all the libraries has been tabulated in 4 categories in Table- 4.7 and supplemented with Graph-4.7

Table No 4.7 Library working hours

Working Hours	No of Libraries	%
1-2 hours	64	81.01
3-4 hours	12	15.18
5 hours	2	2.53
8 hours	1	1.26
Total	79	100

Graph No 4.7 Library working hours



While taking a stock of the working hours for all 79 public libraries placed in Table- 4.7, it could be found that, only 1 (1.26%) library opens for 8 hours in a day followed by 2 libraries (2.53%) which opens for 5 hours and 12 libraries which constitute 15.18% which opens 3-4 hours in a day. It could be pointed out from the table that maximum number of libraries that comes to 64 (81.01%) which opens only 1-2 hours a day which constitute 8.86%. The opening of the library also depends upon the working professionals or the library in-charge who are otherwise engaged for other personal works. Hence, during free time they extend the services to the public by opening the library. However, they use to maintain the time i.e., during evening hours which facilitate the users to come and use the library. This otherwise show the encouragement and the initiatives of the organization to spend their leisure time in the library, leading there by providing services to the society. The voluntary organizations find only a day in the entire week. It is the duty for the society to better use of the library services which led to a great development in library services. The library working hours has developed in maintaining and functioning of the library services in Aizawl City.

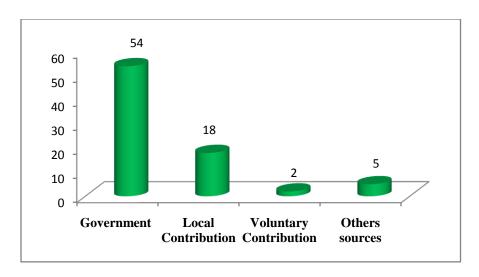
4.2.8 Analysis by Sources of Grants for Library Building

Library requires a permanent building for its proper functioning. It further requires adequate space for the users and the resources which need to be available to the users. Hardly there is any permanent building for public libraries. Efforts are also made by various organizations to get grants for library building. Hence, the scholar made an effort to ascertain the grants from various sources as a component for the present study. Data relating to the various sources of grants received for the library building of the present study has been categorized in 4 ways and the same has been placed in Table- 4.8 which is supplemented with Graph No. 4.8

Table No 4.8 Analysis by Sources of Grants for Library Building

Sl.No	Source	No. of Libraries	%
1	Government	54	68.35
2	Local Contribution	18	22.78
3	Voluntary Contribution	2	2.53
4	Others sources	5	6.23
	Total	79	100

Standard Deviation- 23.86595



Graph No 4.8. Sources of Grants for Library Building

While analyzing the above Table-4.8 about the sources of grants received by various libraries in Aizawl city, a good chunk of 54 libraries which constitute 68.35% out of 79 received grants from the government followed by 18 libraries i.e. 22.78% who received building grants from Local Contribution and 5 (6.23%) libraries received grants from other sources and the minimum number of library 2 libraries i.e. 2.53% received grant from personal/voluntary contributions. It could be observed that there is a growth rate of libraries in Aizawl City and the interest of the public at large who unite to form the public libraries. It seems to be a healthy sign from all sectors. The standard deviation for the present analysis comes to 23.86595 which are outstanding.

4.2.9 Analysis by Section wise Library Activities

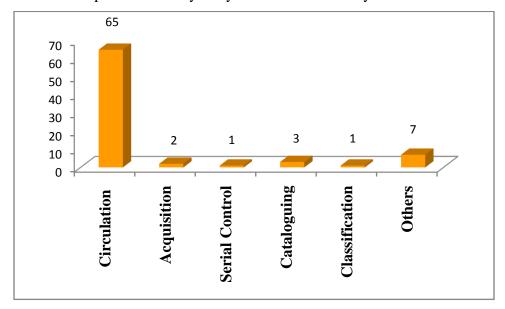
There are many activities like classification, cataloguing, issue and return etc in a library which are carried by different sections and most of the activities are routine jobs and repetitive. But in an automated environment, the activities enhances which however, helps in managing the library resources in a scientific way for effective dissemination of services. Modern libraries even if in public libraries provide variety of documentation and information services to support research and development, marketing and trade, management and all other related programs for the development of society and this has become an expectation of the society. So, to develop proper activities in a library, many initiatives need be carried out to manage the needs of the public. The study tries to point out the various sections operating different activities carried out by the library

especially in an automated setup. Data relating to various activities of the libraries under study has been shown in Table- 4.9 and is supplemented with Graph No-4.9 for clear understanding.

Table No 4.9 Analysis by Section wise Library Activities

Sl.No	Sections	No. of Libraries	%
1	Circulation	65	82.27
2	Acquisition	2	2.53
3	Serial Control	1	1.26
4	Cataloguing	3	3.79
5	Classification	1	1.26
6	Others	7	8.86
	Total	79	100

Graph No 4.9Analysis by Section wise Library Activities



While analyzing the various activities carried out in different sections placed in Table- 4.9 it revealed that out of 79 libraries, 65 (82.27%) libraries adopt circulation activities followed by 3 libraries which constitute 3.79% function the cataloguing activity and 2 libraries (2.53%) have the acquisition section and 1 library each i.e. 1.26% has the classification section and serial control section. The scholar while interacting with the librarian of the respective libraries with

regard to functioning of sections, it could revealed that, owing to less number of manpower and space including financial constraints all the activities could not be performed. However, the librarians are taking measures to improve upon the services by instituting different sections and services

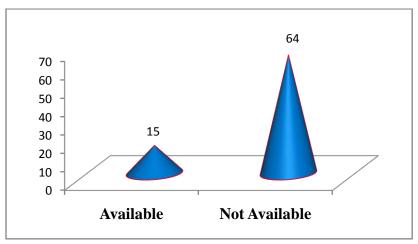
4.2.10 Analysis by Availability of Computers

Modernization through the application of ICT in libraries has opened a new avenue in library services. The availability of computers in the library has twisted the face value of the library. The scholar tried to ascertain the use of computer system in various libraries which helped in finding out the development of ICT in different library. The study tried to point out the use of computer applications in the library activities. Data relating to the use of Computers in various libraries under study in Aizawl City has been mentioned in Table No.4.10and the same has been show in Graph No- 4.10

Table No 4.10 Analysis by Availability of Computers

Computer	No. of Libraries	%
Available	15	18.98
Not Available	64	81.01
Total	79	100

Graph No 4.10 Availability of Computers



The analysis of Table-4.10 shows that out of 79 libraries in Aizawl City only 15 libraries which constitute 18.98% are having computers in the library and the remaining 64 libraries which constitute 81.01%do not have computers in the library. The scholar while interacting with the librarian of the 64 respective libraries in regards to the availability of computer, they opined the reason as lack of finance and cooperation from the public, and others. However, their efforts are recognized in view of the initiation of the librarians to get computers for the library.

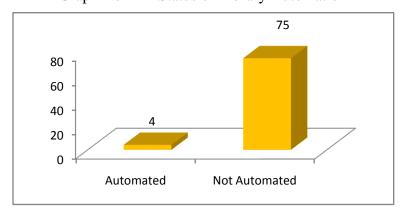
4.2.11 Analysis by Status of Library Automation

Many activities of a library are routine in nature; a few are repetitive. Automation helps in managing the library resources with the help of computers in a better way and at the same time saves time, money and manpower and abstains from duplication work. Automation in libraries is essential for multifarious activities and its application has been well felt by one and all in the society. The works carried out in an automated library environment include acquisition, serial control, cataloguing and circulation, report generation etc. The study tries to find out the number of libraries adopted automation in Aizawl City. Data relating to the component has been spelled out in Table-4.11 and is supplemented by Graph No-4.11.

Table No 4.11 Analysis by Status of Library Automation

Status	No. of Libraries	%
Automated	4	5.06
Not Automated	75	94.93
Total	79	100

Graph No 4.11 Status of Library Automation



Automation is a process in the libraries for taking up speedy delivery of technical services to the users. Apart from the technical works, it solves varieties of problems in the libraries that include access of information, searching of document etc. The analysis of Table 4.11 shows that out of 79 libraries only 4 libraries which constitute 5.06% are automated while, 75 (94.39%) libraries are not automated. The scholar while interacting with the librarian of the 75 respective libraries with regard to automation of library deduced that, it is due to lack of finance and lack of cooperation from the society. The librarians justified that, the library does not have proper library budget nor any support from the Govt. The scholar further ascertained that, the librarians are taking measures to arrange finance for automation of libraries.

4.2.12 Analysis by Types of Software used for Automation

For the good administration of the library, computers are used in all levels of work. Software refers to a set of computer programmes, procedures, and associated documents (flow charts, manuals, etc.) that describe the programme and how they are to be used. Above all, the unique characteristics of computer made it the right choice for the library world. Computers right from the beginning are considered to aid man, in doing various operations. There are different types of software that can be administered in various library operations. There are many proprietary and open source software. But it can only be implemented through computers. All the Public Libraries in Aizawl city could not afford computers and software due to financial constraints. However, 4 libraries have their automation and they use different software as buying the proprietary software is very costly. Types of software used by the 4 libraries are spelled out in Table- 4.12.

Table No 4.12 Analysis by Types of Software used for Automation

Sl.No	Types of Software	No of libraries	%
1	Open Source	2	2.53
2	Fox Pro	1	1.26
3	Libsys	1	1.26
4	Others	75	94.93
	Total	79	100

Analysis of the Table-4.12 revealed that out of 79 libraries, 4 libraries who adopted automation use different library software for the library. Open source software is used by 2 libraries out of 79 which comes to 2.53% while 1 each (1.26%) use Fox Pro and Libsys respectively. It shows that, there is no consistency in application of library software. It requires some literacy about the library software so that public libraries can develop network so as to share resources. The scholar while interacting with the other librarians who have not adopted automation in view of circumstances beyond their control was informed that the libraries are also in the pipe line for getting computer and install library software.

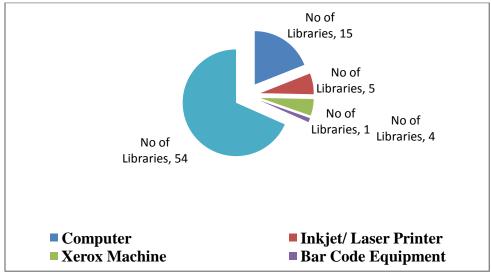
4.2.13 Analysis by ICT Infrastructure

ICT Infrastructure adds immense value with wide range of technologies in a library for effective services which are essential in the present day of the society. These include hardware, software, networking and other devices. The libraries in Aizawl City have developed into a great extend in many ways. There is a great improvement in Information Communication Technology which is the key point for the development of Public Libraries in Aizawl City. The study tries to point out the number of Public Library who uses ICT Infrastructure for the growth and development of Public Libraries in Aizawl City. The type of infrastructures available and used in library services covered under the study has been shown in the Table No- 4.13 supplemented with Graph No- 4.12 to have a clear understanding.

Table No 4.13 Analysis by ICT Infrastructure

Types of Infrastructure	No of Libraries	%
Computer	15	18.98
Inkjet/ Laser Printer	5	6.32
Xerox Machine	4	5.06
Bar Code Equipment	1	1.26
Others	54	68.35
TOTAL	79	100

Graph No 4.12 ICT Infrastructures



While analyzing the data of various infrastructures available in various libraries under study placed in Table- 4.13, it revealed that, out of the 79 libraries in Aizawl City 15 libraries which constitute 18.98% possess computers. The other infrastructure includes Inkjet/Laser printers which are in possession by 5 (6.32%) libraries followed by Xerox machine (Photocopier) by 4 libraries that constitute 5.06%. The other, however, includes Barcode machine by 1 library (1.26%). It is surprising note that, major of the libraries in public sector i.e., 54 (68.35%) do not have such infrastructures which affect the library services. However, efforts are being made by the volunteer organizations to equip with infrastructures to provide better service to the society

4.2.14 Analysis by Source of Finance

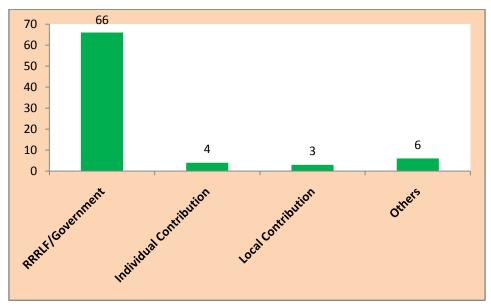
Finance is one of the important criteria in all organisations and library especially in public domain is not an exception. It only helps the library to grow and develop but also find means to recognize the library in making literate to the society by way of providing new services. Therefore, finding the means for free flow of adequate finance in a public library is a major concern. The scholar was informed by the working librarians of most of the public libraries about the deficit amount which put constraints to run the library. However there is an initiation from the Raja Rammohun Roy Library Foundation (RRRLF) who has funded major public libraries in the city. Data relating to the source of finance grouped into four components for the different

libraries covered under study have been placed in Table-4.14and supplemented by Graph No-4.13 for clear expression.

Table No 4.14 Analysis by Source of Finance

Source	No of Libraries	%
RRRLF/Government	66	83.54
Individual Contribution	4	5.06
Local Contribution	3	3.79
Others	6	7.59
Total	79	100

Graph No 4.13 Source of Finance



Analysis to the Table- 4.14 reveals that keeping the objective to spread the library movement in small towns and villages to develop reading habits among the peopleRRRLF is the major funding of source finance for resource generation for a good number of public libraries i.e. 66 out of 79 which constitute 83.54% in Aizawl city followed by 4 libraries (5.06%) who meet their finance by the individual contribution and 3 libraries (3.79%) manage their finance through local contributions. The rest 6 libraries which constitute 7.59% manage the libraries with little finance from other sources. RRRLF, however, provides matching share to the public libraries for

collection of reading materials and infrastructure development and the other recurring expenditure such as, staff salary, building etc. are met by the State Govt.

4.3 Findings

After careful analysis of the data obtained through structured questionnaire, the scholar deduced the following findings.

- 1. There is a stupendous growth of public libraries i.e. 33 (41.77%) during the year 1989-1996, followed by 23 (29.11%) in 1997-2004. Again in the subsequent year it reduced to 9(11.39%). As a whole there is a remarkable growth of public libraries in Mizoram in Aizawl City.
- 2. With regard to the status of librarian, the volunteer personal constitute more i.e. 74 (93.67%) followed by the salaried personals which comes to 5 (6.32%). This shows that the volunteers are more conscious to provide the public libraries services in Aizawl.
- 3. Qualification being 1 of the major component in library services which revealed that the HSLC are more who are employed either temporary or voluntary. The employees having the professional degree are comparatively less than other type of degrees such as HSSLC, Graduate, Post- Graduate etc.
- 4. The strength of library staffs of the public library in Aizawl reflected that the technical/professionals are having either diploma or degree course in Library and Information Science which constitute 8 (10.12%). The other personals like Ministerial Staffs and the Attendants etc used to served in the library, enhance Government should irritate the working personals to have the professionals degree for better services.
- 5. The library budget is very much meager .The Analysis revealed that 14 (17.72%) libraries each received two type of amounts i.e. 1,500 to 5,000and 5,500 to 15,000. It is also surprisingly to note that a major number of library received less than 1,500 rupees per year which is a sorry figure and needs upliftment of more budget for resource development and services.

- 6. The working number of days needs to be drastically changed especially in the public libraries ran by Government which should be six days in a week. The public library run by the volunteer Organisation also requires to open the library more days for better community service.
- 7. The working hours of most of the libraries i.e. 64 (81.01%) performed only 1 to 2 hours. Hardly 1 library who performs 8 hours. So, therefore minimum 6 hours should be fixed for all type of library excepting the Government library. The Government library requires to perform in 2 shifts i.e. from 6:00 am to 10:00 pm for wider benefits of the public.
- 8. The financial source of grants is from Government supports with finance, major libraries i.e. 54 (68.35%) whereas the other funding agencies for public library are from Local Contribution, Voluntary Contribution etc. the library requires to explore more sources for finance for healthy atmosphere.
- 9. Computers which is a basis requirement in library services are available only in 15 libraries (18.98%) enhance necessary efforts should be made from both Government and Private sectors to get computers for the library which not only will reduce manpower but also will enhance library services.
- 10. The status of automation is that only 4 libraries (5.06%) are automated while major libraries are not automated which affects very much in library services.
- 11. While making an analysis of the software used in the automated libraries, Open Source Software, FOXPRO, and Libsys are used in 4 Libraries. It is due to the availability of sufficient library need to explore major for more finance to employ the library software which may be either proprietary or Open Source.
- 12. On ICT Infrastructure, there are 15 computers (18.98%) followed by other infrastructure which is a healthy sign in Public Libraries.

- 13. RRRLF and Government used to provide finance to 66 Public Libraries, but as the amount is very less it doesn't help the Public Library to grow of within adequate resources.
- 14. The libraries were not fully automated due to lack of finance and non availability of professional among the staff. Most of the librarians, staff are on voluntary basis engaged for certain period of time.
- 15. Library automation is quite slow due to inadequate fund, no adequate infrastructure and less interest from the authority.
- 16. Emphasis is on acquisition part. Staff needs to have training in library automation.

CHAPTER-5

CONCLUSION AND SUGGESTION

5.1 Conclusion

The study concludes that the development of Public Libraries in Aizawl City is making a sound progress throughout the States in India. This progress can be seen from the implementation of Library Legislation in many states for the growth and development of public libraries. As some of the states have not enacted public library act they are still in the process of implementing the Library Legislation which plays an important role for societal and national development.

The importance of Public Library which is recognized by the Government of Mizoram and is therefore enacted library legislation in 1993. With this regard the libraries in Mizoram are covered to a great extend from village to city, which seems that the public library plays an important role in the society which is useful for acquiring information which helped them to build their carrier.

The Public Library in Aizawl City is not so developed like other states. Most of the problems faced by the libraries were due to physical resources, ICT application in library, acquiring and developing good collection of documentary and non documentary resources, inadequacy of staffs, professionals, semi-professionals and non-professionals and last but the main problems is financial.

The study reveals that the automation and development of ICT infrastructure in Public Libraries, which could be further gear-up with active support from the Government and the Society which is needed for the growth and development of Public Library in Aizawl City.

5.2 Suggestions

The researcher has placed below some suggestions obtained from the librarians/ librarian-in-charge of the public libraries under study.

1. That, in view of the inadequate finance, the library is suffering a lot with regard the development in terms of infrastructure, resources, proper library building, and adequate services to the community which requires to be given much attention by the government.

- 2. That, in view of lack of trained and qualified staffs the library services is suffering much and requires skilled and qualified personals to improve upon the library services to the society.
- 3. That, co-operation from the community requires more for development of public libraries.
- 4. That, the public at large must come forward to donate resources and funds to the public library for creating a better knowledge society.
- 5. That, the professionals working in different Colleges and University must join hands together for building of rich resources in the Public Library and contribute generously for financial upliftment to have computers and development of the infrastructure.

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APPENDICES

THE MIZORAM PUBLIC LIBRARIES ACT, 1993

An Actto provide for the establishment, maintenance and development of comprehensive PublicLibraries system in the state of Mizoram.

Be it enacted by the Legislative Assembly of the State of Mizoram in the Forty-Fourth Year of the Republic of India as follows: -

CHAPTER - I

PRELIMINARY

Short title 1 This Act may be called the Mizoram Public Libraries Act, 1993 Extent and (2) It shall extend to the whole of the State of Mizoram (3) It shall come into force on such date as the Government may, by commencement notification in the official Gazette, appoint. Definition

- 2. In this Act, unless the context otherwise requires-
 - (a) "Council" means State Library Council;
 - (b) "Department" means the Department of Education and Human resources;
 - (c) "Director" means the Director of Public Libraries appointed as such;
 - (d) "Government" means the State Government of Mizoram;
 - "Notification" means a Notification published in the Mizoram Official Gazette:
 - "prescribed" means prescribed by the Rules made under this Act; (f)
 - (g) "Public Library" means a Library which serves the general public, and includes State, District, Sub-Divisional and Village Libraries;
 - (h) "Rule mean the Rules made under this Act:
 - "State" means the state of Mizoram; (i)
 - (j) "Year" means the financial year.

CHAPTER - II

THE STATE LIBRARY COUNCIL

		THE STATE LIBRARY COUNCIL
Constitution of	3	There shall be constituted, by notification, the State council consisting of-
State Library		(a) the following ex-officio members-
Council		(i) The Minister of Education & Human Resources who shall be
		The Chairman;
		(ii) The Secretary of Education & Human Resources who shall be
		the Secretary of the Council;
		(iii) The Director of Art & Culture;
		(iv) The Director of School Education;
		(v) The Director of Higher & Technical Education;
		(vi) The Director of Adult Education;
		(vii) The Director, SCERT;
		(viii) The Director of Information & Public Relations;
		(ix) The Station Director, AIR;
		(x) The Director of Public Libraries;
		(xi) The Librarian, NEHU, Mizoram Campus, Aizawl, and
		(xii) The State Librarian
		(b) Other members such as-
		(i) Two members of the Mizoram Legislative Assembly to be
		nominated by the Government;
		(ii) One representatives of the Mizoram Library Association;
		(iii) One representative of Central YMA;
		(iv) One representative of Mizo Academy of Letters; and
		(v) One representative of Mizoram Publication Board.
Term of office	4	The term of office of the members of the Council shall be for a period of
of the Council		three years.
Membership of	5	If a member ceases to hold the position by virtue of which he was so
The Council		nominated or elected, he shall automatically cease to be a member of the
		Council.

Vacancy in the A vacancy in the office of a nominated member of the Council shall be membership of filled by nomination and the new member shall hold office only for the the council remaining period of time Meeting of the 7. (1) The Council shall meet at least twice in a year. Council (2) In the absence of the Chairman, members at the meeting shall elect Chairman for that meeting from amongst themselves. (3) Six members shall from a quorum. Duties of the 8. The Council shall advise the Government on all matters relating to (1) Council Libraries arising out of the provisions of this Act and also in regards to promotion and development of Library Services in the State. (2) The Council shall take suitable steps to establish and promote a Public Library System.

CHAPTER - III

DEPARTMENT OF PUBLIC LIBRARIES

Constitution of 9 **Public Libraries**

10

- (1) On the commencement of this Act, the Department of Public Libraries shall be constituted with a Director as its head.
- (2) The Director shall be assisted by the Joint Director, the Deputy Director and other necessary supporting staff.

Appointment of Officers and Staff

The appointment of Officers and the supporting staff shall be made by the Government in accordance with the provisions of the rules made under this Act.

Conditions for 11 absorption of existing staff

The existing Library Staff, for the purpose of absorption shall have to obtain necessary qualification within a limit of time as may be prescribed.

CHAPTER - IV

CATEGORIES OF PUBLIC LIBRARIES

Categories of	12	The Public Libraries in the State shall be divided categories as
Public		follows:-
Libraries		(i) State Library;
		(ii) District Library;
		(iii) Sub divisional Library; and
		(iv) Village Library.
State Library	13	(1) There shall be a State Library located in the capital of the
		State.
		(2) The State Library shall consist of the following sections:-
		(i) Bureau of copy right;
		(ii) State Library for the blind;
		(iii) Inter Library Loan;
		(iv) State Bibliographical Bureau;
		(v) Technical Services; and
		(vi) Mobile Services.
Functions of	14.	The State Library shall function as Library as well as reservoir of
State Library		books.
District	15.	There shall be a District Library in every District headquarters of
Library		the State.
Sub-divisional	16.	There shall be Sub-divisional Library in each sub-divisional
Library		headquarters.
Village	17.	There shall be recognized Village Libraries in such villages as may
Libraries		be found and considered deserving and suitable by the Government
		from time to time

CHAPTER - V

FINANCIAL ASSISTANCE TO RECOGNISED VILLAGE LIBRARIES

Grant-in-Aid 18. The Government may sanction Grant-in-Aid to recognized Village libraries in accordance with the rules made under this Act.

Village

CHAPTER - VI

Libraries

MISCELLANEOUS PROVISIONS

State 19. (1) The Council may recognized any one body as the State

Library Association, the constitution of which shall be

Association approved by the Council.

- (2) The Director shall consult Library Association on important matters relating the Libraries and Librarian of the State.
- Power to 20. (1) The Government may, by notification, rules make to carry make rules out the purpose of this Act.
 - (2) In particular and without prejudice to the generality of the foregoing power, such rule may provide for all or any of the following matters, namely-
 - (a) the requisite qualifications for appointment as the Director, Joint Director, Deputy Director, State Librarian, the District Librarian, Sub-divisional Librarian and other supporting staff;
 - (b) the mode of payment in respect of the assistance and the special grant-in-aid to the recognized libraries;and
 - (c) such other rules as the Government may deem it necessary.
 - (3) Every rule made under this Act shall be laid, as soon as may be after it is laid, before the Legislative Assembly of Mizoram while it is in session for a total period of seven

days which may be comprised in one session or in two successive sessions; and if, before the expiry of the session in which it is so laid or the session immediately following the Legislative Assembly of Mizoram makes any modification in the rule or decides that the rule should not be made, the rule shall thereafter have effect as the case may be, so however that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule.

Sd/- Dr. H.C.THANHRANGA
Secretary to the Govt. of Mizoram
Law, Judicial & Parliamentary Affairs Deptt.

Appendix - 2

RECOGNISED LIBRARIES IN AIZAWL CITY

Sl.no	Name of Library	Year
1	Chhingaveng YMA Library, Chhingaveng, Aizawl	1981-82
2	Electric Veng YMA Library, Electric veng, Aizawl	1981-82
3	Tuithing YMA Library, Tuithiang, Aizawl	1981-82
4	ThalaiHmasawn Pawl Library Mission Vengthang, Aizawl	1981-82
5	Zemabawk YMA Library, Zemabawk, Aizawl	1981-82
6	Chawlhhmun YMA Library, Chawlhhmun, Aizawl	1982-83
7	Sairang YMA library, Sairang	1982-83
8	Khatla YMA Library, Khatla, Aizawl	1984-85
9	Hermon Children Library, Durtlang, Aizawl	1985-86
10	Rescue Centre Library, Sihphir	1985-86
11	Social Guidance Agency Library, Tuikual, Aizawl	1986-87
12	Youth Adventure Club Library, Electric veng, Aizawl	1986-87
13	DamnaIn Library, Zuangtui, Aizawl	1987-88
14	Chanmari YMA Library, Chanmari, Aizawl	1987-88
15	Govt. Complex YMA Library, Luangmual, Aizawl	1987-88
16	Selesih YMA Library, Selesih	1987-88
17	Ramtharveng YMA Library, Ramtharveng, Aizawl	1988-89
18	Armed Veng South Br YMA Library, ArmedvengSouth, Aizawl	1991-92
19	Bethlehem Veng YMA Library, Bethlehem veng, Aizawl	1991-92
20	Bethlehem Vengthlang YMA Library, Bethlehem, Aizawl	1991-92
21	Bungkawn YMA Library, Bungkawn, Aizawl	1991-92
22	ChanmariVengthlangTangrual Pawl Library, Chanmari West, Aizawl	1991-92
23	Chaltlang YMA Library, Chaltlang, Aizawl	1991-92
24	Chawnpui YMA Library, Chawnpui, Aizawl	1991-92
25	Dawrpuivengthar YMA Library, Dawrpuivengthar, Aizawl	1991-92
26	Dinthar YMA Library, Dinthar, Aizawl	1991-92
27	Kulikawn YMA Library, Kulikawn, Aizawl	1991-92

28	Model Mission veng YMA Library, Model veng, Aizawl	1991-92
29	Student Union Library, Sakawrtuichhun, Aizawl	1991-92
30	Sihphir YMA Library, Sihphir, Aizawl	1991-92
31	Vaivakawn YMA Library, Vaivakawn, Aizawl	1991-92
32	JF Memorial Public Library, DurtlangVengthar, Aizawl	1992-93
33	Kanan YMA Library, Kanan, Aizawl	1992-93
34	Venghnuai YMA Library, Venghnuai, Aizawl	1992-93
35	Armed veng YMA Library, Armed veng, Aizawl	1993-94
36	Bawngkawn YMA Library, Bawngkawn, Aizawl	1993-94
37	Central Jail Library, Tanhril, Aizawl	1993-94
38	College veng YMA Library, College veng, Aizawl	1993-94
39	Luangmual YMA Library, Luangmual, Aizawl	1993-94
40	Post Matric Assn Library, Durtlang, Aizawl	1993-94
41	RamhlunVengthar YMA Library, Ramhlun, Aizawl	1993-94
42	Ramhlun S YMA Library, Ramhlun South, Aizawl	1993-94
43	Central YMA Library, Tuikhuahtlang, Aizawl	1994-95
44	Salem Veng YMA Library, Salem, Aizawl	1995-96
45	AizawlVenglai YMA Library, AizawlVenglai, Aizawl	1996-97
46	DurtlangNorthBr.YMA Library, Durtlang, Aizawl	1996-97
47	Dam veng YMA Library, Dam veng, Aizawl	1996-97
48	Huntharveng YMA Library, Huntharveng, Aizawl	1996-97
49	ITI veng YMA Library, ITI veng, Aizawl	1996-97
50	Laipuitlang YMA Library, Laipuitlang, Aizawl	1996-97
51	Mission veng 'N' YMA Library, Mission veng, Aizawl	1996-97
52	Republic veng YMA Library, Republic veng, Aizawl	1996-97
53	Rangvamual YMA Library, Rangvamual, Aizawl	1996-97
54	Saronveng YMA Library, Saronveng, Aizawl	1996-97
55	Tuikual South YMA Library, Tuikual, Aizawl	1996-97
56	Tuikual North YMA Library, Tuikual, Aizawl	1996-97
57	Thuampui YMA Library, Thuampui, Aizawl	1996-97
58	Venghlui YMA Library, Venghlui, Aizawl	1996-97

59	Zuangtui YMA Library, Zuangtui, Aizawl	1996-97
60	Zotlang YMA Library, Zotlang, Aizawl	1996-97
61	Zarkawt YMA Library, Zarkawt, Aizawl	1996-97
62	Blessing-Home De-Addiction Centre Library, Sakawrtuichhun, Aizawl	1997-98
63	Ramhlun North YMA Library, Ramhlun North, Aizawl	1997-98
64	SairangDinthar YMA Library, Sairang, Aizawl	1997-98
65	Thakthing YMA Library, Thakthing, Aizawl	1997-98
66	Upper Republic YMA Library, Republic veng, Aizawl	1997-98
67	Zemabawk North YMA Library, Zemabawk, Aizawl	1997-98
68	Chiteveng YMA Library, Chite, Aizawl	1998-99
69	Melthum Br YMA Library, Melthum, Aizawl	1998-99
70	Muthi YMA Library, Muthi, Aizawl	1998-99
71	Presbyterian Church Synod Hospital, Durtlang, Aizawl	1998-99
72	Public Library, Dinthar I, Aizawl	1998-99
73	Khatla South YMA Library, Khatla, Aizawl	1999-00
74	Nausel YMA Library, Aizawl	1999-00
75	Sihphirvengthar YMA Library, Sihphirvengthar, Aizawl	1999-00
76	Saikhamakawn YMA Library, Saikhamakawn, Aizawl	1999-00
77	AizawlTlangnuam YMA Library, Tlangnuam, Aizawl	2000-01
78	Mission for Social Reform (Rescue Centre) Library, Tuikual, Aizawl	2000-01
79	Leitan YMA Library, Durtlang, Aizawl	2000-01
80	Tuikhuahtlang YMA Library, Tuikhuahtlang, Aizawl	2000-01
81	Tanhril YMA Library, Tanhril, Aizawl	2000-01
82	Ramhlun Sport Complex YMA Library, Ramhlun, Aizawl	2002-03
83	Agape Home De-Addiction Centre, Durtlang, Aizawl	2004-05
84	Durtlang YMA Library, Durtlang, Aizawl	2004-05
85	Mizoram Coaching Academy Library, Tuikhuahtlang, Aizawl	2004-05
86	MUP Headquarters Library, Aizawl	2007-08
87	Melriat YMA Library, Melriat, Aizawl	2007-08
88	BungkawnVengthar YMA Library, Bungkawn, Aizawl	2009-10
89	Chaltlang North YMA Library, Chaltlang, Aizawl	2009-10

90	Gilead Special School Library, Chhingaveng, Aizawl	2010-11
91	Republic Vengthlang YMA Library, Republic vengthlang, Aizawl	2010-11
92	MHIP Gen. Hrq. Library, Treasury Square, Aizawl	2010-11
93	Bungkawn Nursery YMA Library, Aizawl	2013-14
94	Muanna In Library, Mualpui, Aizawl	2013-14
95	Maubawk YMA Libray, Maubawk, Aizawl	2013-14
96	Mizoram Journalist's Association, Aizawl	2013-14
97	MZP General Headquarters, Aizawl	2013-14

QUESTIONNAIRE

ON

AUTOMATION OF PUBLIC LIBRARIES IN AIZAWL CITY

Dear Mr/Mrs

I am pursuing M.Phil from Department of Library and Information Science. Mizoram University, Tanhril, Aizawl. As a component of the syllabus, I have to submit my dissertation on the above mention topic under the guidance of Professor R.K. Ngurtinkhuma. You are requested to kindly fill up this questionnaire, which will be used for only academic purpose.

(*Please*, fill in the blanks or tick against the most appropriate box.)

R.K. Zohmangaihi M.Phil. Scholar Department of Library and Information Science Mizoram University, Tanhril, Aizawl

1.	Name of the Library	:			
2.	Year of Establishment	:			
3.	Owner of the Library				
4.	Name of the Librarian/In-charge	<u>:</u>			
	Qualification				
	Status	Salaried ()	Voluntary ()	
	Sex	Female ()	Male ()	
5.	Total Number of Library Staffs	:			
6.	Strength of Library Staffs	:			
a.	Technical/Professional(having Diploma/Deg	gree in Librar	y Scien	ce	
b.	Semi-technical (Mechanics/Operators etc.)				
c.	Ministerial (Clerks, Typist etc.)				
	Attendants/Peons/Sweepers etc.				
7.	Annual Budget of the Library	:			
8.	What is the Library working day?				
	Seven days in a week	:			

9. What is your Library nour?	
10. Do you have library building	YES () NO ()
If NO, how do you run the library	Rented House () others ()
If others (please Specify)	:
1 7/	
11. How do you build your Library?	Loan () Government Grant ()
	Local Contribution () Voluntary ()
	· / /
12. Total Numbers of library members	:
·	
13. Whether the Library facility is open f	For non-members? YES/NO
If yes, please specify their status	:
14. Whether the library has freedom to se	elect books/other materials for purchase?
·	YES () NO ()
15. Whether the library collection is class If yes, please specify the scheme of c	YES () NO () sified? YES () NO () lassification being followed:
15. Whether the library collection is class If yes, please specify the scheme of c i. Colon Classific	YES () NO () sified? YES () NO () lassification being followed: cation :
15. Whether the library collection is class If yes, please specify the scheme of c i. Colon Classific	YES () NO () sified? YES () NO () lassification being followed: cation :
15. Whether the library collection is class If yes, please specify the scheme of c i. Colon Classific ii. Dewey Decima	YES () NO () sified? YES () NO () lassification being followed: cation :
15. Whether the library collection is class If yes, please specify the scheme of c i. Colon Classific ii. Dewey Decima	YES () NO () sified? YES () NO () lassification being followed: cation :
15. Whether the library collection is class If yes, please specify the scheme of c i. Colon Classific ii. Dewey Decima	YES () NO () sified? YES () NO () lassification being followed: cation :
15. Whether the library collection is class If yes, please specify the scheme of c i. Colon Classific ii. Dewey Decima iii. Others 16. Total number of collections:	YES () NO () sified? YES () NO () lassification being followed: cation :
15. Whether the library collection is class If yes, please specify the scheme of c i. Colon Classific ii. Dewey Decima iii. Others 16. Total number of collections: Books	YES() NO() sified? YES() NO() lassification being followed: cation : al Classification: :
15. Whether the library collection is class If yes, please specify the scheme of c i. Colon Classific ii. Dewey Decima iii. Others 16. Total number of collections: Books Journals	YES() NO() sified? YES() NO() lassification being followed: cation :
15. Whether the library collection is class If yes, please specify the scheme of c i. Colon Classific ii. Dewey Decima iii. Others 16. Total number of collections: Books Journals Periodicals	YES() NO() sified? YES() NO() lassification being followed: cation : al Classification: : :
15. Whether the library collection is class If yes, please specify the scheme of c i. Colon Classific ii. Dewey Decima iii. Others 16. Total number of collections: Books Journals Periodicals Back Volumes	YES() NO() sified? YES() NO() lassification being followed: cation :
15. Whether the library collection is class If yes, please specify the scheme of c i. Colon Classific ii. Dewey Decima iii. Others 16. Total number of collections: Books Journals Periodicals Back Volumes Standard/ Patents	YES() NO() sified? YES() NO() lassification being followed: cation :

Three days in a week One day in a week

Others

a. Availability of computer system(s)	:				_
i Library has a computer system(s) of its ow	n		YES ()	NO ()
ii If No, does the library has access to any oth	ner coi	mputer s	ystem YES () NO ()
19. Status of library Automation			YES ()	NO ()
If yes, automated fully/partially	:				_
20. Are you satisfied with the present status of your lil	orary a	utomati	on? YES()	NO()	
If No, give reason	:				
21. Activities already automated (kindly please indica	te tick	mark)			
i. Circulation Control	()			
ii. Acquisition	()			
iii. Serial Control	()			
iv. Cataloguing	()			
v. Classification	()			
vi. Indexing	()			
vii. Others(please specify)	:				
 Lack of finance Lack of trained/qualified staffs Lack of infrastructure Lack of adequate space Lack of cooperation from the society Any other (please specify) 	: :				
23. If networking is done for any of the activities being If yes, please give particulars (i.e. the center)			YES ()	NO (,
24. Is internet facility available in the library?			YES()	NO ()
25. Future plans of automation (please name the activi	ties)				
 Activities already planned 					
ii. Activities under planned					
iii. Infra-structure (i.e. computer system, progra automation	m pac	ckages a	and/or staff) n	eeded fo	r fu

Library Package : B) Types/kind of hardware used in the library PC Type : Printing Type :	
Bar code Equipment :	
27. Do you wish to change the existing software If yes, which one will you prefer? Please indicate :	` '
28. Do you feel that the library computerization has enhanced the services of the	library?
YES()	NO ()
If No, Please give reason :	
29. Do you receive any financial aid from the Government YES () If Yes, Please indicate the sources:	NO()
30. Please suggest the future plan of your library?	