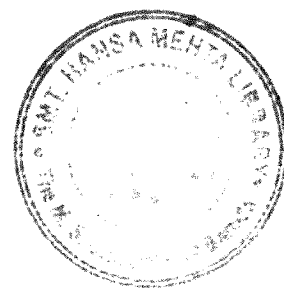# Chapter I

Introduction

CHAPTER – I

INTRODUCTION

Information plays a vital role to acquire knowledge. In the recent time, it is being experienced that there is a vast explosion of this information or knowledge across the globe. There is much greater emphasis amongst users for access to information from wherever it is located since it is practically impossible to acquire all the items by individual libraries. For this, the Internet has become standard tool to access and retrieve this information.

Library basically deals with the collection, organization and dissemination of information. The development in information and communication technology (ICT) is bound to have a direct impact on it. However, it is sad to note that compared to the other fields -like medicine, engineering, agriculture etc., libraries have adopted this technology very late and still not taking the full advantage of it. There are very few libraries using electronic products and services. Although, there are certain libraries which are equipped with the latest IT and are functioning efficiently and effectively, but the number is very small. The computer applications in library and information field have made phenomenal progress in industrialized countries where hardware, software and communications facilities are well developed.

Today there is a remarkable impact of information technology (IT) on the operations and services of libraries. The single force that has brought revolutionary changes in functioning of the libraries is Information Technology (IT). This information technology has revolutionized the way people communicate, locate, retrieve and treat information. Information Technology (IT) is a generic term used to denote all the various activities connected with the location, acquisition, storage, processing and communication of information. The information is available in various forms, such as physical, electronic and in the mode of tacit and explicit knowledge. Information Technology is one of the means through which this information is being spread rapidly around the world. The potentiality and the scope of usage of this new information technology is more in library and information centers. In fact the major developments in library and information systems in the past two decades is the advent and spread of electronic information sources (EIS),

services and networks mainly as a result of developments in information and communication technologies.

The development in information technology and the anticipated setting up of the networking systems are regarded as revolutionary in the library management and its services. Networking may be defined as a mode of operation, where by information resources are shared by a number of participants having the same objectives in mind. In fact libraries with good budgets or collections also do not have enough resources to be self-sufficient. Interdependence has now become a way of life. The major factors which have created the need for networking include the rise in the cost of publications, a lack of funds and adequate manpower, and the geographical dislocations of libraries. The role of automation in academic libraries is considered in relation to external developments and to improved user services.

According to N. Vittal (1994), chairman of the telecom commission of India, two major leaps of man are, the invention of printing by Gutenberg in the fifteenth century, and the introduction of computers.

Library automation systems are very well designed with the application of computers to carry out the functional needs of libraries. This requires substantial programming skills along with an enormous knowledge of and the meticulous standards that are applied in such systems.

The library automation allows diversifying the day-to-day imperative activities of library such as,

- ordering, classifying and cataloguing the books and other reading materials acquired by the library
- the circulation task, i.e. issue-return of the library resources
- answering different reference questions, sometimes awkward or unpleasant queries
- shelving and tracing books

Library automation certainly simplifies many of these tasks. For this, the care must be taken such that, it must be built upon a sure foundation of good library practice, which as far as possible, prevent problems from arising. Librarian is the best person who understands what the problems are in acquisition work, cataloguing, circulation control, reader service,

and it is important that their knowledge be brought fully to the job of designing automated systems. Library automation calls for a close working relationship between two disciplines, library science and information technology and the people who practice them.

In a nutshell, libraries to be successful have to be more pro active and more customers oriented with the help of this information technology revolution.

1. STATEMENT OF THE PROBLEM

The prospects of automation of a library are manifold in today's time of rapid development in the field of science and technology. One cannot afford to remain untouched by it. The impact of information technology has been affecting the structure of the library services to a greater extent. Library automation is a step to keep pace with the latest information technology environment.

An automated library is not restricted to the computer system which manages one or several of the library's in house functions such as acquisition, circulation, cataloguing, serials control and the online public access catalogue. In addition to it, this also deals in respect of the emerging technologies, standards and formats, software, hardware, resource sharing, library networking, web OPAC's (Online Public Access Catalogue) etc.

There are several of studies which have been carried out in the area of library automation. There is a lot of literature published on library automation. These literature give direction from the planning till the implementation process of library automation. Many of these studies also suggest the hardware and software requirement for the said process. Further, there are number of studies, which discuss the problems that occurred during the library automation process. A number of articles have also been published in journals; and various seminars, symposiums, workshops and conferences have been organised on the theme of library automation. Professionals have talked and discussed about the whole process of library automation, right from the selection of software and hardware till the implementation of the entire automation system. They did discuss about the problems that occurred during this whole process. Similarly, there are number of studies available on various aspects of library automation. The researcher has done exhaustive literature search.

The major studies that the researcher could find were only those which are related to the automation of library. These publications specify the requisite of library automation, the problems being faced during the process of library automation, i.e. pre automation problems and also the problems being faced at the time of implementing the system. Few of the major challenges that had been faced in the pre automation period were time, training and technology. In such deliberations the remedies for these said problems are discussed and solutions are obtained for them. This means if somebody wants to go for the automation of his/her library, number of publications are available for the guideline.

It is quite evident from these literature searches, that people did face the problems at the time of implementation of automation system and prior to it. Similarly, there are several problems being faced by the professionals in the automated system. Nevertheless, there is hardly any research work being carried out in this area. Very few published material is available regarding the post automation problems of the libraries. Consequently, the professionals are not able to envisage the post automation problems and prepare themselves adequately to solve them.

After doing the exhaustive literature search, it has been ascertained that the present research study being carried out by the researcher is still untouched. There are no significant publications to alert the professionals regarding what problems the libraries can face after automation and how they can be prepared for it. As, there is a knowledge gap here, the researcher has attempted in the present study to find out what kind of post automation problems are being faced by the automated libraries. There is no empirical study done in this area at doctoral level taking large samples. The literature that is available is scanty and scattered. It appears to be an area which is yet to be explored. The researcher has made an attempt to highlight the post automation problems being faced by the libraries. For the said purpose the researcher has studied the available literature in depth, to understand different aspects of post automation problems.

Finally, keeping the following objectives in mind, the present study is carried out, ie. "Post Automation Problems: A study of libraries in Gujarat". Through this study the researcher has tried to find out the problems that the librarians are facing in the post automation period of the library.

The libraries selected for the study are scattered in different regions of the State of Gujarat. The prerequisite in the selection of samples was that, the library should have utilized automated library management system at least for five years. The purpose of this was to enable the researcher to figure out the exact nature of problems being faced by library professionals and then to suggest the possible solutions.

2. OBJECTIVES OF THE STUDY

The main objectives of the study are –
> Do the automated libraries face financial problems?
> Do the automated libraries face personnel administration problems?
> Do the automated libraries face any technical problems?
> Do the automated libraries face any technological problems?
> Do the automated libraries face managerial problems?

3. SCOPE OF THE STUDY

The scope of the present study is the academic and research libraries of the state of Gujarat in India. Even within Gujarat, the primary focus is to study only those academic or research libraries that are automated for a minimum of five years. As Gujarat can be easily divided into North, South, Central and Saurashtra regions, it was decided to take as far as possible important cities from these four regions. From North Gujarat, the cities of Ahmedabad and Gandhinagar; from South Gujarat, the city of Surat; from Central Gujarat the cities of Vadodara, Vallabh Vidyanagar and Nadiad; and from Saurashtra, the city of Rajkot were covered. The selection was made thus because academically these cities are comparatively better developed than other cities in the state.

The libraries are also well maintained and have been equipped with modern information technologies. The prerequisite in the selection of sample was that the library should have been working with automated library management system at least for five years.

The study makes analysis of the post automation problems of libraries with regard to their –

a) managerial problems

b) financial problems due to automation

c) personnel administration problems

d) technical problems

e) technological problems

4. OPERATIONAL DEFINITIONS OF SIGNIFICANT TERMS USED IN THE STUDY

In this section an attempt is made to define the terms 'Library Automation', 'Information Technology (IT)' and 'Information and Communication Technology (ICT)' that are frequently used in the study.

Libraries are the centres of learning as well as store houses and dissemination centres of Knowledge. Library automation implies the application of computers and utilization of computer –based products and services in the performance of different library operations and functions. As defined by Kent (1975), "Library Automation is the use of automatic and semi-automatic data processing machines to perform such traditional library activities as acquisitions, cataloguing and circulation. Although these activities are not necessarily performed in traditional ways, the activities themselves are those traditionally associated with libraries."

According to Ravichandra Rao (1990), "Mechanization of library house-keeping operations predominantly by computerization is known as Library Automation."As per Krishan Kumar, "Library Automation means to automate the different functions and services of a library through application of information technology (IT)." Heiliger and Henderson's (1971), experiences in library automation reveal that,

A library is not one but three systems and that the needs and opportunities for mechanization and automation are revealed in:

1. *Technical processes that are directly concerned with the acquisition of library materials, their cataloging in preparation for later use, and reference to the accumulated holdings*

2. *Control processes that are applied to the resources employed by the library, the handling of library materials, and processing of data about them*

3. *Administrative processes concerned with the organizational structure of the library and its operational activities.*

The term Library automation as defined by the researcher is, the process of performing all information operations /activities in libraries or information centres with the help of computers and its peripherals using related information technologies.

Information technology (IT) according to Longley and Shain (1985) is "the acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information by a microelectronics-based combination of computing and telecommunications."

Information and communications technology or information and communication technology, usually called ICT, is often used as a synonym for information technology (IT) but is usually a more general term that stresses the role of telecommunications (telephone lines and wireless signals) in modern information technology. ICT consists of all technical means used to handle information and aid communication, including computer and network hardware as well as necessary software. Therefore, in other words, ICT consists of IT as well as telephony, broadcast media, and all types of audio and video processing and transmission.

5. SIGNIFICANCE OF THE STUDY

The study is an attempt in understanding the post automation problems in libraries being faced by the librarians. The significance of the study is in finding the remedies to overcome or minimize the post automation problems in libraries.

The study mainly focuses on different aspects of library automation and the challenges that are being faced by the librarians to manage and run the automation system smoothly and successfully in the library.

Hence, a study of this nature contributes to the existing literature and knowledge generated in terms of understanding the general post automation problems being faced by the library professionals and the solutions to overcome them. The study will also be relevant for indicating direction and scope for further research in related areas of interest.

6. ORGANISATION OF THE STUDY

The present study has been organised into seven chapters as presented below.

CHAPTER – I   INTRODUCTION

This chapter briefly introduces library automation. The statement of the problem has been defined. The objectives and scope of the study have been identified and stated. The operational definitions of significant terms used in this study have been given The significance of the study has been mentioned. Finally, the organisation of the study has been formulated.

CHAPTER – II   CONCEPTUAL ISSUES IN LIBRARY AUTOMATION

This chapter in brief explains the meaning, definition and concept of library automation. The need for Library Automation has been described. The problems of pre automation and during the time of automation have been discussed. On the basis of the pre automation problems, the post automation problems have been derived and examined.

CHAPTER - III   REVIEW OF RELATED LITERATURE

There are number of studies available on various aspects of library automation. An exhaustive literature search has been done by the researcher. This process of reviewing the

previous literature has helped her to understand the subject with a critical perspective. To comprehend and evaluate the research problem the studies which have been reviewed have been further divided into specific categories .The major studies that the researcher could find were only those which are related to the automation of library.

CHAPTER – IV   RESEARCH DESIGN, METHODS AND TECHNIQUES USED IN
               THE STUDY

This chapter describes the research design applied for the present study. The methods and techniques used for the present research study have been described in detail.

CHAPTER – V   POST AUTOMATION PROBLEMS: DATA PRESENTATION,
              ANALYSIS AND FINDINGS

This chapter contains presentation, analysis and findings of data collected through the interviews conducted with the librarians of the sample institutes. The libraries selected for the study are scattered in four different regions of the State. The important cities from these regions had been selected for the study. From North Gujarat, the cities of Ahmedabad and Gandhinagar; from South Gujarat, the city of Surat; from Central Gujarat the cities of Vadodara, Vallabh Vidyanagar and Nadiad; and from Saurashtra, the city of Rajkot was covered. The purpose of this was to enable the researcher to figure out the exact nature of problems being faced by library professionals and suggest possible solutions.

CHAPTER – VI   POST AUTOMATION PROBLEMS IN SMALL COLLEGE
               LIBRARIES: DATA PRESENTATION, ANALYSIS AND
               FINDINGS

This chapter deals with the post automation problems being faced by the library professionals of small college libraries of Gujarat. The researcher felt the need to take the feedback of the small college librarians about the post automation problems being faced by them. To meet the objectives of the research study a separate questionnaire was framed by the researcher for the small college librarians. The one day workshop for librarians was

organised at the researcher's institute. The questionnaire was distributed among the participants of this workshop. The chapter presents the data collected through this questionnaire along with the findings and analysis of the same.

CHAPTER – VII   CONCLUSIONS AND SUGGESTIONS

This chapter presents the conclusions emerging from the findings derived from the data collected and analysed in the previous chapters. On the basis of conclusions, some suggestions are drawn as remedies to solve the post automation problems. Finally, scope for further research in this area has been identified.

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