

**INFORMATION SEEKING BEHAVIOUR OF USERS OF
MANAGEMENT INSTITUTE LIBRARIES IN PUNE**

**A Thesis Submitted to
Tilak Maharashtra Vidyapeeth, Pune
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Under the Faculty of Moral and Social Sciences**

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June 2013

DECLARATION

I hereby declare that the thesis entitled “Information Seeking Behaviour of Users of Management Institute Libraries in Pune ” completed and written by me has not previously formed the basis for the award of any degree or other similar title upon me of this or any other university or examining body

Place: Pune
Date: 04/06/2013

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CERTIFICATE

This is to certify that the thesis entitled “Information Seeking Behaviour of Users of Management Institute Libraries in Pune” which is being submitted herewith for the award of the Degree of Vidyavachaspati (Ph. D.) in Library and Information Science, Faculty of Moral and Social Sciences of Tilak Maharashtra Vidyapeeth, Pune is the result of original research work completed by Mrs Dhanishtha S. Khandare under my supervision and guidance. To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any degree or similar title of this or any other university or examining body upon her.

Place: Pune
Date : 04/06/2013

Dr N B Dahibhate
Research Guide

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Abstract

Information Communication Technology (ICT), management tools and techniques have revolutionized the activities and practices followed by the traditional libraries in all the sectors of society. Education has received primary importance and the educational sector is expanding in all the sectors including management sciences. Professional management institutes are also growing fast along with academic institutes. The libraries attached to these institutes are performing various functions like acquisition, processing, organization, storage, dissemination and access to information as required by its users. But in the information era user's expectations from libraries are increasing due to increased use of ICT in the classroom for teaching and learning as well as making presentations and management libraries are not an exception to these. The user requirements and information needs are changing and they are now familiar with the modern ICT applications. Even library professionals are aware of change and are trying to use ICT in libraries to deliver proper, accurate and current information to the users. From the many challenges faced by the libraries one of the prominent challenge is to support information need of the users. The users are well acquainted with trends in ICT and make use of recent technological developments such as Internet and World Wide Web, sophisticated search engines, information portals and subject gateways. These sources are familiar to the users and uses of electronic publications are increasing. But for librarians to enhance their library collection and provide necessary services to the users a need is felt to assess the user needs, their information seeking behaviour and their requirements. Similarly, users and library staff both are to be educated in information literacy and assessing information needs as well as analyse information seeking behaviour (ISB) of management users.

Information seeking behaviour is analysed in different sectors like scientific, R & D, social science, engineering, medical etc. but management sector has not made sufficient efforts in analysing the ISB of users. There is a need to assess ISB especially due to applications of different technologies and management tools in libraries and this causes the changes in library environment. Similarly information growth, increasing user expectations, increase in research activity, crunching budget, shift to e-media etc. are

some of the few factors causing the changes. Changes and transformation cannot be neglected and for continuous improvement, new ways and management techniques have to be adopted by the libraries and library professionals.

The present research work is a study of selected libraries of management institutes (MBA) in Pune. The basic aim and purpose behind conducting this study is to evaluate the existing practices followed in management libraries, resources made available, services provided to users, effective use of technology, use of e-publications and internet resources etc. The evaluation of this study is performed using survey method (descriptive research) and for data collection questionnaire tool is used. To know the status of libraries a questionnaire for librarians was circulated to all the 111 management institutes libraries (till 2012) and out of these 98 libraries responded to the survey (88%). This survey highlighted the current position of management libraries and activities performed by them by means of acquiring resources and managing these libraries. A clear status of management libraries is focused due to this survey and opinions of librarians helped in formulating the trends to be followed to provide better facilities from the libraries.

Further, to analyse the information seeking behaviour of management users, survey method was used and a questionnaire for users (Faculty and students) was framed. This survey has pointed out the needs and practices followed by the faculty users. Similarly, questionnaire for student users was also circulated which helped to assess the user behaviour.

The analysis of the data collected was discussed in the chapter six. The analysis of the three questionnaires is discussed in this chapter with proper illustrations and observations deduced from it.

Based on the analysis and findings, suitable suggestions are listed in chapter seven. To manage the libraries in management sector best practices to be followed are discussed in detail in the same chapter and a workable model is prepared which provides support to fulfil the needs and expectations of users in respect of useful services using modern

management techniques. The objectives selected and hypothesis considered for this study were supporting to the theme of research.

MBA considered as the top most management degree the scope has been restricted to management institute libraries in Pune city and all the libraries are covered in the survey (100%). The scope is restricted to institutes conducting full time MBA courses only.

To support the facts observed in the survey, literature review was also conducted using different facets in chapter two. The complete research study is presented in seven chapters covering introduction, growth and development of management education and institutes, status of libraries in management education, information seeking behaviour and findings and suggestions supported by bibliography and appendices.

The research study deduced findings based on survey and noticed that management education and institutes both are developing fast globally and since 2005 drastic changes have been noticed. All the management institutes are well supported by libraries with proper collection and qualified staff. The librarians have taken initiatives to modernise the libraries. The automation is completed but further growth towards digital libraries are not up to the mark and services provided to users need to be improved. It is also observed that users of the libraries are not using available literature properly and they are weak in using electronic gadgets and searching information available free over the net. It is strongly felt that there is a need to promote library services to users through library orientation. Similarly, due to changes in the library environment information seeking behaviour of the users is necessary to analyse their needs and expectations from the libraries so both librarian and users make the proper use of library collection and services.

Researcher made an effort to suggest few measures to improve the use of library collections and services and few major suggestions like qualitative collection useful for the users is necessary by framing suitable collection development policies. Frequent user studies need to be conducted for enhancing use of libraries. Qualitative collection helps in developing qualitative library services. Librarians have to enter into different resource

sharing projects and economical collection and procure e-resources at economical prices having instant access to users. Since technology is changing fast and used everywhere librarians have to use ICT more in different library activities and assist users and meet out their need and expectations. E-resources are complex in searching and hence librarians have to organise orientation course towards safe and accurate handling of e-resources. Information literacy is to be developed among users for making effective use of library and library services as well as searching information using open access resources.

In the changing era with the increasing use of e-publications, internet resources, free online journals and many other resources have forced the automation of libraries. There is a need to change the practices of libraries and hence libraries (of any type) need to be reengineered. Simultaneously HRM and HRD issues are to be considered to prepare library staff to sustain their practices in the changing digital era.

Change in user's behaviour while searching information is also to be analysed as technology use is more preferred and new formats of information resources are appreciated by the user community. Information explosion, rising prices of resources, varied needs of users are difficult to manage from the single library and hence new methods need to be adapted by library professionals. To provide effective and efficient services to user community of any discipline there is a need to procure proper collection based on user needs and demands. This gives rise to the situation in which regular review of user needs are to be evaluated and this is possible with the help of ISB. Hence ISB is an essential element for proper use of collection and its development and selection of information formats (E-Publications or Print Publications) as per choice of users, to provide value based services and user centric services etc.

The present study has discussed in length these issues and studied different ISB models established by scholars and based on these a suitable working model is developed for management institutes. Best practices to be used in managing libraries are narrated and

strongly suggested to educate users by initiating user orientation programs at regular intervals and outreach activities to know the changing environment of libraries in management sector along with the process of how to seek information using new technology. Similarly, continuing education and refresher training is also suggested for librarians to manage the libraries and sustain the change and provide user based services.

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List of Abbreviations

ACM	Association for Computing Machinery
AICTE	All India Council of Technical Education
AIMS	Association of Indian Management Schools
ASK	Analogues State of Knowledge
ATMA	AIMS Test for Management Admissions
B-Schools	Business Schools
BIM	Bharathidasan Institute of Management
BIMM	Balaji Institute of Modern Management
BIMTECH	Birla Institute of Management Technology
BMI	Business Monitor International
BPO	Business Process Outsourcing
CAS	Current Awareness Service
CD	Compact Disk
CD-ROM	Compact Disk Read Only Memory
CMAT	Common Management Entrance Test
CMIE	Centre for Monitoring Indian Economy
CSIR	Council of Scientific and Industrial Research
DELNET	Developing Library Network
DMCO	Diploma in management of computer operations
DMS	Department of Management Studies IIT Delhi
DOAJ	Directory of Open Access Journals

DRDE	Defence Research and Development Establishment
DRM	Digital Resource Management
DVD	Digital Video Disk
EABIS	European Academy of Business in Society
E-CAS	Electronic current awareness service
ECS	Electronic Clipping Services
EDDS	Electronic Document Delivery Service
EIS	Economic Intelligence Service
ERIC	Education Resources Information Centre
ESCP	Ecole Superior de Commerce of Paris
ETIG	Economic Times Intelligence Group
GATT	Government Agreement on Trade and Tariff
GFME	Global Foundation for Management education
GMID	Global Market Information Database
FAQs	Frequently Asked Questions
FORSA	Forum for Resource Sharing in Astronomy
FTP	File Transfer Protocol
HRM	Human Resource Management
HTTP	Hypertext Transfer Protocol
I2IT	International Institute of Information Technology
IBID	India Business Insight Database
ICT	Information and Communication Technology
ICFAI	Institute of Chartered Financial Analysts of India

ICMR	Indian Council of Medical Research
ICRA	Investment Information and Credit Rating Agency
IDC	International Data Corporation
IEEE	Institute of Electrical and Electronics Engineers
IFMR	Institute for financial management and research
IIFT	Indian Institute of Foreign Trade
IIM	Indian Institute of Management
IIMM	Indian Institute of Materials Management
IIT	Indian Institute of Technology
ILL	Inter library loan
IMDR	Institute of Management Development and Research
IMF	International Monetary Fund
IMI	International Management Institute
IMT	Institute of Management Technology
INFLIBNET	Information and library network
INFROSS	Information Requirements of Social Science
IRMA	Institute of Rural Management, Anand
IRS	Information Retrieval Service
IRC	Information Resource Centre
ISB	Information Seeking Behavior
ISBM	International School of Business and Media
ISBN	International Standard Book Number
ISRO	Information Space Research Organization

ISS	Information-Seeking Strategy
JISC	Joint Information Systems Committee
KRC	Knowledge Resource Centre
LAN	Local Area Network
LBSIM	Lal Bahadur Shastri Institute of Management
LIBA	Loyola Institute of Business Administration
LIC	Library and Information Centers
LIS	Library Information Science
LISA	Library and Information Science Abstracts
LISTA	Library and Information Science Technology Abstracts
MANLIBNET	Management Libraries Network
MAT	Management Aptitude Test
MBA	Master of Business Administration
MBE	Master of Business Economics
MCA	Master of Computer Applications
MEE	Management Education Entity
MIT	Massachusetts Institute of Technology
MMM	Masters of Material Management
MPM	Masters of Personnel Management
NAAC	National Assessment and Accreditation Council
NBA	National Board of Accreditation
NDLTD	Networked Digital library of thesis and dissertation
NET	National Eligibility Test

NIA	National Insurance Academy
NITIE	National Institute of Industrial Engineering
NKC	National Knowledge Commission
NMIMS	Narsee Monjee Institute of Management Science
NPR	National Public Radio
NPTEL	National Programme on Technology Enabled Learning
OCLC	Online Computer library Centre
OECD	Organization for Economic Co-operation and Development
OPAC	Online Public Access Catalogue
OSTI	Office of Scientific and Technological Information
OUIBC	Oxford University India Business Centre
PGDM	Post graduate Diploma in Management
PQDT	Proquest Dissertations and Theses
PUMBA	Department of Management Sciences, University of Pune
RBI	Reserve Bank of India
RFID	Radio-frequency Identification
RKIMR	Ramprasad Khandelwal Institute of Management
RS	Resource Sharing
SAS	State Analysis Service
SCMHRD	Symbiosis Centre for Management Human Resource Development
SDI	Selective Dissemination of Information
SET	State Eligibility Test
SIBM	Symbiosis Institute of Business Management

SIU	Symbiosis International University
SMTP	Simple Mail Transfer Protocol
SNAP	Symbiosis National Aptitude Test
SPJIMR	SP Jain Institute of Management and Research
TAPMI	T A Pai Management Institute
TOC	Table of Contents
TISS	Tata Institute of Social Science
UGC	University Grants Commission
URL	Universal Resource Locator
VIT	Vellore Institute of Technology
WAN	Wide Area Network
WWW	World Wide Web
XIM	Xavier Institute of Management
XIMR	Xavier Institute of Management Research
XISS	Xavier Institute of Social Studies
XLRI	Xavier School of Management
XIME	Xavier Institute of Management and Entrepreneurship

Chapter 1: Introduction

1.1 Background:

Education is basic need for the development of society. National, human and economic growth is achieved due to education and hence in any field of knowledge education plays an important role. Since the world is advancing and entering into a competitive environment there is a need of well-developed education system to manage the changes. Education in any faculty brings out improved values to every citizen and helps in building a better future. Education helps in making people aware of the activities and developments carried around the world. The main purpose of education is to build confidence in the minds of people and develop courage to face the changes in the different systems to sustain various competitions in life. The education systems are changing in the direction of increasing knowledge and creating good job opportunities in the society. “Education is not preparation for life: Education is life itself” is the right statement made by Dewey (2011) while stating importance of education. Generally, it has been observed that education in India is provided by public as well as private sectors and managed by either Central, State or Local Governments. Now-a-days private sector is more flourished in education system and is managing this system very effectively and efficiently. Education system in academic sector is well supported by libraries which supports in providing proper information to the users and library serves as a basic requirement in any academic field. Education is a lifelong process and libraries are providing requisite information using information resources to support the education system. Libraries have also faced the transition period and the recent use of ICT has forced libraries and information systems to shift their traditional practices and methods of information searching and information transfer.

Earlier libraries were treated as mere storehouse of information, but due to information explosion it is now very difficult for any library to hold all the information available even in a specified subject area. The challenges of information explosion, rising costs of publications, shift of publishing trends from print to digital or electronic, use of internet resources, increase in research activities, changing needs and increased expectations of users from the libraries in terms of services have to be faced by librarians. They have to

perform the tasks of collection of qualitative information resources which fulfil the desire of library users and also provide better services from the available resources of library. The libraries are also making use of free resources available over the internet. The practices followed in the libraries in digital era are changing and both users and library professionals are facing the challenges posed due to e-resources and its effective use which is a skill.

The paradigm shift from stand-alone libraries to library and information networks development, information accessibility using internet, use of ICT, supports end-users in getting seamless information access to anyone available at any place (24/7). The present trends in libraries are based on electronic information usage and internet-based services, use of e-resources, databases, development of network based environment consortium and economical ways in getting information resources etc. which along with print are the main factors in shifting the traditional practices in libraries. Moreover, libraries are shifting slowly towards automated, digital and virtual libraries as well as library networks. Multimedia and the internet have further made the job of library and information professionals more challenging.

The habits of library users are also changing and the major shift is in terms of how to search information in the digital era and hence they need orientation from libraries for making effective information searches. For academic users information plays an important role in developing a knowledge base and need recent information in the field continuously. The use of new technology provides direct access to information but while searching information proper skills is required to collect and present the acquired information. The major role of libraries is to widen the use of library resources, which helps academic users to improve their learning, teaching and research capabilities.

In the present era gathering of information has become more complex and expensive. The traditional services such as reference service, current awareness services and selective dissemination of information are not sufficient but the present users need advanced services using e-resources, databases as well as internet resources in the form of Electronic Clipping Services (ECS), Alerts, Digests, E-CAS, SDI etc. The basic challenge is to convince and convert traditional users into users of internet-based and

network based resources and services. Information literacy in the ICT environment helps in delivering proper information to users and efforts have to be made towards this.

The training and retraining of end-users to cope with use of IT-based resources and services, use of e-mail, ftp, telnet, www, browsers, search engines, OPACs, databases, system software, application softwares, use of electronic journals, computer conferences, scholarly discussion lists, mailing lists, Usenet newsgroups, websites, databases on CDs and DVDs and online are becoming an integral part of a library's user education program so as to enhance the use of information.

1.2 Importance of Information and User Needs

In the era of ICT, information is not restricted to only print but has expanded its horizons to e-publications and internet resources which are at the leading position in all fields. Information is called as commodity, since it has an economic value. Information is basic element of development of society. The present century is treated as an era of information revolution and libraries are slowly changing their face and migrating towards use of electronic information sources. Acquiring these different forms of e-resources has vast choice of selection and ways. Users are overloaded with the information explosion and they are in the need of pinpointed as well as accurate information. Leckie, Pettigrew and Sylvain (1996), Wilson (2000) have elaborated user information needs at different levels and indicated that assessment of ISB is also essential to provide better services from libraries to user community.

Information needs have been analysed by many scholars and according to Maslow (1970) information needs are briefly summarized as under:

- Self-actualizing needs- The needs related to formal education, leisure activities, ethics, values etc.
- Esteem needs-The needs convey multicultural awareness, emotional awareness, social system knowledge, ethics, values etc.

- Love and belonging needs- The needs dealing with multicultural awareness, emotional awareness, leisure activities, interpersonal skills, ethics and values etc.
- Safety needs- The needs convey crime avoidance, traffic rules, emergency procedures, basic literacy etc.
- Physiological needs- The needs which manage with personal hygiene, nutrition, general health issues, prevention from diseases etc.

From the above points it is summarized that information is a basic need of human and vital source for success. Right information at right time leads to success. Not a single field can survive without proper information. Information thus plays a major role in decision making, planning and every developmental activity links to information only. Information is an indispensable tool for teachers, researchers and students. From the views of Crawford (1978) the information need is very difficult to isolate and measure. The term is also used as needs, demands and wants etc. Tague (1978) has explained different types of information needed by users for which they seek information as:

1. Social or pragmatic information needs which are the daily required needs of users.
2. Recreation information needs
3. Professional information needs
4. Educational information needs

Thus, information is used in educational, scientific, research and many other sectors like business, banking etc. Need has further complicated the necessity of distinguishing among expressed, unexpressed or unmet needs, the later being the most difficult to identify. According to Taylor (1962) information need has four levels:

1. The conscious and unconscious need for information which does not exist in the previous experience of the investigator. It is the actual but unexpressed need for information
2. The conscious mental description of an ill-defined area of a decision. In this level, the inquirer might talk to someone else in the field to get an answer.
3. A researcher forms a rational statement of his question. This statement is a rational and unambiguous description of the inquirer's doubts.
4. The question as presented to the information system.

Along with the basic needs of humans, information is another important need in the information and knowledge base society. The simple meaning of information is a statement, opinion, fact, concept of ideas, or an association of statements, opinions, or ideas etc. McGarry (1975) summarized various attributes of “information” as:

- Information can be regarded as a near synonym of fact.
- It has a transforming or reinforcing effect on what is known or believed to be known by a human being.
- Information is used as an aid in decision-making.
- Information is the freedom of choice one has in selecting a message.
- Information is a necessary piece of something when we are faced with a choice.
- The amount required depends upon the complexity of the decision to be made.
- Information is the raw material from which knowledge is derived.
- Information is exchanged with the outer world not merely received.
- Information can be desired in terms of its effect on the recipient.

In addition to the above attributes information builds knowledge blocks and generates new information and knowledge for the use. Information is required by the academicians, faculty, students, professionals, researchers and scholars etc. and its need is enormous to everyone. Libraries and Information Centers are the best sources for providing information required by the users and they hold the power of information in their premises. However, every user has different needs and information required is also different along with a different purpose which is based on the application. In modern age information is delivered in different formats and forms and due to information explosion need of assessing information requirement of the user is felt necessary. The librarian’s role is vital in selecting the information resources properly based on the users need. Hence, there is a need to undertake user studies, use studies and now defined as information seeking behavior to satisfy the users and also provide user centric information as and when required. The present and even future education and research system depends on information which gives rise to the need for every person involved in information searching to work effectively in their concerned field.

1.3 Information Seeking and Information Seeking Behaviour:

Every researcher either a student or teaching faculty relies on information and uses it for various purposes. Every human being requires and search information for research activity or for different purposes. It is therefore felt essential to study the various aspects related to information and its need. When peculiar type of user, need information what type of actions are taken by him to get information and what problems are faced while seeking the information have to be studied. The practice of studying information needs and gathering behaviour dates back to 1948 when Bernal (1960) presented a paper on scientific information at Royal Society Conference. Since then many studies were conducted dealing with information needs and information seeking behaviour of both individuals and groups in different contexts (Anwar et. al. 2004). Many authors and scholars have pointed out that studies of ISB in different scientific disciplines are needed (Sethi 1990, Vezzosi 2009, Challener 1999, Tahir et al. 2008 and Rafique and Ameen 2009) in the era of information explosion. Due to implementation of ICT the flow of information has tremendously increased in e-form. Access to information is not only fast but needs to be accurate, current and pinpointed as well economical. The use of printed sources has decreased due to availability of information in electronic medium and it is reported that digital information is getting dominance over the printed information. Lyman and Varian (2000) pointed out that growth rate of print sources has increased by 2% while growth rate of optical and magnetic media has increased by 70% and 50% respectively. In the age of information explosion and information overload it is difficult to get proper information and causes problems like searching information, access to information, different types of information formats as well as reading of bulk information. Further most users cannot take decision due to variety of view points and opinions. Selection of useful information from the bulk of information is a major issue. In such an environment creative, innovative information seeking is difficult. Management personalities and users are very particular in getting proper information as their information needs are vast and diversified. To get the need based information users hunt for various information systems and information sources which is called as information seeking behaviour. Libraries play an important role in supporting the academic and

research activities by providing the users with required information. In order to perform the task effectively libraries have to understand information needs and ISB of its users. ISB covers a series of activities like expression of user needs, methods of seeking information, evaluation and use of information to satisfy the needs. Many changes have taken place in libraries with the passage of time like information abundance leading to information overload, use of internet resources, use of mobile devices for information access, dissemination and discovery etc. These changes have created new challenges in the library profession and under such environment ISB is an essential activity.

Since 1940's many studies have been conducted to assess information needs and ISB of different category of users. The initial studies were focused mostly on scientists, technologists to meet their needs and later the scope of ISB expanded by covering researchers, scholars, academicians, students and faculties from various disciplines. In academic sector students and faculties are the major users of information and library resources have to fulfil their needs like competitive studies, appearing exams, preparation of assignments and seminars etc.

While defining ISB Wilson (2000) considered it as a purposive seeking for information as a consequence of a need to satisfy some goal. In the course of seeking information the individual may interact with manual information systems. Ellis (2003) further added to ISB and stated it as a complex pattern of actions and interactions while seeking information of whatever kind and for whatever purpose. In this process factors like purpose, personal characteristics (age, gender, educational background, profession and attitude) are considered.

While searching the human behaviour is to be evaluated and this also helps for proper collection development in libraries as well as providing information services to users. The task of assessing behavioural pattern is not easy because human beings or users are not homogenous and have different requirements and also select different approaches or ways to satisfy their information needs. Different studies have been carried out over past few years to find ISB of various user groups in both print and electronic environment.

LIS field is associated with providing information services to users and hence it is essential to know what users want from libraries in order to satisfy their education or research needs. Sahoo and Ramesh (2011) elaborated the need of information and

indicated that information is considered as sixth basic need of human being which helps in developing the creative thoughts and building new knowledge for the information society. Information is the resource which helps in the process of decision making, managing education and research in any profession. Information helps in creating knowledge and this leads to wisdom. Wilson (1999) used the word information in context for user studies research, to express as physical entity or a phenomenon or a channel of communication through which messages or factual data are transferred and presented in a document form or even transferred orally. Kumar (1990) has emphasized that, Information Seeking Behaviour (ISB) is mainly concerned with who needs what kind of information and for what purpose information is required, the information gathered is evaluated and used and analyse the satisfaction of their requirements. ISB involves different steps like:

- Identifying and defining needs
- Accessing information systems
- Establishing sources of information
- Information acquisition
- Use of information
- Satisfaction/dissatisfaction analysis

Kumar and Satyanarayana (2012) in their article stated that ISB is a basic activity and also an aspect of scholarly work of most interest to academic librarian to develop collections, services and organization structures that facilitate information seeking. Information seeking is a natural and necessary mechanism of human existence and it helps in finding the information manually or with computer based systems using online databases. Research scholars and faculties search for the current information from various information sources both print as well as non-print.

Information seeking studies are conducted to analyse the user, his psychology, attitude, subject interest, working condition, etc. ISB is therefore related with designing information system. Jarvelin and Ingwersen (2004), Spink and Cole (2006) defined information seeking as a process, which includes many forms of behaviour like browsing,

observing, using formal and informal information sources, etc. They stated that ISB plays a vital role in all active teaching and learning methods. It is very clear that ISB is an essential process for getting the information needs. There is a need to analyse the seeking behaviour of users for any library to provide best collection and information services. Since management education is gaining importance there is a need to analyse information seeking behaviour of the management users. Every researcher needs information and he has to be information literate. Information seeking studies have been conducted in the following areas:

- Occupational groups (scientists, engineers, humanists, health care providers' i.e doctors, managers, journalists, lawyers.
- Demographic groups (voters, consumers, gatekeepers)

Meho and Hass (2001) have described various methods of conducting ISB studies using questionnaire, study population, citation analysis. Information seeking behaviour is considered as “activities a person may engage, when identifying his or her own words for information search, such information is used for transferring the information”. The concepts of information seeking retrieval and information behaviour are objects of investigation of information science. Information has assumed the centre-stage and is considered as an extremely valuable resource (Jorosi 2006). Thus as the business environment becomes more complex and dynamic it becomes essential for top managers to continuously monitor the external environment to identify the threats and opportunities (El Sawy 1985, Das and Patra 2012). Business and management students need more focused and specialised information like company profiles, market surveys, market study and research, business trends and news, management reports, import and export analysis etc.

1.3.1 Web Information Seeking Behaviour:

The present ICT and information explosion era has added a new dimension to information seeking activities and created a vast array of options for getting information in e-form over the web and using internet. A considerable amount of information has migrated from print media to e-media and has also provided multiple accesses to the

information sources. The users are more accustomed in searching free information over the net which is available 24/7 using World Wide Web (www). Thus, the use of e-resources and web resources is also a point to be considered for changing information seeking habits and this has prompted the researcher to conduct the study to find the information seeking habits in electronic media. Web information seeking has created new challenges for the librarians in managing services and such studies might be useful in setting the new practices in libraries. (Nkomo 2009).

In recent years students of all disciplines use e-resources as they are convenient to use and provide quick access facilities. Different studies indicated that use of e-resources is increasing due to applications of ICT. Even though the users are well versed in getting the required information but the need for information literacy skills is essential. These skills help the users to get proper information and they can select, retrieve, evaluate and use information from reliable information sources to meet information needs. Business and management schools have to provide strong information base for their students and faculties hence there is a need to develop information searching skills among management users to collect proper information in digital information system.

1.4 Information Retrieval System (IRS):

According to Ding et. al. (1999) "An information retrieval system does not inform the users on the subject of his inquiry. It only informs user the existence or non-existence and whereabouts of documents relating to his request". The IRS is useful to search specific facts or data to retrieve the documents for users. The IRS performs the following activities:

- Analysis of users query
- Analysis of documents
- Preparation of search strategy

Individuals are getting information at their doorsteps from the vast available information sources, but the problem arises of how to filter the information and provide it to match the needs of users. The problems faced by users in information retrieval as identified by Kawatra (1992) and Kamarudin (2001) are:

1. Increasing volume of information and complexity of available literature
2. Huge expenses' involved in acquiring information
3. Literature available in scattered sources
4. Language barriers
5. Access methods to retrieve information
6. Availability of information in many forms and formats

Whereas the user needs are committed to get information having accuracy, currency, reliability, and ease in availability etc. The searching techniques have changed due use of ICT and storage of information in electronic form. Online and offline databases have been made available by the producers of the secondary information sources. The use of internet resources, open source literature which is available free of cost etc. has forced users to change their ISB practices.

1.5 Trend in Libraries and Information Centers (LIC):

The applications of ICT have changed the practices followed in libraries as well as information searching practices of users. The print resources are slowly replacing the electronic resources. The users of the special libraries have already accepted the e-resource usage and publishers of journals and books have also preferred to use e-forms due to factors such as speed, economy and user-friendliness. The internet resources, databases etc. made the universal accessibility to information. In libraries to provide better information services all the current technologies and trends are applied like ICT, optical, internet, network, digital, etc. The libraries are automated and now developing digital libraries and making use of internet for collection of information. The manpower in the libraries is trained to meet the challenges in the library system. The users of the information systems are using available e-resources and making use of internet resources but the searching skills are not properly applied to gather the pinpointed data. User expectations from the libraries are increasing and they need advanced services. In order to satisfy these expectations there is a need to assess users to get their needs and seek information behavior and information requirement practices. This will help the librarians to procure need based information resources and provide additional services to users. It is

therefore essential for the librarians to assess ISB of their users. The increased use of e-resources and ICT are changing the practices in libraries and users requirements.

1.6 Impact of E-Resources on Libraries:

The revolutionary changes in publications and storage of information have changed from manuscript to print to microforms and at present in electronic media. The changes are continuous and the current trends in publishing have now shifted from print to electronic or digital and this has been accepted by all i.e. publishers, academicians, researchers, scholars, library and information professionals etc. In the present information and ICT era electronic journals, electronic books, the World Wide Web and full text as well as bibliographic and multimedia databases have gained popularity due to the factors such as:

- Technology is comfortably used and affordable to institutes for providing better output and services.
- Availability of information 24/7 and accessible from any part of the world.
- Convenient and easy to use access.
- It saves and reduces the physical space, economy in buying, multiple access and instant access.
- Information literacy awareness has been understood by user community for both print and electronic access.
- Enhanced searching capabilities for getting proper and filtered information in print and digital formats.
- The information could be made available at the user's desktop, regardless of where the user is physically located.
- Capability to download and manipulate text is possible.
- Information transfer is fast
- Allow hyper linking of information resources and greater flexibility of access to materials which is critical in the virtual library environment.
- Possible to provide better services using e-resources like OPACs, EDDS, Remote access etc.

The growth in e-publications is increasing continuously. The electronic form is welcomed by the libraries and end users of the libraries also. The exponential growth of internet and

resources available on the net has created a digital archive for the researchers and academicians to conduct academic research. Valuable collections of texts, images, sounds and discussions from many scholarly communities exist mostly in electronic form and can be accessible from the internet.

The use of e-resources is gaining popularity though print resources are also referred by the users. Technology especially computer and telecommunication technology have highly revolutionized the field of library and information sciences. These technologies facilitate collection, storage, organization, processing, analysis, presentation, communication and dissemination of data and information for decision-makers, researchers, academicians etc. With the introduction of new information technology, libraries are now expected to provide information more quickly and in great volume than before to the users. The wide variety of advantages of internet based e-resources in the library context has improved the response time and staff's motivation. The information needs of the user community especially research scholars, scientists, students, faculties and technologist can be fulfilled by modern libraries by effective use of information technologies and information in digital form.

In the present library environment e-resources collection is mainly built upon digital and online databases including both subscribed and open access sources. Springerlink, Science Direct, Proquest, J-Gate, IEEE-explore, ACM Digital Library, NDLTD, Shodhganga, DOAJ, Open DOAJ, Worldcat of OCLC are the examples of few popular e-resources used in management libraries. There is a need to train the users in getting appropriate information within no time. Thus, development of science and technology and advancement of modern information technology has changed the terminology of a modern library into communication centre, resource center, knowledge center etc

1.7 Importance of Management Education:

From the different branches of science and higher education, management science and education is responsible for enlargement and development of trade and business which lead to economic and industrial development of the country. The core objective of management education is to develop a system useful for entrepreneurs, industry and society. The role of management science and education is to provide managers,

technologists for a progressive country in adequate numbers. Management science is concerned with developing and applying models and concepts that help to illuminate management issues and solve managerial problems (<http://www.lums.lancs.ac.uk/departments/mansci/DeptProfile/whatismansci>).

A broad view of management science involves procedures to forecast, plan, analyse, decide, motivate, communicate and implement concepts for better productivity. Management science has delivered many useful things and has made the managerial field more efficient. In India, higher education has received more importance in all disciplines including management sciences. The management education is witnessing an exponential growth in terms of number of institutes imparting management education which are usually termed as Business Schools (B-Schools). It may be worthwhile to say that management itself as a discipline and has evolved from fundamental disciplines of philosophy, psychology, economics, accounting, computer science, mathematics, statistics and industrial engineering together (Kumar and Dash, 2011). The management education has gained importance in very short period and is acting as an emerging discipline. The basic aim and purpose of management education is to develop professionals, entrepreneurs and socially responsible leaders and managers. Globalization, liberalization and privatization have tremendous influence on the business environment and education everywhere including India.

1.8 Status of Libraries in Management Science Education:

21st century is generally described as an era of information revolution, information explosion, information overload, information technology etc. The use and application of technology is changing the shape and practices followed in libraries and information centres. Libraries and information centres' are not only equipped with materials in traditional formats but are also acquiring material in electronic formats offering users a vast selection and choice of getting fast information. The library is also known as an academic heart of the institute (Onuoha and Awoniyi 2001). Management institute libraries also play an important role like other libraries and have to face the same challenges. Institutes imparting higher education involve learning, teaching and research. The students, faculty and teachers are involved and for them library is pivotal node and

would like to extract more advantages from library's collection. Traditional libraries were based on print collection and physical visits of users were required to access documents and information available in the library. In the present scenario due to applications of technology the practices followed in the traditional libraries have shifted to modern trends. The libraries are performing automated functions and information is made available to users on the desktop. Libraries are constantly adapting the techniques and technologies to serve user community better. The print media is slowly replaced by digital media and the form of information storage and communication is also becoming digital. ICT has benefited the libraries and helps in automating libraries, developing networking of libraries, development of IR, use of internet and intranet for information collection and dissemination, generation of digital information resources in the form of e-books and e-journals, creation of digital libraries etc. The management libraries are treated as academic as they serve the academicians and students but the nature of education makes it a special library in which collection is in a particular management stream. The collection comprise of textbooks, reference books, periodicals, case studies, project reports, multimedia, CDs, GATT publications and other reports etc. The management personnel's are the major beneficiaries of the collection hence the libraries attached to the management institutes are academic as well as special. This type of nature requires more skills on the part of librarians to perform the task well for fulfilling the needs of users. The management education is proliferating and growing along with the expectations of the users. Management libraries are also changing their practices and using ICT to fulfil demands of the users. The importance of libraries in management sector is increasing as these libraries are acting as information centres and creating library networks to share the resources. The management education is using more ICT applications and laptops are allowed in the classrooms. Preference to online education is gaining momentum in the management sector.

The use of internet for gathering information is increasing through various sites and libraries. Modern technology has made an impact on the management of information society. An application of ICT is boon to libraries but there is a need to find how to make its use better. The change is inevitable in the field of management science due to information explosion, limited or shrinking budgets, rising prices of documents etc. and

an accurate solution to this is use of ICT. Electronic resources and multimedia, use of the internet have made the work of library and information professionals more challenging and same is the practice in management libraries.

The management institutes are initiating online demonstrations and use of websites in the classrooms. There is also a wide use of laptops due to use of Wi-Fi technology for the interactive learning sessions during the lectures. The course contents, case studies, presentations and CDs are made available on the intranet of the institute and hence libraries are facing different issues like e-collection, e-resource utility, online connectivity from the libraries and hence library professionals need to adapt skills necessary to manage the libraries in technological era. Though management libraries are considered as academic libraries they differ in few aspects and are also considered as special libraries due to their collection and services to specialised users are sometimes different. The broad distinction is presented in the following paragraph.

1.8.1 Management Libraries and Academic Libraries:

Though management libraries serve for the academic activities of the parent institute but in management education science the nature of management discipline is specific and multidisciplinary. The role of the libraries in management institutes is crucial and different as compared to academic libraries. The management education discipline has developed very fast and has become complex also and is growing unlike other disciplines. Varieties of subjects are studied under management like business economics, business law, taxation and accountancy in one context or the other. A management library acts as an academic as well as a research or special library due to the nature of service. The academic libraries like school and college libraries generally serve large user groups having different faculties and subjects together, whereas management libraries serve the specialised management subjects only. The services required by the management users are qualitative and instant as compared to the academic users from social sciences. There are constant changes in management courses syllabus covering new methods and trends to sustain in the society as well support the managerial activities. To cope up with these changes, continuous improvement in management libraries is

necessary and the librarian has to adapt newer ways and techniques of management for providing better facilities from libraries.

The Management libraries can provide better services to the users only when they take into consideration the users need and requirements. For this purpose like other libraries management libraries have to conduct regular user studies and user surveys for finding the needs of the users. Along with this there is also a need to provide user education to increase the use of library resources properly for fulfilling different requirements in the management education and profession. The aim of user studies is to analyse the needs whereas user education helps users to become more information literate. The management users need pinpointed subject based information. Information seeking behavior of the users differs from user to user as information gathering is based on the need. The main function of libraries is to collect the information resources which are needed by the users in economical ways which fulfill the mission and vision of the institute. The information collected is to be analyzed according to contents of the information and disseminated to the uses as per the need based services. The prime role of the librarian and library staff is to support the user's demands and fulfill the expectations to the mark.

The users of management science are the key persons in information system. Understanding the user is partial success in the battle in providing information services. The success of any information system depends considerably on how best the system design is based on a close and accurate understanding of the users. The user is not only the most important aspect, but is also paradoxically, a dynamic component of information system. As such, understanding user is an important and continuous activity. The management users generally collect information for study, writing technical papers, essays etc.

1.8.2 Management Libraries: Challenges and Issues

The basic challenges and issues are posed in management institute libraries due to many reasons and few of them are:

- The changing needs and expectations of users in management sector to get better services and keep them abreast of current developments in the area.

- Getting more information in available limited financial resources
- Cost of the publications are escalating even for e-publications
- Need for development of resource sharing among prominent management libraries
- Copyright and access related issues for e-resources
- Need enhanced and new services based on technology and internet

The solution to these challenges is that the information professionals have to actively develop and manage a wide range of structured and organized knowledge resources by providing all types of access such remote access, physical access, personal access, intellectual access and networked access to resources to achieve cost-effectiveness and user centered services. In order to achieve this library professionals need training in managing modern techniques and technology. There is also a need for the librarians to enhance their professional competencies with an integration of scientific, research, methodological, managerial, analytic and economic searching skills for information gathering with information seeking retrieval for giving best output from the libraries.

1.9 Statement of Problem:

Information is vital resource and needed by everyone including students and faculties to enhance their academic performance. The users visit libraries in quest for information but when the same users face problems such as absence of proper knowledge regarding type of information resources, purpose of seeking or searching information etc. it affects the use of library resources. The users feel that library could not fulfil their needs and that they are wasting time in searching for the information as well obtaining need based information. Keeping these considerations in mind the present study has been undertaken to assess the information seeking behaviour of management users to fulfil needs of users from libraries in digital information era and solve the problems of management users. Information seeking and information needs of library users are changing due to many factors and there is a necessity to assess ISB and usage of resources of management users. A sample ISB study of management users might be useful in fixing the problems in getting proper information to satisfy the needs in digital information era. The present study is an effort made towards this aspect and reviews the user's attitude towards using

resources, awareness of resources, method of seeking information, problems faced, use of free information resources etc.

The problem selected for the research study is “Information Seeking Behaviour of Users of Management Institute Libraries in Pune”. The present study focuses attention on information need and information seeking behaviour of management users pursuing regular MBA degree in Pune city.

1.10 Reason to Select the Present Research Study:

Zawawi and Majid (2001) opined that there is a need for the users to become informed and knowledgeable which leads to the process of identifying information needs. The process of identifying information needs cannot work without knowing how individuals collect or articulate information, ways of finding information, method of evaluation, selection and finally presenting the acquired information. All this process is known as “ISB”. Similarly, Devadson and Lingam (1996) correctly analysed that information needs and ISB of various professional groups is essential as it helps in planning, implementing and operating information systems and services to the users. Leckie et. al.(1996) noted that work roles and tasks assigned determine information needs. There are a number of factors which imply the sources and types of information sources used by user groups in different situations for satisfying their needs. Libraries and information centres are knowledge creators and hold power of information. They are the main hub of supporting research and academic activities. The knowledge about type of material preferred and used by users is an important factor in satisfying user needs by acquiring proper collection development in libraries. The studies of finding information needs and ISB of users can be traced back to late 1940’s (Renekar 1993). Since then large number of studies in ISB of scientists, medical professionals, engineers, technologist etc. are being conducted but in management sector no such studies have been reported especially in the digital era. Due to emergence and application of ICT in libraries use of e-books, e-journals, e-mails, internet resources are being used more and all these have caused changes in ISB of users in all professions including management. The use of web tools, discussion groups have opened new horizons for information creation and information dissemination, storage etc. The importance of information to management users is

increasing due to globalisation. The access to information is vital and the library professionals have to face challenges for providing adequate qualitative information to management users. In the era of information explosion and information overload it is essential that information needs of management users can be met effectively. Hence, the need of management users and their ISB for planning and information collection, services and facilities of libraries was felt necessary. Realising this need the study of assessing needs and ISB of management users in Pune city was decided to undertake. Since such type of studies conducted are not much in current IT environment the researcher was prompted to undertake this study.

The researcher has been working for the last 15 years in various management institute libraries and also managed the libraries of management institutes and is currently working in the university library as a “Librarian”. The experience in the library profession forced to conduct a study of management institute libraries and analyse the recent developments adapted in the profession. This study might also help to meet the future demand of users in imparting library services and manpower development as well as modernising libraries in this area. The information that is required by users is now available in different forms and this has an impact on the information seeking behaviour of the individual users. The qualified library staff needs to have the knowledge of examining the criteria of information seeking and the information used by the users. Researcher has observed that the availability of the resources in the library is sometimes abundant but the usage was not as per expectations. More avenues of information sources available both in print and digital to users are increasing. This reflects the researchers mind to undertake a study to review the needs and how best can resources be made available in libraries be utilised by users. From the literature review it is found that the current topic selected by researcher is different than the studies conducted earlier. However it is not visible from the literature search that any studies relating to information seeking behaviour of the management science users and how the libraries can reshape in the changing environment have been conducted. There are studies like modernisation of libraries, benchmarking of management libraries, advanced services to the management users etc. but need based analysis has not been discussed elaborately.

There is a need to apply best practices to make the users aware of the information resources which might increase their usage. Generally the students prefer to use free commonly available search sites from internet for completing their projects and assignments. The researcher decided to undertake the study of the users by assessing and interviewing them to find their needs and expectation from libraries and also ascertain why the users were using the free internet sites inspite of heavily paid databases available in the institute library. The study was also conducted to assess the librarians to know the problems and challenges which are faced by them in providing proper services to users. It is decided to trace out the gaps between the available resources in the library and the resources used by the users. This study might be useful to formulate solutions to make proper use of the available and reliable resources utilized by the users either paid (subscribed) or available free.

Further, due to change in publication pattern of literature the users are finding difficulty in identifying and locating relevant information quickly. The responsibility of libraries is to provide right information to right users at right time and maximise the use of information. User studies and ISB studies are found useful in analysing the problems of users and seek the solution to avoid the problems in getting proper and right information. ISB studies are now a central part of research in information studies (Jarvelin 2004)

1.10.1: Status of Research Using ISB:

In the literature review conducted it is found that different researchers have conducted ISB studies in different areas. Few prominent studies can be cited as Yousefi (2007) on professionals at an Iranian company, Coonan (2008) on research for library users for navigation of OPAC, Ansari (2011) on media practitioner, Makri (2009) on lawyers, Nokomo (2009) on use of web by students, Jamali and Nicholas (2006) on physicists and astronomers, Bhatti (2010) on faculty of university of Bahawalpur, Aristegnieta (2010) on scientists of Venezualla, Thanuskodi (2012) on law faculty of Tamil Nadu, Singh (2007) on agricultural scientists, Zawawi (2001) on biomedical scientists, Thani (2011) on social science graduate students, Karunarathna (2008) University teachers in management sciences, Nettet (2009) on elementary school students, Khan (2011) on

college faculty, Ozowa (1995) on farmers of Nigeria, Guomundsson (2011) on swimming coaches etc. The main purpose behind these studies was to analyse the users ISB.

1.10.2: Need for Further Research:

From the different studies conducted so far as elaborated above (1.10.1) it is found that previous studies in ISB were mainly conducted in variety of sectors but fewer studies are reflected in management sector to assess the ISB of management users. Since gap in ISB in management sector is visualised this has tempted the researcher to undertake the present study on assessment of needs of management users and the factors which motivates users in using information published in different forms. The present research topic is not overlapping and hence the title, “Information seeking Behaviour of Users of Management Institute libraries in Pune” is fixed.

1.11 Aim and Purpose of the Study:

The aim of this research study is to assess information seeking behaviour of management users and analyse the students and faculty, the methods used by them to get the literature on desired topic and form of literature preferred by them. The present study focuses on analysing information needs of users and methods used to get the information in digital era. The purpose is to identify information sources in management science, information resources used by the users for meeting their needs, types and forms used and expectations from the libraries by management users (students and faculties). The overall aim of the study is to propose recommendations in respect of developing management libraries tune to present situation. The study helps users in proper information retrieval applying systematic IRS in electronic era.

1.12 Objectives:

The changing information needs of the management users necessitate the researcher to assess the information needs and access pattern. Hence researcher has chosen the study with the following objectives:

1. To study growth and development of management education and management institutes.

2. To measure the awareness of users about facilities available in management libraries and assess its utility by them
3. To study various types of information sources used by management users (Students and faculties) and identify the user preferences for using information materials (Print or electronic resources).
4. To find the information seeking behavior of management science users and difficulties faced while seeking information.
5. To review the status of present management institute libraries and study the role of library professionals in catering to the complex needs of users
6. To identify impact of internet and e-resources while seeking information by users
7. To suggest most viable strategies and policies in redesigning management institute libraries to improve library facilities and information services in order to satisfy the growing needs of the management user community.

1.13 Hypothesis:

The hypotheses for this study are:

- 1) Management institutes and libraries are increasing but these libraries are yet to be tuned to modern and advanced practices to support the emerging need of users.
- 2) Management users need training to make effective use of information resources available in non print media
- 3) Information seeking behaviour studies are necessary to provide and promote user based services using ICT facilities in management libraries.

1.14 Research Methodology:

Research method is basically selected based on the nature of study and work. In this study the research methodology used is descriptive research and used survey method. The techniques used for data collection are questionnaire and interviews of selected library professionals (Dr S. K. Patil, Dr Anil Kumar) and experts from management education science (Dr. Shejwalkar, Dr. Dixit, Dr. Tilak and Dr. Chitale). An extensive literature

survey is also conducted to track the developments in the field of management science and their libraries and assess the views of other researchers in which they worked to avoid repetition. The data collected from the various information sources and databases are gathered and analysed and the information is used in the research study.

The questionnaire is taken as research instrument in this study. The efforts are taken to make the instruments used valid and reliable. The concept of validity deals with the truthfulness of findings while reliability deals with the consistency. Altogether 111 questionnaires for librarians, 22 for faculties and 132 for students were prepared and distributed out of which 98 (88%) from librarians and all (100%) from faculties and students have been received.

A questionnaire having nearly 81 questions and sub questions were circulated to the librarians of the management institutes which reflected the status of their library. The questionnaire is designed in such manner that data might be gathered objectively and without prejudice. A questionnaire is also framed for the students and teaching faculties to assess their information needs, method of assessing and retrieving information etc. The researcher also collected information from the IIM-libraries to predict user expectations from the libraries. Random sampling method is also applied to size the suitable population.

1.14.1 Design of the Questionnaires:

Questionnaires have been designed based on the study of literature. In the questionnaire, the questions (81) were grouped in 9 facets to get the desired data about management libraries. Questionnaires were designed separately for the librarians and library users i.e. students and teaching faculty. The users' data was collected by using the random stratified sampling method. Personal interviews (Unstructured) of experts from libraries and management sectors were conducted to get the tacit data.

1.14.2 Sampling and Population for Users:

A total of number 132 students and 22 faculties were selected and questionnaires were distributed among these users. Total 154 questionnaires were received. All questionnaires

were analysed statistically. The open-ended questions were analysed using content analysis. Sampling technique is used to limit the number of users for the review. The study divides the population into the categories like students, faculty members, librarians and libraries of management institutes. IIM-A library's survey is also conducted to compare the developments of management libraries in Pune city.

1.14.3 Sampling procedure:

There are 111 management institutes conducting full time MBA programs in Pune city. To analyse the information seeking behaviour of management user's three types of questionnaires were prepared viz. for librarian, faculty and students. These were distributed to all the management institutes conducting full time MBA courses.

1.14.3.1 Management Institute Librarians:

All 111 management institutes were selected for survey and to get the information about the libraries a questionnaire of 166 questions and sub questions for the librarians was prepared to understand the present status of management libraries, analyse the activities carried out along with the status of ICT. The questionnaire formulated covers the information about the staff, timings, collection, e-resources, library services and organization of library as well as out reach services and providing user education etc. The population selected was 100%. A total of 111 questionnaires circulated to librarians of the management institutes 98 librarians responded (88%). The efforts were made to collect the data from the remaining 13 institute's and librarians were contacted to get the data, but due to various administrative problems the researcher could not get response from these librarians and finally data from 98 questionnaires of institutes pertaining to libraries were analysed and presented in tabular and graphical form.

1.14.3.2 Management Institute Faculty:

The survey of the faculty members were conducted to assess the use of library and information needed by them and made available to them through library. A total of about 93 main questions and sub questions were asked to analyse the status of management

libraries. These questions basically cover the aspects of personal information, library usage, services provided by libraries, library modernization, resource sharing, electronic and digital information resources, collection development and policies etc.

The survey of all faculties was not possible and hence population selected for the survey was based on following consideration. Out of 98 management institutes 11 institutes (10%) have been selected for conducting the survey for faculty. The selection of 11 institutes was based on criteria for institutes conducting full time more number of MBA courses as well as having permanent faculty available in the institutes on the regular cadre. Among them faculties (senior and junior both) were selected who use the library facilities more. Librarians of respective institutes helped in giving the information about the faculty. From these 11 institutes it has been observed that there are maximum 20 faculties (senior and junior) hence the sample size of 10% which comes to 2 faculties per institute have been taken. The total population of faculties covered is 22. The sample of institutes selected from initiation of management institutes till 2012 was taken covering the most popular management institutes. 100% response was received from the faculties.

1.14.3.3 Management students as users:

The survey of the students was also conducted to assess the user needs and demands and expectations of student users from the libraries associated to management institutes. The purpose was also to find how much users are aware of use of technology and information seeking behaviour. The questionnaire contained about 94 total main and sub questions covering various aspects like personal information, library, services provided by libraries, requirement of electronic/digital information resources and qualitative library management etc.

The sample selection was tedious but for this survey same 11 institutes as taken for the faculties was selected student user selection was made randomly @10% of the total population of MBA students were considered for the survey purpose. The average intake capacity as per norms was found to be 60 minimum intake (MBA) with atleast two divisions coming up to 120 students per institute and ratio of 10% comes to 12 students per institute, the data from about 132 students was collected through questionnaire. The

12 students selected based on the scanning of visitor register maintained for students and also from the circulation data from the circulation counter, which indicated number of times books issued as well as number of books issued by user. Thus the sample selected from the user was 132. The questionnaire was circulated to these and 100% response was received to the survey.

1.15 Scope and Limitations of Study:

The scope of the study is limited to the libraries attached to management institutes in Pune city only. Efforts are made to focus attention on assessing library infrastructure in management libraries, management user's needs and information seeking behaviour of management science users. The focus of the study is to analyse ISB of users and status of management institute libraries. The researcher has covered only the management institutes where only full time MBA courses are conducted and has excluded distance and open learning centres.

The management institutes conducting courses like MMM, MPM, PGDM are not covered. The researcher has also excluded hotel management institutes from its study and does not consider the management courses conducted by engineering colleges offering MCA courses. The study has not considered the part time and visiting faculty members in survey as well distance learners.

The research is restricted to the use of information resources, seeking behaviour and publishing trends. The study covers libraries of management institutes approved by NAAC, AICTE, NBA, and UGC as well as autonomous and deemed universities.

1.16 Structure of study:

The present research study is covered in seven chapters covering different aspects of the topic as detailed below:

Chapter 1: Introduction

This chapter highlights the introductory information about ISB, management education, the role of libraries in management education, need of user studies, information seeking

behaviour, need for the present study, aim, objectives, hypothesis set for the study, research method selected in brief, scope and limitation of the present study etc.

Chapter 2: Literature Review

This chapter presents the various related research studies conducted in the field and trends in management education, growth of management education and institutes, status of management education and institutes in India, role of academic libraries, information seeking behaviour, users need analysis, user's demands, future of academic libraries, trends in management libraries and trends in ICT and role of librarians. The researcher has consulted various online databases, PhD thesis, online and other printed resources.

Chapter 3: Growth and Development of Management Education and Management Institutes

This chapter highlights growth and importance of management education, global trends in education and presents an overview of management education in India, Maharashtra and Pune. It also deals with the role of accreditation in management education institutes. Similarly, it discusses the growth and development of management education institutes.

Chapter 4: Status of Management Libraries

This chapter deals with management institute libraries, AICTE infrastructural norms for libraries, sources and services, resource sharing efforts, ICT based new services, future role of management institute libraries, user expectations and vision for development of future management libraries.

Chapter 5: Information Seeking Behaviour

This chapter includes importance of information seeking, information seeking behaviour, web information seeking, selected ISB models, user, user studies and user education.

Chapter 6: Data Analysis

This chapter presents data analysis of management institute librarians, faculties and students.

Chapter 7 Findings, Suggestions and conclusion

This chapter presents the findings, suggestions and conclusions derived from the research work. It includes the best practices to be adopted for the management institute libraries. It also includes scope for further research.

Chapter Summary:

The study is aimed to investigate the information seeking behaviour of management users. The choice of collection should meet the need and requirements of the end users and librarians must be aware of how the researchers seek information. The first three preferences given by users for seeking information are textbooks, online resources and periodicals. The purpose of information seeking was for completing assignments, submission of project reports, doing research work, updating knowledge and social purpose. It is recommended that the library staff or reference librarians should use their time in a better way by focusing their attention on assisting the users. Reference librarians should help users to improve their skills in information seeking activities and to find the different types of information need. The management institute libraries provide adequate ICT facilities for reference such as internet, laser printers, scanners, fax machine, telephone etc. Librarian should assist users in e-learning, educating them regarding the use of databases, learning the use of websites available through various networks.

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Chapter 2: Literature review

2.1 Introduction:

A literature search is a well thought out and organized search for all of the literature published on a topic. A well-structured literature search is the most effective and efficient way to locate sound evidence on the related subject of research. Evidences of the literature search may be found in books, journals, government documents and internet (Harvard 2007). The review of the literature is a broad, comprehensive, in-depth, systematic and critical review of scholarly publications, unpublished scholarly print materials, audiovisual materials and personal communications etc. The review of the literature is traditionally considered a systematic and critical review of the most important published scholarly literature on a particular topic. Literature review acts as a guiding path in research study. It reveals the concepts and ideas and helps in avoiding duplication of work. Literature review acts as supporting evidence to the facts deduced from the study. The purpose of literature review is to broaden the knowledge on a research topic and search relevant and related references. The different traditional sources like primary and secondary literature have been consulted by the researcher to find out the desired information. The new sources in digital era like internet, online journals and websites including search engines like Google Scholar etc. have been consulted more. Literature review helps to determine an appropriate research design/method (instruments, data collection and analysis methods) for answering the research question.

In the present study secondary and primary resources were consulted along with internet resources like Library and Information Science Abstracts (LISA), Library and Information Science Technology Abstracts (LISTA), Management Science Abstracts, primary information resources like journals, thesis, technical reports published in library science and management sciences, Conference proceedings, books and reference resources like encyclopaedias, electronic resources available on the web like Google scholar, databases like: Emerald, EBSCO, Science Direct and Library and Information Science journals like Library Trends, Library Philosophy and Practice, etc. Thesis databases like Shodhganga, Vidyaniidhi and Australian Digital Thesis etc. have been

consulted. The information collected from these resources have been searched and organized in different facets. These facets are:

- Management education: Need and Importance
- Growth of management education and Institutes
- Role of academic libraries and services
- Information seeking behaviour, users need analysis, user's demands
- Information searching skills
- Trends in Management libraries
- Trends in ICT and role of librarians

2.2 Management Education: Need and Importance:

Management education in India was initiated just after independence with establishment of Indian Institute of Management since then various changes, challenges, issues and implications have been reflected in the management education. MacNamara et. al. (1990) have criticised the concept of management education imparted by management institutes as focusing more on theory and on quantitative analysis while neglecting interpersonal relationship and qualitative findings. It is often stated that management education needs to be experienced-based, active, problem oriented, solving and modified by feedback and action learning. PaiPanandiker (1991) pointed out that knowledge and knowledge-creation is central to the management education of the future rather than technology. He has pointed out that to sustain in the life there is a need of knowledge, wisdom and innovative ideas, hence management education is both inevitable and necessary in the present scenario. Sahu (1991) tried to explain the values and importance of management education in his article while Sharma et. al. (1996) have pointed out that internationalization of management has changed dimensions in management education. Increase in research activities, revisions in curricula as well developing specialisation in management education have been reflected in the education system. Various management criteria have been reflected in the studies carried out by Albach and Bloch (2000) and they have considered the scientific development of business education on the basis of five criteria's. The emphasis was placed on emerging scientific and societal trends which an

influence on scientific research. The study concluded covering specific themes like problem of interdependence, uncertainty, dynamics, development of various theoretical paradigms and trends such as globalization and ecological consciousness. The study conducted by Prince and Stewart (2002) was based on the grounds of rapidly growing market for corporate management education and the emerging role business schools have played in the market. The study concluded highlighting implications for both business schools and organizations seeking company specific management education programs. Gill (2003) emphasized emergence of globalization and advancement in information technology and need to include the roles in management education in enhancing the knowledge base. Similar changes have been reflected in the study carried out by Sahney et. al. (2004) in which the author stated that Indian educational system is changing fast. Radical and ever revolutionary changes in the education sector are visualised in the future. The role of Indian women in management has been highlighted by Budhwar et. al.(2005). They have made an attempt to highlight the important issues relating to women in management in the Indian context. Research evidence from various sources has been presented to highlight the dynamics of developments in the status of Indian women managers. The study covered the main aspects of historical, socio-cultural and economic factors influencing women managers like gender-based stereotypes, barriers to women's movement to top managerial positions, impact of developments in information technology on women managers and the ways in which they have moved forward. The study concluded with messages for practitioners and contributions of women in management in the Indian context. Reddy (2006) stated importance of management education in India, which is at crossroads with the dawn of new millennium and reports an exceptional growth in management institutes with a need to upgrade their competencies.

Muniapan (2007) focused on some pertinent issues in management education and recommended to improve the effectiveness of management education in the context of Malaysia. Cygnus Business Consulting and Research Pvt. Ltd (2009) has submitted a report on business education in India and indicated the growth and trends in management education. The report clearly stated that in India the growth of business education is estimated at an alarming rate of 12%. The report also indicated that increasing

globalisation in context of Indian business economy requires an expanded horizon of management and leadership which could be achieved through continuous improvement of capabilities and skills with management education. Sinha (2010) has elaborated the growth right from the concept of management education and establishment of the management institutes internationally and nationally. The author stated that number of overseas management institutes are being setup in the country and has also touched the curriculum aspect of management education. He has analysed subject-wise specialization introduced by the institutions along with the importance of these specializations in management sector. Author has concluded by suggesting a need to upgrade the status of management education according to changing trends and requirements for the improvement of industries and individuals. A recent study conducted by Kumar and Dash (2011) on trends in management education and its related issues in the Indian context explored the present situation of management education in India and highlighted its trends prevailing. They also tried to find out implications of management education in India over the industry and individuals. The ultimate challenge of management education indicated by them is for more practical-oriented education based on the needs of industries.

Summary:

Value to management education is increasing considerably along with increasing specialisations in education. Institutes imparting management education are also increasing. The experts have suggested that regular changes in management education are visualised and there is a need of experience based problem solution provider and qualitative management. The articles reviewed clearly indicated that management education is gaining more importance and due to globalization, collaboration, industrialization there is a need felt for the managers to perform the tasks at different levels. The global development in management education is fast and in India also the same situation is visualised. The experts opined that growth in management education is visualised but there is also a need to revise the management education according to trends and requirement of business and industry. There are challenges in management education

as it is constantly changing and growing impact of ICT is also visualised more in education system especially online and distance learning.

2.3 Growth in Management Education and Institutes:

Engwall and Zamagni (1998) discussed the development of business schools in Europe and assessed the role played by American business schools in the context of national models of management education. The authors have highlighted a comprehensive view of development of managerial education in various countries. The Indian scenario of management studies has been studied by Mello (1999) and emphasized the need to re-orient curricula of Indian management studies. He has expressed the need to break out neo-colonial mindset that chooses subjects in conformity with what is going in the US rather than considering the Indian context. Jagdeesh (2000) highlighted the increasing demand for postgraduate education in management in India, which is considered as the main cause for rise in the number of institutes offering management education. The author has described the structure and pattern of post-graduate management education offered in India. Mudbidri (2004) in his research thesis pointed out that good management institutes should have not only good building but also good computer and IT facilities and well equipped libraries. The study further stated that the good management institutes stimulate the thinking of the students and makes them think creatively and differently. Popli (2005) recommended the areas of management education that need improvement to cater to student needs as per their expectations. The feedback from industry was based on in-depth interviews with selected industry personnel. Mayank and Dave (2007) have focussed on issues of faculty which is a major bottleneck in the growth of management education in India. Management education has become a major profession that attracts considerable attention across the world. With the mushrooming growth of about 1000 management institutes across the country in management sector it still faces various issues and challenges and one of the most important is faculty shortage. The author added that the paucity of faculty is not just quantitative but also a qualitative factor. Debnath and Shankar (2009) have examined the performance of 20 Indian B-Schools, separating their profitability and marketability and concluded with suggestions to improve management education system in India. Sahney (2011) presented the results

of an empirical study conducted on students of selected management institutes in India. The study was an attempt towards the integration of multiple methodologies to identify customer requirements and evaluate service quality, prioritize improvement of service and guide and develop educational services by incorporating the voice of the customer. The results of the study are useful to policy makers, educational planners and administrators in developing an education system based on customer satisfaction. Rai (2011) developed new instructional models, so as to meet corporate future requirements of professional managers at the entry point and covered the importance of value added management education. His results have highlighted the need of courses to be conducted by management institutes and for this they have to be equipped with certain core competencies like quality of course curriculum, selection process of students, teaching faculty, teaching methodologies, teaching aids and infrastructures, evaluation system, industry-interface, placement, research, management development and consultancy which relate to the main functional areas of any management institute.

Summary:

The literature reviewed indicated that there is phenomenal growth in management education globally. Even developing countries have shown growth along with specialization in management education and this has increased the institutes imparting management education. The growth is multiplied but non-aided institutes are increasing in this sector. The number of IIMs is also increasing and similar type of organizations has been established in management education. In India, the growth is reported every year. Growth in management education is increased in last decade but along with growth the quality is also required as per the opinion of experts. The experts also opined that education system also incorporate IT facilities, use of technologies and well equipped libraries to support management education system. The service quality, quality of course curriculum, teaching faculty, teaching methods, industry student interface, teaching methodology are also to be considered along with growth.

2.4 Role of Academic Libraries:

Alire (1984) conducted a survey of doctoral students at the national level to assess the importance of library. The findings from the study revealed that research scholars have

recognized the role of library and its resources but there is a need for bibliographic instruction, proper orientation and library research methodology for these students to make an effective use of library resources. Mahajan (2005) explained that the primary objective of academic libraries is to provide access to information and only the methods have to be changed along with the formats. It has been observed that in the present scenario of declining budgets and higher costs it is becoming very difficult to meet the demands of the library users. Anunobi (2008) has discussed the nature of academic libraries and described the digital age including the resources. He has also discussed the concept of universal access and the role of the universal access to print and electronic resources. He presented and described a conceptual model of resource access for academic libraries in developing countries. The emergence of information and communication technology has repositioned the frontiers of academic library resources, operations and services as well as expectations of user groups. The print and the e-resources access model can serve as a stepping stone. When such a step is taken academic libraries must take into consideration factors like expansion, flexibility and compatibility. Goswami (2009) indicated that in the present era of computer mediated information storage and retrieval system there is a need for developing proper strategy for managing the libraries. LIS professionals with deeper understanding of sources of information as well as research and investigative experience are required for imparting user oriented services.

Midda et al. (2009) observed that the academic libraries are changing faster than their respective parent institutions. Eventually everything in and around the library is changing such as services, technologies, organizational constructs, etc. Most of the academic libraries in India have been facing financial as well as technological constraints. With the advent of computers the nature of academic libraries has changed dramatically. Computers are being used in libraries to process, store, retrieve and disseminate information. As a result, the traditional concept of academic libraries is being redefined in terms of a place to access the books to one which houses the most advanced media including CD-ROM, internet and remote access to a wide range of resources. These can overcome easily with the help of change management in the activities of libraries and offer better services to the users. They have concluded that library professionals have to

get them equipped for the advent of different technologies and provide better services to users which is only possible with the help of change management.

Summary:

Researchers, students, professionals, faculty have understood the importance of libraries but the resources available are not properly utilised by users. There is a need to provide training on how to consult libraries and make effective use of information resources. The training and assessing the need and expectations of users helps in collecting the information services as well as enhance the use of libraries. The changing scenario in LIC is due to use of ICT and trends to match the growing needs in limited budgets. The academic libraries are facing challenges due to use of ICT, e-libraries, consortium, e-books and e-journals, databases and changing users expectations. The trends in academic libraries are shifting from print to digital and the information seeking process of users is also changing but users are not properly information literate. Thus, there is a need for bibliographic instruction, library orientation and library research methodology for these students to make effective use of library. Primary objective of academic libraries is to provide access to information.

2.5 Information Seeking Behaviour, user needs and user demands:

Marchionini (1989) stated that the execution of an individual's information-seeking system for a particular information problem is considered as an Information-Seeking Strategy (ISS). A well designed strategy examines the problem and works out the best source of information that matches the information need of user. This settlement is further confirmed by Valentine (1993) (Onuoha 2011) by pointing out that undergraduates looked for the fastest way, that would lead to satisfactory results when doing research and hence they prefer for electronic information sources first along with print resources. The need for information is often understood as evolving from a vague awareness of something missing and as culminating in locating information that contributes to understanding the meaning (Kuhlthau 1993). Researchers like Bates (2002) and Broadus (1987) also investigated the information-seeking behaviour of people in the humanities and they reported that humanities scholars generally did not use indexes and abstracts or consult librarians for fulfilling their needs. Ocholla (1996) in his study at Moi

University Kenya, surveyed four faculties viz. health sciences, information sciences, environmental studies and education and the results indicated that academicians depended on libraries and colleagues for getting information. The users lacked awareness of information sources and services. In addition, academicians indicated that they needed information mainly for career development, for their professional and occupational needs. The author suggested that library should provide current awareness services as well as publicity and promotion of information products and services to the academicians. Fidzani (1998) indicated that awareness of available library services to users is required for proper collection development. The study helped in finding the needs of the users and their reading habits.

Covi (1999) analysed information seeking behaviour of academic researchers in the field of molecular biology, literacy theory and computer science and the use of digital libraries. The result of the study indicated differences in the search strategies employed and the types of material selected among the researchers in the various academic disciplines. Challener (1999) investigated ISB of artists and art historians, teaching faculty from five liberal arts colleges and three universities. The results showed that faculties need information for teaching and research. Users visited libraries frequently and also more than one library to get the information. They also required assistance from the librarians in searching information. Mallaiah and Sumangala (1999) presented the overall opinions of the users about the facilities and services provided in the Mangalore University library. They found that books and periodicals were the most used resources from the total library collection. A significant number of respondents among students opined that there was a lack of proper arrangement of reference books and reports available in form of literature.

In the views of Wilson (2000) information behaviour is the totality of human behaviour in relation to sources and channels of information, including both active and passive information seeking and information use. Whitmire (2001) in his study found out that undergraduates use the library mostly as a place to study and make photocopies. They do not make great use of some of the available library services such as interlibrary loan and the reference desk. Herman (2001) in her study assessed the users' impact on the

changing information environment. Tadasad and Metesheela (2001) analysed that books, newspaper, popular magazines, class notes, notes of seniors are the most used sources of information. General dictionaries, subject dictionaries, subject encyclopaedias and scientific periodicals are also useful sources for the post-graduate students in the Gulbarga University. They also reported that memoranda, diaries and letters, CD databases, trade catalogues, thesis/dissertations, microforms, laboratory notes, handbooks, human sources, course materials of open universities, guide to subject literature, directories, statistical sources, biographical sources, library catalogue, almanacs, geographical sources, research reports have been never used by majority of post graduate students. Similar type of study was conducted by Vijayalaxmi and Maheswarappa (2001) to find the use pattern of students' population and reported similar type of results as Tadasad and Metesheela. Waydande (2001) conducted a doctoral research study indicating the behavioural pattern of users and observed three factors covering profile of the users, efficiency of the library and actual use of the library by the users. The outcome of the study was that libraries have to develop and systematically organize orientation programs for users and library professionals which would increase the use of library. It also indicated that internet was being used by the users but still library was being used for seeking the required information.

Suriya et al. (2004) in their study investigated the pattern of seeking information of the faculty members from the library. Kingakew (2006) studied diversity of library collection which plays a vital role in successful operations of the library. The information on web has changed scenario in libraries which has also changed information seeking behaviour of the faculty members and overall users. The study also suggested that the libraries shall be well equipped with ICT facilities such as internet and modern infrastructure, communication facilities, laser printers and scanners etc. Chikonzo and Aina (2006) conducted a study related to the information needs and sources of information used by veterinary students at the University of Zimbabwe. They found that students required information for writing assignments and studying for tests or examination and the major sources used were books, videos, lecture notes, handouts, internet, projects, CD-ROM databases and journals. The students confirmed making little use of indexes, abstracts and dissertations available in libraries. Dhanavandan et. al. (2007) has examined the

characteristics and internet using behaviour of the respondents. Eleven percent of the respondents expressed that they didn't know how to use the internet. It was suggested that the library professionals should concentrate on providing library orientation programme for all the students to motivate them and make them familiar with e-resources and their use. Igun and Adoqbeji (2007) have analysed study habits of PG students to examine duration, place of study, materials used for study, and their main motivators. The opinion of users indicated that library is still the best place for quiet study. In a library there should be privacy and reading materials, with computers, printers, reference materials, email stations, comfortable lighting, along with a quiet atmosphere. Vasishta (2007) viewed the status of libraries of the deemed universities and based on the analysis of physical facilities, users, technical processing etc. it has been concluded that the present situation of libraries was not so good with reference to professional staff and collections as well as development of e-resources.

In another study, Ajiboye and Tella (2007) examined the information seeking behaviour of undergraduate students in the University of Botswana. The result of the study revealed that the internet is the most consulted source followed by students' class notes and handouts. Jamali and Nicholas (2008) examined two aspects of information seeking behaviour in their study including methods applied for keeping themselves up-to-date and for finding articles. The relationship between academic status and research field of users with their information seeking behaviour was also investigated. Martin (2008) investigated the information seeking behaviour of undergraduate majors to gain a better understanding of where they find their research information (academic vs. non-academic sources) and to determine if library instruction had any impact on the types of sources used. Majority of students surveyed find their research information on the freely available Web and they admit that academic sources are more credible. These results are supported by other studies that indicate that today's college students are using freely available internet sites much more than library resources. Nishat and Naved (2008) conducted a survey and noted that the usage of library resources and its services may be increased. Student oriented information resources such as textbooks, reference materials, journals, internet facility, databases etc. may be facilitated. The library should provide initial orientations, workshops and ongoing seminars for students to train them in using

resources so that utilization of resources and services is maximized. In a recent study by Warwick et. al. (2008) it has been observed that information resources such as libraries, archives, museums and research centres and the web pages that provide information are vital for humanities scholars. They consider university library website to be the most important resource as compared with Google.

Muhammad and Kanwal (2009) investigated the information seeking behavior and satisfaction level of teachers of National Textile University in Pakistan. It was found that the students prefer both electronic and printed formats equally. The users expressed the requirement for increase in library collection to meet their subject as well as leisure needs. Mahajan (2009) conducted a study and explored the information-seeking behaviour of the undergraduates, postgraduate students and researchers in sciences, social sciences and humanities etc. Information-seeking behaviour differs among user groups. Academic libraries must understand the information needs of faculty and students in order to address those needs. This study examines the kinds of academic information needed by respondents, resources they prefer, level of satisfaction with the library collections and the general pattern of information-seeking, with special reference to the influence of course of study. A study conducted by Kumar, S. et. al. (2011) on information seeking patterns of Defence Research and Development Establishment (DRDE) scientists has revealed an increase in research activities. The satisfaction of need for accurate and pin pointed information to the scientist has been an important task for the library. It was also found that internet was the most popular information seeking medium among the scientist. Prajapati and Shastri (2011) have discussed the concept of user satisfaction with an objective to identify the levels and kinds of user needs, the limitations or problems, which seem to discourage the use of library to identify areas that needs improvement. They have planned to arrange educational videos in the library which may be complementing the class schedules. Gupta (2011) conducted a study and focused on usage of electronic journals from INFONET consortium by faculty and research scholars of physics and chemistry departments at Kurukshetra University, India. The study concluded that respondents depend more on open-source materials than those available via INFONET. It was also reported that there was a need to offer training in using e-resource and retrieving information from time to time. It was pointed out that e-

resource need to be increased especially of e-journals. Ansari and Zuberi (2010) in their research studies focused attention on information needs and information seeking behaviour of media practioners in Karachi. They pointed that when individual requires information they consult information system, library or interpersonal sources for satisfying needs. The objective was to assess information needs of media practioners working in radio, newspaper, TV etc. The study conducted by Kadli and Kumbhar (2011) found that the kind of information required by user, method used, in searching information, time space, problems faced, solutions found, satisfaction or dissatisfaction from information gathering etc all come under purview of user study. It can be said that user studies are essential for systematic examination of characteristics of information behaviour of users. Applications of IT has offered today's information seekers different opportunities to access the information resources in variety of formats including e-resources like e-documents, databases, OPACs, web/internet resources. These resources are replacing traditional print information sources. Increase in literature available in e-form over web and net has affected ISB.

Summary:

From literature review it is noticed that ISB studies are conducted in all subject areas. In many studies, users are analysed to find the methods of searching information and using information resources available in the area of interest. There is a need to seek the user needs and accordingly initiate the development of libraries. ISB is commonly used to analyse users habits in particular type of information sources used, method of searching information for solving problems and it also helps in preparing proper search strategy.

The studies highlighted the need of ISB due to the following factors such as:

- users are not aware of information sources, methods used for searching information, preparation of search strategy etc
- print resources are more used than e-resources as they easily available and accessible
- users depend generally on libraries and colleagues in getting information but unaware of facilities and services provided by libraries

- under graduate student community uses books, newspapers, class notes, notes of seniors etc. and PG students and researchers use reference sources, journals etc and make use of library services at minimal level
- e-resources are not used optimally inspite of their advantages and economy
- ISB varies from user to user and user groups
- users expects need based collection and advanced services, but did not consult library staff
- ISB is shifting due to changing trends in libraries like use of internet resources, e-publications, databases, web resources, open source publications etc

The outcome of the literature review is, every user or group of user have different needs and ISB helps in identifying needs and solutions. Information literacy is needed due to changing practices and availability of e-publications. Users are interested in orienting themselves for proper information searching. Hence, ISB studies are gaining importance to make proper use of information wealth and searching the same.

2.6 Information Searching Skills:

The information searching skills of medical students and physician faculty was studied by DaRosa et.al (1983) and it was found that there was no difference in searching between third and fourth year students and the group of physicians. Fidel et. al. (1999) analysed the web searching behaviour of high school students and found that there is an increase in the use of World Wide Web as a tool for information gathering and learning. There is a need for library training to all the users along with library staff which may include information seeking and searching behaviour. In the survey conducted by Schilling et. al. (1995) it has been found that librarians have become partners in the educational process along with teaching faculty for the development of curriculum. The students consult the librarian for getting their information needs fulfilled. Chu and Law (2007) studied the searching skill of postgraduate students of education and engineering. They found that in the beginning the students searched for subject related references and the keyword searching was less but later on as they understood the subject their pattern of searching reversed. The study also found that education students used more complex keyword searches and adopted sophisticated search queries than the engineering students. The

usage of searching skills increased as the students became more familiar with the usage of these skills. Tsai et. al. (2012) conducted a survey which showed that net savvy students had better information searching strategies than those who were less net savvy. The study expressed the need for training students in the web searching strategies.

Summary:

The searching skills are necessary for searching proper information. These skills are advancing due to e-resources, development of databases and availability of information on internet. The users need to understand method of preparing search strategy for proper searching of information from the available information. Librarians are the only intermediaries for training the users in searching proper information using e-resources.

2.7 Future of Academic Libraries:

The future of academic libraries has been highlighted by Patil et. al.(2006) in the study on benefits of RFID (Radio Frequency Identification) system in libraries and way towards modernizing the libraries. Singh and Kaur (2009) made assumptions that the future of academic libraries is in the hands of librarians. It further emphasizes the need for change in academic libraries in the context of the emerging knowledge economy. It underlines the mandate of the National Knowledge Commission and highlights the present scenario with regard to higher education and access to knowledge and information. It highlights the impact of ICT and paradigm shift in academic libraries, library consortia, institutional repositories and open access archives as strategic response to the paradoxical situation of growing digital documents and declining library budgets. It also enlists the challenges and opportunities to be faced by the academic libraries. Tikekar (2009) in his study explained the special features of academic library and presented landmarks of the forward march like professional literature analysing the transitory period. The study also highlights the special features of 21st century academic libraries like library software's, retrospective conversion and digital library initiative. The changing librarianship is explained and indicates the emphasis on new competencies for library and information professionals. It concluded that though the core work of libraries remains the same but practices have changed due to ICT applications. The library services have been enhanced and have become more effective. Saha (2009) has discussed issues related to library and

librarian and predicted library without walls and library without librarian as the future. The role of the librarian and library professional has changed to cybrarian, information processor, information consultant etc. To cope with the rapid changes and to control the rate of information generation, librarians along with their professional colleagues have to equip themselves as per the requirement of the electronic information society. The author highlighted the reasons why library and librarian use modern technology and also tries to point out the role of the librarian in the changing society, services offered by the e-library, e-learning and issues faced by the librarian. Panda et. al. (2009) in their study on electronic books discussed the use and promotion of collection developments of e-books and emergence of e-books as e-resource which has grown drastically in the digital age. The concept and importance of Web 2.0 was studied by Jadon et. al. (2009). The concept of library 2.0 has emerged as a driving force in current libraries and follows the principles of web 2.0. The authors are of the opinion that the global building of internet connectivity and growing availability of computing and communication device have made the World Wide Web powerful. They have also suggested use of different services provided through blogs, Wikis, RSS and Social Networking etc. The authors concluded their study with the suggestion that Web 2.0 technologies are very essential for libraries and these new technologies have changed the library environment. The libraries can apply Web 2.0 applications to provide better services and information retrieval tools. Polger and Okamoto (2010) have discussed the student perceptions of academic library as teachers.

Summary:

Future libraries are digital and developing countries also seen marching towards the digital era. The academic libraries of future are based on automation, digital library, consortium building, use of IR, use of online databases, use of web tools and use of internet etc. These modern technologies help librarians to provide library services in various forms. The future of libraries including academic are changing along with their shape and acceptance of new technologies which are useful in libraries. The future libraries are changing shape and using more digital information sources and for this users need orientation for its proper usage in deriving desired information.

2.8 Trends in Management Libraries:

Raina (1997) proposed a resource sharing model for establishing a network among the IIM libraries. He is of the opinion that the future demands can be met only through resource sharing. Rao (2001) in his research article illustrated the challenges to be faced while developing networking of libraries and information centres in India. The author suggested that libraries and information centres may provide computerized services to users, promotion of resource sharing among member libraries, the development of a network of libraries and the coordination of efforts for suitable collection development at economical level. The concept of resource sharing has been expressed by Pandian et. al. (2002). This concept is termed as an economical aspect for collection development and user assistance in any library. They consider the main factors which affect such efforts are human attitude along with technological. Authors also suggested a framework for the internet based consortia model approach for facilitating information access and use by providing a single web enabled window to the information users for the participating institutions like IIMs. Cholin and Karsiddappa (2002) discussed the needs of library users, libraries to take active part and provide access to on-line resources. The paper has also discussed the role of OCLC (Online Computer Library Centre) and the services offered by OCLC in different packages to their members. Sreekumar and Sunitha (2009) discussed the efforts for searching on-line resources through the formation of consortium while Sridhar (2002) in his case study highlighted sharing of on-line resources among the ISRO libraries where the effort has been made by using the consortia approach effectively.

Ramesha et. al. (2004) evaluated IT based services on the basis of user requirements and satisfaction. The results of the study showed the lack of manpower as the basic cause in declining the quality of library and information services. Singh and Gautam (2004) presented an overview of the electronic databases developed in India and highlighted various electronic databases. Kanamadi and Kumbar (2006) discussed the web-based library services expected at management institutes in Mumbai city. The article explored the availability of institute website, importance and extent of the library details hosted on the institute website. This survey revealed the needs of management science users in terms of services required. Sinha (2008) identified various issues relating to access and

bibliographic control of e-journals, access management problems, policy issues and development of e-journals consortium approach to subscribe scholarly peer reviewed journals for the library users in network environment. He analysed various consortium efforts made in India. Author is of the opinion that the national institutions like IIMs, IITs and universities have to be involved in consortia approach for providing increased access to a number of e-journals and databases to the user community. Aher et. al. (2009) studied the impact of electronic resources on the libraries and their users in Nashik city. The study found 25% of students visited the library for electronic resources such as CDs, e-books and e-journals from the total population who visited for reading books and journals. Further the researchers mentioned the overall opinion of the user population that the electronic media helped them in understanding their subjects, gathering relevant information with a faster access as compared to the information in print form. Parameshwar and Patil (2009) surveyed the use of internet in management education by faculty and research scholars and presented the findings. The article concluded that internet is a major source of information collection and dissemination, use of internet is explored in every discipline and there is a need to acquire but searching skills to get the proper information from the ocean of available internet resources. Nwezeh (2010) conducted a survey and revealed that a majority of the users found the internet very useful. The concept of resource sharing was studied by Ranjan (2011) and it was found that rapid pace of change in knowledge resources is increasingly influencing the creation, publication and dissemination of educational materials and sharing of information having an impact on learning. The paper concluded with findings that there is an urgent need to share all the knowledge resources in business schools for effective delivery. The author highlighted and discussed the conceptual framework for sharing knowledge resources by different academic entities in any business schools. Rao (2011) indicated that the role of library is to guide the students in learning use of Google or Wikipedia rather than just copying the contents available in them. It has been observed that students prefer to consult the web resources to complete their projects rather than going to the library and referring the scholarly available resources.

Summary:

The management libraries are changing their practices and re-engineering the process in libraries due to implementation of ICT in education system, classrooms as well as in libraries. The use of internet web based technology, web resources, development of databases are increasing. There is a need for networking of management libraries and achievement of better resource sharing using consortium. It is noticed that management libraries are improving their status by initiating RS among them and using internet, web tools, online and offline access to information resources, delivering databases for specialised services, making use of e-resources etc. To support the changing needs assistance from librarians is needed as well orientation to users is also necessary.

2.9 Trends in ICT and Role of Librarians:

Rice (1989) pointed out that librarians are quite comfortable with the idea of making evaluative decisions while selecting information resources. He suggested that the users during the process of online searching of databases could conduct best possible searches using the acquired resources. Bates (1996) conducted a two-year study and found that most humanities scholars made little use of online databases. Scholars appreciated the fact that the databases covered many topics but complained about the difficulty of their search language and the lack of availability of desired resources. It is interesting to note that scholars regarded themselves as experts in their subjects and did not expect to learn anything new from the databases pertaining to search skills. Delgadillo and Lynch (1999) pointed out that most studies were carried out before the widespread influence of the internet in the 1990s. Libraries had catalogues, databases and online abstracts in the 1980s but the explosion of the internet and the rapid expansion of textual materials online had not evolved in those times. The availability of sophisticated computer technologies has changed the habits of scholars although the technologies have changed the ways in which most scholars create the product of their research. Bansode and Perirea (2000) reviewed automation and related areas in libraries and suggested that library automation in library is required to perform all the library functions. Ge (2005) studied how the internet has affected the information-seeking behaviour of social scientists and humanities researchers at Tennessee State University. The results showed that internet resources are playing an important role in the information-seeking process. The World

Wide Web was the most used internet resource. It was observed that the researchers in social sciences were using more electronic resources as compared to humanists. Bass et al. (2005) noted the increased use of electronic sources in comparison to use of personal reference and monograph collections. Formal information sources used by scholars included books, journals, library catalogues, databases, articles in popular scholarly press and the internet. A large number of the survey respondents mentioned usage of Google Scholar and other internet search engines in their research. Krishna (2006) emphasized the fact that librarians have to work over the large spectrum of libraries and information centres. Librarians also have to acquire advanced skills of ICT due to which the scenario is rapidly changing. The quality of manager in terms of innovation, efficiency, leadership in libraries has to be truly shared. Mahajan (2006) in his study pointed out that the science researchers were more positive towards the internet and its impact. It was recommended that faculty members and students should be encouraged towards usage of internet. The librarians should provide appropriate training for making proper and fruitful use of internet.

The concept of borderless library was discussed by Muzumdar (2007) along with the skills required by the library professionals in the ICT era. The study highlighted different programs to enhance skills among the professional's like technical skills for managing computer and technological tools, skill for using internet and computer communication and networks, gaining knowledge on SMTP, HTTP, FTP etc. Information retrieval skill, traditional basic skills, managerial skills, communication skills, preservation skills, online searching environment skills required to face the ICT era. Author concluded with capacity building issues among library staff to manage the borderless library with group of skilled manpower to develop global information hub. He further added that skills would help in fulfilling the objectives of the NKC (National knowledge Commission). Kanamadi and Kumbhar (2007) analysed the impact of ICT on libraries attached to management institutes in Mumbai. Ramzan and Singh (2010) investigated the various IT factors which affected the attitude of librarians. The authors stated that information technological innovation has made impact on the library functions, operations, process, infrastructure and services at a very high rapid rate.

Rao et. al. (2009) focused attention on tools and skills of library professional and self motivation. The author listed out a few tools for learning and development in LIS like formal education, training, workshops, library meetings, library week, library exhibitions, book fairs, internet browsing, memberships in professionals associations Institutional Repositories, library Websites, library consultancies, felicitation programs, etc. Gowda and Shivalingaih (2010) reported preference of researchers to use electronic resources more than the print resources. This indicated that electronic resources had created a positive impact on research community for searching the information. Technological developments including tools and techniques influenced the information seeking behaviour of users. Muhammad et. al. (2010) conducted a study of usage of electronic resources and facilities by scholars of humanities and found that the users of humanities prefer the printed sources but they also pay attention to the electronic resources. These users have access to computer facilities at home and office also. They use a variety of electronic technologies regularly and perceived that modern technology made their work easier. Lihitkar and Lihitkar (2011) highlighted few library softwares which are useful for automation and supported functions like acquisition, cataloguing, circulation, serial control and online public access catalogue (OPAC).

Summary:

In the modern era use of ICT in libraries is changing the role of librarian. The use of Web 2.0 technology has shifted the libraries towards library 2.0 and the role of librarian as Librarian 2.0. Different authors have pointed out the fact that to sustain the libraries and librarians in ICT and digital era there is a need to acquire both traditional and advanced skills including computer, communication, technology, internet and database searching tools, online and offline information retrieval skills etc. To make meaningful use of available library resources it is necessary to find the seeking behaviour of users. Since the use of ICT is increasing and e-publications are growing the information seeking behaviour of users is changing. Similarly, limited knowledge of information resources affects the users searching behaviour. The opinion derived from this literature review is that ICT use is increasing and the librarians have to adapt the skills as well as train the users for proper information use available to them.

Chapter Summary:

From the literature analyses following facts are visible:

- There is phenomenal growth in management education globally including India and in prominent cities like Delhi, Ahmadabad, Chennai, Bangalore, Mumbai and Pune etc.
- The growth in management institutes is also visualized and more non aided management institutes are coming up in the country.
- Management institute libraries are changing their practices and have to re-engineer based on use of technology and information resources and provide better and efficient services form the qualitative need based collection.
- There is increased use of ICT in libraries. The e-resources are growing fast and e-publications are taking place of print slowly. Procurement of information resources are changing. Librarians need to procure document within limited budgets.
- Users are unaware of proper information search either from print or non print resources.
- Digital libraries are taking shape. Libraries are facing challenges due to modernization.
- Users need training or orientation for getting proper information. Use of online information resources as well as internet resources is increasing. Training of users is very important to make effective use of the available resources
- User's demands and expectations are increasing and librarians have to understand the ISB of users for developing useful and qualitative collection. There is also a need to provide better and new services. User habits of seeking information are changing due to ICT and availability of e-publications and Internet resources.

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Chapter 3: Growth and Development of Management Education and Management Institutes

3.1 Introduction:

Global competition is changing the relationship between management education and business. There are continuous changes in both technology and economic systems which requires executives to be engaged in constant learning process. Management education has become a major profession that has attracted considerable attention across the world. Evidence of gaining importance for management education can be seen with the increase in publications of journals purely based on management concepts like the “Academy of Management Learning and Education” published by Academy of Management. Though the market has been growing internationally, there is a need to assess the adequacy of efforts in management education at various points of time. Management education is imparted through the management institutes.

Along with the growth in management education, management institutes are also adding values by providing support to advanced management education. Management education has now entered in the period of transition and is gaining more value and importance due to factors such as globalization, industrialisation, economic integration, collaboration etc. These have also posed challenges and opportunities for improvements in field of management education. Philip (2008) pointed out that till 1988 there were just 100 B-Schools in India, in 1993 the number rose to 200, later it reached to 400 in 1998, 800 in 2003 and later the growth has been regular and since 2008 it has been exponential. During 2003 to 2008 about 1700 B-Schools were established. This clearly indicates alarming growth in management education and management institutes everywhere and almost in all countries in world.

3.2 Importance of Management Education:

Education is very important for an individual's success in life. Education develops skills that prepare students and learners physically, mentally and socially adaptable to the working environment in later life. Education is the best investment because well educated people have more opportunities to get a job which increases their level of satisfaction.

Main purpose of education is to educate individuals within society, prepare and qualify them for working in the economy. But the debate about whether education is an art or a science has gone on for a long time as pointed out by Rusk (1919). Higher education is facing many challenges such as lack of specialties, low-consciencess etc. but sciences and technologies are extremely important problems in today's information society. The high percentage of population, especially poor does not have access to education while the first step for society's development is speciality and skills. So, it is necessary for states to plan for education development, consciousness-raising and technical as well as professional skills development (Mahmoodi 1993, Zolfaghari, 2003). Major issue which the colleges of higher education across the globe face is making provision of adequate vocational skills, with which the student's community may get better employability option from the corporate.

Management education offers all necessary tools and techniques that will enable an individual to contribute to global economy. It also helps in handling various business and management related issues successfully. Management education enhances the managerial skills by sharing of ideas and conducting healthy discussions. The importance of management education can be reflected in all areas including the area of defence organisations. Keeping in view this importance MBA course has been designed at IIT Kharagpur's Vinod Gupta School of Management from 2005. This course addresses critical issues related to defence, national security and different aspects related to it as described by Ghosh (2004).

Quality management education contributes to society in other ways beyond education. The research conducted by faculty in business practices, organizations, markets and environments contributes towards the expanding base of knowledge. It ensures that the theory and methods of imparting management education remains current and relevant. It also helps companies to acquire a better adoption of the strategies that will ensure their success in a rapidly evolving world. The high quality business schools support countries with a competitive advantage in the form of providing skilled workforce and through intellectual contributions to general business knowledge. These contributions lead to rising income levels and economic growth. The importance of quality management education cannot be ignored and is stressed by all the management institutes. This can be

observed in the Global Competitiveness Index, created annually by the World Economic Forum which considers the quality factor of a nation's management schools as an important variable.

3.3 Need for Management Education:

The survey's conducted by Sinha (2004) and Teamlease (2007) pointed that 90% of the employment opportunities require vocational training and this is imparted by management institutes. It is essential for business schools to restructure management education to meet new challenges of the 21st century which will revamp and make business education more relevant. Pointing out the areas in management education which need emphasis, director of Silicon Valley Centre for Entrepreneurship at San Jose State University in California Basu (2011) said, "Management students need to be familiar with the fundamental understanding of entrepreneurship, innovation and sustainable development and these aspects should therefore be included in their curriculum. This ensures that students are adequately prepared to proactively address challenges faced in business". The business schools in India face the challenge of creating an indigenous model of the management curriculum and though the market for management education is global the curriculum should reflect local aspirations also.

Shaw (2012) emphasized the role management education plays in solving the challenges of the country such as infrastructure, health care and education. The solutions developed 50 years ago may not work in the present times. Today, managers are in great demand in every sector of economy and there is an annual need of huge reservoir of people who are trained for business and management. In management education the aspect of quality has become a necessity.

The rapid trends of globalization and technological changes have made difficult for organizations to survive in the competitive world. As observed by Kumar and Jain (2010) there are more than 2000 management institutes in India and current curriculum in management education teaches the concepts needed for sustainability. The educational culture of 21st century requires new packages and fresh approach to tune with global

futuristic trends in management education. Organizations have to face enormous pressures from diverse stakeholders of business environment along with the fast expanding domains of knowledge. The changes in environment have created threats and opportunities to all modern management institutes. The management education continues to be in demand even in future but the existence of the institutes depends on the quality of education and training they offer. The present management institutes are oriented to meet the needs of all sectors. The management schools have to understand the implications of changes and accordingly train the students to implement corporate strategies. There is a need for greater introspection on innovative methodologies of teaching and research in the B-Schools. The emphasis should be on improving quality in all aspects.

Arain and Tipir (2007) opined that technology is changing at a rapid pace and business units have to strive hard in order to get their share in the market. This quest of business growth makes the organizations to hire smart people with relevant knowledge. Since India spoke of opening its doors to foreign universities several top institutions have taken a step in this direction. The Warwick Business School of London has decided to set up its campus in Delhi. The Schulich School of Business of Canada's York University is building its campus in Hyderabad. IMT (Institute of Management Technology) Ghaziabad is one of the prestigious institutions to have signed the Erasmus Mundus 2009-2013 which aims at quality and international co-operation between European and other countries. Many NRI's are sending their children to India for professional education in fields of medicine, engineering and business management as the education in India is cost-effective and rich in culture.

3.4 Management Education: Growth and Development:

The development of management education is traced back to 18th century. From 18th century to 21st century, management education has witnessed lot of changes and developments. Management education is comparatively one of the latest disciplines added on the academic map worldwide. It emerged as an academic discipline in the early 20th century, but the concept of business school started since 19th century. The first review of business education that has been reported in the public domain was from the

Wharton School. As per Global Foundation for Management education (GFME) Report in 1884, world's first Bachelor of Finance degree was granted by the Wharton School of Business at the University of Pennsylvania. The first management education program started at MIT in 1931 and the second program at Harvard in 1943. In India, the first management college aided by Andhra University was the first institute which offered full time management course in 1957. The later development in education was followed with establishment of The All India Institute of Management and Social Welfare in Delhi and Calcutta University 1958. Keeping in mind the growing importance of management education the authorities thought for the national base development of management education and opened the vistas for IIM's. The first management school under the banner of IIM was initiated at Ahmadabad in 1960 and similar followed in different parts of country. In 1968, the IIM-A was selecting one out of 30 applicants whereas in the present situation it has to select one out of 400 applicants. The management education thus gained momentum in India. The detailed investigation is also discussed under the growth of institutes. The Common Management Entrance Test (CMAT) conducted by AICTE has 70,000 registrations for the year 2012-2013 which was conducted in 69 centres in 61 cities and from this Mumbai, Pune and Jaipur has the highest number of registrations. Looking at the growing response it has been decided to conduct the CMAT twice in a year.

3.5 Management Education: Global Status

The first global study on high expectation entrepreneurship has analysed that just 9.8% of world's entrepreneurs expect to create almost 75% of the jobs generated by new business ventures (GEM 2005). It is estimated from the global corporate education and training market which is around US\$65 billion that the management education market is US \$22 billion (Friga, Bettis and Sullivan 2003, Hawawini 2005). The management education is growing at 10-12% per annum and US is the largest market for management education. About 900 American universities offer masters degree in business management (Pfeffer and Fong 2002). Since the market is lucrative and entry costs are relatively low, there is continuous growth and new entry. As competition is increasing the reputed schools are globalizing and branding their courses. In 1980s the American higher education of

business had started training highly specialized managers with short term technical and monetary goal orientations for the nation's traditional organizations.

In 2006, from the State-owned Universities 39,841 students applied for "fall MBA" programs of which only 15,217 got admissions. During the same period in United States the number of business bachelor's and master's degrees awarded expanded by more than 21 percent and 68 percent, respectively (National Centre for Education Statistics 2006). The same upward trend has been found in almost every country. Over the course of past century, business schools had successfully established a strong platform in all the institutions of countries in the world. In the present times, the tradition begun by these schools is carried on by thousands of business schools by producing management students who play critical roles in the day-to-day operations and long-term sustainability of successful business. Countries around the globe have experienced tremendous growth in management education.

According to the National Centre for Education Statistics (2006), the number of institutions awarding business bachelor's degrees increased by 299 (11.7%) in just four years between 2000 and 2004 while the number awarding master's degrees grew by 192 (17.2%). The Associations and business school networks global, regional or of a specific country are important players in the global management education. In 2003, to strengthen its competitiveness in the field of business Japan initiated the creation of 29 new business schools. Integration and job growth in market economy have increased the demand for management education. Business school programs and curricula development are affected by the changing demographics. Economies experience shifts in consumption patterns, resulting in opportunities for new business school programs. Combined with improvements in online learning and assessment, greater connectivity and lower costs may enable accelerating growth in online education and offer new hope for addressing growth in management education. There are various steps which have been taken by business schools worldwide and they are summarized as under:

- The EFMD's Globally Responsible Leadership initiative was started in 2002 to promote understanding of globally responsible leadership and to develop its practice.

- In a publication released by Ethics Education in Business Schools (2004), AACSB International focussed on increasing the role of business ethics education.
- The Aspen Institute Business and Society Program has identified and promoted the valiant efforts of business schools through a variety of projects and to prepare graduates in the social and environmental dimensions.
- The European Academy of Business in Society (EABIS) which was established in 2004 is a unique alliance of companies, business schools, and academic institutions with the support of the European Commission to integrating business-in-society issues into the heart of business theory and practice in Europe.
- The Net Impact has been started to formulate its mission to make a positive impact on society by growing and strengthening a community of new leaders who use business to improve the world has more than 10,000 students.

Globalization of management education includes not only having foreign faculties and students, but also faculty publications in the foreign journals, using cases and teaching materials developed in other countries, participating in foreign conferences, research collaborations with and teaching at institutions from other countries and regular exchange of students and faculties from other institutions. A cursory review of institutions imparting and awarding business and management education in the world reflects that the trends in management education are increasing constantly and education system is divided into undergraduate, master's and doctoral studies spanning over to 6-10 years. As per the GFME report among the top countries China (1492), Mexico (1470), US (2570) are leading in management education whereas France (200), Germany (123), India (1200) are having well established management institutes. Countries around the globe are experiencing tremendous growth in management education.

3.6 Management Education in India and Maharashtra: An overview

The history of management education in India began with a grant by the Indian government for training imparted to 30-40 faculty members, who later helped in building the premier business schools and research institutions in the country, including the IIMs. The first attempt to formalize management education and training was made by the Synergy Sub-group during the late 50s when a team of experts was sent by the

Government of India to USA to visit some of the leading business schools and recommend measures to develop professional management in India on the similar lines. By 2004, the number of MBA students in India had increased to about 75,000 from 12,000 in 1991. The same upward trend has been found in almost every country. According to the world economic forum report 2007 management education in India is ranked at the 8th position. The development of management education has been random and its objectives, content, pedagogy and other aspects need to be continuously re-examined in relation to the needs of Indian economy Bowonder and Rao (2004). Prof. Philip (2000) founder President of the Association of Indian Management Schools (AIMS) in an article in Indian Management pointed out that international trends are visualised in business, industry, manufacturing, technology and money movements there is a need for the country to have internationally oriented and mobile managers. Therefore, efforts are being made to develop Indian management education towards more international level. There are more than 200 business schools which are offering different MBA programs.

Vaidhyasubramaniam (2009) compared the growth of management education in USA with India, using different models of organizational decision making. He explained that US management education moved through different phases during its development stage while the Indian management education is based on political and bureaucratic ideas of decision making. Management education in India is predominately a derivative of western management thought and practice. The management schools draw some inferences from Indian epics, Shastras and practices. Management science is more specialised and from basic courses like human resource, finance, marketing there more than 30 courses conducted in different colleges throughout the country. In the 21st century management education in India has taken proper shape to face advanced situations and for this purpose IIM's at different places in India are being established along with other prominent rated institutes like Management Development Institute, Gurgaon; Symbiosis Institutes, Pune; Institute of Management Technology, Gaziabad; ICFAI Business Schools at Hyderabad; Xaviers Institute of Management, Bhuneshwar; Wellingker Institute of management, Mumbai; International management institute, New Delhi;

Indian Institute of Foreign Trade, New Delhi; Narsee Monjee Institute of Management, Mumbai; Nirma Institute of Management, Ahemdabad. India has witnessed a drastic change in its management education system to sustain in process of liberalisation, privatization and globalization. Indian education system has replaced the traditional management approach with a more efficient professional approach by introducing new courses in accordance with industry demands having more economic value.

Initially, in India Marketing, Finance and HRM were considered as functional areas of management but now management education covers much more areas like Operations, Information Technology, International Business, Supply Chain Management, Retail Management, Agribusiness Management and many more based on the variety of specialisations demanded in this sector. India has witnessed a continuing growth in the sphere of management education because of the rising demand of trained management graduates. Management education has become one of the most sought after education today and as a result of this private sector has entered in Indian management education. Management education in India is not very old but has gained fast momentum (Kumar and Dash 2011). The National Knowledge Commission was established in 2005 to recommend and undertake reforms in order to make India knowledge based economy and society. The focus was on education in the field of management and it formed a “working group on management education”. The main purpose can be listed as:

- Identify constraints, problems and challenges related to curriculum, teaching, infrastructure, administration access and changes in resources.
- Attracting and retaining talented faculty.
- Suggest measures to promote and sustain the research tradition in management education.
- Suggest innovative means of raising standards and promoting excellence in management education.

The growth of management education and management institutes is seen in almost all States of India but in Maharashtra it is seen at the highest. Maharashtra has highly developed cities that provide excellent education support in which Mumbai and Pune are

the leading cities. It is observed that more management education institutes are spread in these two cities. Though management colleges in Maharashtra State are more but Mumbai being the industrial hub and Pune being the educational centre maximum management education institutes are developed in these two cities. Bangalore is the second largest city in India to have more than 90% students appearing for Common Admission Test (CAT) after Delhi. In States like Karnataka it was 13499 and it has risen to 18000 in 2010. The increase in MBA admissions can be seen through a white paper released by AIMA which stated that the main increase in the management candidates was for better scaled jobs and salary hikes along with new career opportunities. (Havaladar 2012).

The working group studied different reports on management education like Kurien committee report 1991-92, Ishwar Dayal Committee report 2001, U. R. Rao report on faculty development 2004, AIMA document 2005. All these reports have made efforts to analyse current status and future of management education in India. A term “Management Education Entity” (MEE) was coined by the working group to cover all management educational organizations (National Knowledge Commission).

3.7 Management Education in Pune:

Pune is recognized as one of the major cities having management institutes with international quality and ranking. The management institutes in Pune have good infrastructural facilities and experienced faculties. Pune has corporate offices of many companies and there is also a good support from industry for initial training in the form of summer placement and employment opportunities to students. The growth in management education is visualized and more students are eager to enter in management stream. The admission procedure in management education is through entrance examinations like CAT, GMAT, SNAP, MAT etc. and admissions are based on scores obtained and merit of the management institutes. The management institutes in Pune offer regular, part time and also distance mode courses like MBA, BBA, PGDBM, Executive MBA etc. along with various specializations in the field of Marketing, H.R, Supply chain management, agribusiness management and many more. There are also

centres which offer online management degrees like international MBAs of TASMACH, IIPM etc.

Dr. P.C. Shejwalkar popularly known as management guru started a full time management master's degree course in the city of Pune. Vaikunth Mehta Cooperative Management Institute conducts cooperative training programs like PGDCM, Diploma in management of computer operations (DMCO). PUMBA is a pioneer in introducing MBA in the field of Biotechnology. The National Insurance Academy (NIA) is known for its insurance academics and rejuvenating management development programmes related to the field of insurance. It has also received accreditation from the Institute for Global Insurance Education. The institute conducts various programs for top and senior managers, financial managers and financial services, general management education and training, IT programmes for National insurance companies and many others. Symbiosis International University established by Dr. Mujumdar has earned a worldwide recognition and is rated globally. The institutes under preview of SIU are pioneer in starting MBA programs in international business, agribusiness and energy and environment.

Pune being Oxford of the East is also prominent in management education. Pune is one of the fastest growing metropolitan cities in India and very near to Mumbai the financial and economic hub of India. The experts predict a boom in the retail sector and huge increase in job opportunities for managers in the following years to come. There are many opportunities in media and communications management and also a major focus on entrepreneurship. Tilak, Yerwadekar and Balasubramanian the authorities in education sector have indicated in their articles, appeared in Times of India (2013) that the growth of education and entry of foreign students in Pune initiated since foundation of Fergusson College in 1885 and with the establishment of Symbiosis in 1970, the education and management sector flourished and has given an international recognition to Pune city. This city is known internationally for reputed education in all fields including management sciences. Pune is also one of the few cities in the country which is hub for education system and in terms of student's population which is very high. Pune has earned a stronger brand name as far as education field is concerned. In Pune city

education has reflected a perfect balance of culture, education, infrastructure, industry and above all training facilities using technologies. These eminent personalities are of the opinion that the future of the education system is changing and there is a need to use advanced techniques in education system. The management education is not only growing but proliferating in many specialisations also. These facts points out the importance gained by management education at global level. The foreign education bill introduced by the government opened the doors for foreign institutes.

The need for changes and improvement in the quality of management education has become apparent in Pune during the last few decades. In 2008, University of Oxford announced that it plans to establish the Oxford University India Business Centre (OUIBC) at Pune for initiating collaboration in management and business education and named as Oxford Said Business School's first offshore facility (Wikipedia).The more details about the development of management institutes are also elaborated in paragraph 3.13

3.8 Issues and Challenges in Management Education in India:

The main challenges in education system especially in management sector listed by Gupta and Satapathy (2012) are:

- Content of management education is shifting from print to e-form.
- Methodology of delivering lectures in classroom is shifting to e-classroom.
- More information resources are made available both free and fee based.
- Distance learning system is popular (e-learning).
- Shortage of expert faculty.
- Impact of ICT on teaching and learning methods and more use of electronic resources.
- Increase in research culture and specialization.
- more e-resource usage

In addition to these libraries are to be considered which support the education system which has to face many challenges. Over the past few decades strong forces of change have been reshaping the global business landscape (Kanter 1991; Bettis and Hitt 1995;

Frerrier 2001; Hitt et. al. 2003). The present business environment is filled with uncertainty, rapid technological changes, increase in prices and endless reorganisation. Management education in India has not changed as per the requirement of the industry demands and before the gap widens proper steps have to be taken to initiate trends in this sector. The challenges in management education systems are analysed and presented in following paragraphs (Kumar and Dash 2011)

3.8.1 Emphasizing on Research:

The management institutions do not support a favourable environment for research and there is a need for the management institutes to work in this direction. For promoting a research culture in management institutes there is a change of mindset from the side of management. Management institutes should inculcate proper motivation and interest among faculty for research. Various steps have been taken by University Grant Commission in this direction by assigning various API scores for research and publication for as an important indicator for promotions.

3.8.2 Libraries and Information Centres:

The libraries have to fulfil the vision and mission of the management institutes. The management institute libraries are required to revise their role, responsibilities and services. The libraries need to exploit not only the printed sources but also the digital and electronic technologies to cater to the ever increasing demands of the users. Many libraries have not so far completed full automation and hence they are unable to utilise modern practices. Orientation lectures are not conducted and this leads to underutilization of library resources, services by the users. Internet information resources are abundant but information skills are lacking in users to retrieve proper data required for the projects.

3.8.3. Quality of Faculty:

With AICTE and University Grant Commission affiliation received by a large number of management institutes there has been a increase in demand supply gap and resulted in low standard quality of faculty. Institutes are engaged in appointing new faculty member on low salaries and heavy teaching load which further deteriorate their teaching quality

and they are left with no time for further development. The appointment of part time faculty is also more which has little or no involvement with the institutes.

3.8.4. Curriculum Design and Preparing Relevant Course Material in Indian Context:

Developing a curriculum is a challenging task and the same has to be continuously updated to keep pace with the recent trends and requirements of the market. But in most of Indian universities and B-Schools it takes years to get syllabus revised due to bureaucratic setup. The private business schools do not show much eagerness in revising the curriculum because it requires inviting experts and updating existing faculty which is a costly issue. The course content needs to be country specific which caters to the existing problems of the native country in which these executives will serve.

3.8.5. Corporate Governance for B-Schools:

Lack of corporate governance system in management institutes is one of the major reasons which results in low quality of management education. There is a need to introduce independent audit committees for managing the B-Schools. The corporate governance should include mandatory disclosure of the institutions on the basis of faculty qualification, books and journals in library, computer labs, placement records and other required information.

3.8.6. Triad of Academic-Industry:

Industry interaction has to be emphasized to greater extent so that student can be exposed to real problems and exposure of industry. In the present curriculum students are exposed to six to eight weeks of summer training which is not adequate to understand dynamics of industry. There is a need to increase this to a full semester. The exposure of students to real life situations which are more complex, demanding, critical, messy brings education system closer to reality. Institutions should be encouraged to arrange tie ups with business houses while the b-schools strengths lie in their industry liaison.

3.8.7. Customization of Specialization:

Customization is need of present environment and every industry has its set of challenges which requires specific skill set and expertise. This can be only achieved by bringing specialization in concerned field. Management education today includes various specialised areas such as Marketing, Finance, HRM, hospital management, disaster management, infrastructure management, disaster management, aviation management and financial services etc.

3.8.8. Multiple Perspectives:

Management education need to inculcate multiple perspectives since technological, organization and personal perspectives may be different. As rightly pointed out by (Linstone, Kumar and Dash) management is all about grappling with multiple perspectives. Management education needs reconstruction with emphasis on explicitly imparting education in regard to political, ethical and philosophical nature of management practice. The managers need to attend to interpersonal relationships, feeling, stress, emotional outburst, politics, and difference in opinion. This gives rise of imparting multiple perspectives in the field of management education.

3.8.9. Inculcating a Global Mindset:

Learning is a relative concept and success depends how fast one can enhance their knowledge, sharpens skills and increase pace of learning. To face the global competition there is a need for Indian managers to develop a new approach of teaching and learning. Global mindset need to be developed so that each business school may create a differentiated mix of teaching and training to develop not managers but global mangers. From the above review it is very clear that management education is gaining importance and growth is also huge. The libraries and information centres attached to management education system have to provide better support and meet the needs of users. The use of ICT, network based class notes and tutorials, use of wi-fi in classroom and use of information delivery over the desktop or mobile is the current trend. The libraries in this sector needs to be advanced to provide proper support to users using advanced trends. The emerging terms of digital learning technologies in the field of management education

which are observed as: Digital class, online demonstrations, Wikis, Extended learning, Webcams and video conferencing, Social computing networks, Mobile learning and Cloud computing etc.

The useful technology being used in imparting management education is in the form of access to documents, individual and group tutorials, submission of assignments', discussion groups, virtual classrooms with whiteboards etc. The learning management systems have also changed in the present scenario and include apart from the routine classroom teaching and learning methods online education, hybrid education and support in ground courses etc. The web based information support also includes online text with links to keywords. The management institutes play an important role in imparting management education and they have been presented in the following paragraphs.

3.9 Management Institutes:

The management institutes are increasing to manage the management education system and growing specialisations. The value of management education is increasing continuously along with the growth of management institutes. India is considered as a landmark in the development of management education as well as institutes specially established for the management science courses. Management institutes are adding every year. Several specialized management courses are distributed throughout the country and eminent institutes are taking part in developing the branches. The universities and private institutes are emerging at an alarming speed including establishments of IIMs. All these institutes and colleges have provided a good boost to India's management education. Since past few decades a huge growth is reported in the establishment of number of MBA colleges, business schools and management institutes imparting different courses. Presently in India the management institutes are bifurcated under six categories:

- IIMs set up by Government of India
- University departments of management studies
- Colleges affiliated to Universities (govt. or private: aided/unaided)
- Colleges not affiliated to any Universities of AICTE (Deemed or autonomous)
- Private colleges or institutes offering MBA courses in India.

3.9.1 Growth of management Institutes: An Overview

In 1819, the Ecole Superior de Commerce of Paris (now ESCP Europe) was the oldest business school in the world. In 1881, the Wharton School of the University of Pennsylvania was established as the first business school within a broader university. In 1884, the world's first Bachelor of Finance degrees was granted by the Wharton School of Business at the University of Pennsylvania. In 1900, the Tuck School of Business at Dartmouth College was founded as the first graduate school of business in the US offering the first master's degree in business administration "Master of Commercial Science". This was followed by Harvard Business School in 1910 and later was spread to Europe, Asia and other parts of the world. In 1921 Nanjing University established the university business school, which was the first professional Chinese university business school. Later the school became Shanghai University of Finance and Economics and Nanjing University Business School was revamped as the School of Management at NCU in Taiwan.

A cursory review of the history of development of management institutes in India reflects that Management College aided by Andhra University was the first institute to offer full time management courses in the year 1957. The development was followed by establishment of All India Institute of Management and Social Welfare in Delhi and Calcutta University, in 1958. The foundation of the first Indian Institute of Management (IIM) was laid in 1960 in Ahemdabad. Since then India witnessed a rapid growth in management education as well as management colleges. NKC report indicated the phenomenal growth in number of business schools registered from 2000 and also indicated that there has been an annual addition of 169 schools during 2000-2006. (Havaladar 2012). The employers are considering MBA degree as an important criterion for screening the best employees. The role of management institute libraries comes into picture, not only to provide the required study material but also other educational facilities which support the students in completion of their projects and assignments. The well known Harvard Business School has achieved the highest status across the world.

The IIMs have acquired an international reputation and every management institute aspires for acquiring the same. The number of AICTE approved seats for student intake in management institutions in India grew by nearly 180% in last five years as compared to the growth of economy by only about 50%. This clearly indicates that management institutions have grown at a pace much faster than the economy to absorb the talent in different fields. The current analysis of development of management institutes in India and growth in the intake capacity for the management courses students has risen nearly to 179% (2011-2012) more as compared to 2007-08 as per the AICTE statistics. Whereas fellowships and Ph. D management intake increased by 98% in sector of management education. The rate of growth when compared to engineering intake in the same period rose to 125% and PhD to 20% only. This clearly indicated the demand for the management courses and management institutes (Choudaha 2012).

3.9.2 Growth of Management Institutes: India

As described by Vyas the history of management education can be traced before independence which covered only part time courses for working professionals and practicing executives. It was only after independence that our late Prime Minister Pandit Jawaharlal Lal Nehru expressed the need to establish educational institutions in India, which would be similar to Harvard and Oxford business schools and would attract bright talented students as a place for nurturing knowledge excelling in technology and management. This led the founding stone of most reputed management colleges like Indian Institutes of Management Calcutta and Ahmedabad in 1961. These institutes offer two year full time post graduation in management and are considered as the best business schools in India.

In the earlier period management institutes in India were controlled by the business schools in US and Europe. Many business undertakings were initiated and run by US Corporate companies. The establishment of these colleges gave a new direction to management education in India. Indian business schools have gone up to a high level and set their standards at par with international education. The job market for professionals in management has been strengthened by the arrival of multinational corporations, IT

companies, software and BPO companies which has attracted the Indian students to pursue their education in India itself. The management institutes in India have world class infrastructure, increased education standards, industry oriented course structure and a high investment record. While reviewing different sources e.g. AICTE Website and Special Survey reports “World of B-schools” it is reported that the number of approved management institution at the post-graduate level has increased from 242 to 1012 (between 1994 and 2007) which reflects more than fourfold increase in a span of 13 years.

In a recent survey, four Indian institutions are listed in top 10 B-schools in Asia-Pacific region. “The QS Global 200 Business schools Report” indicated that Indian B-Schools have moved up in almost all specializations in Asia-Pacific regions and also includes 6 b-schools IIM-Ahmedabad (2nd): IIM-Bangalore(5th): Indian School of Business(7th) and IIM-Kolkatta(8th), the other two are S.P.Jain Institute of Management at 16th rank and IIFT are covered in it. According to the Annual report (2009-2010), published by Ministry of Human Resource Development, (http://mhrd.gov.in/sites/upload_files/mhrd/files/AR2009-10_Part1.pdf) there were 20 universities and 500 colleges at the time of independence. At present, there are 504 universities and university-level institutions covering 243 state universities, 53 state private universities, 40 central universities, 130 deemed universities, 33 institutions of national importance established under Acts of Parliament and five institutions established under various State legislations.

The survey conducted by Business Baron (2011) India stated that there are about 2000 business schools wherein nearly 1, 50,000 students take admissions for various management courses. This survey shows the importance of management education as well as growth in institutes imparting management education. Indian Institute of Managements (IIMs) has increased their seats to 2650. The previously established in India almost all the states are having prominent management institutes but analysis has indicated that Andhra Pradesh, Karnataka, MP, Maharashtra, Tamil Nadu, Uttar Pradesh, Orissa, Rajasthan are at leading rank among states in having more management institutes whereas other states have very less number of colleges like Bihar, Goa, Gujarat, Haryana, Himachal Pradesh, J and K, Jharkhand, Pondicherry, Punjab, Uttarakhand, Uttaranchal

and West Bengal. Sikkim, Assam and Arunachal have not yet progressed (www.coachingindians.com).

Management institutions in India can be classified into three tiers. The top tier comprises the top 25 business schools in India and the schools in this tier include: ISB Hyderabad, IIM Bangalore, IIM Lucknow, IIM Kozhikhode, XLRI Jamshedpur, SPJIMR Mumbai, NMIMS Mumbai, MDI Gurgaon, TISS Mumbai, ICFAI Hyderabad, SCMHRD Pune, IMT Ghaziabad, XIME Bangalore, DMS at the IITs in Delhi, Mumbai, and Kharagpur, IIM Ahmedabad, IIM Calcutta, IIM Indore, IIM Shillong, FMS Delhi, BIMTECH, LIBA Chennai, SIBM Pune, XIM Bhubaneswar, NITIE Mumbai, IIFT Delhi etc. These schools offer an excellent environment to management education aspirants in terms of faculty and infrastructure; and have achieved excellence in terms of learning, skill enhancement, peer interaction and career prospects. These schools have already obtained or are initiating the process of gaining global accreditation.

The next tier comprises the next 75 business schools in India and includes: IMI Delhi, Goa Institute of Management, BIM Trichy, VIT Business School Vellore, Amity Business School, Alliance Business School, Amrita School of Business, IRMA Anand, LBSIM Delhi, L N Welingkar Mumbai, KJ Somaiya, Mumbai, IILM Delhi, Punjab University Business School, Apeejay School of Management, TAPMI Manipal, MICA Ahmedabad, Chetna's RKIMR Mumbai, NIRMA Institute of Management Ahmedabad, IFMR Chennai, XISS Ranchi, MBE at South Campus Delhi University, Fore School of Management Delhi, These schools are beginning to improve from regional leadership to national leadership, and are investing heavily in terms of faculty, infrastructure, corporate relationships, and international linkages. In due process, they are enhancing their academic values proposition in terms of learning, career prospects and return on investment made by their students on acquiring management education.

The remaining business schools are part of the next tier. In these schools there is an ongoing effort to surmount the challenges faced in offering a quality management education. These schools face the challenges in the form of quality faculty and an optimal learning environment (mba.com/India). In one of the exclusive interviews given in "Economic Times" by Bruner (2011), Dean of the Darden Graduate School of business

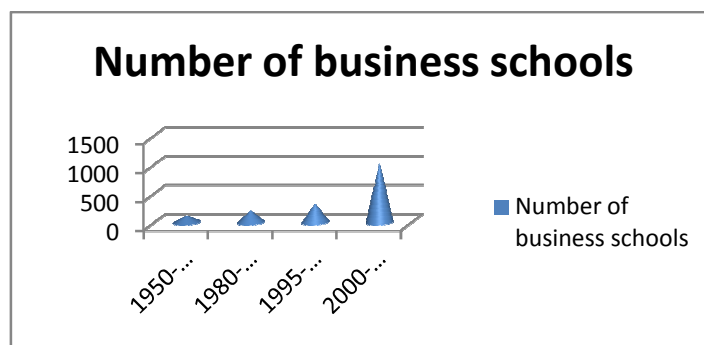
administration at University of Virginia India is expressed as one of the most appealing growth capacities in the world because of its geopolitical settings and respect for investor's rights. From the inception period growth of business schools in India is growing but since 2000 onwards the growth is exorbitant.

Table 3.1 Growth of business schools in India

Period	Number of business schools
1950-1980 (30years)	118
1980-1995 (15years)	204
1995-2000 (5years)	322
2000-2006 (6 years)	1017

(Source: Dayal, "Developing management education in India")

Figure No.3.1 Growth of business schools in India



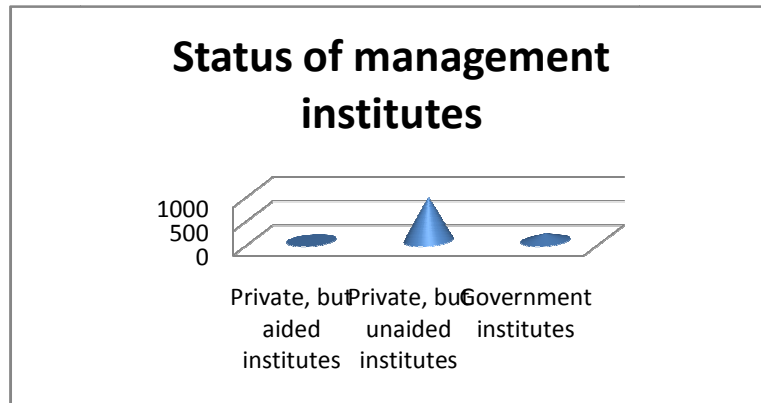
The reason for the growth might be an increase in technical and management education and institutions are supporting to management education. The cause is mostly the initiatives are taken by private owners and organisations instead government aided institutes.

Table: 3.2 Status of Management Institutes in India

Number of Institutes	Financial Assistance
5	Private, but aided institutes
903	Private, but unaided institutes
149	Government institutes

(Source: Ministry of HRD, Govt. of India.)

Figure: 3.2 Status of Management Institutes in India



It is observed that there are only 154 aided management institutes by government funding, while 903 are private unaided institutes, managing with the help of their own finance generation. In Pune also most of the management institutes are run by the private unaided organisations mostly by trust or societies. This reflects the dominance of private sector prominence in the field of management education in India.

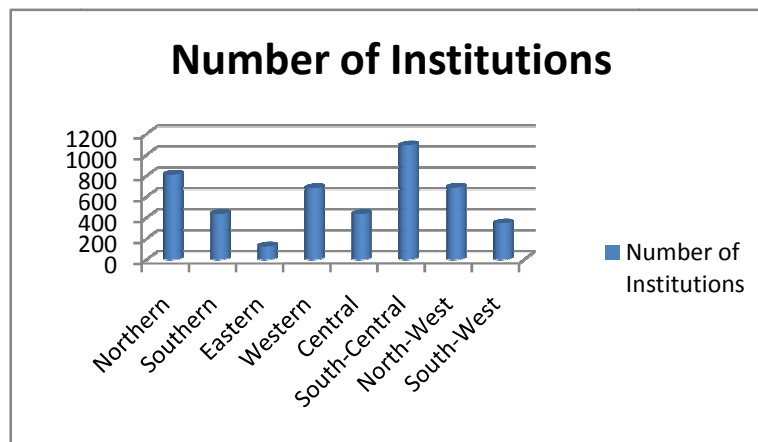
The regional distribution of AICTE approved management institutes is presented in table given below:

Table: 3.3 Regional Distribution of AICTE Approved Management Institutes

Region/ Area	Number of Institutions in Operation
Northern India	810
Southern India	436
Eastern India	125
Western India	681
Central India	435
South-Central India	1091
North-West India	686
South-West India	345

(Source: www.aicte.ernet.in)

Figure: 3.3 Regional Distribution of AICTE Approved Management Institutes



(Source: www.aicte.ernet.in)

From the above data it is observed that as per the AICTE statistics the South-Central part of India has the maximum number of management institutes while the second in rank is the northern part consisting of 810 institutes. The West and North-West part has more

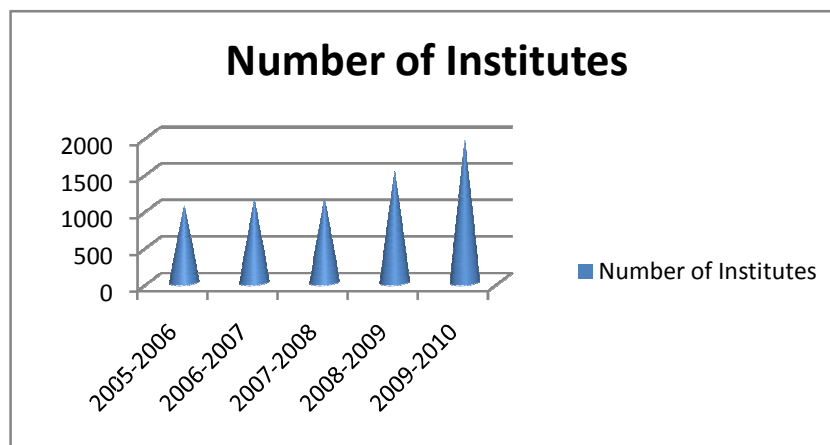
than 680 institutes while the least can be observed in the eastern part of our country. The AICTE has the powers to close down any B-School that fails to maintain the minimum prescribed standards prescribed by AICTE. The growth of AICTE approved management institutes in last five years is presented in table 3.4

Table: 3.4 AICTE Approved Management Institutes

Period (Year)	Number of management Institutes
2005-2006	1052
2006-2007	1132
2007-2008	1149
2008-2009	1523
2009-2010	1940

(Source: www.aicte.ernet.in)

Figure 3.4: AICTE Approved Management Institutes



The phenomenal growth in business schools increased from 15% in 2005-2006 to 29% in 2009-2010, almost doubled in the span of five years. The number of enrolment in the business schools have been increasing along with the increase in their number. As per the

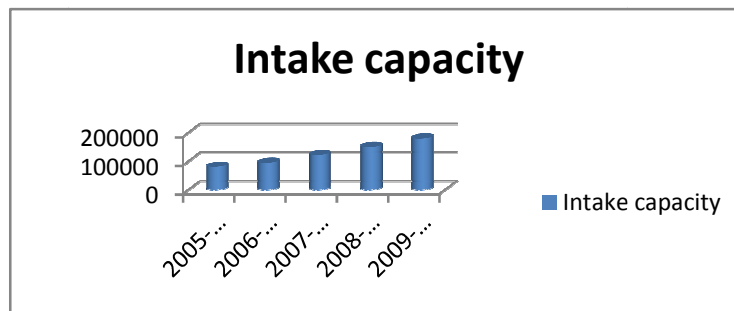
statistics derived from AICTE for the year 2009-2010 the growth of intake in management AICTE approved institutes in last 5 years is presented in following table 3.5

Table: 3.5: Intake Capacity in AICTE Management Institutes

Year	Intake capacity
2005-2006	80464
2006-2007	94704
2007-2008	121867
2008-2009	149555
2009-2010	179561

(Source: www.aicte.ernet.in)

Table 3.5: Intake Capacity in AICTE Management Institutes



(Source: www.aicte.ernet.in)

The intake capacity of AICTE approved management institutes has increased from 13% in 2005-2006 to 29% in 2009-2010 which is also doubled. The increased intake capacity proved the fact that the demand for management education courses has increased similarly the institutes managing the education.

The recent decision taken by Supreme Court with regards to AICTE approval for MBA and MCA courses as reported by Srivastava (2013) states that it is not mandatory for the institutes imparting MBA and MCA courses to obtain an AICTE approval. This will pave

way for establishment of more institutes in India. There are 3858 management institutes with an intake of 3.7 lakhs while 1937 colleges conducting MCA courses with an intake of 1.9 lakhs which again reflects the popularity of these courses.

3.9.3 Growth of Management Institutes in Maharashtra:

Maharashtra is known as commercial and financial hub of India and there are more management institutes offering different specialised management courses at different levels (Diploma to PG). Maharashtra ranks 4th in Indian states and has many top ranked management colleges. Among them few top MBA colleges in Maharashtra generally cited are SP Jain Institute of Management & Research Mumbai, Jannalal Bajaj Institute of Management Studies (JBIMS) Mumbai, National Institute of Industrial Engineering (NITIE) Mumbai, Narsee Monjee Institute of Management Studies (NMIMS) Mumbai, Symbiosis Institute of Business Management Pune, Welingkars Institute of Management (We School) Mumbai, Shailesh J Mehta School of Management - IIT Mumbai, Tata Institute of Social Sciences (TISS) Mumbai, Symbiosis Center for Management and Human Resources Development, Pune, KJ Somaiya Institute of Management Studies and Research, Mumbai, Symbiosis Institute of International Business, Pune, Pune University MBA (PUMBA), Pune, Institute of Management Technology (IMT) – Nagpur, Symbiosis Institute of Telecom Management–Pune, NL Dalmia Institute of Management Studies and Research Mumbai, Institute of Management Development and Research (IMDR) Pune, International School of Business and Media (ISBM), Pune, Institute for Technology and Management (ITM), Navi Mumbai, SIES College of Management Studies (SIESCOMS), Navi Mumbai, Balaji Institute of Modern Management (BIMM), Pune, Mumbai Educational Trust Institute of Management, Mumbai etc (Top MBA colleges-Maharashtra).

Apart from these ranked management institutes, there nearly more than sixty five best colleges in Maharashtra established for management education among then few are AICAR Business School, Mumbai, Anjuman-I-Islam's Allana Institute of Management Studies, Mumbai, Apex Institute of Management & Research Pune, Chetana's Ramprasad Khandelwal Institute of Management & Research Mumbai, Dr. D.Y. Patil

Institute of Management and research Pune, ICFAI Business School Mumbai, IIMM, Pune, Institute of Business Management & Research Pune, I2IT, Pune, JDC Bytco Institute of Management Studies & Research Nasik, KIT's Institute of Management Education & Research Kolhapur, Lala Lajpat Rai Institute of Management Mumbai, MIT School of Management Pune, Neville Wadia Institute of Management Studies & Research, Pune, Prin N. G. Naralkar Institute of Career Development & Research Pune, Smt. Hiraben Nanavati Institute of Management and Research for Women Pune, Sydenham College of Commerce and Economics Mumbai, XIMR Mumbai etc. Thus, it is revealed that Maharashtra has very good B-Schools for management education and students from different states of India states are eager to take admission in Maharashtra.

3.9.4 Growth of Management Education Institutes in Pune:

Pune is a biggest education hub of Western Indian States and rated as Oxford of the East by scholars across the globe and the home of the finest and most prestigious institutions in country in the fields of science and technology, commerce and even in management, arts, literature and other fields. Pune being an IT hub has given immense boost to the development of management education leading to a growth in the number of management institutes. Pune city is a favourite destination for MBA aspirants and job seekers. The city being an education hub in the country has considerable number of institutes imparting quality education.

The MBA colleges/institutes in Pune have experienced faculties along with improved infrastructural facilities. Pune being a quiet and cultural city is also an attraction for many international students to pursue education. Since city has many corporate offices of IT companies they provide support for imparting initial training to the students and then leading towards employment opportunities. Pune having one of the fastest growing metropolitan populations in India and is very near to Mumbai the financial and economic hub of India. These facilities encourage the experts to predict a boom in retail sector and huge increase in job opportunities for managers. These developments are suitable and ideal to pursue management studies. Pune city has increased number of management institutes, which have given international quality support for management education

along with other branches of knowledge and offering MBA (regular), MBA (part time), MBA (executive), and post graduate diploma in management studies at different levels. These institutes are equipped with best campus facility, experienced faculties and visiting corporate business leaders as guest faculty as well as on the top of that excellent track record of the placement in reputed companies. Admission to MBA colleges in Pune is done through various entrance examinations like CAT, MAT, ATMA, MH-CET, CMAT, SNAP etc. Some colleges like Symbiosis (SNAP), BIMM (BAT), MIT etc. conduct their own MBA entrance examinations. There are few prominent institutes in Pune like Symbiosis Institute of Business Management, Symbiosis Institute of Management and Human Resource Development, Symbiosis Institute of International Business, Symbiosis Institute of Management Science, Sinhgad MBA institutes, PUMBA, Dr D Y Patil MBA College, Indira institutes, Neveille Wadia Institute of management etc. Since 2008, University of Oxford announced plans to establish the Oxford University India Business Centre (OUIBC) at Pune. This is the first Business School's facility (first offshore) in India.

3.10 Accreditation of Management Institutes:

In India governance of technical and management education is looked after by All India Council for Technical Education and its subsidiary the Board of Management Studies. Since both technical and management education has different requirements there is a need of different body which could specifically look for issues related to improvement in management education. Similarly, the enormous growth of management schools leads to a consideration to ensure quality in management education and with this consideration AICTE had formed the National Board of Accreditation (Philip 2003). The process and program of accreditation which is initiated by the AICTE is very much in tune with what is happening all over the world. The AACSB of America is the pioneer leader in this accreditation process. The EFMD of Europe has its "EQUIS" programme and the Association of MBAs of UK has the ECOMAN programme.

The government established National Assessment and Accreditation Council (NAAC) and National Board of Accreditation (NBA) to standardize the professional education institutes in the country. These bodies assess the quality standards of the educational

institutions in the country. The UGC has directed all universities and other affiliated institutions and colleges to obtain NAAC accreditation. The accreditation committee examines the resources, facilities and services provided by institutions and approval is granted.

3.10.1 All India Council of Technical Education (AICTE):

AICTE was established by an Act of the Parliament in 1987. The Act came into force on March 28, 1988 in order to assess the qualitative competence of educational institutions. The purview of AICTE covers programmes of technical education including training and research in engineering, technology, architecture, town planning, management, pharmacy, applied arts and crafts, hotel management and catering technology etc. at different levels. The AICTE has directed all the management institutes in India to obtain NBA accreditation. The NBA board has also included library as one of the important parameters by allotting 50 marks for quality assessment in management institutes. AICTE is responsible for planning, formulation and maintenance of norms and standards, quality assurance through accreditation, funding in priority areas, monitoring and evaluation, maintaining parity of certification, awards and ensuring coordinated and integrated development and management of technical education in the country. It has the responsibility for the approval of courses, and takes appropriate steps to promote management education.

3.10.2 National Board of Accreditation (NBA):

NBA is a body of AICTE and it has come into existence as an autonomous body with effect from 7th January 2010 with the objective of Assurance of Quality and Relevance of Education, especially in technical disciplines, i.e., Engineering and Technology, Management, Architecture, Pharmacy, Hospitality and Mass Communication. NBA is in the process of introducing an improved Accreditation Framework in the country, which is in line with the international processes. The broad objective of frameworks for different disciplines is to ensure high quality standards for technical education in the country to meet the national and global requirements (<http://www.nbaind.org/Home.aspx>). The NBA is concerned with assessing and assuring the quality of various elements of the

educational institute covering infrastructure, physical resources, human resources, supporting systems like library resources, supporting systems like library, computer facilities and avenues for developing students learning skills and personality. The NBA accords accreditation only to the program and not the institution.

Chapter Summary:

In summary it is deduced that management education appears to be more relevant than ever in the “global era”. The ultimate challenge of management education is to become more practical oriented and industry focused. The theory-based developments and teachings are worthless due to the fact that they will be of little use in concrete situations when a management crisis arises. Management education need to be holistic, targeted and customized with aim to remove the gap that exist between industry requirements and academic curriculum focusing on attitude, corporate awareness, grooming and developing managerial skills. Industry interaction has to be strengthened by inviting talented and experienced person from industry to deliver lecture and ensure that the student get associated with live industry projects. Understanding learning needs of students resulting in development in all areas such as analytical reasoning, lateral thinking, and solving case studies etc is an essential aspect. Mentoring and carrier counselling have to be introduced in most B-schools.

There has been a rapid growth of management institutions in India since past 15 years. The data on number of business schools established in India from 1995 depicts a ‘mushrooming’ growth in terms of number of management institutes. India has more 2000 management institutes, awarding MBA degrees, or an equivalent and often, more valuable post-graduate diplomas (like those given by IIMs). It is a matter of pride to find two management institutes from India, the Indian Institute of Management, Ahemdabad (IIMA) and the Indian School of Business, Hyderabad, placed at 11th and 13th in global ranking of 2011 by Financial Times (rankings.ft.com/businessschoolrankings/global-mba-rankings-2011). It is also observed that the top management institutes have not seen the basic difference between a management institute and a business school. The business schools are developed mainly for promoting the business sectors while the management institute has the sole responsibility of imparting management education. There is a

growing competition for the ratings given to the top business schools by media like Business India; Financial Times etc.

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Chapter 4: Libraries in Management Science Education

4.1 Introduction:

Management education in India has become very popular and is growing fast from the past decade. Management education has received importance and is treated as a stepping stone for a good career by youngsters. As discussed earlier the growth of management education and institutes is visualised. The users of management users are specialised and they need information which is current and users need to refer different resources like technical reports, case studies, market analysis and trend facts etc. Management user's information seeking methods are different than users in other academic areas. The libraries in this area are academic as well as specialised and users are depending on libraries and professionals for getting information related to user studies, projects, seminars etc.

The libraries attached to the management institutes are playing important role in supporting the need of users. Libraries are treated as heart of any educational institution. The terminology for housing the resources to information and knowledge treasure has changed due to the changes in environment and technology. Libraries are always in transition due to adaptation of latest trends and advanced technologies. The library system is always changing due to increasing expectations of users. On the other hand information explosion, rising cost of documents/information sources, use of technology has forced librarians to change their collection policies and collect resources based on user needs. The important task of library professionals in management institutes, in electronic era is to assess the user needs and find information seeking behaviour and support to their needs and demands.

The link between education and libraries is well defined and logically rooted in the fact that both educational institutions and libraries deal with knowledge. As described by Susol (2009) the former spreads knowledge, values and beliefs through a system of schools, whereas the latter provide individuals with access to information resources in publicly accessible archives of knowledge. In any academic or research institution the library plays a very important role. The aim of technical and management education is to

accelerate the process of national reconstruction and national development using information.

4.2 Libraries in Management Institutes:

The libraries in management institutes are treated as academic and special both. The expectations of users are changing and hence the role of libraries and librarians are also shifting. There is a need to assess the development and trends to correlate and re-engineer libraries in any field including management.

4.2.1 Past and Present Status:

The libraries in management institutes are academic as they are serving to the students and faculty of management science. These libraries also carry the functions of special libraries as the users are different and their needs are specific to subject and are specialized in nature. The survey revealed that libraries are based more on print sources and slowly migrating towards e-resources collection. The sources cover textbooks, journals, reports, newspapers, technical project reports, market data etc. Reference sources are available but require regular updating. The library services also include CAS, SDI, newspaper clippings, reprography, book bank, reading room, etc and are based on existing collection while ILL practices are at minimal. The users are depending on catalogue and assistance from the librarian to get information. The users' demands are varied but not analyzed properly and there is a need for conducting user studies. The books are major portion among the collection development. The budget is limited and also varies yearly depending on the resources available from the parent organization. The main focus is to make the collection available to users.

The present scenario has changed due to implementation of ICT in management libraries. The role of library is changing in recent years, many research activities have focused on finding qualitative and quantitative measures on the use of information sources and services in the institutional libraries. The collection is slowly shifting towards digital and services are also shifting slowly using offline databases and internet recourses. The print media is slowly being replaced by e-resources or digital collection. The cost economic

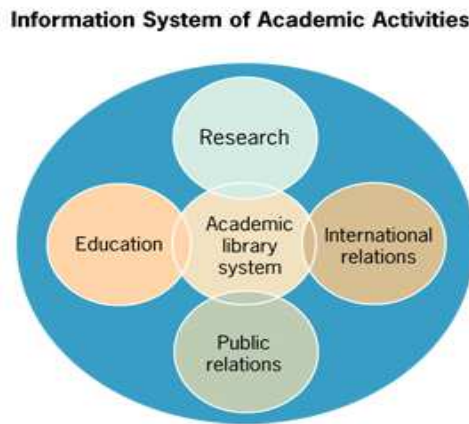
models are used to get maximum information in limited resources. The modern trends are being applied. After automation different plans are being activated for developing modernization in these libraries.

The findings of the survey conducted by Jubb and Green (2005) revealed that researchers placed a high value on electronic journals and relatively a much lower value on other kinds of digital resources. The management institution libraries are trying to manage the trends and acquiring resources which support all the subject areas of parent organization. The libraries are also trying to adapt trends and changing the library structure. Libraries have automated either fully or partially using library management software's. Use of internet is also initiated and users search information over the net. Slowly management libraries are migrating towards institutional publishing, creating open-access and electronic repositories of the publications and study material provided to the management students. These libraries are trying to ensure to get information sources, either in print or e-resources and provide services utilized to the fullest satisfaction.

4.2.2 Future Status:

The future status of management institute library is depicted in the model (Susol) below in which the library is surrounded by the three or four administrative units. The library collects, process, integrates information for the purpose of institutional management. This situation may seem ambitious but looking at the experience of the library information professionals, it may be possible for them to manage the growing amount of information effectively.

Figure 4.1 Information Systems of Academic Activities



(Source:<http://www.educause.edu/ero/article/higher-education-and-academic-library-perspectives-slovakia>)

In the present era of financial crunches, information explosion, user expectations, shifting of print to digital, use of ICT, use of internet resources are major issues which has forced libraries to shift their practices. Library professionals have to provide users with accurate and real-time information support not only for their short-term needs but also their strategic decisions for future. Libraries of the future are different than the past and present in which information systems have to play an important role in serving specific needs of users. For this purpose they have to adapt recent trends. These issues have been elaborated later in this chapter under different headings.

4.3 AICTE Norms for Management Libraries:

Library is an integral part of any educational institution. AICTE (2011-2012) has prescribed standard norms for the management institute libraries. The Institution must have a modern library as per norms and standards of AICTE with multimedia facilities. Among the different norms few have been listed below:

- The library collection must have selected textbooks from all the areas of management and also in most of the areas of social science.

- Libraries should subscribe to periodicals covering national and international journals.
- Libraries should subscribe to e-resources along with print.
- The library should also have in its collection audio and video material in management and related areas.
- The institute should have minimum 100 titles in each subject which is being taught. The minimum volumes of books should be 1500. The institution should add two books per student per year i.e. 120 per year for the intake of 60 students.
- The institute has to subscribe to minimum 30 journals from the list available with AICTE.
- There should be a digital library with multimedia facility.
- The library should have facilities of reprography, scanning and printing.
- The books in the library must be classified as per standard classification system.
- Availability of NPTEL facility is also essential.
- It is desirable to have the books computerised with bar coding and RFID facility.
- The carpet area of reading room should be 100sqm per room.
- In monetary terms, the management institute should initially invest Rs. two lakhs on books, journals and periodicals and subsequently every year 10 percent of the fee must be spent for addition of books and periodicals in the library.
- The educational qualification of the librarian must be post-graduation in library and information science and SET or NET qualified.
- The post of the librarian must be at par with the teaching faculty and the grade must be of assistant professor.

4.4 Information Explosion and Growing Needs of Management Users:

The volume of information is growing at an alarming rate. The report of EMC (2011) indicated that the world's information is doubling every two years and by 2020 it is estimated that world might generate 50 times more information. The study also revealed that use of e-publications has increased than print. Since use of ICT is prominent in management sector, the information retrieval techniques are changing. The users' information seeking behaviours are also shifting. New information technologies and tools

are cutting down the cost of searching, creating, capturing, acquiring, evaluating and reusing information to almost one-sixth the cost in 2011 in as compared to 2005 (www.emc.com).

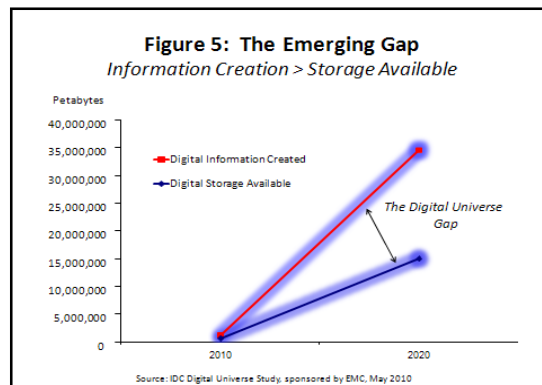
Gantz and Reinsel (2010) reported that by 2020 a significant portion of the digital universe might be centrally hosted, managed or stored in public or private repositories which are currently termed as “cloud services.” It is predicted that even if a byte in the digital universe does not “live in the cloud” it is quite possible that it may pass through the cloud at some point in its life. The present era shows tremendous growth in the field of information and knowledge which has made it mandatory and a challenging task for the library and information professionals to deliver the right information to the right user at the right time. The growth of information has also made librarians to adapt to different measures to deliver the right information to the users. The libraries have shifted from the stage of computerization to digitization and recently the concept of virtual libraries. The ultimate aim of any library is to serve the users with correct information in the least possible time. The structure and functions of any library depends on the quality of information it delivers to users.

The users are getting confused while searching information due to information explosion, information overload, different forms and formats of publications, use of e-resources and resources available over the internet, network based resources. The librarians face difficulties to get all the information resources for their users at single place due to shrinking budgets and increased need of users.

The ISB has become the most important and popular method used to analyse the needs of the users and their habits of information searching. ISB also helps in development of qualitative collection which leads to provision of users based collection and user centric information services.

As per the survey conducted by Gantz and Reinsel (2010) the IDC has forecasted that by 2007, for the first time, the amount of digital information created would exceed the amount of available storage. Hence there is a growing gap between the amount of digital content being created and the amount of available digital storage.

Figure 4.2 Information gap



(Source:<http://www.emc.com/collateral/analyst-reports/idc-digital-universe-are-you-ready.pdf>)

4.5 Library Professionals in ICT Era

There is substantial growth in management education in India since 1990s. Management libraries are functioning in dual nature as an academic and also a special library. The recent trends in ICT and growth in the use of internet has changed the library scenario. The internet is a power house of vast information resources. The various advances in ICT have conquered the physical and geographical boundaries and posed major challenges to the professionals in the information sector. There has been a huge amount of positive changes in management institute libraries which can be described as a new paradigm shift. These changes can be noticed in various fields like transfer of library resources from print to electronic media, increasing complex demands of users and increase in the cost and quantity of information. The library professionals have to accept these challenges by performing an active role not only in their daily technical work and information dissemination activities, but also in the actual learning process of the users. They have to learn to scan, filter, interpret, analyse, repackage, and deliver information from a variety of sources that are useful to their users (Ramesh 2003).

The applications of ICT have changed the role of libraries in terms of acquiring resources and providing information services to management users. Various new concepts have

been developed and ISB of users is also changing. The management institute libraries have to take into consideration these concepts and provide the services accordingly. In the modern age of automation the process of change has become an essential part in form of new technology being added on a daily basis which can be seen in any field mostly due to the applications of ICT. The library is considered as a backbone of all the activities carried out in the field of education, research and training. The role of libraries is vital in providing a base for the development of the information society of the current times.

The drawbacks of traditional libraries were:

- Only the printed sources of information were available, they were costly and difficult to procure and preserve.
- The library services were limited to members only and there was no networking or ILL facilities.
- The traditional catalogue had its own limitations
- The staff was limited and had to perform duplicate or redundant functions.

The role of librarian has shifted and recent ICT trends have helped librarians to remove these obstacles. Libraries in the post-industrial era had changed the scenario and the importance of libraries in education sector increased. The libraries have started using advanced tools for gathering information for serving users which has brought in major changes in the traditional system of education. New education institutes with new courses have been developed in the society. The ICT applications have changed the methods of traditional teaching and learning to online teaching methods like edu comp, presentations, online teaching and learning techniques etc. The electronic resource are easy to use and can be accessed anywhere through e-mail, pen drive, hard disk etc. and hence the academic users prefer to use these type of resources for teaching and learning. These changes cannot be ignored by the librarians and they have to adapt to theses changes in their profession to keep themselves updated.

The changes in information resources, emergence of electronic information databases and use of ICT needs specialised skills to be acquired by management information professionals. Information professionals are now expected to be aware and capable of

using emerging information communication technologies, as well as having essential communication and searching skills. The internet is being used as a tool for delivering library services like Web OPAC. It is also used as a resource for research activities. Through ICT the library services can be rendered 24/7 in a very cost efficient manner. The role of librarian is changing from an intermediary to a facilitator.

4.6 Reengineering of Management Libraries:

Academic libraries are facing challenges due to growing information and management of various information resources. Similar challenges are being faced by the librarians due to emerging trends, information explosion, shift from print to digital, rising prices of publications, increasing demand of users, different web based information sources, use of internet etc. Financial constraints are also visualised due to increasing costs of publications and limited library budgets. The impact of ICT is reflected in libraries on publications and also on users. The expectations of professional education users are varied and educational system demands for quick and qualitative access to information by using print as well non print media which requires use of latest network based technology. The library is considered as one of the important facility for management institutions in which the availability of new computing and networking facilities and collection of various documents has become the need of the present era. Libraries have to change their practices to provide proper support to management education system and fulfil the needs of the management users.

In the present digital era the growth of information resources have been increased and user demands are growing for qualitative information and knowledge resources as well as better information services. The need is to integrate the different information resources and to provide better and effective access to generate new knowledge and this is possible in information technology and digital era. The online information access environment, e-publishing and institutional contents management (IRs) has developed a system called single point access to internal and external sources of information. Emerging technologies are boon for supporting the ideas of providing single window information services using digital resources. The organization and management of resources is also

called as digital management, digital access management, digital resources management (DRM) etc. The services developed using digital resources are called as digital information services or electronic information services. The role of librarian is to provide access to internally generated resources as well as effective access to relevant global information resources.

The change due to applications of technologies has impact on user behaviour and information services offered by the libraries and they are forced to adapt to changes and face the various challenges skilfully. It has now become essential for the management libraries to adapt to these changes. This has encouraged management libraries to develop qualitative collection and also forced to generate income to fulfil the user demands for improved services even in the financial crisis. The concept of resource sharing has changed the role of libraries as computer and library networks have achieved a great deal of importance. Mallapur and Naik (2009) pointed out that before the invention of ICT libraries had only print media resources. The changes brought by ICT have given rise to new ways of information repacking and delivery methods. The concept of ICT has also changed the name of management institute library to Information Resource Centre (IRC), Knowledge Resource Centre (KRC) and role of the librarian as information mediator, IT manager and information manager etc. The management libraries have to face various upcoming challenges and adapt to the user needs accordingly with the growth in fields of distance learning, e-learning methods etc. (Sudge 2012). To modernise the management libraries it is essential to re-engineer the libraries based on user expectation and their needs.

4.7 Resource Sharing Through Library Networks:

The concept of resource sharing is not new but use of ICT has made resource sharing more practical, useful, economical and powerful. Resource sharing is possible using ICT through various means like OPAC, Web OPAC, creation of databases, portals, gateways, institutional repositories etc. and these activities helped in getting more resources in limited budgets and have changed the library practices. The concept of consortium is gaining value due to ICT and e-publications at various national and international levels and this has helped in overcoming the financial crunches. The consortium established by

CSIR, UGC, FORSA, ICMR has proved successful and few more are in pipeline like MANLIBNET. The library network MANLIBNET, DELNET, INFLIBNET is more resourceful to the users. It is also possible to develop network of management institute libraries in Pune for achieving resource sharing. The libraries in future have to face the problems if they do not adapt modernizing libraries with automation, use of e-resources free as well as paid and resource sharing activities. The databases can be accessed by the users through various online and offline modes. The trends have shifted from automation to digital library, cloud computing, use of digital media, consortium, networking, online searching etc. and all this has helped in providing better collection and improved library services to the users. Resource sharing is gaining momentum due to changing needs and increased expectations of users as well increased cost of publications.

4.7.1 MANLIBNET:

MANLIBNET is a network of management libraries established in 1998 and registered as a society in 2000. This network is mainly established for sharing information resources among the management institute libraries. This network has developed spirit of cooperation among management libraries. The main objective of MANLIBNET is to provide a common forum for business and management libraries and librarians for sharing their resources. The mission of MANLIBNET is to promote, nurture and enhance the profession of management librarianship in country through networking, conferences, workshops, seminars, research, consultancy, monitoring and publishing.

The aim and objectives of MANLIBNET are:

- Establishment strong link between management libraries for resource sharing.
- Formulation of norms, standards and guidelines
- Common platform for management libraries
- Publications of newsletters and journals.
- To know the different types of collection of libraries
- Identify various electronic resources subscribed by the libraries.
- Identify level of library automation

- To know the level of networking and networked based services provided by the libraries.

Apart from consortium development, networked libraries, improved cooperative services using OPACs and IR's, implementation of web tool based services are also initiated slowly. These objectives help management libraries to develop modern libraries using ICT and acquiring e-resources.

4.7.2 Cloud Computing in Libraries:

As rightly described by Sanchati and Kulkarni (2011) cloud computing is a completely new IT technology and it is considered as the third revolution after computers and internet in the field of IT. Cloud computing is the improvement in distributed computing, parallel computing, grid computing and distributed databases. The basic principles involved in cloud computing consists of collecting large quantities of information and resources stored in personal computers, mobile phones and other equipment. Cloud Computing is capable of integrating them and putting them on the public cloud for serving users.

4.8 Information Resources for Management Science in Digital Era:

The print media is slowly being replaced by e-publications, e-books, e-journals, databases, internet resources etc. and growth of these resources is visualised substantially in digital era. In management institute libraries use of e-resources is increasing among the users. The e-resources are also available abundantly in management area. A cursory review of prominent useful e-resources available in management sciences are analysed in the following paragraphs.

4.8.1 E-Resources in Business and Management Sciences:

- **AB/Inform**

ABI/Inform is one of the databases for articles in the area business and management and covers business conditions, trends, corporate strategies and tactics, management techniques, product information etc. It also covers articles and reports from leading

business and management publications most of which are full text, including the Wall Street Journal.

- **Academic Onefile**

Academic Onefile is a comprehensive database which allows user to find peer-reviewed, full-text articles in many subject areas including physical sciences, technology, medicine, social sciences, arts, theology, literature and more. It covers thousands of academic journals in full text HTML and PDF formats and hundreds of podcasts and transcripts from NPR, CNN, and CBC.

- **ACM Digital Library**

The ACM (Association for Computing Machinery) provides access to every article in the form of citations and full text articles. It covers different documents available including newsletters, transcripts of meetings and workshops and company publications.

- **Asian Business and Reference**

ProQuest Asian Business and Reference provides detailed information on international trade as well as companies, economies, markets and overall business conditions throughout the eastern hemisphere. It covers the articles from news sources, country information and statistics, profiles of people and institutions, national and regional policies and analysis, including white papers and government documents etc.

- **Banking Information Source**

ProQuest Banking Information Source contains essential publications in financial services, banking also covering industry trends. It includes 640 articles of leading journals in the international markets, with sources that include industry and professional newsletters, School of Bank Marketing Papers and Stonier Theses.

- **Business Insights: Essentials**

This database is used to find information on companies and industries. It covers the articles and data from hundreds of sources that can be searched in a variety of ways.

- **Business Monitor International**

Business Monitor International (BMI) is a leading, independent provider of proprietary data, analysis, ratings, rankings and forecasts covering 175 countries and 22 industry sectors. The areas covered include emerging markets, economics, country risk, forecasts, analysis, industry research, company intelligence and management.

- **DataStream**

DataStream includes worldwide equity coverage from the stock markets, comprehensive market indices, economics data direct from national government sources as well as OECD and IMF, fixed income securities and associated indices, commodities and derivatives data. It also includes data of financial statements of more than ten years from world scope for non-U.S. companies that is updated monthly.

- **Dissertations and Theses (Full Text)**

Dissertations and theses full text is a comprehensive database of doctoral dissertations and masters theses. It covers citations for dissertations and theses published internationally from 1861 through present day, with over one million of them available in full text.

- **EBSCO**

This is a multidisciplinary gateway to abstracts and full text databases. The management related databases include Academic Search Complete, Business Source Complete. They cover a large number of journals from different subject areas which are mostly peer-reviewed. This resource contains full text articles from 1865. The business management package includes business thesaurus, entrepreneurial studies thesaurus, newspaper source, regional business, and research starters.

- **Emerald**

The package for management users is Emerald Management Xtra which is a comprehensive collection of peer-reviewed management journals and online support for librarians, students, faculty and researchers. It features 123 full text journals and reviews from the world's top 300 management journals. The database also covers e-journals, e-books, case studies and bibliographic databases.

- **ERIC**

ERIC provides access to more than 1.4 million bibliographic records of journal articles and other education-related materials, with hundreds of new records added multiple times per week. It also includes links to full text in PDF format. This database includes journal articles, books, research syntheses, conference papers, technical reports, policy papers and other education-related materials

- **Euromonitor international**

This database offers detail content for every region, country, category and channel including socio-economic context to intimate detail on the smallest products or markets. Euromonitor provides market research and surveys focused on user and organization needs. The extensive network of strategic analysts in 80 countries provides the depth of global, national and local business information required in today's increasingly international business environment.

- **General Reference Center**

General Reference Centre is a database featuring a wide variety of general interest and business magazines, periodicals, trade publications and newspapers. It covers articles on current events, culture, arts and sciences, business and industry trends, sports, hobbies etc.

- **Global Market Information Database (GMID)**

GMID features country, industry, company and consumer information for a host of countries. It covers country reports and company profiles.

- **Hein Online**

Hein Online is online research product with more than 70 million pages of legal history available in online, fully-searchable, image-based format. Hein Online bridges the gap in legal history by providing comprehensive coverage from inception and more than 1,500 law and law-related periodicals. Hein Online also contains the Congressional Record Bound volumes in entirety, complete coverage of the U.S. Reports back to 1754 and also includes world famous trials dating back to the early 1700, legal classics from 16th to the

20th centuries, the United Nations and League of Nations Treaty Series, all United States Treaties, the Federal Register from inception in 1936, the CFR from inception in 1938.

- **ISI Emerging Markets**

ISI emerging markets is source for information on Indian emerging markets made available through its award-winning online source Emerging Markets Information Service. It aggregates and produces unique content, includes full-text news articles, financial statements, company information, industry analysis, equity quotes, macroeconomic statistics and market-specific information, which are derived directly from more than 13,000 local and global publications.

- **JSTOR**

It is a digital library of academic journals, books and primary sources. It includes 1386 titles under business and economics covering areas such as business, economics, finance, management, marketing etc.

- **LexisNexis (Academic Universe)**

LexisNexis offers widely used searchable archive of context from newspapers, magazines, legal documents and other printed sources. It is the largest collection of public records, unpublished opinion, legal news and business information. It also offers a wide range of information to professionals on the aspects of legal, risk management, corporate government, laws enforcement, accounting and academic markets.

- **Marketline**

MarketLine provides 10,000 company profiles for leading global companies and 2,000 industry profiles containing the most important facts on key global industries. It also provides country information.

- **Networked Digital Library of Theses and Dissertations**

It is an international organization dedicated to promote adoption, creation, use, dissemination and preservation of electronic theses and dissertations. It supports electronic publishing and open access to scholarship in order to enhance the sharing of knowledge worldwide.

- **Passport GMID**

The Global Market Information Database (GMID) provides key business intelligence on countries, companies, markets and consumers. It is an integrated on-line information system covering over 350 markets and 207 countries. GMID provides statistical information on consumer markets and retailing, in depth market analysis reports, company profiles.

- **Proquest Dissertations and Theses (PQDT)**

This is the full text database covering world's most comprehensive collection of dissertations and theses. PQDT includes 2.4 million dissertation and theses citations around the world from 1861 to the present.

- **SocINDEX**

SocINDEX with full text is the comprehensive sociology research database. The database features more than 1,600,000 records with subject headings from sociological thesaurus designed by subject experts and expert lexicographers.

- **Standard and Poor's Advantage**

Standard and Poor's is a provider of independent credit ratings, indices, risk evaluation, investment research and data. It covers industry surveys, stock reports, fund reports and company information.

- **TableBase**

TableBase specializes exclusively in tabular data on companies, industries, products and demographics. It covers information on company and brand rankings, industry and product forecasts, production and consumption statistics, trends and demographics arranged in charts or tables and providing both domestic and international data.

- **Title Source**

Title Source offers bibliographic information for more than two million in-print and out-of-print books and multi-media titles. It covers details such as title, ISBN, price, publisher, publication date and more than 70,000 tables of contents and a half-million annotations.

- **World Bank - e-Library**

World Bank e-Library is an electronic portal to the World Bank's full-text collection of books, reports and other documents on social and economic development. It brings together in a fully indexed and cross-searchable database 1,200 titles published by World Bank during the past several years plus every new title as it is published.

- **Asian CERCs Insight**

Asian CERC's Insight is comprehensive knowledge-based service, which includes in-depth information on corporate, mutual funds, primary and secondary markets, classified news, research and selected briefs on current events. The industry analysis reports covers industry framework, domestic scenario, markets for products including detailed study on exports and imports, demand trends, product pricing, government regulations, financial performance of major players including their market positions. Insight offers information on corporate fundamentals of 8000+ listed and unlisted companies and PSUs over the past 14 years, financial information on corporate classified into more than 260 industrial sectors with complete break-up. It also provides single window access to 35,000 annual reports and prospectus of companies dating back to 1995.

- **Capitaline**

Capitaline is a corporate database of Indian companies which contains extensive data on companies such as collaborators, expansion plans, shareholding patterns, 10-year profit and loss, balance sheet, schedules and notes of account, fund flows, financial ratios (in all 650 finance fields per company which cover almost 98% of any annual report). It also covers full text director's reports, auditor's report and extensive news clippings of companies.

- **CMIE (Center for Monitoring Indian Economy)**

CMIE covers data of over 10,000 Indian companies. It contains detailed data from the audited annual accounts, stock exchanges, company announcements, etc. It has over ten years of time-series and is updated with the latest data on a daily basis.

- **Economic and Intelligence Service (EIS)**

Economic Intelligence Service (EIS) provides an overview and a prediction of Indian economy through a Monthly Review. It also provides 12 annual volumes of detailed reference data.

- **ETIG (Economic Times Intelligence Group)(Indian)**

ETIG includes reports, economic forecasts and data regarding national accounts, money and banking, output and prices, trade and public finances in the Indian and global economy.

- **India Business Insight Database (IBID)**

IBID is a database covering news and analysis of information-rich stories on Indian industry judiciously chosen from leading business and industry sources. It presents an uninterrupted, continually updated and complete view of the Indian economic scenario.

- **Indiastat.com**

Indiastat is a collection of best sources for information and statistics on India. The user can easily surf through half-a-million pages which contain socio-economic statistical data and useful information on India.

- **Industry Analysis Service**

Industry Analysis Service provides a monthly analysis of about 100 industries. It contains forecasts and provides a detailed time-series database on the industries of India.

- **Manupatra**

Manupatra is an online database offering materials on Indian law and business policy. Apart from providing the archives dating back to 1950 and earlier, it brings the current updates on a daily basis keeping abreast with the latest news in all areas of law. Manupatra delivers access to continuously updated archives of case laws, orders, statutes and regulations in addition to specialized modules on various areas of business. The suite of knowledge solutions includes judgments on all subjects of law of the Supreme Court, High Courts and Orders etc.

- **NAV India**

Capitaline NAV is a varied and in-depth database on mutual fund industry. The database includes 5,000 schemes of 41 AMCs, with user-friendly data presentations on AMC, tracking NAVs, scheme details, performances, rankings, portfolios, etc.

- **RBI Database on Indian Economy**

This database publishes data and information on various aspects of the Indian economy. The data is presented through time-series formatted reports. These reports have been organized under sectors and sub-sectors according to their periodicities. Reports can be saved as excel sheets for further analysis.

- **State Analysis Service (SAS)**

SAS database produces a monthly review on the States of India called the State Analysis Service. Each State Review contains data, news, comparisons and analysis.

- **Bookboon.com**

This site contains free management eBooks for business professionals through the wealth of theory and practicalities of effective management and management skills. The management books cover subjects like project management, time management or performance management etc.

- **Ebrary**

Ebrary is an online digital library of full texts of over 70,000 scholarly e-books. It is available at many academic libraries and provides a set of online database collections that combines scholarly books from over 435 academic, trade, and professional publishers. It also includes sheet music (9,000 titles) and government documents. Ebrary contains a suite of reference tools and a rich collection that includes books, journals, magazines, maps and other publications along with illustrations. The users can access through a subscribing library and can browse, view, search, copy and print documents from their computers. Ebrary's aggregated collections cover academic disciplines including business and economics, computers, technology and engineering, humanities, life and physical science and social and behavioral sciences.

- **Gale Virtual Reference Library**

Gale Virtual Reference Library is a searchable online general reference collection. The user can search across all the reference books or select a specific subject area. It covers titles in various subjects like arts, biography, business, education, environment, history, law, literature, medicine, multicultural studies, religion, science and social sciences.

- **Blackwell/Wiley Journals**

The database has more than 450 journals including Blackwell HSS collection. Wiley Inter Sciences collection includes 64 titles.

- **Elsevier (Science Direct)**

This database includes many e-journals related to business and economics. These all are available with back-files. The back-files of subjects like business, management and accounting, decision sciences, economics, econometrics and finance etc. are included.

- **Elsevier (Science Direct)**

This database covers many e-journals from different packages related to business and economics, with back-files.

- **ICFAI Press journals**

ICFAI publications consist of 27 journals in the niche areas of management, finance, economics, science and technology, arts and humanities.

- **Infraline**

Infraline is a daily newsletter service on power, oil and gas, telecom and transport sectors. The website offers complete personalization of daily infrastructure news.

- **IEL Online (IEEE)**

It includes access to full text journals since 1988 from IEEE journals, transactions and magazines, IEEE conference proceedings, IET journal, IET conference proceedings, IEEE published standards, IEEE Spectrum Magazine and Proceedings of the IEEE.

- **INFORMS Journals**

INFORMS serves the scientific and professional needs of operations researchers and those in the management sciences including educators, scientists, students, managers and consultants. The institute serves as a focal point for operation research, professionals, permitting them to communicate with each other and reach out to other professional societies, as well as the varied clientele of the profession's research and practice.

- **Investment Information and Credit Rating Agency (ICRA)**

ICRA is a public limited company with its shares listed on the Bombay stock exchange and the national stock exchange.

- **J-Gate Custom Content for Consortia**

This is UGC funded consortium which provides current as well as archival access to more than 4500 core and peer-reviewed journals and nine bibliographic databases from 23 publishers and aggregators in different disciplines. These e-resources cover almost all subject disciplines.

- **Newsstand (ProQuest)**

ProQuest news stand provides access to information from more than 1,190 national and international newspapers covering articles from regional, national and international papers from 1984 to the present.

- **OUP e-bundle**

Oxford University Press's e-Bundle consists of 26 top journals of business and economics.

- **Sage Journals**

The online platform of Sage journals includes more than 700 journals spanning humanities, social sciences, science, technology and medicine. The e-journals include management and organization studies covering more than 50 titles.

- **Wall Street Journal Printed and Online**

Covers breaking news and headlines from Asia. It also has blogs, opinions and commentaries on politics.

These e-resources are either subscribed or procured through consortium in the library. It is not possible for the library to subscribe to all the required resources but networking of libraries could solve the solution by providing information services like TOC and EDDS using clearing houses against payment.

4.9 Status of Library and Information Services:

The existing library services provided in management libraries are reading room services, home lending, book bank facilities, reprographic services etc. The review indicates that information services are minimal and more efforts are needed to be taken in this respect. CAS rendered is in terms of display of books, reader services based on catalogue, newspaper clippings etc.

The library and information services are always given priority in digital era and management institute libraries need to enhance library services to fulfil the needs of

users. ICT has brought many important changes in information services offered through libraries including management institutes. The changes are in formats, contents and methods of production and delivery of information products and services. This requires infrastructural changes in libraries along with needs and expectations of users. The avenues to be managed in future are usage of e-publication resources and internet resources which is largest repository of information and knowledge.

The changes feasible are:

1. Transformation of conventional information sources such as press clippings, question papers, company information into electronic sources.
2. Use of new tools and techniques for disseminating information.
3. Transformation of role of library and professional as subject specialist offering services like alert, CAS, SDI, indexing and abstracting etc.
4. Shift from physical to virtual services that offer convenience of time and location for access to services.
5. OPAC and Web OPAC facilities.
6. Online and offline searching strategies of information and services
7. Digital preservation and multiple access to rare documents.
8. Consortium of e-journals e.g. INFLIBNET, J-GATE etc.

The new concept of right to use the available information has emerged which has given rise to various issues like licensing, copyrights, pricing and evaluations of services and products. A library web page or Universal Resource Locator (URL) facility with single window access to various web enabled library services is needed. The web page of library contains links to catalogue, free and subscribed resources, some value added services like subject gate-ways, self help tools, FAQs, general information regarding library rules, timings and calendar needs implementation.

The various user services offered in the digital era can be summarised as under:

4.9.1 Online Public Access Catalogue and User Services:

Library catalogue is the most important tool for locating materials in the library. Using ICT catalogue can be viewed and accessed from OPAC through the intranet. Quick and convenient searching of entire online catalogue is possible through OPAC. The searches can be done through multiple access points using advanced searching features like Boolean logics and proximity operators among the different fields like author, title, publisher, keywords etc. OPAC shows the current status of availability of a particular book in the library. The OPAC can be used for providing services like renewal, reservation, inter library loan, new arrivals, EDDS, bibliographies on different aspects. OPAC offers accessibility from a remote campus using LAN or WAN. An internet enabled OPAC is called a Web OPAC. The Web OPAC can also be accessed using common browsers like Netscape Navigator or Microsoft Internet Explorer. It serves the purpose of ILL and EDDS.

4.9.2 Reference Service (Virtual):

Various tools such as e-mail, subject gateways, FAQs, electronic libraries and interactive tools like chat rooms, virtual reference desk and Ask-me are replacing the conventional means of post, phone or in-person reference enquires. Ask-A-Librarian allows the user to click on specified link to send a formatted enquiry to the reference librarian. The reference librarian either provides an instant answer or links to the resources or link to a subject expert. Due to interactive tools online reference interviews are possible. Many valuable reference sources are available on the net and these could be used for providing ready reference service to users. Virtual reference service is possible using internet resources and web tools.

4.9.3 Access to Web Based Resources:

Many types of library materials such as journals, books, newspaper, photographs, pictures, case studies, project reports are available in electronic or digital form. The digital form offers convenience of time, space and search along with the facility of easy sharing of information. The global users can be targeted but the digital resources also pose human, social and technological problems like discomfort while reading on screen, problems in internet access and speed, poor infrastructure, electricity problems, lack of

skills to use digital resources etc. But these resources need to be used properly and get the desired information in spite of problems.

4.9.4 Library Services Based on Consortia:

According to the Murray (1978) consortium is a group of people, countries, and companies who are working together on a particular subject. Consortia may be formed on a local, regional, national or international basis either on the basis of their functions or subjects. Internal services like TOC, EDDDS, CAS, SDI and Alerts are possible and these services also fetch monetary benefits for the library.

4.9.5 Web Technologies Based Services:

The huge amount of available information can be accessed by the users through the use of various online web technologies like blog as termed by Hornby (2010) is a personal record put by a person on website giving an account of his activities and opinions and discussing places on internet visited by him. These are the applications which are commonly used to provide diaries for getting personalised information. Wikis is a collaborating web-based authoring tool like Wikipedia which is global encyclopaedia and developed by contribution of many volunteers from all around the globe. This is a quick guide to serve the basic information. Syndicated Content technologies allow the content of users to be automatically embedded elsewhere. GoArticles is a free content article directory having more than 20,000 articles available for syndication. More than 100 articles are added daily to GoArticles. The content is refreshed and indexed every 3 hours which means that new articles are updated on the site 8 times a day. This is a good tool for searching current articles on the topic and also useful for the library to render CAS, SDI, Alert services to users. There are many Social Network tools used for group discussions and sharing of resources (Orkut, Facebook) which serve the purpose of solving subject related queries through experts. Thus, using web tools it is possible to develop new service practices in management libraries and refine the concept of Library 2.0. Jena and Khuntia (2008) rightly defined library 2.0 as a modernized form of library services that reflects a transition within the library world in the way that services are delivered to users. The major difference between library 1.0 and Library 2.0 is that

library 1.0 only allows for one-way flow of information while Library 2.0 is a read-write library that gives library user the power to decide the services offered to them. Library 2.0 can be summarized as library users' time saving facility in retrieving information.

4.9.6 Open Access Based Services:

This is a free online availability of digital content especially of peer reviewed scientific and scholarly journal articles and grey literature like the electronic thesis and dissertations, technical reports, project reports etc. There are two major open access strategies mainly self-archiving of e-prints and open-access journals. The services rendered using Open Access literature is valuable to users in getting desired information.

4.10 Library and Information Professionals:

There has been an overall technological change in the field of academics, research and education development units and the available literature plays a very important part for exchanging and enhancing the educational and research quality. Learning and teaching system, education patterns are changing due to implementation of technologies. Distance learning, online education activities are gaining momentum. Technology supported by new trends has made it possible to connect users and organizers suitably. Technological changes have been now accepted in all the sectors and users expect the information in an electronic format which gives them convenience in accessing it either in office, at home or even during travel and vacations. The users are expecting chat rooms and discussion rooms in the library.

The concept of web 2.0 technology has changed the librarian to librarian 2.0. All the tasks from procurement to assessing, processing and delivering the information to users by the librarians is carried on by using technology. There is also a need to repack the available information for the benefits of end users. The librarian has to cater to various changing needs and improve the quality of services offered by the library professionals, need to use advanced tools like developing various library networks, web links to the library web page, digital library and information retrieval tools, library orientation programs etc.

The academic development leads to development in education and education system which automatically leads to the development of a nation. The management institute libraries are changing along with the changes in teaching and learning method like e-learning systems, multimedia techniques in form of learning cafeterias, chat rooms, book clubs etc. To cater to the growing needs of management users the librarians need to develop greater expertise. There is a need for team building and collaborative efforts on the part of the librarians to pool the various available resources and also access the other required resource through various available channels. The librarians are working closely with the EDP departments which help them in designing the library web page, providing useful links and developing library portal etc.

There is a wide variety of development in the present education system which directly affects the management libraries. Major research projects funded by UGC are being implemented to improve the quality of education. The future of management classrooms in light of audio visual and multimedia kits are used extensively for imparting teaching methods. To cope up with these technological changes which are taking place in teaching and learning the librarians have to work hand in hand and cater to the changing needs of users.

The librarians have to increase their technical expertise by acquiring additional qualifications and skills and encourage teambuilding activities among staff. This gives rise to an increasing need of creating ILL, networking, collaboration of databases, integrating collections among subject libraries, enhancing library and information services to serve the user community. The increasing expectations of users from management libraries, information explosion and advanced technological revolution are also increasing in diversified forms. The librarians have to initiate activities to meet the challenges like overcoming the barriers in profession, marketing information resources and delivering need based information services to the users. Efforts like institutional repositories, development of specialized databases, providing online services, initiating services like news alerts, ask a librarian, online reference desk etc. There is a need to adopt best practices in the library which covers improved management techniques, information audit etc. There is a need to encourage team building spirit among the library

professionals to provide better services. To initiate all these features in management libraries there is a basic need of assessing users for their need and deriving user expectations which requires regular user studies or ISB studies. These studies are essential to improve qualitative collection development and improving the library and information services which are users centric and make use of IT, e-publications and management tools.

The young aspiring business managers need skills which helps them to use the available resources more effectively and derive positive results. The librarians have to transform the libraries and encourage the available staff for accepting new roles to shoulder new responsibilities. For librarians, the most important issue is to provide the information in whatever form it has been packaged. In future the librarian and library users may not be restricted to single user entity wherein everything is stored at one place but they will have to offer a wide range of services and collections linked together or made accessible through electronic networks' (Lim, 1996), (Burke, 2011).

Information retrieval is an important skill for both librarians and users to get pinpointed information. The increasing use of internet search engines and complex databases has made it necessary for users to consult the librarian in completing their projects, assignments, tutorials etc. However, without professional guidance of the library staff the users are not comfortable in effective access to the resources. McMillan (2000) observed that the librarian makes a significant contribution by refining the search, helping the researchers to understand and achieve their goals by getting information. This is possible when users also get trends in understanding value of information literacy.

4.11 User Expectations:

The analysis of user's requirements and expectations from libraries revealed that users need useful and qualitative information resources from the libraries and also need to get proper library services. Apart from these use of ICT, use of e-publications has changed the user's perception and expectations in form of:

- Need based collection of recommended books, textbooks, reference books and its availability in the libraries. The collection in both the forms (print and electronic) is preferred but the electronic resources are favoured.
- 24/7 library usage and services preferably in electronic formats for ease in access from anywhere. Enhanced usage of internet and Library 2.0 based library services.
- Free access to information from any place using Wi-Fi in organization and library premises, permission to use search engines, web tools, portals etc from libraries.
- Quiet and silent reading hall with good reading environment and use of computers/ equipment in the internet lab.
- More number of computer terminals in library for searching information. Longer working hours of libraries and working on Sundays or holidays also.
- The staff should be willing to help users and attend their problems and provide proper library services using different techniques. A librarian who is ready to listen to users and rendering help in solving their problem is the main expectation of all users.

To match with the expectations the libraries need to be re-engineered and tune to the latest trends.

Chapter Summary:

This chapter has elaborated existing status and the changes to be adapted for providing better user services from the available collection. The management libraries have received importance due to changes in the global scenario. The management science education is an asset in education sector and libraries attached to this sector have gained equal importance. Management libraries are changing their practices due to implementation of ICT and this change has made libraries to re-engineer to tune to current developments. AICTE has prepared standard norms for the libraries and library professionals need to follow and develop libraries accordingly to suit and match the

trends. The collection development is shifting from print to digital and many information resources are made available in management stream. The user expectations from the libraries are changing and they demand enhanced library services as per their requirements and recent trends. The role of information professionals are shifting and to fulfil the needs of users they have to conduct ISB or user studies at regular intervals. It is now necessary to re-engineer libraries to serve users better. This is possible with the ICT, web tools, internet and regular ventures of ISB studies.

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Chapter 5: Information Seeking Behaviour

5.1 Introduction:

Information is universal and has become a part of everyone's life. It is required even for a common purpose and it may be in any form like information required for daily routine work, call from friends, weather forecasts etc. Every person needs to update his knowledge for various reasons and he tries to collect information required in the field from different sources. Generally academicians, professionals, scientists and researchers need information to update their subject knowledge and they refer the published and unpublished resources for obtaining information. This information can be obtained from the library through consulting books, journals, newspapers, thesis, case studies, project reports etc. Information is power and has immense benefit to knowledge society.

5.2 Information:

According to Shannon and Weaver (1949) "Information is any stimulus that reduces uncertainty". In the views of Chen and Hernon (1982) information is "all knowledge, ideas, facts, data and imaginative works of mind which are communicated formally and/or informally in any format". Information thus covers facts that consist of data, knowledge or wisdom. Facts are the things that are true and known to be happened or already existed. Data is the smallest element of information and represented in any language and in any form like symbol or mathematical signs etc. It also represents people, objects, events and concepts. The knowledge is an organized set of statements of facts or ideas presenting a judgment with some specific reason. It is an experimental result which is transmitted to others through the medium of communication in some form.

In brief data is a raw fact, whereas information is statement or product of analysing data to state some facts. Information on a particular area or concept collected together generates knowledge which could be applied in practice. The definition of wisdom is termed as the ability to judge what is true, right lasting or insight (Farlex Free online dictionary). It can also be expressed as an individual quality which comes to one through

acquisition of sound knowledge and also through experience acquired due to age. This trait comprises the ability to see far ahead into the future and select the right alternatives from the available sources. It is the highest form of knowledge which cannot be transferred but can only be acquired. Information is used for decision-making and it is based on data collected and analysed.

The sources of information are different and grouped into primary sources covering periodicals, research reports, conference proceedings, patents, standards, thesis, trade literature etc. which provides nascent primary and first hand information to user community. Whereas secondary sources covers compilation of published information through primary sources and consist of indexing and abstracting periodicals, reviews, trends or progress reports, annuals, handbooks, encyclopaedias, dictionaries, textbooks etc. the tertiary sources are in the form of yearbooks, directories, biographies, guides to literature, lists of research in progress etc. which are useful for the users. Information is made available to the society through various sources and forms (print or non print/digital). Information need from the view of information science is a vague awareness of something missing and as culminating in locating information that contributes to understanding the meaning (Kuhlthau 1993). It is also described as Analogues State of Knowledge (ASK) (Belkin et. al. 1982) or a gap in individual's knowledge in sense-making situations (Dervin and Nilan 1986). Information is regarded as wealth and everyone needs it for different purposes. The pinpointed information helps users to build the castle of advanced knowledge. Information is very useful for decision making in any field and at all the levels.

5.2.1 Information: Properties

Information is used by everyone with specific application and has distinctive properties (Scarrott 1994) like:

- Information is not consumed due to usage but it generates new and innovative concepts.
- It can be shared simultaneously without any loss of information.

- It is a democratic resource which can be consumed and is required by both rich and poor, literate or illiterate.
- Information is dynamic, ever growing, expanding and continuing.

Information can be difference you perceive in your environment or within yourself. (Case 2002). It is concluded that information is vital and needed by everyone to contribute to knowledge. Every human being is in search of information for various purposes.

5.2.2 Information: Need

The concept of term “information need” has been coined by Robert Taylor (1962) an American information scientist (Dave 2012), whereas Brittain (1970) expressed the meaning of need as “need expressed by the user or need which user cannot express or immediate need or future or deferred or potential need etc.” In short the need is simply defined as what user requires for his work, it may be for research, education, or updating knowledge or any other definite purpose. “An information need is a recognition that your knowledge is inadequate to satisfy a goal that you have” Case (2002).

Thus, information is any fact needed to take decision or fulfilment of need. Information need forces user to seek information. The need of information is continuous for users and is needed to keep the users aware of new or latest developments in the field of interest, analyse the state of art of the topic etc. Information has value and is needed by everyone as per requirements of the task.

5.2.3 Information: Types and Qualities

According to Shera (1973) there are six types of information:

1. **Conceptual information:** It relates to ideas, theories and hypothesis about the relationship which exists among the variables in an area.
2. **Empirical information:** It relates to data and experience of research which may be drawn from oneself or communicated through others.

3. **Procedural information:** This is the data which is obtained, then manipulated and tested through investigation.
4. **Stimulatory information:** It is motivated by oneself or the environment.
5. **Policy information:** It is focused on the decision making process.
6. **Directive information:** It is used for co-coordinating and enabling effective group activity.

The qualities of information as listed by Rojas (1982) are accessibility, comprehensiveness, precision, compatibility, timeliness, clarity, flexibility, verifiability, fair and quantifiable etc. Thus, information is comprehensive, which can be used and accessed for generating new knowledge. Precise, accurate, and competitive information is required by researchers or users of the information.

5.2.4 Information: Explosion and Information Overload

The knowledge society is using the information and generating new knowledge. The information explosion is so high that information is doubling within couple of years and becoming difficult to manage and is the main cause for information overload which is witnessed in the knowledge society. In addition to this, the usage of information technology in publishing information has added more load on the users. Jungwirth (2002) rightly indicated that nearly 1000 books are published internationally everyday and printed statistics indicated by him shows that printed knowledge is doubled every five years. Due to digital publications the growth rate is being reduced to few years.

Information overload is generally considered as a situation in which an individual's efficiency in using information in his work is hampered by the amount of relevant and potentially useful information available to him. Information technology is considered to be a major cause of information overload. The information explosion and use of ICT has made the situation of users more complicated and complex for searching and getting desired information. The information seeking habits of users have changed and puzzled them due to unawareness of proper information sources and methods of extraction of data. Information users need training for searching proper information from e-resources.

5.3 User Needs and User's Expectations from Library:

Users are important factors for libraries, without which an information system loses its complete purpose. In a library set-up it is very important to understand who the users are, what their needs are and how those needs can be satisfied using the library. If people are not using the library resources it means that they are not been taken care of or they are not aware of the availability of information in the library. In some cases user has been a much neglected element in the whole information business, but in the earlier and recent times emphasis on user need has been laid by conducting various use and user studies. The user is termed as user, consumer, patron, client etc. but they are synonymical used in library profession.

Heidi (1999) classified the user component as follows:

- User- This term is generally employed to refer to clients of information services and libraries and in case of research studies it refers to participants or respondents.
- Client- This term expresses a particular type of professional relationship.
- Customer- This term is associated with a business model of service provision in which financial transactions are involved.
- Patron- This term depicts images of wealthy benefactors and guardians.

An attempt was made by Gorman (1983) to suggest a new term which describes information seekers using the libraries as 'libraree'. The users can be categorized according to type of work they do, systems they belong or their professions. Libraries of the past provided bulk services to the people. The stock was acquired and organized to serve the requirements or needs of an unspecified majority. The services offered were mainly either taking it or leave it as the libraries had no alternatives. It was impossible to serve the individual needs. The users were given help only when they asked for it and it was also limited.

Line (1998) has defined expectations of user's from the library and few of them are summarised as:

- An attractive building with suitable light and facilities required by users

- Long opening hours of libraries
- A variety of area for study purpose (individual space as well as space for group study)
- A coffee shop where one can relax, refresh, mix with other users and library staff
- Easy and good access to information in library,
- Simple and speedy procedures for circulation
- The ability to access a variety of media from one workstation
- An easy to use catalogue which is easily accessible
- Speedy access to the resources not held in the library
- A shelf arrangement that aids borrowing
- Friendly behavior of staff with users

The expectations of users defined by Line (1998) are true in case of traditional libraries as well as technology based libraries. But apart from these expectations, few more could be added to the list after analysing the trends as under:

- The collection in library must be developed based on user needs and according to mission and vision of institute.
- More information services based on print and e-resources
- Guidance from library staff to search proper information sources
- Increased usage of e-resources need orientation of information literacy for both users and library staff
- Economical ways for collection development using different models
- Users need pinpointed information within no time from different sources

There is a need to design a system in libraries for developing proper collection and services to be provided to users based on their needs. It is not possible to satisfy all the users but the facilities provided can be easily made available and can be used by everyone according to their own preferences. In addition to this user centric services can also be introduced using online searching of e-resources. To re-engineer the practices in libraries librarians have to observe and understand the user needs. The library can also construct a profile of its user's interest and match it regularly against the available

databases. Librarians need to listen and learn to find out the requirements of the clientele and make provision of information sources accordingly. This can be successfully achieved only if libraries measure their performances and undertake ISB studies and user studies.

5.4 User Studies and Surveys:

In the early years user studies “research was conducted which later shifted from studies of library and documentation use to user behaviour or the information behaviour, information seeking behaviour.

The term user study means a study of user’s need for information. The purpose of user study is to make an attempt to discover patterns of use and levels of awareness of users towards library services and facilities, to determine success or non-success of services and to identify what adjustments are needed in service strategy. According to Busha and Harter (1980) “User studies are often instigated as attempts to understand justify explain or expand library usage and consequently to gain more knowledge about the process of communication in so far as libraries and their clientele are concerned”. According to Kamaruddin (1992) a user study is a systematic study of information requirements of users in order to facilitate exchanges between information system and users. Pao (1989) grouped user studies in three stages:

1. User oriented studies
2. System use oriented studies
3. Utility oriented studies

User oriented studies focussed on characteristics of users and Pao (1989) considers points in this study are: age, educational level, task description etc. System use oriented studies drive their data from the system. The transactions between users and the system are investigated and examined like loan through ILL, number of online searchers performed. Utility oriented studies are reflected to information use and tis impact. The purpose of user study is:

- To identify the needs of users
- To identify the resources and services needs of users
- To identify strength and weakness of library resources
- For collection development
- For proper resources collection.

User study is a complex process as it holds studies of information needs, information use, ISB, use of information sources and channels. Accessing information needs and ISB is the base for designing information systems and services. Information provider cannot provide information unless he knows or identifies need and expectation of users.

The “Centre for Research on User studies” defines user study as a “multidisciplinary art of knowledge being the study of the behaviour of users (and non-users) of information systems and services.” User studies are basically concerned with analysing people, their attitude, priorities, preferences and behaviour. The main steps involved in user studies are selection and formulation of research problem, working hypothesis, literature search, overall design or planning the strategy of the study, sampling and sampling strategy or plan, data collection, measurement and scaling techniques, interpretation, generalization and realization of objectives, preparation, writing, presentation and dissemination of research results etc. Thus, user studies are considered as attempts to understand justify, explain or expand library information sources and services usage.

Information sources are more complex and expensive and beyond reach to stack at one place. The traditional collection is in print form and services based on it are reference service, current awareness services and selective dissemination of information. These services are to be supplemented by just for you services instead of just in case or just in time. The increased use of technology and availability of e-resources in all sectors including LIC is experienced and has forced both users and librarians to shift the practices. The basic challenge for library professionals is to convince and convert traditional users into users of internet-based resources, e-resources and services based on these media. Thirunavukkarasu (2011) indicated the future of libraries and pointed out

that college and university libraries face enormous challenges and opportunities to manage the user demands and expectations. As campuses move into the information age, mission and role of the library is being redefined. The amount of information libraries need to acquire continues to increase but it is not sufficient to fulfill user needs in spite of heavy investment on the collection development. The users require information from the library, which is current, accurate, relevant, comprehensive and useful. This can be successfully possible by incorporating end-user's survey or analysis of needs and users, in any type of libraries.

The term user study has been defined variously by different information scientists. According to Vikas (2004) user studies or use studies could be concerned with study of information processing activities of the users. Empirical studies on the use of demand or need for information is usually called user studies. In fact a study, which is focused on users to understand directly or indirectly their information needs, use behaviors and use patterns, is termed as user study. The term user studies are referred to library surveys because studies of information needs or information use behavior focus upon a wider range of information sources and channels rather than simply libraries. User studies comprise the study of people's need for and use of information. A user study may be defined as the systematic study of information requirements of users in order to facilitate meaningful exchange between information systems and users. User studies basically cover aspects like user behavior, use of literature and information sources consulted, etc.

The reasons for conducting user studies are:

- 1) To identify the actual strengths and weaknesses of library resources and services
- 2) To identify the levels and kinds of user needs
- 3) To identify faculty and student priorities for use of library resources and services
- 4) To identify the limitations or problems in use of information resources
- 5) To improve the organization and planning of library services.
- 6) To find out the information seeking attitudes of users
- 7) To find out users requirement and expectations from the library, in terms of type, quality and range of services to satisfy their needs.

The different types of user studies put forth by Wilson-Davis (1977) are as follows:

- Library oriented studies: investigates use of individual library or information centers.
- User oriented studies: studies based on how a particular user group obtains information needed to conduct of any work.

Categories of user studies discussed by Menzel (1966) are also summarized below:

- User studies: tries to find out the relative use of different channels of information in response to various questions.
- Behavior studies: these studies are carried out to find the pattern of overall reaction of the user community to communication system without any reference to any specific information receiving event. In such studies communication behavior of users are studied.
- Information flow studies: This types of study views the pattern of flow of information in the communication system (From manuscript to print and publication).
- Channel studies: involve a thorough study of a particular information channel used by scientists or users. The channels may be primary or secondary or tertiary resources.
- Critical incident technique: this type of study takes a particular incident in the information seeking activities of a scientist and studies that incident critically. It tries to find out how and when the incident occurred, what information need arose, what steps were taken to meet the need, whether the user was satisfied with the information obtained and whether the results of information collected may affect his work.
- Dissemination studies: It studies the type of information produced by the users, how the information reaches them and it's utility.

These views regarding use studies clearly indicate that the purpose is to identify the use pattern of users while searching information. These studies analyses the use pattern of information sources by the users.

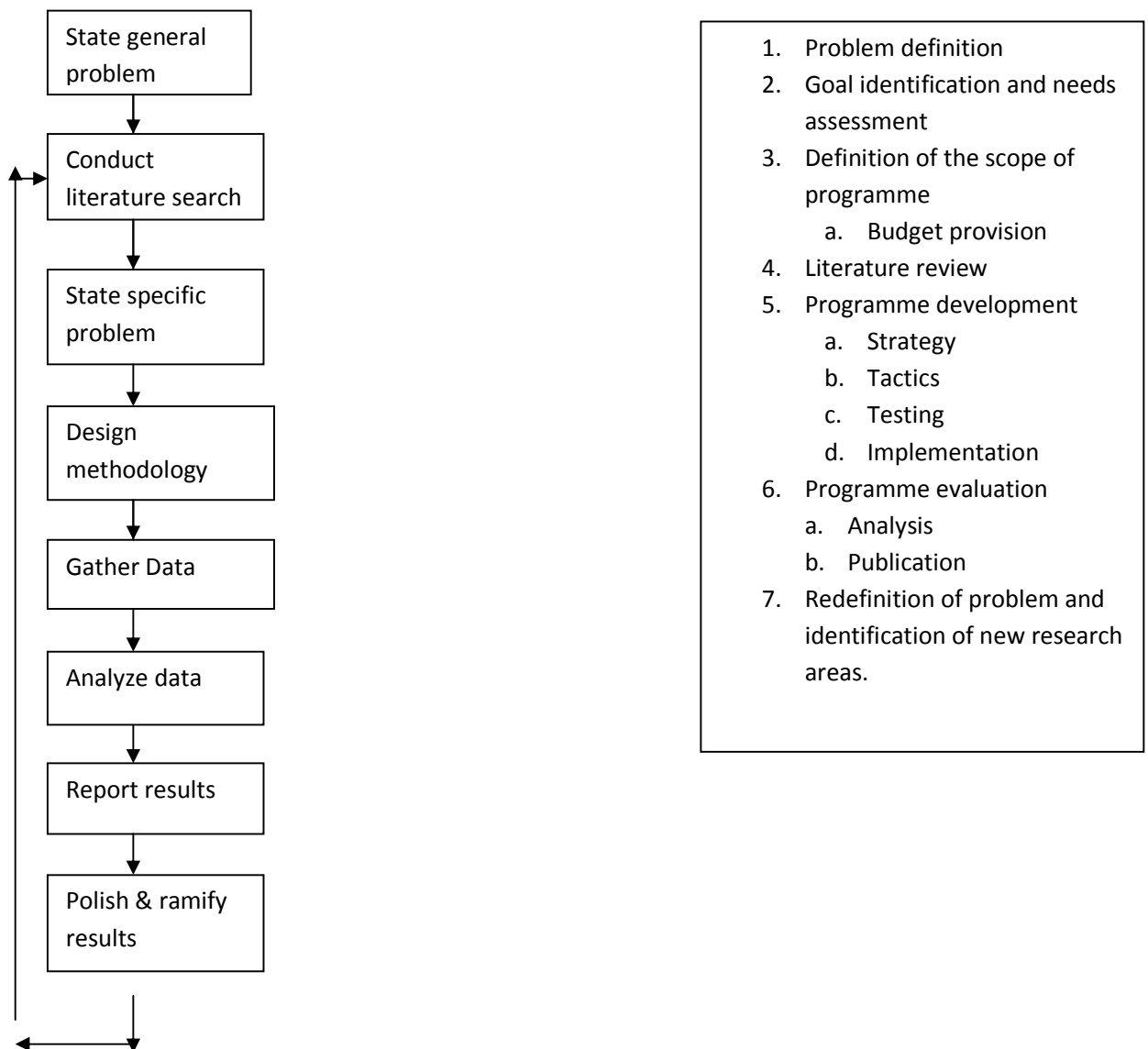
5.5 Methodology of Conducting User Study:

When planning to conduct a user study for a library, various steps are considered. A basic planning model for user study is similar to a general model of scientific method of inquiry found in any social science. The steps in user study as given by Laloo (2002) are presented in the following diagram which highlights the steps to be followed while conducting user studies.

Figure: 5.1 Model of Scientific method

Model of the Scientific Method
study

Stages of planning a user study



(Source: Information needs, Information seeking behaviour and users, pp115)

The user studies were later popularly known as information seeking behaviour studies. There is a need to assess the terms and their importance. The following paragraphs highlight the information, information need, information seeking and information seeking behaviour concepts etc.

5.6 Information Need and Seeking:

Nicholas (2000) information the information needs in which he pointed out that information demand is base of information need, information demand is request for information required and is the base for seeking information. Users then consult information sources or information systems to get information. Demand is expectations of users. The ICT, web, internet sources have raised the expectation of users from libraries which are also termed as information systems. In general information need covers need, want and demand. Humans play variety of roles and activities in their life and for performing any activity information needs vary as per the role of performance. In the process of information seeking the factors involved are internal, external, unreached and aborted etc. Information needs also involves skills to access information. Crawford (1978) pointed that different factors of information need include discipline/field/area of interest, availability of facilities to seek new ideas. But Wilson correctly opined that information needs depends on:

- Nature of organisation
- Organisational information need
- Work carried out in organisation
- Personal information needs

In general view information behaviour is a broader term in which interaction with information source, information channel, information seeking process are involved. Thus, ISB in short is purposive seeking for information to satisfy some goals and objectives. "Information behaviour" is currently preferred term (for user's studies) which is used to describe the different ways in which human beings interact with information. It is the way in which people seek and utilize information. In the views of Bates (2010) information behaviour used in library and information science refers to a sub-discipline

that engages in a wide range of types of research conducted in order to understand the human relationship to information.

As rightly explained by Wilson (1994) the concept of ISB has been initiated from the user studies to understand the needs of users. The information seeking can also be termed as information gathering. From the views of Line (1998) all people or individuals seek and use the information in different ways. Much of our daily life is spent in information gathering. The simple process of looking at people is also termed as information gathering. "Information seeking is a conscious effort to acquire information in response to a need or gap in your knowledge" Case (2002). This covers the process of acquiring needed information to develop knowledge. Most of this forms a part of our daily routine and is performed differently by individuals.

There are no such things like homogenous body of information users. A group of people with same level of education may be working on the same subject at the same time but they use the information in different ways. Some of the group may feel a part of information relevant but others may not. It may also happen that some of them may scan and absorb the vast quantities of material while others may read only a part of it. Some prefer the print media while some of them may find the electronic media more comfortable. Some like browsing while some find it a waste of time and energy. Thus, every individual has his own views while collecting or gathering information.

Information seeking has developed meanings out of several streams. Librarians wanted to understand library users better, the government agencies wanted to understand how scientists and engineers used technical information in order to promote more rapid uptake of new research results, and social scientists generally were interested in the social uses of information in a variety of senses. In recent years, social studies of information technology and social informatics have contributed to this area. Within library and information science, various streams of research are drawn for what they can contribute to understanding of information behaviour of users. Information seeking covers many forms of behaviour like browsing, observing, using informal information sources,

reading, studying, searching formal information sources, subscribing to mass media etc. (Bell 1991, Sahoo and Ramesh 2011).

Information seeking is an aspect of scholarly work of interest to academic librarian to develop collection, initiate services and organizational structures. Information seeking is termed as a natural and necessary mechanism of human existence (Kumar and Satyanarayana 2012). Feather and Sturges (2002) have grouped information seeking into three main periods, the sixties to the mid eighties, the mid eighties to mid nineties and mid nineties till now. In the first period, the focus was on information service and quality, the second period was rich in empirical studies and activity models of information seeking processes, while the most recent period has been characterized by attempts to design comprehensive models integrating information seeking and information retrieval. The beginning of the second millennium was initiated by the use of technology in academic workplaces. It began to offer scholars and other stakeholders in higher education a highly dynamic and interactive digital environment facilitating constant and instant connectivity via the networked computers in their university campus.

The students, researchers and faculties are main users in higher education and in ICT era choice of new information delivery systems, wide array of information sources and channels are available to get information anytime from anywhere. However, such ease of access does not imply that all information retrieved is relevant, sufficient or qualitative. The creation of vast information resources initiated the need to identify and select information resources which are most appropriate. Keeping in mind the use and rapid changing scenario of information technologies, it is necessary for the academic institutes to understand how students and library users make use of information-rich environment available in their academic fields. Wilson (2008) reiterates the importance of research in information-seeking area by stating "It seems likely that the need to understand how people search for and use information services continue to develop, the understanding gained may become more and more important for the effective design of systems and services". Thus information seeking is an essential aspect and there is a need to ascertain the habits of users while seeking information while ISB encompasses information seeking as well as the totality of other unintentional or passive behaviours as well as

purposive behaviours that do not involve seeking such availability of information (Case 2002). Every user or group of users have different styles of collecting information but it is necessary to understand seeking behaviour of user to get proper information to achieve the goal.

5.7 Information Seeking Behaviour (ISB):

Information seeking behaviour is the purposive seeking for information as a consequence of a need to satisfy some goal. It involves personal reasons for seeking information, the kind of information which is being sought and the different ways and sources from which the required information is being sought (Leckie, Pettigrew and Sylvain 1996). The early studies on information behaviour were called "use studies" (Davis 1964), the studies of "information seeking and gathering," or studies of "information needs and uses" (Menzel 1966). Gradually, the term "information seeking research" was used to include all kinds of research on people's interaction with information (Bates 2010). ISB initially termed as users studies was conducted primarily on behaviour of users in seeking information. These studies are useful to analyse the user, his psychology, attitude, the interested subject field, working conditions, his position in the society etc. When the need for information is recognized by an individual, he also knows that the information is not receiving automatically, but has to search for it in a proper method. The information seeking behaviour is study of strategies or processes the seekers of the information resort in order to satisfy the need for information. The action of information seeking behaviour initiates when information needed by the user and approaches to some of the known formal systems like libraries, information centres or some other sources to satisfy needs.

According to Krikels (1983) the term information seeking behaviour refers to "any activity of an individual that is undertaken to identify a message that satisfies a perceived need" Wilson (1999, 2000) defined information behaviour as "those activities a person, may engage in when identifying his or her own needs for information, searching for such information in anyway and using or transferring that information". Kumar (1990) further emphasized that, ISB is mainly concerned with who needs, what kind of information and for what reason, whether information found is evaluated and used and how their needs

can be identified and satisfied. Kumar and Satyanarayana (2012) as cited by Kumar (1990) the ISB process has following factors.

1. Identifying the objectives
2. Defining the need
3. Assessing information systems
4. Establishing sources of information
5. Information acquisition
6. Use of information
7. Satisfaction or Dissatisfaction

They have further stated that “ISB is the seeking in which the individual may take interest either in manual information system (like newspapers or library) or with computer based systems like the web. Sahoo and Ramesh (2011) have considered ISB as determining factor in designing any information systems or to bring suitable improvements to the existing systems. Nicolaisen (2004, 2009), Dave (2012) described four distinct types of information seeking behaviors: visceral, conscious, formalized and compromised. The visceral need is expressed as the actual information need before it has been expressed. The conscious need is the need once it has been recognized by the seeker. The formalized need is the statement of the need and the compromised need is the query when related to the information system. JISC's and British Library in their study of the Google Generation (2007) investigated the modern usage of digital information and elaborated six different characteristics of online information seeking behavior like: horizontal information seekers, navigators, viewers, squirreling behaviour seekers, diverse information seekers, checking information seekers.

Horizontal information seeking is sometimes referred to as "skimming". An information seeker who skims views a couple of pages then subsequently follows other links without necessarily returning to the initial sites. Navigators, as might be expected, spend their time finding their way around. Wilson (2004) found that users of e-book or e-journal sites were most likely to spend on an average four to eight minutes viewing said sites. Squirreling behavior relates to users who download lots of documents but might not necessarily end up reading them. Checking information seekers assess the host in order to

ascertain trustworthiness. The bracket of users named diverse information seekers are users whose behavior differs from the above sectors.

5.7.1 ISB: Development of Concept

Beginning with Bernal (1960), hundreds of studies have been conducted to understand the ways researchers use and obtain information for their needs. As described by Line (1971) in-depth studies of information needs of social scientists' began with American Psychological Association (1963-1969) project in 1963 and INFROSS study at Bath University in 1967. Most of studies focused on large groups and used quantitative methods to investigate the reasons for seeking information, the types of information needed, sources used for obtaining the required information, preferences for and satisfaction with the sources used, and problems faced while seeking information (Folster 1995, Slater 1988). During late 1980s, a shift took place which emphasized the need to understand information-seeking behaviour employing more holistic approaches by using qualitative methods to study small groups (Pettigrew et al., 2001, Wang 1999). The information seeking models developed by Kuhlthau of 1983, 1991, and 1993 are highly cited sources in literature and presented information in search process model. Her basic stress was on how an individual constructs meaning that begins with uncertainty and anxiety and the multiple encounters with information sources and channels. She also included affective, cognitive and physical domains in her models. She finally proposed six stages of information seeking which are task initiation, task selection, perfection exploration, focus formulation, information collection, and search closure. These approaches began with work done by Dervin in 1977, Dervin and Nilan (1986) and Kuhlthau (1983) have resulted in the development of various models to explain the information-seeking patterns of individuals or groups. Dervin (1986) presented information seeking behaviour model which had elements of demand on system/sources approach. This approach referred to the extent different kinds of sources, media, systems, documents, materials or channels were employed. The awareness approach of the same model refers to the level of awareness of users about the sources that are used. Translated into the nomenclature of task/source approach it is essentially a combination of demand/source and awareness approaches. The model stipulates three stages of

determining and analysing the tasks, analyzing or classifying the sources and matching what sources are available for tasks. Ellis (1987, 1989) developed a model of information-seeking behaviour among social scientists consisting of six stages: starting, chaining, browsing, differentiating, monitoring and extracting. Ellis et. al. (1993) extended these stages to two more stages consisting of verifying and ending. Ellis' model was slightly modified and extended by Meho and Hass (2001), Meho and Tibbo (2003). They explained different stages of starting, chaining, browsing, monitoring, accessing, differentiating, extracting, verifying, networking and information managing. These developments have also led to the use of mixed-method approach where both qualitative and quantitative data collection techniques are used to understand the information-seeking behaviour of scholars. Wilson (1999) presented his model of information behaviour and later had it in a substantially improved form in 1999 after including contextual factors that could discern causative effects. In the applied context of information-seeking patterns Tenopir et al. (2008) surveyed faculty members in USA, Finland and Australia from 2004 to 2007 to reveal reading patterns of e-articles by academics in order to measure the purpose and value of e-reading and to demonstrate the value of electronic journal collections provided by the library. Results were found to be useful in comparing that libraries made influence on reading patterns. Al-Suqri (2007), Marouf and Anwar (2010) noted these developments and explained how information-seeking studies could be instrumental in designing appropriate information systems, services and search retrieval capabilities of social scientists.

5.7.2 Factors Affecting Information Seeking Behaviour:

Line (1969) defined the factors that affected information requirement of users namely age, experience, background, qualifications, seniority, solitary, or team work, persistence, thoroughness, motivation, willingness to accept help from others, awareness of sources, media of communication and storage etc. Thus, he cleared stated that ISB is influenced by factors noted above. An individual adopt different ways in order to satisfy an information need, which depends on certain factors and certain points which have to be considered when an individual decides on a certain course of action and it includes:

- Access to the source.
- Money matters the most which has to be considered
- Time involved is also an important factor
- The source whether it offers the answer to their problem
- Whether they will understand what the source provided as answer

There are other factors also affecting the ISB viz. social, political, geographical, educational etc. Social factors: a desire for information on such topics like information on fashion, music which may be openly available and looked upon in certain societies while in some societies it may be looked behind closed doors.

Political factors: The dictatorship political system may define the information on defence, freedom of speech and expression as forbidden to a particular group while non-availability of such information may motivate a person to resort to underground means.

Geographical factors: The geographical location of an individual also determines the means adopted by a person for searching information.

Educational factors: The educated and uneducated may seek information differently.

A major emphasis on study of information needs of social scientists occurred in England in late 1960s. The investigation into information requirements of social scientists (INFROSS) was sponsored by the Office of Scientific and Technological Information (OSTI). The purpose of the study was to identify shortcomings in the traditional system of information acquisition in order to design improved information systems. The major conclusions of the study were:

- Social scientists placed a high amount of importance on finding references.
- Most of the formal information came from journals.
- They depended on informal channels such as consulting colleagues and experts for much of their information while library catalogues and librarians were of little use. In fact users have to consult the librarian to seek the desired information from various sources.

5.8 Information Searching vs. Information Seeking:

Information seeking relates to how people interact with information, how and when they seek information and what uses they make out of it. Seeking information from paper and online resources, many problems have been encountered and skills are needed to succeed in the specific acts associated with locating information either in a paper or online resource. Bates' articles on information searching tactics and search techniques (Bates 1979) promoted greater attention to the complexities of identifying sources and working one's way through resources to locate the desired information. A long line of research addressed that both search success and desirable design features in information systems to promote ease of use (Cochrane et al, (1983), Fidel, (1984), Hsieh-Yee (1993), Marchionini (1995), Spink (2001). Browsing is normally seen as most unstructured method of information searching as described by Bates (2007), O'Connor (1993) and Rice (2001). In brief, information searching means hunting for information and browsing relates to unstructured information searching whereas information seeking is the process involving many activities together for getting and using information in a systematic manner.

5.9 Information Seeking Behaviour: Review of Established / Existing Models:

A model of ISB is a framework or a flow diagram for explaining the process or method of information seeking by the users. To study and understand background for current research study and developing ISB model for management libraries in ICT era there is a need to review different established models created by the eminent research scholars. Among the different models established for ISB, few prominent qualitative models are selected, reviewed and studied. The brief discussions on these models are narrated below. The models selected for analysis are:

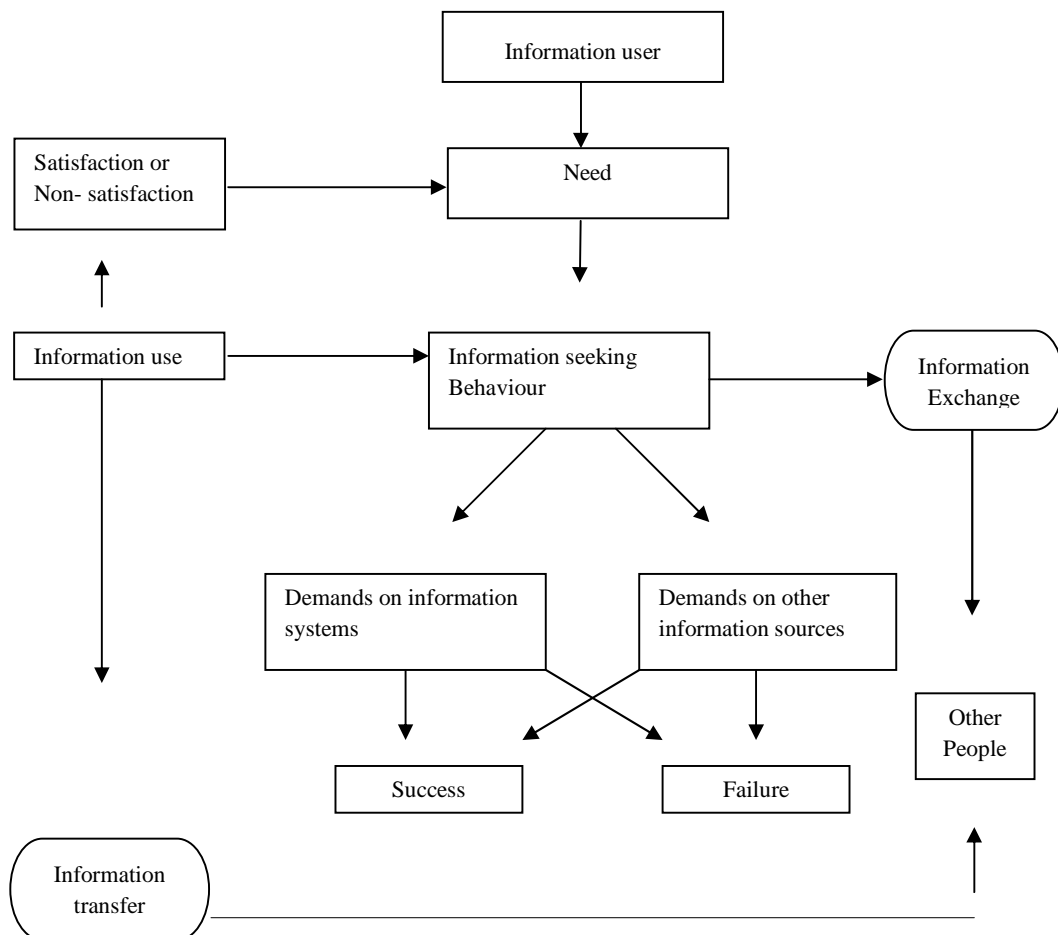
- 1) Wilson's model of information behaviour (1981)
- 2) Norman's cognitive model of information seeking(1988)
- 3) Ellis's Information Seeking Model (1989)

- 4) Ellis, Cox and Hall ISB Model (1993)
- 5) Kulthau's model (1993)
- 6) Wilson's revised model (1996)
- 7) Foster's Non-linear Information-Seeking Behaviour Model (2004)

5.9.1 Wilson's model (1981):

In this model, the author explains the process of information seeking which is highlighted in the following diagram:

Figure 5.2 Wilson's Model of Information Behaviour



(Source: <http://informationr.net/tdw/publ/papers/1999JDoc.html>)

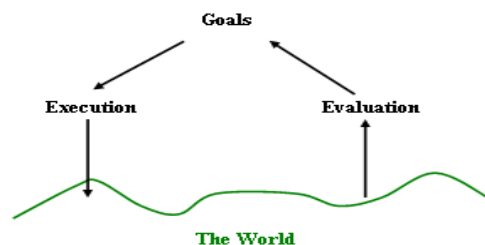
This model suggests that the process of information seeking arises mainly because of a need which is recognized by an individual who wants to satisfy the need and hence

makes a demand for formal or informal information sources or services which results in success or failure to find relevant information. If the user is successful in seeking the required information he makes the use of the information to satisfy his need either partially or fully. If the user fails to satisfy the need for information he may have to reiterate the search process. The model also shows that the process of ISB may involve other people through information exchange and if the information derived is useful.

5.9.2 Norman's Cognitive Model of Information Seeking

A cognitive account of the standard model derived from Norman's influential model of general task performance (Norman, 1988, Hearst 2009) is presented below. The model given by Norman depicts a broad perspective on how people operate in the world. According to his model, a person must first have a basic idea of what they want and the goals they want to achieve. Then they mentally prepare their own model of the situation and decide on some kind of action to be taken which will affect them, other related people or objects with the aim of achieving their goal.

Figure 5.3: Norman's Cognitive Execution-Evaluation Model



(Source: http://searchuserinterfaces.com/book/sui_ch3_models_of_information_seeking.html)

Norman divided actions into actual doing (execution) and then checking (evaluation) the results. After taking an action, a person must assess what kind of change occurred and if there were any changes and whether these changes had a positive impact on achieving the desired goals. Norman also suggested that less knowledge a person has about their task, the less they might be successful in formulating goals and assess results. Recognizing a

need for information is akin to formulating and becoming conscious of a goal. Formulating the problem and expressing the information need through queries or navigation in a search system corresponds to executing actions. The examination of the results to determine whether the information need is satisfied corresponds to the evaluation part of the model. Query reformulation is needed if the distance between the goal and the state of the world is too large.

5.9.3 Ellis (1989) and Ellis, Cox and Hall (1993) ISB Model:

Ellis investigated the behaviour of researchers in the field of physical, social science, engineers and research scientists by conducting semi-structured interviews using a grounded theory approach and focused on describing the activities carried by them rather than expressing them as process. From the initial investigations conducted by Ellis the results derived six key activities which were held during the information seeking process. Later few more studies were conducted in 1993 which focused on academic researchers in other disciplines also and two more activities were added to the existing model.

The activities given in this model are:

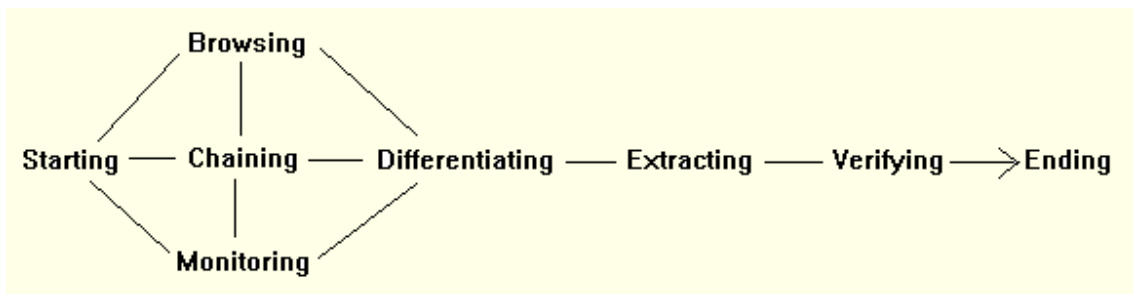
- Starting- means employed by the user to begin information seeking e.g. asking a colleague who is knowledgeable.
- Chaining- following footnotes and citations in known material or 'forward' chaining from known items through citation indexes.
- Browsing- semi-directed or semi-structured searching.
- Differentiating- using known differences in information sources as a way of filtering the amount of information obtained.
- Monitoring- keeping up-to-date or current awareness searching.
- Extracting- selectively identifying relevant material in an information sources.

The revised model had two new additions which have been listed below:

- Verifying- checking accuracy of information.
- Ending- tying of loose ends through final search.

The model is diagrammatically shown as:

Figure 5.4 A process model based on Ellis's Characteristics



(Source: <http://ptarpp2.uitm.edu.my/silibus/model.pdf>)

5.9.4 Kulthau's information seeking model:

According to Kuhlthau (1993) the whole process of information seeking consists of the following stages:

1. **Initiation:** Awareness of need of knowledge/information. This is the stage when a person becomes aware that he wants some knowledge or he is short of some understanding.
2. **Selection:** In this stage general topic is defined. The general areas to be investigated are selected.
3. **Exploration:** This is the stage of investigation of information on the problem in order to extend personal understanding. Some inconsistent information is encountered at this point.
4. **Formulation:** At this stage a focus is developed and it is the turning point of the whole process when feelings of uncertainty diminish and confidence begins to increase regarding the subject in hand.
5. **Collection:** This is the process to gather information pertinent to the focused problem. The information is gathered and the interest of the user is increased.
6. **Presentation:** The task is to complete the research and resolve the problem. At this stage the search is complete and new understanding is gained.

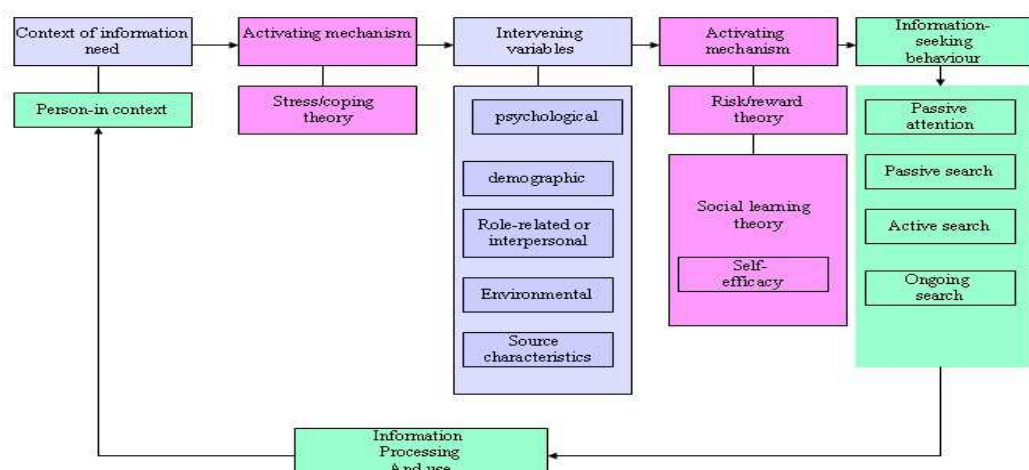
In the process of information seeking the users refer to various forms of available information resources. The students and faculties of management institute libraries actively seek current information available through the newspapers, journals etc. either

printed or online sources and other accessible sources like the internet. The role of libraries in management institutes is a platform where costly information materials, print or electronic have to be procured for the use of students and faculties. The role of libraries in the procurement process becomes visible. Various expensive databases have to be accessed to get up-to-date information for users.

5.9.5 Wilson’s Revised Model for ISB:

This model was revised by Wilson (1996) Niedzwiedzka (2003) after taking into consideration research from various other fields including decision making, psychology, innovation, health communication and consumer research. The new terms used in this revised model are ‘intervening variables’ which represents the barriers whose impact may be both supportive of information use as well as preventive. The stress coping theory tries to explain why some needs do not invoke information seeking behaviour while the risk/reward theory tries to explain the sources of information which may be used more than others by a given individual. The social learning theory embodies the concept of self-efficacy which is the conviction that one can successfully execute the behaviour required to produce required result. The revised model had a few additions as depicted below in the diagram:

Figure 5.5 Wilson revised model

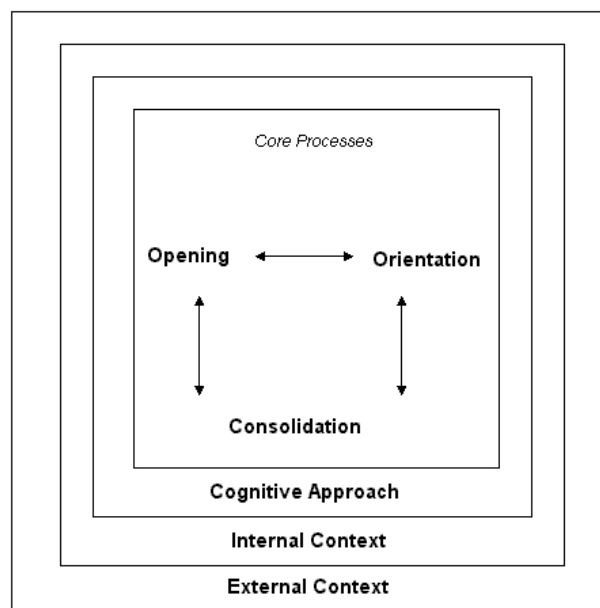


(Source: <http://informationr.net/ir/9-1/paper164.html>)

5.9.6 Foster's Non-Linear ISB Model

Foster's non-linear model of information-seeking behaviour (2005) represents a shift towards a new understanding of this subject area. The model is based on findings of an interview-based naturalistic inquiry on information seeking behaviour of a sample of 45 academics and postgraduate researchers representing many disciplines (Foster 2004). It comprises three core processes like Opening, Orientation and Consolidation in addition to three levels of contextual interaction: Cognitive, Internal and External. The process of “Opening” includes breadth exploration, networking, keyword searching, browsing, monitoring, chaining and serendipity, as shown below. The “Orientation” process consists of defining a problem, building a picture and identifying the shape of existing research. “Consolidation” refers to the process of having enough knowledge, redefining and incorporating the same. It is also the stage of verifying and finishing the task.

Figure 5.6 Non-linear model of information-seeking behaviour



(Source: <http://informationr.net/ir/10-2/paper222.html#Foster>)

According to Foster the model's external influences are categorized as social and organizational also covering the time, the project and accessibility of resources. Foster also found the social networking aspect of interdisciplinary experience to be one of the

most significant factors influencing access to information resources. The internal influences refer to prior knowledge on the part of the information seeker, in addition to self-perception and self-efficacy. The cognitive approach, describes the participants' willingness to identify and use information that might be relevant to an interdisciplinary problem. One practical implication of the model is that it suggests a need to revise the teaching of information literacy and library skills, with a move towards a holistic skills programme, including curriculum development and training design. The new model offers a base of framework for educators and library professionals to teach academic and non-academic, expert and non-expert information users in a manner that reflects actual behaviours and real-world solutions rather than the artificial conceptualization of stages. Foster's presentation of information-seeking behaviour as a "dynamic holistic process" and its insightful implications for teaching information skills also indicated that further research is planned to make the study suitable for generalization by adopting a mixed methodology, incorporating both quantitative and qualitative approaches (Foster 2004). Apart from these models Dave (2012) listed out few more ISB models in his study like the Episodic Model developed by Belkin. This model is based on intuition and insight and concentrates on four dimensions like method of interaction (Searching), goal of interaction (Selecting), Mode of retrieval (recognition), and Resource consideration. Information foraging model was defined by Stuart Card and others and is based on thinking that information seekers use clues from summaries, images and links to get information. Elfreda Chatman developed a model "Life in the round Model" and she explained the fact that unless an initial problem arises, there is no point in seeking information. From the review of the above ISB models it could be deduced that all the ISB models have similarities except few elaborated points.

5.10 Web Information Seeking Behaviour:

The present era is the era of information and knowledge revolution. Many electronic resources are available in the library. The increase in information available on the web has also affected the information seeking behaviour of the users. Due to the evolution of computers and internet facilities different type of information sources at different

locations are available at one place (Fidel et.al. 1999) (Das and Patra). Today when people look for information they often go directly to the World Wide Web. The users with no formal search training use graphical web browsers and search engines to find and retrieve full-text documents. There has been a revolutionary shift in the information search and access process. The users face many problems while seeking and evaluating the web-based information (Jenkins et.al. 2003). Web information seeking is an active stream of research which involves studying the searching of the public at large. These studies use transactions log data to analyse large numbers of queries by users of web search engines most notably studies of the Excite search engine (Jansen et. al. 2000, Spink, et. al. 2001). Comparing the results of three such studies, Jansen and Pooch (2001) determined that users pose an average of two queries per session, with the queries consisting on average of only two terms. Queries are simple with very little use of Boolean operators and relatively low use of other modifiers. The number of results typically viewed by users is ten or fewer per session. “Navigators and explorers Model” is also based on internet search methods of experienced information seekers (Navigators) and inexperienced information seekers (explorers). Navigators revisit domains and conduct sequential searches and have few deviations in searches whereas explorers visit many domains submitted many questions for seeking information. Robinson (2010) research suggested that in the process of seeking information at work users rely on both people and information repositories. JISC study of Google Generations listed six characteristics of information seeking behaviour as discussed earlier. Choo et. al. (1998) suggested conceptual models of ISB on the web, which refers to the activities related to assessing, searching and dealing with information sources especially in networked environment. He also created a two dimensional model of ISB on which he combined the elements of Ellis ISB model and Aguliars four modes of organisation scanning. Few models of ISB covered undirected viewing, conditional viewing, information search and formal search (new behavioural model for information seeking) undirected reviewing covers viewing wide range of sources. Conditional viewing relates to the seeker and views information on a selected topic (browsing, differentiating and monitoring). Information search relates to active search of information (differentiating, extracting and monitoring). Formal search is planned structured and deliberate. The searcher has to

invest time and effort on searching information. The search is called as formal as it follows a method.

These models increased the focus on web searching and internet searching, online databases or offline databases searching etc. these are new data collection and mining tools, techniques, methods adopted by users for getting information in e-forms.

5.11 Chapter Summary:

Information is vital and everyone needs information for different uses. Information seeking behaviors are different from person to person and group to group. Different models have been developed but Wilson and Kulthau's model are more elaborative discussing steps in ISB. The need of understanding the information seeking behavior of users has always been an area of interest for the information science professionals. The knowledge of users need helps in providing better services and design of information systems. In the emerging electronic environment, knowledge about the information seeking behavior of students and staff on the web is crucial for those wishing to help them effectively meet their information needs online. The summarization of all the models explained by eminent personalities of ISB states that this is a complex process and consists of steps to be followed for seeking useful information. From the study of all existing models it is found that ISB consists of the following steps:

- Feeling need of information.
- Understanding the purpose and objectives (starting)
- Awareness of sources for getting information
- Selection of topic
- Chaining
- Browsing and exploration
- Monitoring
- Extracting
- Presentation

These are represented in the active model developed by researcher in chapter seven.

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Chapter 6: Data Analysis: Interpretation and Presentation

6.1 Introduction:

A survey is conducted to assess the information seeking behaviour of the users of management institute libraries (students and faculty), to understand awareness of information sources among users, methods of searching information systematically from print and e-resources by the users, information mining, information evaluation, information usage etc. To analyze the information seeking behaviour of management user's questionnaires were prepared for faculty and students and were distributed in the management institutes in Pune. This survey helped in analysing the ISB of users. The questionnaire for the librarian was also prepared and circulated to librarians of management institutes to understand the status of the management libraries in Pune city. The following paragraphs presents the data analysis of three components reviewed in the survey.

6.2 Libraries of Management Institutes in Pune City:

The questionnaire was prepared for the librarians to find out the practices followed and services provided to users by the management libraries in Pune city. The data review helped in identifying the status of existing practices followed in libraries and status of library automation, acquiring e-resources, use of internet and efforts made towards achieving economic collection development for the effective use. In addition to this how librarians are making effective use of available resources and provide services to users could be analysed.

6.2.1 Population and Sampling:

There are 111 management institutes conducting full time MBA programs in Pune city. Every institute has library facilities and libraries are managed by library trained professionals. All 111 institutes (Appendix 4) are selected for survey and to get the information about the libraries. A questionnaire was prepared (Appendix 1) for the librarians to understand the present status of management libraries. The questionnaire

includes the questions, for getting information about libraries regarding the staff, timings, collection, e-resources, library services and organization of library as well as out reach services and providing user education etc. The aim was to collect the data to know the status and activities carried out in these libraries as well as status of using ICT and modernization of libraries etc. The population selected was 100%.

Out of 111 questionnaires circulated among librarians of the management institutes, 98 librarians responded to the survey (appendix 4). The efforts were made to collect the data from the remaining 11 institute's and librarians were contacted to get the data, but due to various administrative problems the researcher could not get response from these librarians and finally data from 98 questionnaires received from management institute libraries was analyzed and presented in this chapter. The response thus received for librarians survey was 88%.

6.3 Faculty of Management Institutes:

The survey of the faculty members was conducted to assess the use of library and information resources and services made available to them through library. The survey of all faculties was not possible and hence population selected for the survey was based on random selection. Out of 98 management institutes 11 institutes (10%) have been selected for conducting the survey of faculty. The selection of 11 institutes was based on criteria of conducting full time management courses and having more number of MBA specialization courses in the institutes and also having permanent faculty (on the regular cadre) available in the institutes. Among the institutes faculties selected based on senior and junior level both but use the library facilities more are considered and selected randomly for the survey. Librarians of respective institutes helped in giving the information about the faculty. Thus sample of institutes selected from initiation of management institutes till 2011 was taken but only of the top ranked management institutes. The faculty from institutes selected for the survey and criteria for selection is summarised in table 6.1. The questionnaires circulated among the faculty have received 100% response.

Faculties for survey (visiting or guest faculty is not considered) from 11 institutes (out of about 165 faculties) were selected and out of these 10% randomly selected comes to 22 in number. Thus, the response received was 100% for the faculty survey.

Table 6.1: Faculty Population

Sr. No	Starting Year	Name of the Institute	Reason for selection	Number of Faculty selected
1	1978	Symbiosis Institute of Business Management	Topmost rated institute in Pune	2
2	1949	PUMBA	One of the oldest Institute and also conducting Ph. D	2
3	1971	Symbiosis Institute of International Business	Worked as a librarian	2
4	1996	Hiraben Nanavati Institute of Management and research for women	Institute only for women	2
5	1996	ASM'S Institute of International Business and Research	Worked as a librarian	2
6	2001	Shri Shivaji Maratha Society's Institute of Management and Research	Set up a research centre in the institute.	2

7	1991	Vishwakarma Institute of Management	Gradation by CRISIL	2
8	2007	Sinhgad Institute of Business Administration and Computer Applications.	One of the Institutes by Sinhgad Technical Society	2
9	2002	Novel Institute of Management Studies.	Worked as a librarian	2
10	1987	MIT School of Business	Case study based learning method like the Harvard Business School	2
11	1973	INDSEARCH	Completed number of sponsored studies on behalf of govt. of Maharashtra	2
		Total Population Selected		22

6.4 Management Library Users (Students):

The survey of the student users was also conducted to assess the user needs and demands and expectations of students from the libraries associated to management institutes. Similarly, the purpose was also to find how much users are aware of the available technology and make use of it while searching information. The population selection was tedious due to huge number but for this survey same 11 institutes detailed in table 6.1 was selected @10% of the total population of MBA students were considered for the

survey purpose. The average intake capacity as per AICTE norms was fixed @ 60 per division and it has been found that there are minimum two divisions in these institutes wherein the strength comes to 120 students in each course per institute (for first and second year course) and ratio of 10% comes to 12 students per institute. The number of institutes taken as sample is 11 and it comes to 132. Thus, survey of 132 students was conducted and data collected through questionnaire. The 12 students selected based on the scanning of regular visitor and making use of the library (selection based on library student visitors' register and circulation data). Thus the sample selected from the user population was 132. The questionnaire was circulated to all 132 students user and received 100% response to survey. The librarians of respective institutes helped in fixing the population for students.

6.5 Libraries of Management Institutes (Pune City) - Data Analysis:

In librarians questionnaire about 166 total (main and sub) questions were asked to analyze the status of management libraries. These questions basically cover the aspects of organization of library, services provided by library, modernization of library, resource sharing, use of advanced technology, use of electronic / digital information resources and qualitative library management etc. The analysis of the data collected through these questions is analysed systematically and presented in following paragraphs.

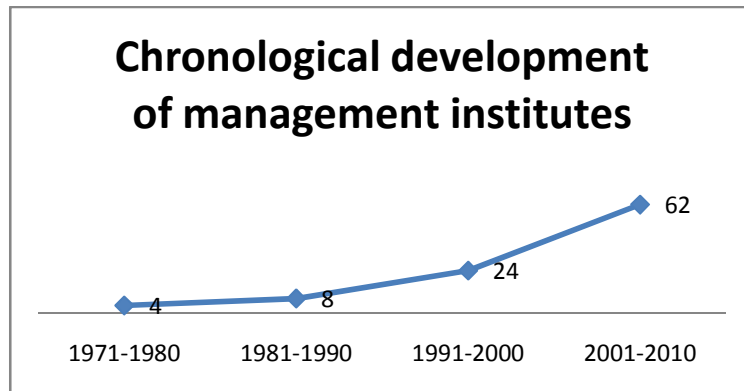
A) Management Institutes:

6.5.1 Chronological Growth of Management Institutes

Table 6.2 Chronological development of management institutes in Pune

Establishment Year	Number of institutes	%
1971-1980	4	4
1981-1990	8	8
1991-2000	24	25
2001-2010	62	63
Total	98	100

Fig. 6.1 Chronological development of management institutes in Pune



Observation:

The data collected was analyzed and grouped in ten years (decadal). It is found that management education in Pune geared up since 1970 while in first phase of ten years only four institutes were established. In the latter decade eight institutes were added and in 1991-2000 nearly 24 institutes were newly opened which exactly doubled whereas during 2001-2010 almost 62 institutes added in management education sector and this is considered as the highest growth in management institutes. Thus, by the end of 2010 nearly 109 institutes were developed to impart management education at various levels. Real growth of management education institutes is reflected since 1991 and maximum growth is reported since 2001. This shows that management education has an increased demand due to globalization since 1991.

6.5.2 Management Institutes: Status

Table 6.3 Status of the Management Institution

Status	Aided	Non-aided	%
Number	0	98	100
Total		98	100

Observation:

It is observed that all 98 institutes are non-aided and managed by either society or private or autonomous. State and central funding institutes are not reflected in the survey.

6.5.3 Sources of funding:

Table 6.4 Sources of funding

Nature of Funding Institutions	Number	%
Society	67	68
Autonomous	17	18
State	0	0
Central	0	0
Private	14	14
Total	98	100

Observation:

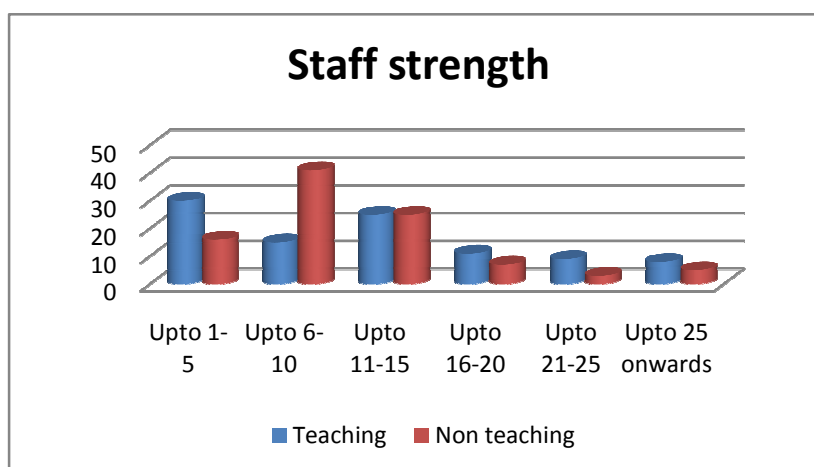
From the Table 6.4 it is observed that maximum numbers of institutes in Pune are funded by various societies or trusts (67%). There is no state or central government funded institution in Pune and nearly 18% are autonomous and privately funded are 14%.

6.5.4 Staff: Faculty / Non Teaching

Table 6.5 Staff strength

Staff strength range	Teaching Staff	%	Non- teaching staff	%
1-5	30	31	16	16
6-10	15	15	41	42
11-15	25	26	25	26
16-20	11	11	7	7
21-25	9	9	3	3
25 onwards	8	8	5	5

Fig. 6.2 Staff strength



Observation:

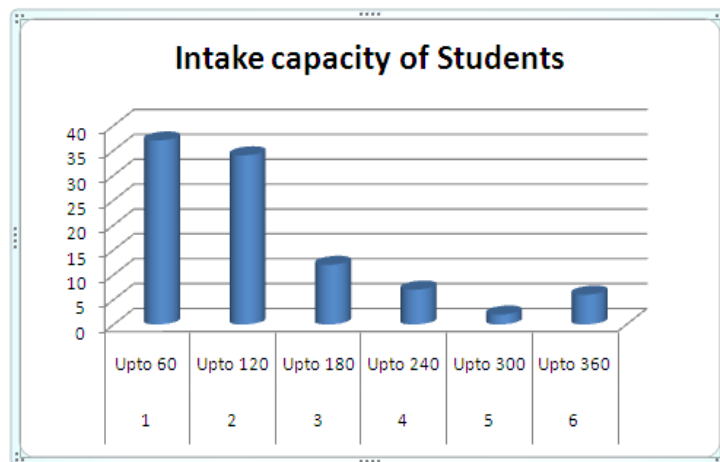
36 institutes have moderate staff for managing teaching and administration whereas 28 institutes have comparatively less staff. It is found that management courses are managed with regular staff as well as guest faculties. In most of the cases it is observed that more guest faculties are involved from the industry to teach specialized subjects and utilize their knowledge for strengthening capacity of students to tune them for facing challenges in the profession and hence it is observed that instead of regular staff honorary invited experts are more.

6.5.5 Intake Capacity of Students

Table 6.6 Intake capacity of Students

Intake capacity	No. of institutions
60	37
120	34
180	12
240	7
300	2
360	6

Fig. 6.3 Intake Capacity of Students



Observation:

It is observed that management institutions are in demand but intake capacity is ranging from 60 to 360 depending upon the type of management courses run by the institutes. It is seen that approximately 60 students are added in each batch. Nearly 71 institutes mentioned since 2000 have 60-120 students intake whereas 15 institutes have more than 250 intake capacity with different courses for MBA with specializations like Marketing, HR, IT, Finance among these few institutes have specialized courses also.

6.5.6 UG and PG Management Courses

It is observed that changes took place in management education system and in every institute post graduate degree i.e. masters' courses are conducted. Earlier diploma courses like PGDM, DBM are managed in a very few institutes but now after graduation students' move towards MBA. MBA admissions are open to graduates of any sectors like BA, B.Com, B.Sc., B.E, B. Pharm. In some institutes BBA courses are initiated from standard 12th onwards and they lead to MBA. In 14 institutes BBA courses are started and hence such institutes have developed special BBA courses which directly lead to MBA. As demand has increased, institutes have started regular courses along with evening courses to match the need of student population and situation. The recent development in management education system is through distance mode education via

conducting the courses on holidays due to establishment of open Universities like IGNOU, YCMOU etc.

6.5.7 Special Management Courses

In 22 institutes special courses like Executive MBA, Career Development program, MBA- Distance learning, Program for Defence personnel, PGDMLM etc are conducted. But a majority of the institutes (76) do not conduct any special courses other than their regular courses.

6.5.8 Distance Learning Courses

Only 4% management institutes conduct distance learning MBA courses of YCMOU or Punjab Technical University but the majority of the institutes 96% do not conduct distance education programs.

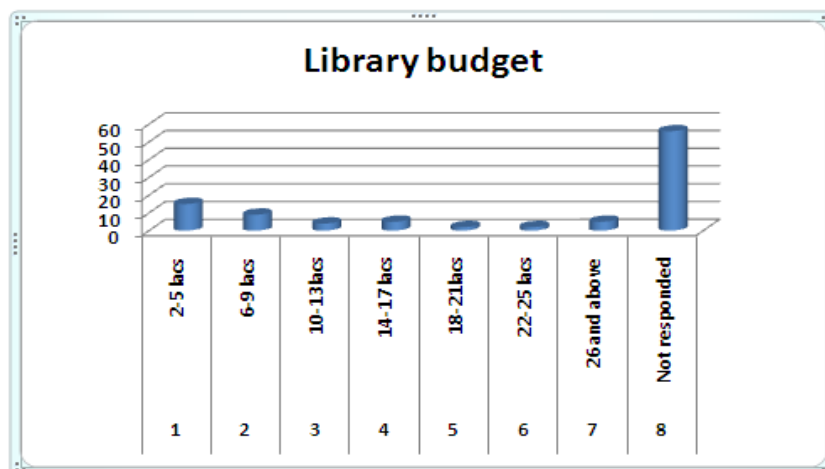
6.5.9 Annual library budget

Annual budget of the organization was asked as an optional question but due to some policies it was not responded by anyone main reason found was due to uncertainty about the budget while some had administrative constraints while answering the question. The aim was to find the percentage of library budget received in comparison with organization's budget. The library budget is suitably responded by 55% librarians and tabulated in the following table.

Table 6.7 Library budget

Amount in lakhs	Number of respondents
2-5	15
6-9	9
10-13	4
14-17	5
18-21	2
22-25	2
26 and above	5
Not responded	56
Total	98

Fig. 6.4 Library budget

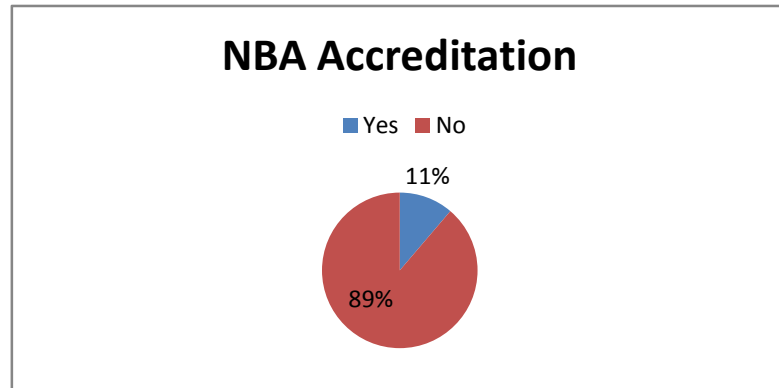


Observation:

The annual budget of 15 libraries ranges from 2-5 lakhs only while a few of them have a budget of more than 26 lakhs and these are observed to be old and prominent institutes. Only 5 libraries have budget provision more than 26 lakhs per annum. Overall budget provision for libraries seems to be inadequate to manage the demands of users and satisfy their needs.

6.5.10 NBA Accreditation

Fig. 6.5 NBA Accreditation



Observation:

89% MBA institutes are not accredited by National Board of Accreditation. Only 13% institutes are accredited by the NBA, but few institutes are under the process of NBA accreditation in academic year 2012-2013. The management institutes are obtaining AICTE approval and only a few of them have both AICTE as well as NBA accreditation.

B) Management Libraries:

6.5.11 Working Hours

Table 6.8 Working hours

Working Hours	Number of respondents	%
7-10	62	63
11-14	24	25
15-18	10	10
19 and above	2	2
Total	98	100

Observation:

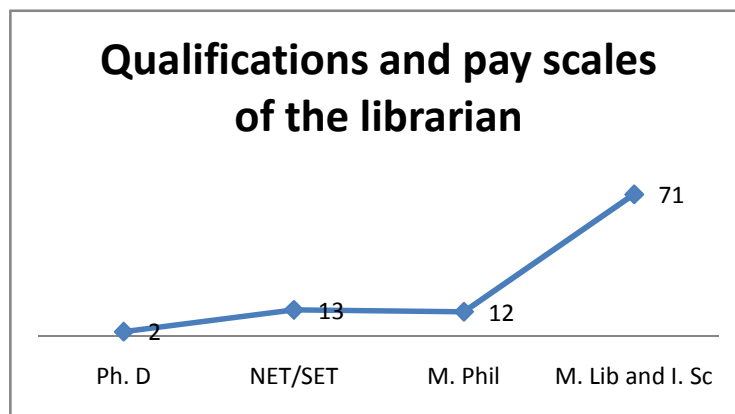
Only 12 libraries are kept open upto 19 hours. 86 libraries are open upto 7-14 hours but 62 libraries have same working hours as of institutes. The extended hours of library are mainly used for reading room facility. Only 2 institutes have responded and stated that the libraries are kept open for more than 19 hours, particularly observed in management institutes where MBA courses are residential courses.

1.5.12 Librarian's Qualifications and Pay scales:

Table 6.9 Librarian's Qualifications

Qualifications	Number of respondents	%
Ph. D	2	2
NET/SET	13	13
M. Phil	12	12
M. Lib and I. Sc	71	72

Fig 6.6 Qualifications



Observation:

It is observed that all the management libraries have employed trained and qualified library staff having M. Lib and I.Sc., 12 librarians are M. Phil, 13 librarians are SET/NET qualified whereas 2 librarians are Ph. D. The professional qualified Ph. D and SET/NET staff is getting scales as per the UGC norms while the others are on a consolidated basis.

6.5.13 Librarian's Professional Experience

Table 6.10 Librarian's Professional Experience

Professional Experience	Respondents	%
1-3	42	44
4-6	35	35
7-9	8	8
10-12	3	3
13-15	3	3
16 and above	7	7
Total	98	100

Fig. 6.7 Professional experience of librarian's service



Observation:

In 13 institutes qualified professional staff managing libraries and have experience more than 10 years, remaining 85 libraries have staff with experience in between 3-9 years.

1.5.13 Library Staff :

Table 6.11 Library staff

Type of Staff	No. of Staff	%
Professional	152	44
Technical	79	23
Non-technical	85	25
Administrative	29	8

Observation:

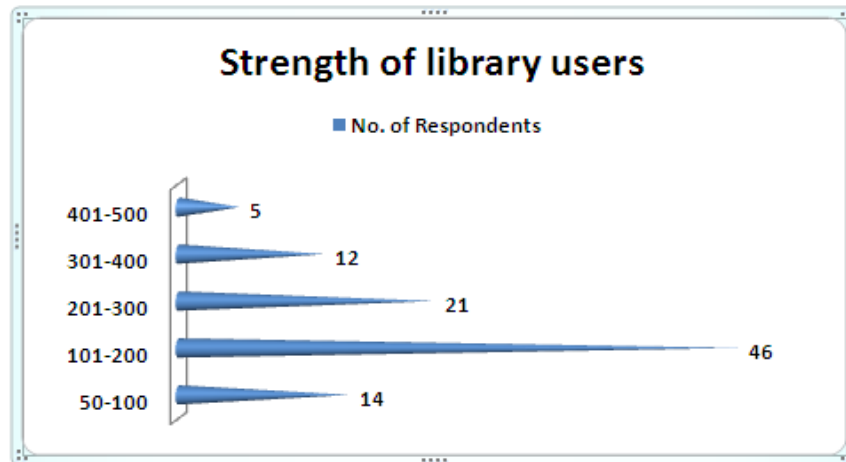
In management libraries staff is deployed at various professional, technical, non technical, administrative levels. It is observed that 98 institutes have a total of 345 library staff members and on an average 4 staff members are available in every library categorised under professional and technical staff (60%) and non-technical.

6.5.15 Strength of Library Users

Table No. 6.12 Strength of Library Users

Library Users	Respondents	%
50-100	14	15
101-200	46	46
201-300	21	22
301-400	12	12
401-500	5	5
Total	98	100

Fig 6.8 Strength of Library Users



Observation:

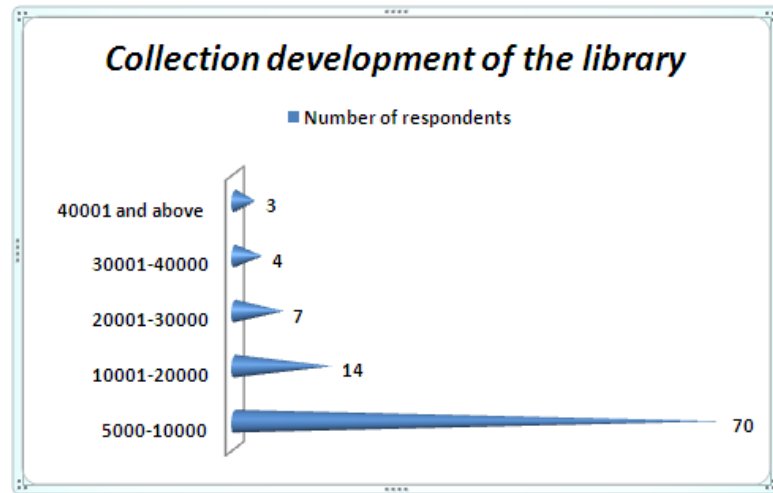
Management libraries are specialized academic libraries and users are also related to management education only. From the visitors records it is reflected that in 46 institutes there are on an average 150 users whereas 21 libraries have more than 250 users. There are five institutes conducting various management courses having more than 400 users. The regular faculty of the institutes visit the library atleast once a week. Many libraries allow membership facility to users other than regular courses which includes guest faculty, distance learners etc. but these are not considered.

6.5.16 Collection Development

Table 6.13 Collection development

Library Documents	respondents	%
5000-10000	70	71
10001-20000	14	15
20001-30000	7	7
30001-40000	4	4
40001 and above	3	3
Total	98	100

Fig. 6.9 Collection development of the library



Observation:

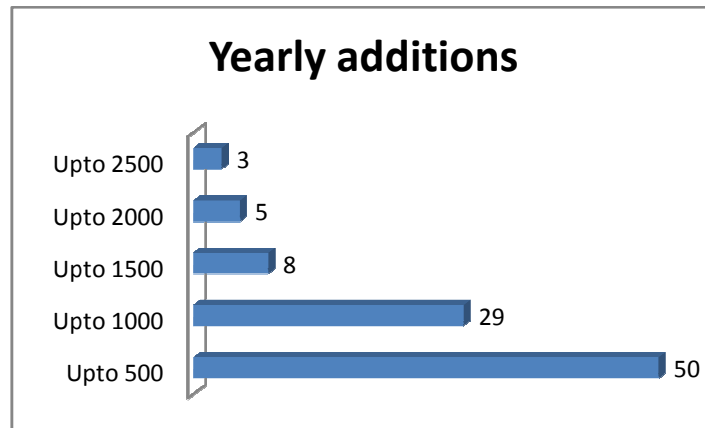
The collection of management library covers textbooks, reference books, Indian journals, few foreign journals, technical project reports, assignment (selected), class notes etc. Daily newspapers and magazines are available for general reading purpose. Collection development is more focused on syllabus and faculty needs. Only 3 libraries have collection more than 40000 volumes whereas 11 libraries have collection between 20000-40000 volumes. 84 libraries have collection ranging between 5000-20000 volumes. Research element is not yet introduced in all the institutes.

6.5.17 Yearly Additions in Collection

Table 6.14 Yearly additions

Number of Documents	Respondents	%
Up to 500	50	52
Up to 1000	29	31
Up to 1500	8	9
Up to 2000	5	5
Up to 2500	3	3
Total	98	100

Figure 6.10 Yearly additions



Observations:

Yearly addition to the collection ranges between 500-2500 and only in 16 libraries additions are more than 1500 books per year, whereas 79 libraries are procuring less than 1000 books per year. It is also observed that the libraries established earlier and having more than 2-3 management streams are procuring more books than the recently established libraries having one or two courses. The major emphasis on the collection is for books.

6.5.18 Open Access System in Libraries

Nearly 94 libraries are providing open access to staff and students both. This is a very healthy sign as books are frequently consulted in open access rather than closed access system.

6.5.19 Library Building

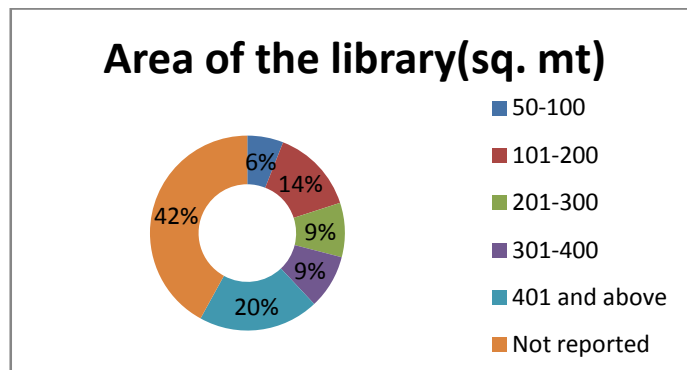
Availability of space for carrying out different library activities and stacking collection, space available in management libraries is very less. The shift towards e-publication is felt to have space for accompanying the existing collection as well as future requirements like chat rooms, seminar rooms, internet lab etc. Only 5 institutes out of 98 have a separate library building while the remaining 93 libraries have space adjusted in main building of the institute.

6.5.20 Area of the library

Table 6.15 Library Area

Area in sq.mts.	No. of respondents	%
50-100	6	6
101-200	13	14
201-300	7	9
301-400	9	9
401 and above	19	20
Not reported	41	42
Total	98	100

Fig. 6.11 Area of the library



Observation:

42% librarians are not exactly aware of the library area. It is seen that maximum libraries have an area of 400 sq. mt. which is insufficient as they follow the traditional practices and collection development is in the form of printed documents.

6.5.21 Special Collections in Libraries

Table 6.16 Special collections

Special collections	No. of institutes	%
Yes	23	25
No	75	75
Total	98	100

Observation:

Apart from textbooks, journals, reference books very few libraries (23) have special collections which includes HBR lecture series, GATT publications, Dr. Kasbekar collection on management, case studies related to management, psychometric tests and many others. It is a very good sign that these collections are housed for the readers but remaining 75% need to adopt such practices to enhance the quality of management education.

6.5.22 Daily Students Visitors

Table 6.17 Daily Students visitors

Student Visitors	Respondents	%
Up to 50	55	57
Up to 100	25	25
Up to 150	10	10
Up to 200	4	4
Up to 250	4	4
Total	98	100

Observation:

It is found that there is regular usage of libraries in the management education stream. The reason is library collection of specialized and reference literature which is made

available in the library. On an average 50-100 students are visiting management libraries daily but 18 libraries are more used and daily visitors' ranges in between 150-250 students. There are 80 institute libraries where fewer courses are being conducted and hence visitors are less between 50-1000 students. It is also found that management libraries are heavily used by both professional staff and students to review the literature for completion of assignments, contribution of research etc.

6.5.23 Daily Faculty visitors

Table 6.18 Daily Faculty Visitors

Faculty visitors	No. of respondents	%
Up to 5	42	43
Up to 10	33	33
Up to 15	10	11
Up to 20	7	7
Up to 25	6	6
Total	98	100

Observation:

In 23 management institutes nearly 15-25 faculty members visit the library regularly whereas in 75 institutes only 5-10 faculties visit the library. It has also been observed that the number of faculties visiting the library is decreasing due to work load, more work responsibilities etc.

Budget Allocation, Budget Spent and Expenditure on Collection Development questions were asked to get the information about resources procured in the library. But due to some constraints librarians could not respond to such questions and hence could not deduce any conclusion.

6.5.24 Additional Budget for Library Development

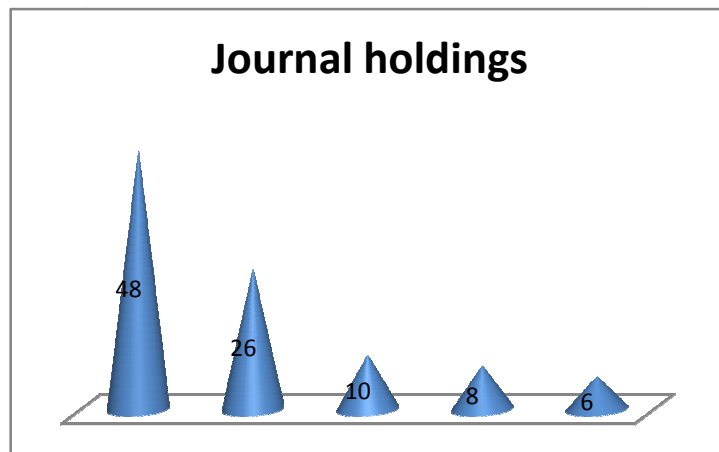
The normal allotted budget is consumed for acquisition of books and journals, if any library wants to make progress and modernize library it is successful only after getting additional funds and only 17 institutes are provided additional budget for automation or development of libraries out of 98 (17%).

6.3.25 Journal Holdings

Table 6.19 Journal holdings

Journal holdings	No. of institutes	%
1-50	48	48
60-100	26	27
150	10	11
200	8	8
250 and above	6	6
Total	98	100

Fig. 6.12 Journal holdings



Observation:

The subscription to journals is main factor which is considered to judge the research level and it is found that nearly 24 libraries are subscribing to more than 100-200 journals but they are more at national level and in print form and less foreign journals. New

established libraries have only few journals ranging from 5-10. Since international journals are costly maximum number of institutes subscribes 10 journals only but there are some libraries which have more than 50 international journals also. Due to the increase in e-journals libraries prefer to go for online version of international journals.

6.5.26 Gratis publications

Management institute libraries have gratis publications and nearly 17 libraries receive documents in form of books donated by students, faculties and others.

6.5.27 Financial powers to librarian

It is observed that only 21 librarians from management libraries have the power of administration and finance but purchasing is limited to Rs.2000 which is very less. For any purchases formal approval and sanction is to be obtained from the management.

6.5.28 Assistance to users

It is observed that almost all users take help of library staff for getting information either for regular study or for project preparation.

6.5.29 Library Extension Programmes

It is observed that only 20 institute libraries are arranging extension programme to make the users aware of services offered by library to new entrants in the institute. This helps in creating awareness of library facilities provided to them. Programs like book exhibitions, authors' introductory lecturers, Librarians Day etc are conducted to increase the value of library.

6.5.30 Classification and Cataloguing Systems Used

Table 6.20 Classification system

Classification system	No. of institutes	%
BSO	1	1
CC	1	1
Customized	1	1
DDC	81	83
Not using any classification system	14	14
Total	98	100

Observation:

It is found that 81 libraries follow DDC classification scheme and 36 libraries are using AACR for cataloguing the documents. It is also observed that library classification is not properly done and maintenance of catalogue is also not proper. Hence, it is difficult to trace the availability of documents in library. The arrangement of books is based broadly on subjects.

6.5.31 Arrangement of books

Table 6.21 Arrangement of books

Arrangement of books	No. of institutes	%
Subject wise	87	89
Classification wise	11	11
Total	98	100

Observation:

The books collection of management institute libraries is arranged according to the subject for the convenience of the users. The arrangement of books according to classification system is not found.

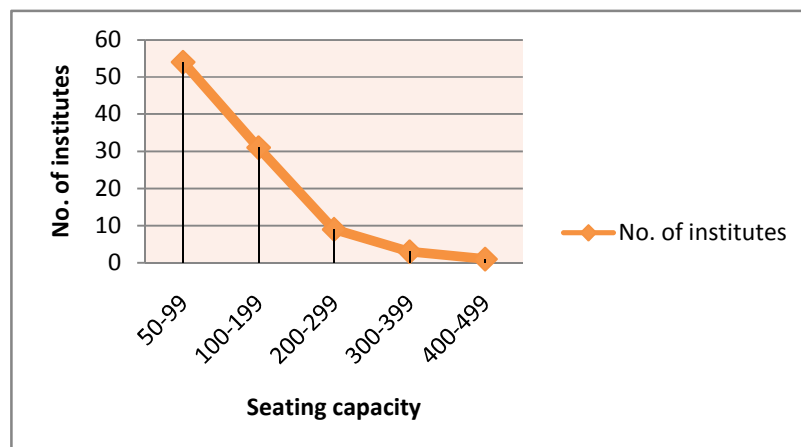
6.5.32 Reading Hall Facility, Seating Capacity and Timings

All the management institute libraries under survey have a reading room facility for the users with different capacities. The only difference is that in some institutes there is a separate place for the faculties and research scholars.

Table 6.34 Seating capacity

Seating Capacity	No. of institutes	%
50-99	54	55
100-199	31	32
200-299	9	9
300-399	3	3
400-499	1	1
Total	98	100

Fig. 6.13 Seating capacity



Observation:

Seating capacity of reading hall is proportional to intake capacity of institute. Only one library has a seating capacity of more than 400 in which many courses are being conducted. As per the standard norms of the AICTE a seating capacity of 100 is expected and nearly 50% institutes fulfil this condition.

6.5.32.1 Timings

The reading hall in majority of the management institutes are open for 12 hours but in case of few institutes where the staff is limited to only one librarian and one attendant the timings of the reading hall are same as that of the office timings of the library. During examination period most of the reading halls are kept open from 7.00 am till 12.00 pm in the night for the students.

6.3.33 Libraries open on Sundays and Holidays:

The management course being a specialized course with maximum industry interaction and busy schedule of the students it is expected that the library must be kept open on Sunday's and holiday's also. From the study it is seen that only 23 (24%) libraries are kept open for the users. Other 75 libraries mainly due to shortage of staff could not provide facility of keeping libraries open on holidays.

C) Library Services

6.5.34 OPAC and Web OPAC

65 libraries are providing OPAC and users are using it for searching information, checking availability of documents etc. as well as for renewal and reservation facilities. It is observed that majority of the libraries do not have web OPAC facility due to huge expense or unwillingness of institutes to disclose their catalogue online.

6.5.35 Orientation programme conducted by the library

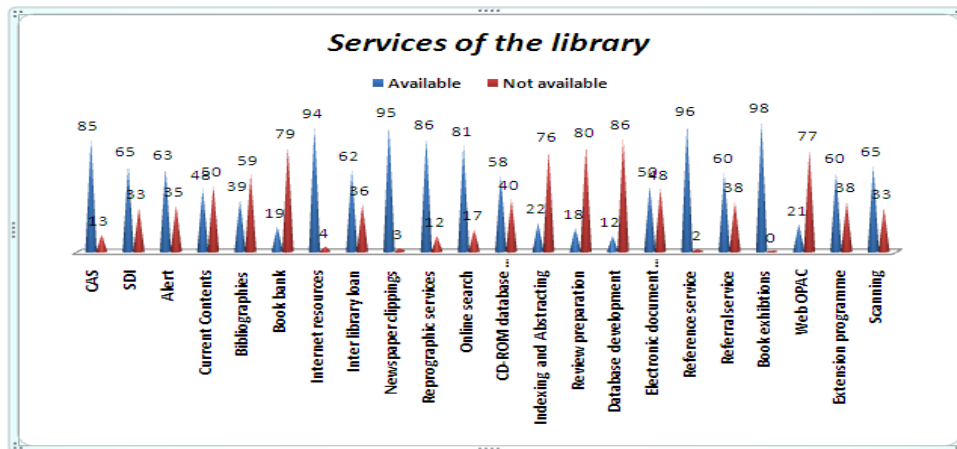
16 libraries managing library orientation programme which support for using library effectively and efficiently.

6.5.36 Library Services:

Table 6.23 Services Provided by Management Libraries

Library Services	Available	%	Not available	%
CAS	85	87	13	13
SDI	65	66	33	34
Alert	63	66	35	34
Current Contents	48	49	50	51
Bibliographies	39	40	59	60
Book bank	19	19	79	81
Internet resources	94	96	4	4
Inter library loan	62	63	36	37
Newspaper clippings	95	97	3	3
Reprographic services	86	88	12	12
Online search	81	82	17	18
CD-ROM database searching	58	59	40	41
Indexing and Abstracting	22	23	76	77
Review preparation	18	19	80	81
Database development	12	12	86	88
Electronic document delivery service	50	51	48	49
Reference service	96	98	02	02
Referral service	60	61	38	39
Book exhibitions	98	100	00	00
Web OPAC	21	22	77	78
Extension programme	60	62	38	38
Scanning	65	66	33	34

Fig. 6.14 Library Services



Observation:

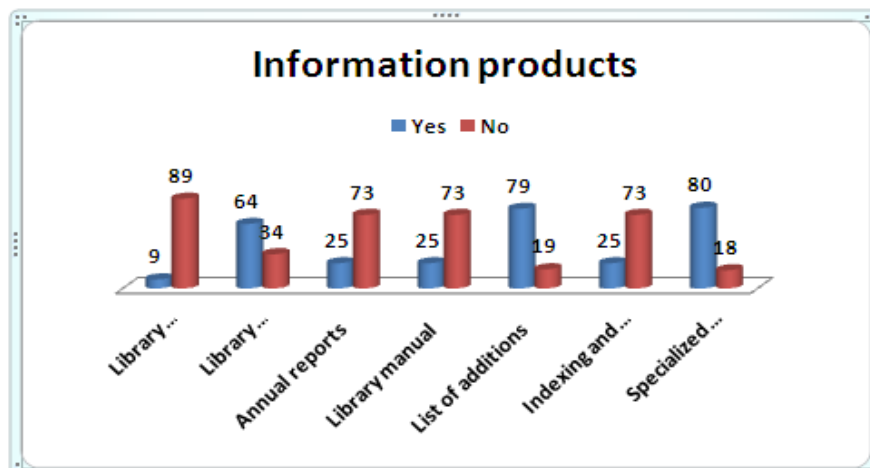
It is observed that management libraries are providing basic services like CAS (85 libraries), SDI (65 libraries), ILL (94 libraries), newspaper clippings (95 libraries), reprographic services (86 libraries), reference services (96 libraries), book display (98 libraries) to users. Due to automation of libraries services such as OPAC have been initiated by 65 libraries but Web OPAC facility is not reflected prominently (21 libraries). New concepts of user oriented services are being initiated in the libraries like Alert services (63 libraries), Current contents (48 libraries), online and offline (58 libraries). Internet use is increased in libraries and internet based teaching is also used in the classrooms. About 96% libraries are providing internet access. The resource sharing concept is accepted in these libraries and few libraries are members of MANLIBNET, DELNET along with traditional ILL. The computer network based EDDS is provided in 50 libraries. Use of ICT has made an impact on libraries and hence these libraries have initiated user orientation programs to make use of e-resources and internet resources (60 libraries). Review preparations and database creation is very poorly developed but about 20 libraries have taken initiative in these activities.

6.5.37 Information products

Table: 6.24 Information products

Information Product	Yes	%	No	%
Library newsletters	9	9	89	91
Library catalogues	64	65	34	35
Annual reports	25	28	73	74
Library manual	25	12	73	88
List of additions	79	80	19	20
Indexing and abstracting journals	25	26	73	74
Specialized databases	80		18	

Figure 6.15 Information products



Observation:

Library catalogue and list of additions are the major information products generated and circulated among libraries. The other information products are in the initial stage of implementation. It has been observed that only 25 libraries have prepared library manual.

6.5.38 Circulation of Books to Students

Table 6.25 Books Issued to Students

Number of Books Issued	Number of Institutes	%
2	50	51
4	39	40
6	6	6
8	2	2
10	1	1
Total	98	100

Observation:

It is observed that 50% of libraries issue only two books whereas 39 libraries issue 4 books and 9 libraries issue 6-10 books at a time to users. There is a facility of issuing books under the book bank facility and 6-10 books are issued per session. Thus, 90% of libraries issue only 2-4 books for a period of 8 days and fine system is implemented for late return of books.

6.5.39 Circulation of Books to Faculties

Table 6.26 Books issued to faculties

Number of Books	Respondents	%
Up to 5	31	32
Up to 10	34	34
Up to 15	12	12
Up to 20	2	2
Up to 25	2	2
Up to 30	17	18
Total	98	100

Observation:

Books issued to faculties varies in between 5-10 but 21 libraries issue more than 20 books at a time to faculty for different purpose like preparation of class notes, research purpose and reference used where as 77 libraries issues books to their teaching faculty between 5-15.

6.5.40 Application of Management Techniques

The management tools and techniques are used in few libraries for better management and using resources in better ways.

6.5.41 Evaluation of Library Services.

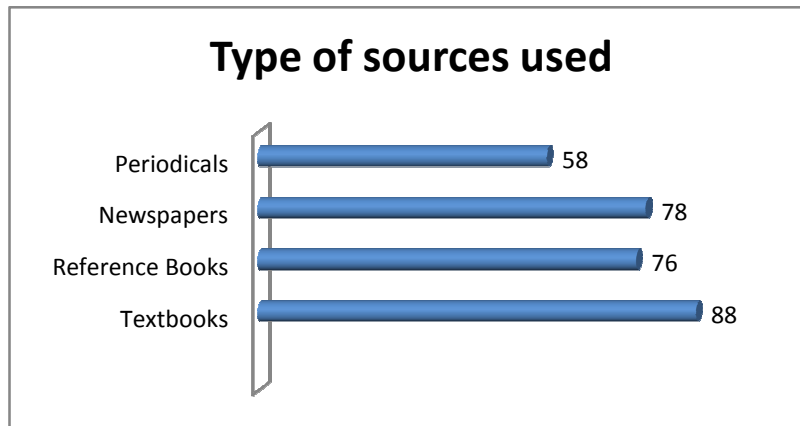
There is a need to evaluate the services provide by libraries to its users and users' feedback is necessary for improving the services. It is found that 54% libraries are evaluating their service performance. But evaluation is not yet considered.

6.5.42 Types of Resources Referred by Users

Table 6.27 Types of Library Sources Used

Types of Resources Used	No. of institutes	%
Textbooks	88	29.34
Reference Books	76	25.33
Newspapers	78	26.00
Periodicals	58	19.33

Fig. 6.16 Library sources referred



Observation:

It is observed that users consult mainly the textbooks, reference books, newspaper and periodicals. Since management library function as academic library and impart management education it is observed that textbooks are consulted more. The reference books are consulted for fact finding and preparation of project reports, seminar works etc. but use of periodicals is not up to mark, though considerable amount spent on subscribing to periodicals which provides primary information to user.

6.5.43 Scanning of periodicals:

Only 10% of the libraries scan periodicals and send the scanned copies through e-mail to the faculties while 90% of the libraries did not scan the periodicals as there was no such demand from the users.

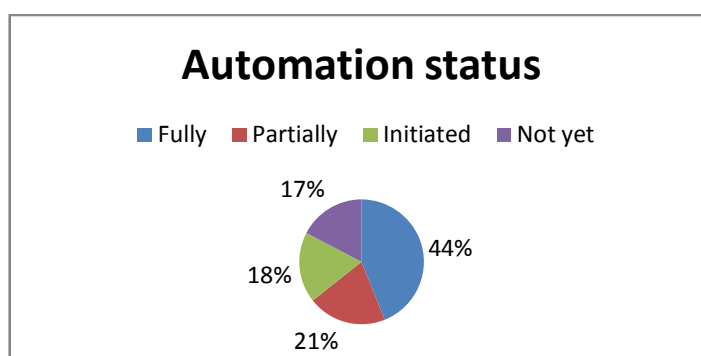
E) Efforts towards Modernization of Libraries:

6.5.44 Automation Status

Table 6.28 Library Automation Status

Automation status	Respondents	%
Fully	43	43
Partially	20	21
Initiated	18	19
Not yet	17	17
Total	98	100

Fig. 6.17 Library automation



Observation:

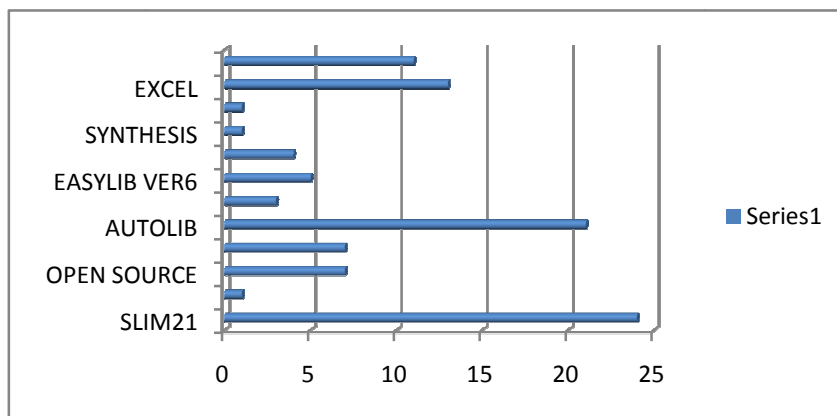
ICT is applied in almost of all housekeeping operations and information searching. Similarly, better services are provided to users with the use of ICT. It is found that out of 98 libraries only 43 libraries have achieved full computerization and 20 libraries have partially finished automation but 35 libraries have not yet automated the libraries even though much economical library management software are available including free softwares.

6.5.45 Use of Library Management Softwares

Table 6.29 Library Management softwares

Softwares used	Respondents	%
SLIM21	24	24
SOUL	1	1
OPEN SOURCE	7	7
LIBSUITE	7	7
AUTOLIB	21	22
VRIDDHI	3	3
EASYLIB VER6	5	5
LIBEX	4	4
SYNTHESIS	1	1
I-CAMPUS	1	1
EXCEL	13	14
INHOUSE	11	11
Total	98	100

Fig 6.18 Automation software's Used



Observation:

Among the different library management softwares for automation it is found that SLIM21 and AUTOLIB are the prominent library softwares used by libraries and

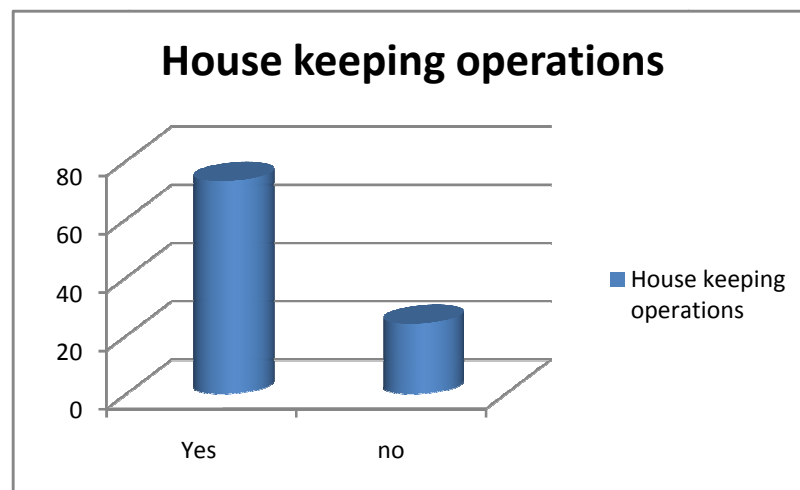
surprisingly 13 libraries are using excel for data entry of books. Other softwares are also used by some libraries while Libsuite is used by 7 libraries. It is found that softwares having powerful utilities are not used in these libraries but open source softwares are used to develop library automation. 74 libraries have used library software for housekeeping operations. It is also noticed that many libraries (24) do not purchase all the modules of the software.

6.5.46 Housekeeping operations

Table 6.30 Housekeeping operations

Use for housekeeping operations	Respondents	%
Yes	74	75
No	24	25
Total	98	100

Fig.6.19 Housekeeping operations



Observation:

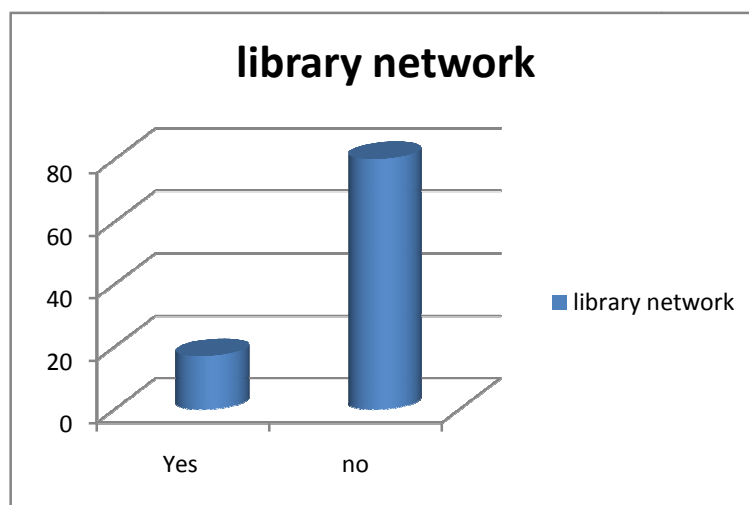
The housekeeping operations are being carried out using library management softwares in 74 (75%) libraries. It is found that all the housekeeping modules were not purchased by the library due to budget deficiency.

6.5.47 Membership of Library Network

Table 6.31 library network

Library Network Membership	Respondents	%
Yes	17	18
No	81	82
Total	98	100

Fig. 6.20 Library network



Observation:

It is observed that only 17(18%) libraries are part of library network and majority of them are members of DELNET. The network facility was not used prominently but still the institutes had subscribed to the DELNET and the main reason found for this was that this was due to NAAC requirements.

6.5.48 Additional budget for automating library

Table 6.32 Additional budget

Provision of Additional Budget	Respondents	%
Yes	21	22
No	77	78
Total	98	100

Observation:

Only 21(22%) libraries have received provision for additional budget for automation, procurement of software modules and installation of CCTV which have not been purchased before.

6.5.49 Internet Facility for Library Users

Table 6.33 Internet facility for Library Users

Availability of Internet	Respondents	%
Yes	96	98
No	2	2
Total	98	100

Observation:

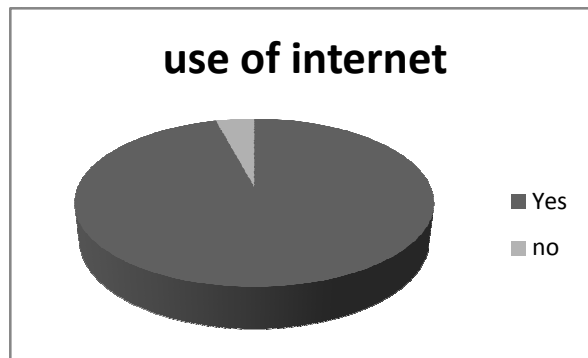
Internet use is reflected more in management library. Almost 96 libraries have internet facility available through Tata, BSNL, VSNL or Reliance and the speed ranges from 2-10mbps. This is very promising fact for use of internet for getting services.

6.5.50 Use of Internet for Library Activities

Table 6.34 Use of internet for Library Activities

Internet use for library Activities	Respondents	%
Yes	94	96
No	4	4
Total	98	100

Fig. 6.21 Use of internet for Library Activities



Observation:

It is reflected that 96% librarians are using the internet for conducting various activities like online search, checking price of books, place order on Amazon.com or flipcart online book shops, sending reminders, classification of books, news, open source databases and other related aspects.

6.5.51 Intranet Facility in the Library

Table 6.35 Intranet Facility in Library

Intranet facility	Number of respondents	%
Yes	90	92
No	8	8
Total	98	100

Observation:

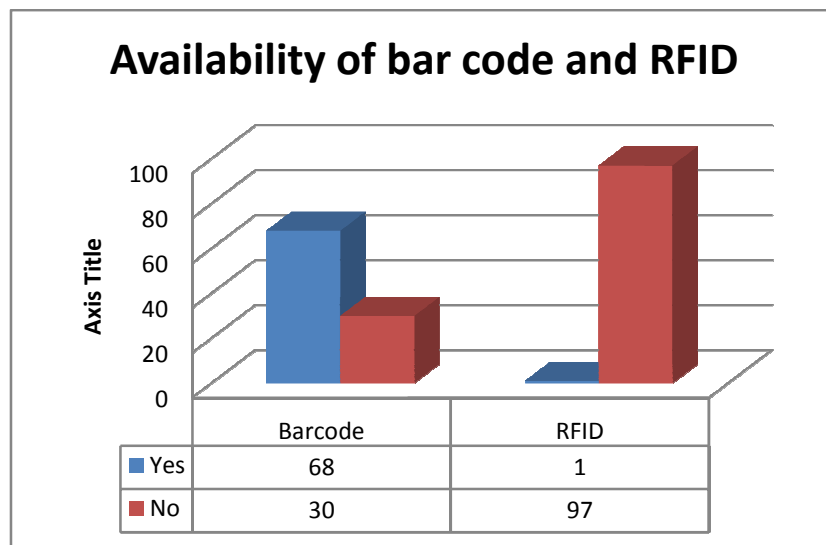
90 (92%) libraries have the intranet facility. The intranet facility is used by the library for making the users aware of the library collection.

6.5.52 Bar Code and RFID

Table 6.36 Bar code and RFID

Use of Barcode and RFID	Barcode	RFID
Yes	68	1
No	30	97
Total	98	98

Fig. 6.22 Bar code and RFID



Observation:

It is observed that 68 libraries have completed bar-coding of library collection and only one library has completed RFID.

6.5.53 Digital Library Initiatives (DLI)

Table 6.37 Digital library Initiatives

DLI	Respondents	%
Yes	90	25
No	8	75
Total	98	100

Observation:

Management education in many institutes is using ICT in teaching and learning through Wi-Fi connectivity while many libraries have not yet achieved full computerization. The automation status is fully completed in 43 libraries and 20 libraries have partially completed whereas 18 libraries have started the process of automation. Thus, 81 libraries have marched towards automation. It is also found that after automation libraries attached to management institutes have to take initiatives for digital library. 90 libraries are planning to go in for digitization.

6.5.54 Library Web-page

Libraries are developing their web pages either independently or attached to institutes home page. Only 17 libraries so far have developed their own web pages.

6.5.55 Provision of Service to Outsiders

Table 6.38 Service to Outsiders

Services to Outsiders	Respondents	%
Yes	11	11
No	87	89
Total	98	100

Observation:

It is observed that only 11 libraries are providing services to outsiders. This proves that resource sharing is very poorly developed for exchanging information.

6.5.56 Marketing of Information Products

Table 6.39 Information products marketing

Marketing of products	Respondents	%
Yes	8	8
No	90	92
Total	98	100

Observation:

It is observed that since information products are not yet developed in these libraries, marketing is very less. But 8 libraries are making efforts in this activity.

6.5.57 Income Generation from the Library

Table 6.40 Income generation

Income Generation Practice	Respondents	%
Yes	88	90
No	10	10
Total	98	100

Observation:

Income generation is not possible in absence of information products but 88 respondents have pointed out that they generate income through the means of late return fines, fees for use of internet, use of study room facilities etc

6.5.58 Users Survey Conducted by the Library

The user surveys are conducted by many librarians periodically in the form of feedback, drop box facilities, inviting suggestions etc.

Table 6.41 User's survey

Users survey conducted	Respondents	%
Yes	80	82
No	18	18
Total	98	100

Observation:

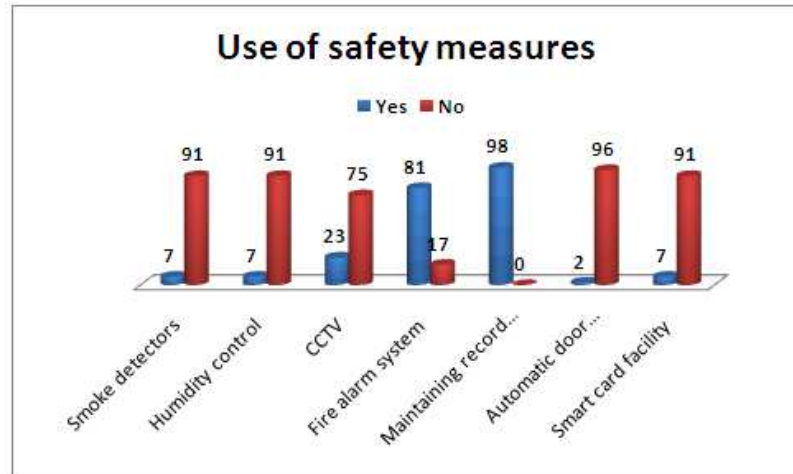
80 librarians responded that they are conducting user surveys for improving library services and activities. It is a very good symptom that librarians from management sector are considering user opinions for developing libraries.

6.5.59 Use of Safety Measures in Libraries

Table 6.42 Use of safety measures

Use of safety measures	Yes	%	No	%
Smoke detectors	7	7	91	95
Humidity control	7	7	91	93
CCTV	23	24	75	76
Fire alarm system	81	82	17	18
Maintaining record of visitors	98	100	0	0
Automatic door control	2	2	96	98
Smart card facility	7	7	91	93

Fig. 6.23 Use of safety measures



Observation:

After automation and internet facilities there is also a need for use of advanced technologies for security measures in libraries like automated control gates, swiping cards, use of smoke detectors, humidity controllers etc. In the survey it is observed that only efforts taken by management libraries towards modernization are implementation of CCTV camera and Fire alarm system.

F) Resource Sharing:

6.5.60 Resource sharing Among Libraries

Table 6.43 Resource sharing

Resource sharing	Respondents	%
Yes	38	39
No	60	61
Total	98	100

Observation:

It is observed that resource sharing activity is hardly carried in 38 libraries. The importance of resource sharing and library network is poorly developed in management sector.

6.5.61 User Expectations from Management Libraries

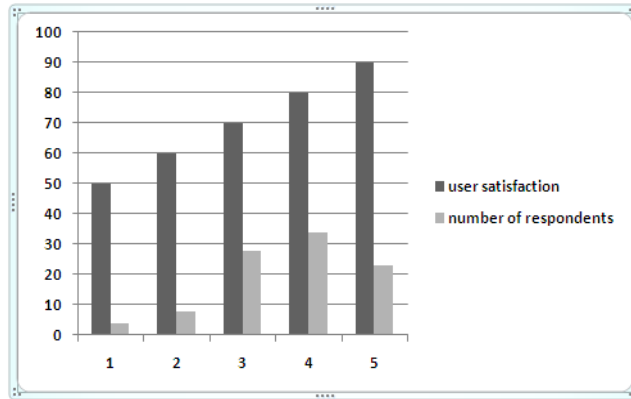
Users visit the libraries for obtaining specific information. While surveying it is found that users need more textbooks from other libraries and also like inter library loan facility, use of internet facility is more. Reference services are more required rather than referral service.

6.5.62 User Satisfaction from Libraries

Table 6.44 User satisfaction

Rate of satisfaction	Respondents	%
50%	4	14
60%	8	17
70%	24	20
80%	35	23
90%	23	26
Total	98	100

Fig. 6.24 User satisfaction



Observation:

It is found that users of 58 institutes have achieved more than 80% satisfaction from libraries. 24 libraries satisfy 70% needs of users whereas 12 libraries satisfy less than 60% users. The user satisfaction can be increased through provision of additional services like ILL and DDS. At present 83 libraries have not developed any programme of resource sharing. 47 libraries have taken membership of other libraries but it is not properly utilized by users as well librarians. It is found that 46 libraries initiated DDS activity among Pune city libraries recently.

6.5.63 Dependence on Other Libraries

Table 6.45 Dependence on other Libraries

Dependence of other Libraries	Respondents	%
Yes	15	15
No	83	85
Total	98	100

Observation:

85% of the libraries do not depend on any other libraries while 15% libraries do depend on other institute libraries mainly the sister institutes if in the same campus.

6.5.64 Member of other libraries

Table 6.46 Membership with other Libraries

Membership With other Libraries	Respondents	%
Yes	47	48
No	51	52
Total	98	100

Observation:

52% of the libraries do not have membership with other libraries and these are mainly new set up institutes and libraries of 47 institutes have membership of other libraries like the British Council Library, Gokhale Institute of Economics and Politics, Jaykar Library, Maratha Chamber of Commerce etc.

6.5.65 Provision of ILL and EDDS

The main aim of electronic document delivery is delivering the document in the most efficient and cost effective way.

Table 6.47 Electronic Document Delivery

EDDS available	Respondents	%
Yes	44	45
No	54	55
Total	98	100

Observation:

44 (45%) librarians are providing electronic document delivery services to the users through e-mail.

6.5.66 Consultation Charges for Library Use

Table 6.48 Library charges

Consultation charges	Respondents	%
Yes	2	2
No	96	98
Total	98	100

Observation:

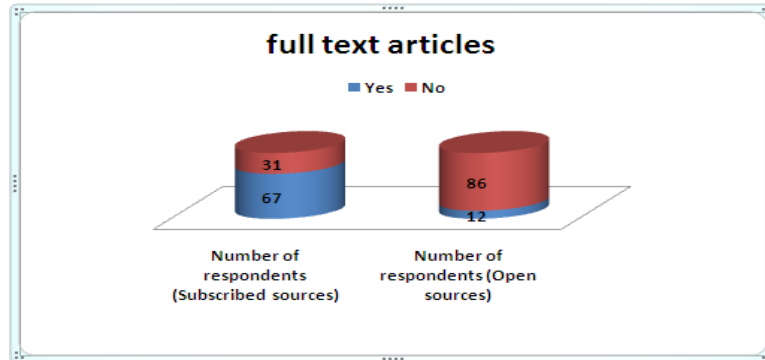
It is found that only 2 libraries are charging fees for library consultancy and that too is very negligible.

6.5.67 Full text Articles Availability:

Table 6.49 Full Text Articles

Full text articles Availably	Respondents (Subscribed sources)	Respondents (Open sources)
Yes	67	12
No	31	86
Total	98	98

Figure 6.25 Full Text Articles



Observation:

67 libraries provide full text articles service using photocopy facilities from the subscribed journals and 12 libraries are providing articles from open source resources.

6.5.68 Internet Downloads Usage Record

Table 6.50 Internet Downloads Usage Record

Internet downloads Usage record	Respondents	%
Yes	17	18
No	81	82
Total	98	100

Observation:

Only 17 libraries are keeping the records of internet download of the users.

G) Equipments in Library

6.5.69 Xerox

Table 6.51 Xerox

Sr. No.	Xerox facility in library	Respondents	%
1	Yes	81	82
2	No	17	18
	Total	98	100

Observation:

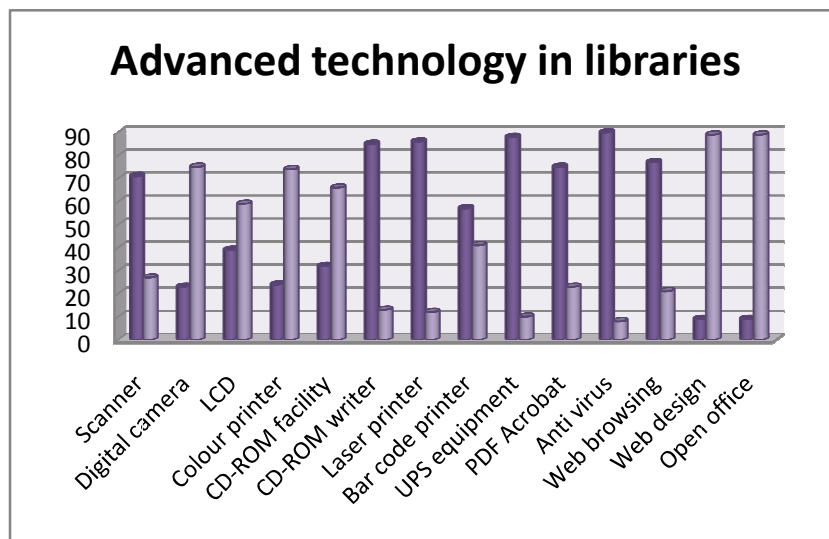
82% libraries are having Xeroxing unit in libraries and users can avail the facility for photocopying the reference collections, question papers etc.

6.5.70 Availability of advanced technology

Table 6.52 Availability of Advanced Technology

Availability of advanced technology	Yes	%	No	%
Scanner	71	72	27	28
Digital camera	23	24	75	76
LCD	39	40	59	60
Colour printer	24	25	74	75
CD-ROM facility	32	33	66	67
CD writer	85	86	13	14
Laser printer	86	88	12	12
Bar code printer	57	58	41	42
UPS equipment	88	90	10	10
PDF Acrobat	75	76	23	24
Anti virus	90	92	8	8
Web browsing	77	78	21	22
Web design	9	9	89	91
Open office	9	9	89	91

Figure 6.26 Availability of advanced technology



Observation:

It is observed that modernization practices have been slowly introduced in management libraries after automation efforts are required especially for networking of libraries and digital library development. In the survey it is found that scanner, CD ROM (reader cum writer), laser printer, UPS facility, web browsing are established to support advance services in library with the help of ICT. Few libraries have also procured digital cameras, LCD projectors, bar code printers etc. Similarly 72% libraries have scanning facility in libraries but the size of scanners is small. This is good for providing EDDS among local libraries.

H) Use of Electronic and Digital Information Resources:

6.5.71 Availability of Digitization Software in the Libraries

Table 6.53 Digitization Software

Availability of digitization software	D-Space	Greenstone	Koha	E-print	Any other
Yes	0	0	4	0	1
No	98	98	94	98	97

Observation:

For developing digital library free softwares are available but only 4 libraries have shown interest in developing DL using Koha software.

6.3.72 Digital Information Sources in the Library

Table 6.54 Digital information sources

Digital information Resources	Respondents	%
Yes	38	39
No	60	61
Total	98	100

Observation:

39% libraries have started subscribing to digital information services.

6.5.73 Plan for Digitization in the Library

Table 6.55 Digitization plan

Digitization Program	Respondents	%
Yes	24	25
No	74	75
Total	98	100

Observation:

The plan for digitization has been thought only by 24 libraries. This might be due to availability of literature having usage and preservation requirement.

6.5.74 Budget for Digitization

Table 6.56 Budget for Digitization

Budget provision	Respondents	%
Yes	8	8
No	90	92
Total	98	100

Observation:

It is observed from the table that budget provision for digitization of library materials has been made only in 8 (8%) libraries. The reason for this was many of the libraries have a new setup and new collection in which the librarians feel that digitization is not really required at present for these new books. In some libraries there is shortage of staff and thus the librarian has not thought of digitization.

6.5.75 E-Journals Subscribed

Table 6.57 E- journals subscription

Subscription to e-journals	Respondents	%
Yes	72	73
No	26	27
Total	98	100

Observation:

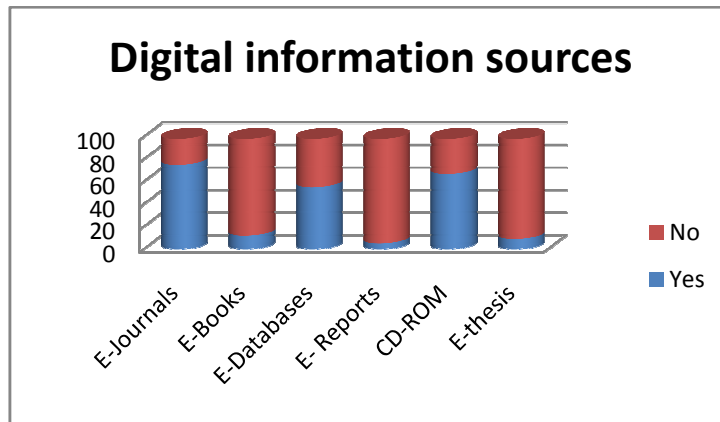
72 libraries have subscribed to various e-journals however the trend in subscribing to digital information is increasing slowly and e-books, databases are also being subscribed along with e-journals.

6.5.76 Digital Information Sources in Libraries

Table 6.58 Digital information sources

Subscription to e-resources →	E- Journals	E- Books	E- Databases	E- Reports	CD-ROM	E- thesis
Yes	75	12	55	5	67	9
No	23	86	43	93	31	89
Total	98	98	98	98	98	98

Fig 6.27 Digital Information Sources



Observation:

It is observed that e-resources are used in management libraries and journals are commonly procured in 75 libraries. Databases sometimes offline (CD-ROM) are also subscribed. It is very good sign that some management have established consortium practices for management libraries. The use of e-reports, e-books and e-thesis is not much seen.

6.5.77 Users of internet: Availability

Table 6.59 Users of internet: Availability

Users of Internet	Available	%	Not available	%
Librarian	90	92	8	8
Library staff	90	92	8	8
For Online search	93	95	5	5
E-mail	93	95	5	5

Observation:

It is observed that 92% of the librarians are using internet for searching information through various sites like Google, 12Managers.com, glossary of marketing terms etc. but

8% librarians are not using the internet mainly because it is not available in the library. The use of internet facility by the library staff is 92%.

6.5.78 ICT Trained Library Manpower

All the librarians responded that their library staff is well versed with computer applications and they also get timely help from the IT qualified staff available in the institute for solving problem as per their requirement.

6.5.79 Awareness about subscribed e-resources

Table 6.60 Awareness about e-resources in libraries

Awareness of subscribed e-resources	Yes	%	No	%
Users of library	71	72	27	28
Library staff	73	74	25	26

Observation:

E-resources subscribed in libraries are costly and hence its use must be enhanced properly by users as well as library staff. Both have to know the methods of using or searching parameters of e-resources. In survey it is found that users and library staff both are 72% of aware of using valuable databases but training is demanded by the users and few library staff.

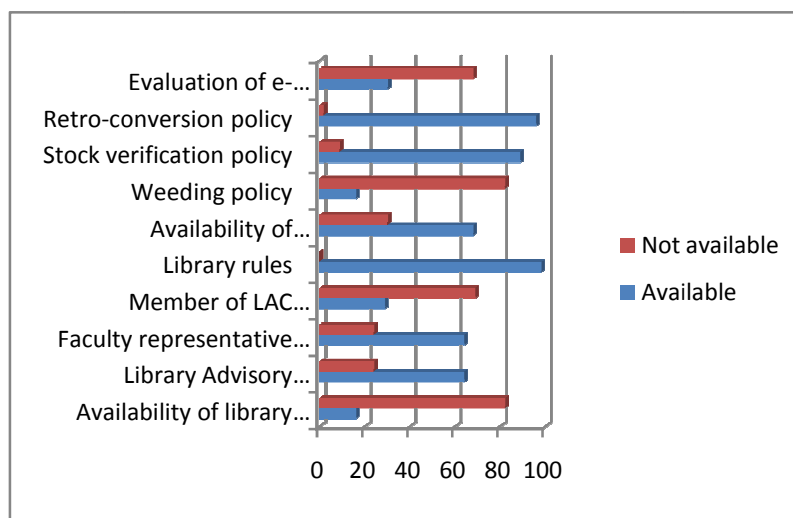
I) Qualitative Library Management:

6.5.80 Efforts for Developing Qualitative Library Management

Table 6.61 Efforts made for qualitative library management

Efforts for quality library management	Efforts made	%	No efforts	%
Preparation of library manual	16	16	82	84
Establishing library Advisory Committee	64	72	24	28
Faculty representative member of LAC	64	72	24	28
Student representative in LAC	29	30	69	70
Prepared library rules	98	100	0	0
Developed collection development policy	68	69	30	31
Prepared weeding policy	16	16	82	84
Stock verification policy	89	91	9	9
Retro-conversion policy	96	98	2	2
Evaluation of e-resources	30	31	68	69

Fig 6.28 Efforts made for qualitative library management



Observation:

It is observed that standard policy framework or library manual is not prepared in many libraries (82 libraries) and only 16 libraries have prepared library manual for NAAC but its utility is not to mark.

Library Advisory Committee (LAC) is available in only 64 libraries and 24 libraries do not have any library committee and the institutes' administration looks after the activities of library development as they are recently established. The established composition of LAC consists of faculty and student participation. But faculty contribution is in 64 libraries and only 29 libraries have student members participating in LAC but many times they do not attend the meetings of LAC.

Library rules are framed prepared by all management libraries but they are not in detail and have traditional look.

Collection development Policy (CDP) is prepared in 68 libraries only and 31% libraries do not have any such policy. CDP is an essential factor which helps in proper collection development and collection management as well as proper utilization of library budget. It is also observed that out of 68 libraries no one has a detailed CDP in a written form. Though different policies have been framed but they are not up to the mark. The libraries instead of having CDP have different weeding policy (89 libraries), stock verification policy (89 libraries), retro conversion policy (96 libraries) and evaluation of e-resources (30 libraries). The policies for selection, preservation and maintenance etc. are not prepared which are more important. However there is a need to develop CDP in detail for every library.

6.5.81 Open Ended question:

The last open ended question was asked to get the suggestions from librarians for improving status and contribution of librarians in it. The librarians suggested following issues in response to this question.

- Library budget should be increased.
- The librarians should be involved in the budget making process.
- There should be sufficient number of trained staff in the library.
- The automation process should be speeded up by procuring more modules of the available library software.

- The procurement of online resources should be user friendly.
- If any database is purchased then in-house hands on training for 2-3 days may be provided to the users.
- The users must be made aware of all the e-resources subscribed by the library.
- The libraries should go in for digitization of the valuable text materials available in printed form.
- The library budget should be increased for procurement of e-resources.
- Basic infrastructural facilities in the libraries should be taken care of so that extended services can be provided to the users in this modern ICT era.
- The book club should be started to encourage the faculties and students to attract more to the library.
- RFID technology should be implemented in the library to prevent theft.
- Close circuit cameras should be installed in the library for the safety of library resources.

These suggestions are considered and tried to provide suggestions in next Chapter 7.

Conclusion:

In brief survey of the librarians conducted to understand the status of management libraries gleaned that the management institutes are increasing everywhere including Pune. Management institutes are mostly funded privately by trusts and there are no aided management institutes in in Pune. The librarians are qualified but very few institutes have delegated authorities to them for meeting the daily required library expenses while the others have to follow management procedures every time. On an average the yearly additions in most of the libraries is 500 books. The number of books issued to students is two and for faculties it is ten. The arrangement of books is subjectwise and classification system used is mostly DDC. The automation status is satisfactory and 50% have computerised library collections and others are in process. ICT is used moderately but not applied for scholarly communication. The libraries do not have their own web page.

OPAC facility is available in most of the libraries but Web OPAC is lacking. The libraries provide essential services like CAS, SDI, news alerts and other services. The bar coding is completed in many libraries but RFID is implemented in only one of the management institute library. The libraries have entered in the digital library initiative mode. Many libraries have subscribed to e-resources and databases and are in the process of acquiring digital resources. The safety measures available are only CCTV, fire alarm, smoke detectors while the smart card facility and automatic control door facilities are lacking. Few libraries have membership of other institutions. There are policies framed for activities of the library such as collection development, weeding and stock verification but there are no policies for retro conversion and evaluation of electronic resources. Majority of the management institute libraries have a library advisory committee and they have a faculty representative in this committee. Internet facility is provided but searching skills are lacking. Users feel they need training for using e-resources and Internet for effective searching. Overall there is need felt to find the users expectation, needs and analysing the ISB, to re-engineer libraries to be tuned with latest trends adapted and improve the searching skills of users by giving appropriate training. Continuous ISB studies help in building proper qualitative collection and also providing library services to meet the needs of users.

6.6 Management Faculty: Data Analysis

The questionnaire prepared for the faculty has about 93 questions and intention was to get the information from the faculty for analysis purpose. The questions were related to personal information like age, qualifications; library usage by the faculty, information about the library and awareness of services provided by libraries; regarding modernization concepts, expectations from libraries; use and awareness of digital resources etc.

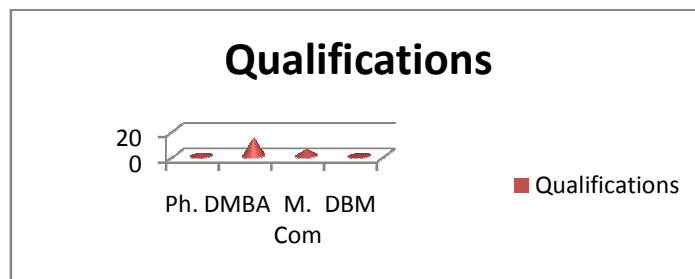
A) Personal Information

6.6.1 Faculty Qualifications:

Table 6.62 Qualifications of teaching faculty

Qualifications	Number of Staff	%
Ph. D	2	9
MBA	14	64
M.Com	5	23
DBM	1	4
Total	22	100

Fig 6.29 Qualifications of teaching faculty



Observation:

It is observed that only 2% of the faculties from management institutes are Ph. D whereas most of them are post graduates (64% MBA and 23% M. Com). This concludes that masters’ degrees are sufficient for management teachers in all institutes. Research is not yet progressive in this field. The industry experience is more essential and hence many industrial executives are associated in teaching to MBA aspirants as visiting faculty.

6.6.2 Faculty pursuing Ph. D

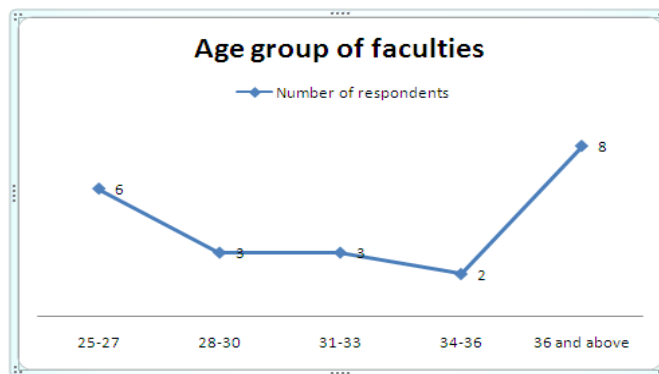
Only 32% staff from management sector is pursuing Ph. D degree. This is an indication that new management institutes have now preferring higher level qualified staff.

6.6.3 Age Group of Faculties:

Table 6.63 Age group of faculties

Age Group	Number of staff	%
25-27	6	27
28-30	3	14
31-33	3	14
34-36	2	9
36 and above	8	36
Total	22	100

Fig. 6.30 Age Group of Faculty



Observation:

The average age of teaching faculties in management institutes is more than 40 years and 36% of the faculty are representing in this age group. This is an experienced group and also technically qualified. 41% faculties are having an average age group 31-35 years. This is middle line faculty appointed. However 41% faculties are in the group of 25-30 years and these are young and newly recruited but dynamic in nature. Thus in management education the average age of faculty is in the range of 35-40 which is a very good combination.

6.6.4 Gender

Table 6.64 Gender

Gender	Faculty	%
Male	14	64
Female	8	36
Total	22	100

Observation:

It is observed from the above table that male faculties are more as compared to female. It is predicted that the females gave preference for job opportunities in the industrial sector with good packages.

6.6.5 Service Experience of Faculty

Table 6.65 Service Experience

Service Experience in Years	Number of respondents	%
1-4	10	45
5-8	9	41
9-12 and more	3	14
Total	22	100

Observation:

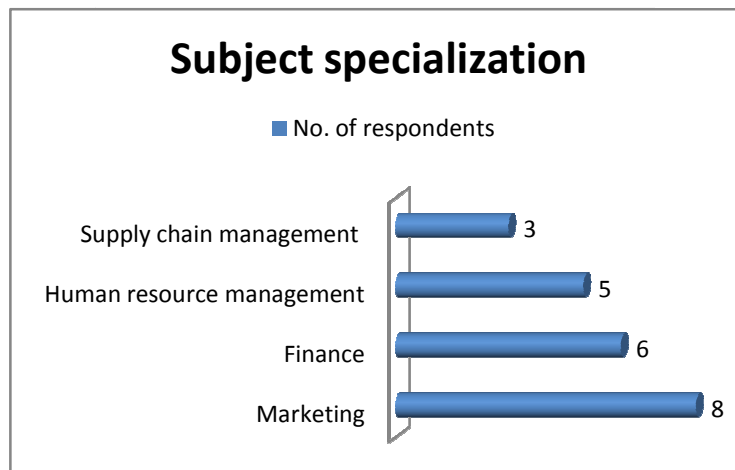
Experienced faculty is available in management education sector which is around 14% and have more than 12 years experience and 86% staff has experience varies between 1-8 years. The senior faculty generally hired from the industry sector based on subject expertise as visiting faculty.

6.6.6 Subject specialization

Table 6.66 Subject specialization

Subject Specialization	faculty	%
Marketing	8	36
Finance	6	27
Human resource management	5	23
Supply chain management	3	14
Total	22	100

Fig. 6.31 Subject specialization



Observation:

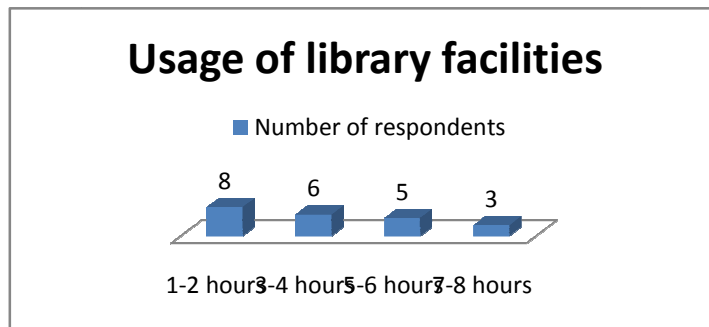
In the survey it is observed that maximum number of faculties (36%) is specialized in marketing next is finance 27%. The specialization in the field of supply chain management is less and similarly in newly introduced courses faculty is less.

6.6.7 Use of Library and Time Spent (Per Day)

Table 6.67 Use of Library and Time Spent

Duration of time spent	Respondents	%
1-2 hours	8	36
3-4 hours	6	27
5-6 hours	5	23
7-8 hours	3	14
Total	22	100

Fig. 6.32 Use of Library and Time Spent



Observation:

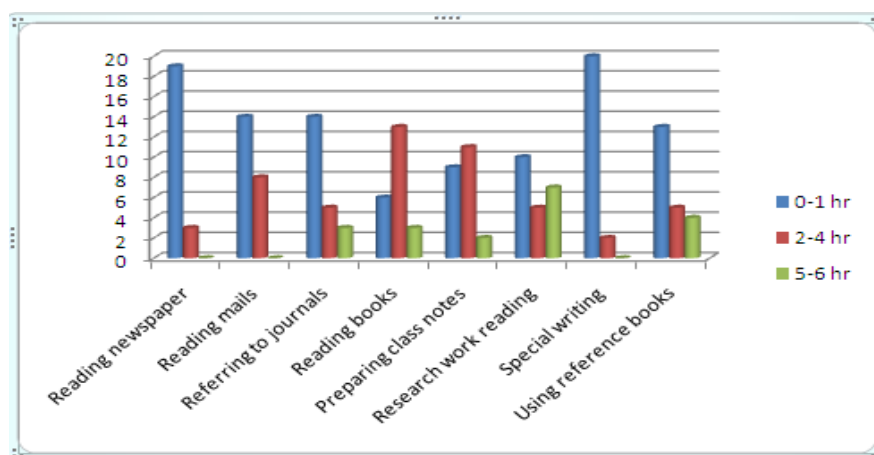
It is found that 63% teaching faculty use library between 1-4 hours per day which is generally senior faculty and 37% teaching faculty spend more than 5 hours daily, this is young faculty and has to take help of the library for various reasons. It is also noticed that teaching faculty undertaking research is using library more frequently and for longer hours.

6.6.8 Purpose of Visiting Library and Time Spent:

Table 6.68 Purpose of Visiting Library and Time Spent

Information gathering activities	0-1 hr	2-4 hr	5-6 hr
Reading newspaper	19	3	0
Reading mails	14	8	0
Referring to journals	14	5	3
Reading books	6	13	3
Preparing class notes	9	11	2
Research work reading	10	5	7
Special writing	20	2	0
Using reference books	13	5	4

Fig.6.34 Purpose of Visiting Library and Time Spent



Observation:

More time is spent on reading books and journals for research work by faculties. Faculty also spends time on reading mails and preparing for class notes and special writings. Less time is spent in the library for newspaper reading.

B) Library usage

6.6.9 Open Access

Table 6.69 Open access

Open access to users	Number of respondents	%
Yes	22	100
No	0	0
Total	22	100

Observation:

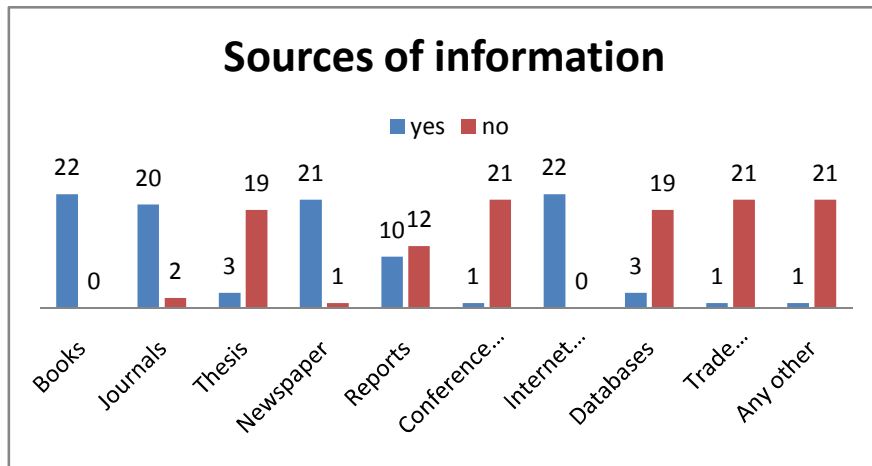
All the faculty of management institutes surveyed uses open access resources available for various purposes especially for teaching and research.

6.6.10 Sources Used for Information Gathering:

Table 6.70 Sources Used for Information Gathering

Particulars	Yes	%	No	%
Books	22	100%	0	0%
Journals	20	91%	2	9%
Thesis	3	13%	19	86%
Newspaper	21	95%	1	5%
Reports	10	45%	12	55%
Conference publications	1	5%	21	95%
Internet resources	22	100%	0	0%
Databases	3	14%	19	86%
Trade literature	1	5%	21	95%
Any other	1	5%	21	95%

Fig. 6.35 Sources of information



Observation:

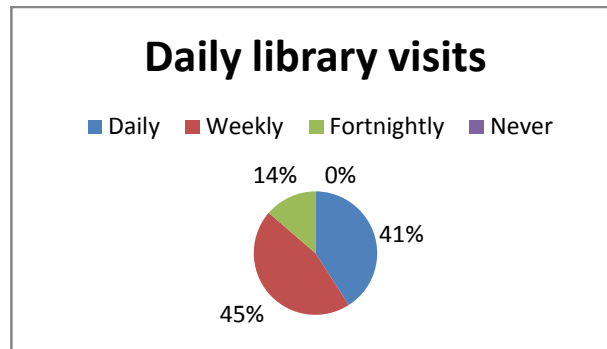
It is found that 63% faculties prefer books, journals, thesis, newspaper which are consulted more. While 32% faculty uses reports, conference publications and internet resources. Databases searching are not so popular in faculty.

6.6.11 Number of Visits to Library

Table 6.71 Number of visits to the library

Sr. No.	Particulars	Yes	%
1	Daily	9	41
2	Weekly	10	45
3	Fortnightly	3	14
4	Never	0	0

Fig. 6.36 Number of visits to the library



Observation:

Majority of the faculties visit library at least once in a week either for books or to view periodicals. There are 41% who visit the library daily generally to read newspapers.

6.6.12 Number of Books Available in Subject

This question was not answered by many faculties as they were not aware of the exact number of books on their subject.

6.6.13 Number of Journals Subscribed in Subject

The faculties indicated that more than 5 journals were available in their subject. Besides these they use online journals on the net.

6.6.14 Consult Library Staff for Assistance

The library staff was quite often consulted by the faculties for their research work and they helped them in procuring the required resources.

6.6.15 Training Programs Organized by Library

The faculties responded indicating that no formal training program is organized by the library. They personally go to the library and retrieve the required information on how to access the library.

6.6.16 Arrangement of books

All the faculties explained that the arrangement of books was comfortable and most of the time the library staff helped them in getting required books so they did not have any difficulty in locating a book.

6.6.17 Separate reading room

There is no separate reading room for the faculties and they expressed a need for this facility so that they could do their research work.

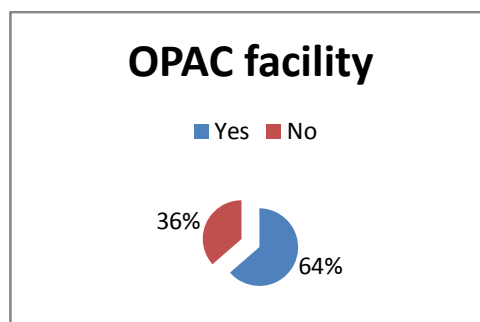
C) Services Provided by Libraries

6.6.18 OPAC Facility

Table 6.72 OPAC facility

OPAC facility	Respondents	%
Yes	14	64
No	8	36
Total	22	100

Fig. 6.37 OPAC facility



Observation:

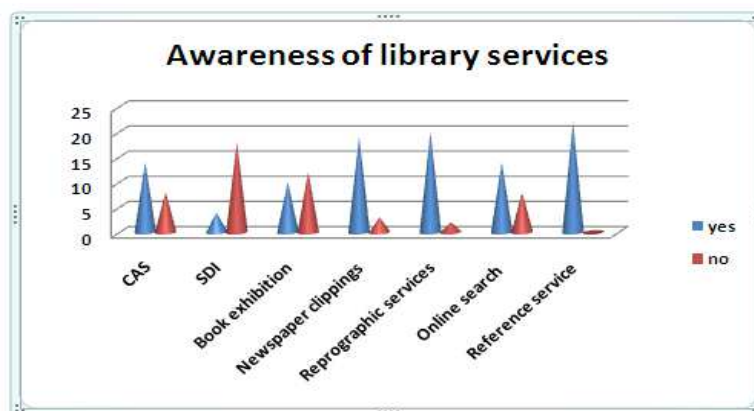
Nearly 64% faculties replied that the library had OPAC facility and they were using it while 36% replied that there was no OPAC facility in the library as the library was not automated or automation work was in progress or maybe they were not aware of it.

6.6.19 Awareness of Library Services

Table 6.73 Awareness of library services

Awareness of Library Services	Yes	%	No	%
CAS	14	14	8	16
SDI	4	4	18	35
Book exhibition	10	10	12	23
Newspaper clippings	19	18	3	6
Reprographic services	20	19	2	4
Online search	14	14	8	16
Reference service	22	21	0	0

Fig. 6.38 Awareness of library services



Observation:

Faculty users are familiar with library and information services provided and are using library services such as reference and reprography. They are not aware of other services provided by the libraries.

6.6.20 Sufficient Books Issued from Library

Faculty is satisfied about the number of books issued to them for home lending.

6.6.21 Preference for Library Material

Table 6.74 Preference for Library Material

Library material	Yes	%
Textbooks	10	14
Reference books	22	31
Newspapers	18	26
Periodicals	20	29

Observation:

The faculties mostly use library for reference books and reading periodicals and newspapers. In many institutes generally the faculties have their own textbooks in form of specimen copies given to them by publishers and so they do not go to the library for these books.

6.6.22 Inter library loan facility:

All the libraries have inter library loan facility and the faculties are aware of this facility but only a few faculties are consulting other libraries by visiting them personally.

6.6.23 Purpose of Information Seeking

Table 6.75 Purpose of information seeking

Information Seeking Purpose	Yes	No
Research work	14	8
General Reading	15	7
Paper setting	21	1
Class lectures	20	2

Observation:

Maximum number of faculties is satisfied by using library and they use the collection for paper setting and delivering class lectures. 14 use the library for research work it may be either paper preparation or their Ph. D work. The purpose of general reading is also served by the library like providing newspapers, magazines and other informative documents.

6.6.24 Scanning of periodicals

Majority of the faculties preferred the index pages to be scanned while some of them preferred the scanning of summaries of articles.

6.6.25 Journal Articles

The faculties need journal articles from the library on their topic of interest or use it for introducing current academic trends.

6.6.26 Intimation of New Arrivals

The library intimated the new arrivals to the faculties mostly when they personally visited the library.

6.6.27 Frequency in use of databases

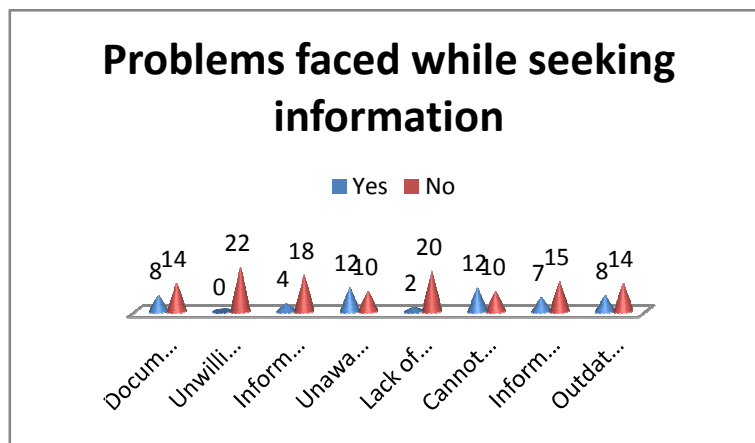
Majority of the faculties preferred to use the databases when they required but they faced difficulties while searching the required articles.

6.6.28 Problems Faced while Seeking Information

Table 6.76 Problems faced while seeking information

Problems faced while seeking information	Yes	%	No	%
Documents required are not available	8	36	14	64
Unwillingness of library staff to assist	0	0	22	100
Information source not organized	4	18	18	82
Unaware to use library catalogue	12	54	10	45
Lack of knowledge about proper use of library	2	9	20	91
Cannot access OPAC	12	55	10	45
Information located at different places	7	32	15	68
Outdated materials	8	67	14	64

Fig.6.39 Problems faced while seeking information



Observation:

From analysis of faculty needs and problems faced by them while searching it has been found that the major problems are related to unavailability of required documents, Library catalogue and OPAC are not easily searchable, library staff is not always available for the help, most of the literature is outdated, many times the library staff are not efficient in searching the required articles. They expressed the need of training for searching information.

D) Library modernization

6.6.29 Network based resources used

Majority of the faculties replied that the library is a member DELNET and they sometimes used services provided by DELNET as their requirements were fulfilled through internet and other electronic resources available in the library.

6.6.30 Availability of internet

Nearly 70% of faculty members replied that the internet was available in the library.

6.6.31 Views on Modernizing Libraries

The faculty opined that they required modern look in the library like more use of ICT, internet with Wi-Fi, provision of library services at desktop and other such facilities which helps in increasing use of library materials.

E) Resource sharing

6.6.32 Satisfaction through collection of library

Table 6.77 Satisfaction of collection

Percentage	Respondents	%
Up to 50%	1	5
Up to 60%	4	18
Up to 70%	8	36
Up to 80%	7	32
Nearly 90%	2	9

Observation:

36% of the faculties are satisfied with 70% of satisfaction from the library services and resources, while only 9% users have 90% of satisfaction level from the library collection. The faculties feel that the libraries should update their resources weed out the outdated edition and increase the collection by adding books of specialization as well as general reading.

6.6.33 Dependence on resources of other libraries

Majority of the faculties did not depend on the resources of other libraries.

6.6.34 Membership of library network

Majority of libraries are members of DELNET.

G) Electronic / Digital Information Resources:**6.6.35 Digital information resources preferred**

70% of the users had given preference for usage of electronic resources in form of databases, electronic journals etc.

6.6.36 Types of electronic resources

Majority of the faculties preferred electronic journals and databases. The e-books concept has not been adopted in any of the libraries mainly due to high cost and no particular demand of the users.

6.6.36 Use of internet for Information Collection

All the faculties used internet for searching management related information.

H) About the Collection Development and Policies:**6.6.37 Member of LAC**

40% of the faculties were the member of LAC while the remaining 60% were not aware of the LAC.

6.6.38 Recommend Books

All the faculties recommended books for the library.

6.6.39 Intimation of recommended books purchased

70% faculties replied that the librarians do not intimate the arrival of recommended books to them and they came to know about these books when they personally visited and demanded these books while 30% replied that they were informed.

6.4.40 Open ended question

Expectations from the library

This was an open ended question put to the faculties and the expectation or suggestions given on improving libraries and the opinions received are summarized as under:

1. Every library should go for automation and networking system.
2. The libraries should adopt latest technology for ensuring effective information services to the users.
3. Bestselling books to be added in the collection for proper collection development.
4. Easy access to e- resources and scanning facilities to be added in libraries.
5. Increase in library collection based on quality.
6. Information resources to be updated and libraries should be user-friendly.
7. The library professionals should be properly trained to provide advanced services.
8. The library should provide 24/7 internet and intranet facility to the users.
9. Timely library orientation programs and proper notification of library resources and guidance for the usage by library professionals.
10. Priority to be given for the procurement of e-resources and databases for the library
11. Librarians should provide links to document and tools like publishers catalogue/online book shops etc.

12. Proper seating arrangement with comfortable furniture for long seating and reading.
13. Proper cataloguing and shelving of books.
14. Latest editions of national and international books and journals.

Conclusion:

The faculties' survey understands the ISB of faculty. The analysis of survey was very helpful and it has been found that:

The faculty is well qualified with basic background of commerce and business management. However 9% of faculties in management institutes of PhD holder. The research activity is increasing in management institutes as 32% staff has registered for PhD. Average age of the staff is in between 30-35 years and young faculty is taking care. However few prominent institutes ask for the expert senior experienced faculty as guest lecturers. Male faculty is more in number. The experience of faculty is 86% ranging from 1-8 years. But 9-12 years experience is for 14% faculty and these take care of senior classes. Staff is more specialized in MBA (Finance, Marketing, HR etc). 63% faculty spent 1-4 hours in a day in the library to consult information resources and 37% spent more than 5 hours. The library is being used more for reading newspapers, journals and for referring reference books. Faculty uses more books than other reading materials but use of periodicals is very less i.e. 9% only. However newspapers are used by 95% faculties. Internet usage is 100%. Faculty prefer (86%) both print and digital. The entire faculty is aware of ICT use. Only 55% faculty uses e-publications available in the library. User satisfaction from library is 88%. The teaching faculty consults the library staff for new additions. 83% faculty is satisfied about library services. They are happy with organization of books in the library. Faculty suggested for more library awareness programs. 55% of faculty is happy with reading room facilities. The users are satisfied about Internet services but use of web 2.0 is unknown to faculty (45% only knows but do not use). 73% faculty is happy with e-resources but only 36% faculty use OPAC. Among the services provided by libraries newspaper clippings, reprographic services, reference services, CAS are more useful as per satisfaction of users. Book issue from library for home lending is suitable to users. Faculties are participated in book selection procedure

and hence required collection is possible. Faculty makes more use of collection for class lectures, paper setting, research etc. Information about new arrivals in library is not noticed by 50% of faculty. The faculty is unaware of use of catalogues, and OPAC. They have also complained of outdated material in stack, unorganized physical resources. It is noticed that 41% users have nearly 90% satisfaction and 36% have satisfaction of 70% from library resources. ILL practices are not used in these groups of libraries. It is suggested that the library should provide OPAC facility to its users so that they can check the availability of a particular document, status of their library holdings, place reservation for books and many other related things.

6.7 Management Users (Students): Data Analysis

In students questionnaire in all about 104 questions were asked to student users to analyse the status of information seeking behaviour habits, their expectations and need etc. The questions basically covered the aspects of personal information, about library usage, awareness of services provided by libraries, use and requirement of electronic/digital information resources etc. The analysis of the data collected through these questions is placed below. The questionnaire was circulated to MBA final year students to get feedback about library usage and analyse ISB.

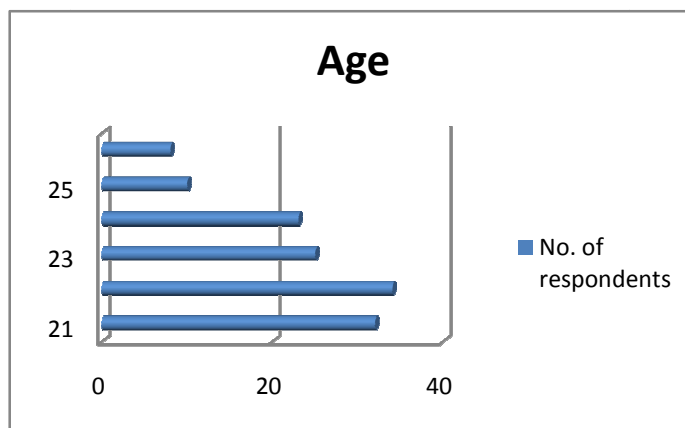
A) Personal Information:

6.7.1 Average age of students

Table 6.78 Average age of students

Age	Number of students	%
21	32	24
22	34	26
23	25	19
24	23	17
25	10	8
26	8	6
Total	132	100

Fig. 6.40 Average age of students



Observation:

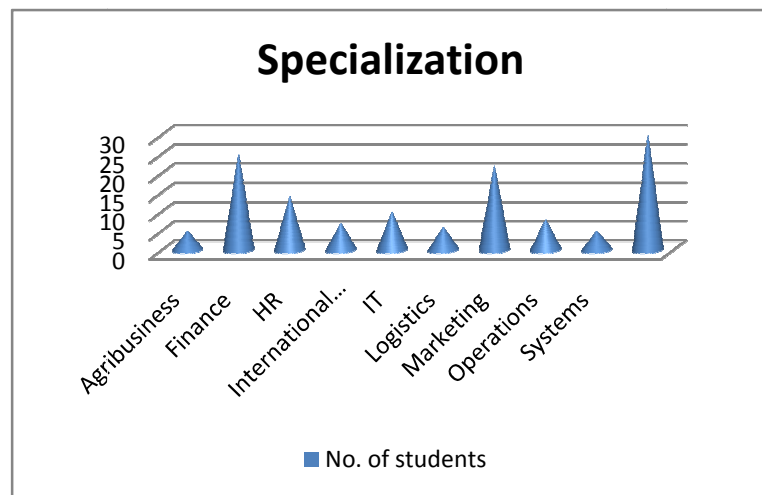
It is observed that nearly 50% of population of students is in between 21-22 years which is very normal age group and joined management education immediately after graduation. The remaining 50% population is in between 23-26 years of age group and out of these 14% students are in between 25-26 age groups it indicates that these group students are working professionals and have joined MBA for career advancement or other purposes.

6.7.2 Specialization

Table 6.79 Specialization

Sr. No.	Specialization	Number of students	%
1	Agribusiness	5	4
2	Finance	25	19
3	HR	14	11
4	International Business	7	5
5	IT	10	8
6	Logistics	6	5
7	Marketing	22	17
8	Operations	8	6
9	Systems	5	4
10	No specialization	30	23
	Total	132	100

Fig. 6.41 Specialization



Observation:

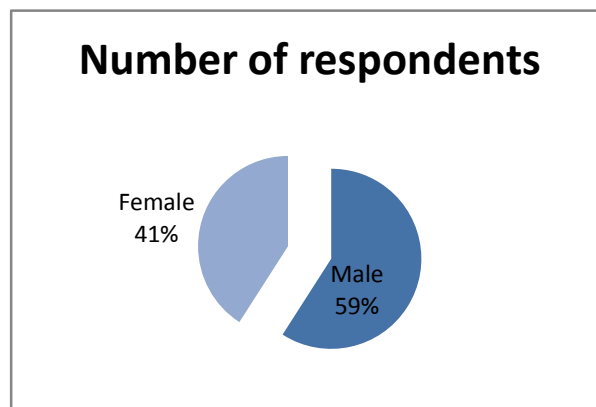
It is observed that general MBA is more popular (23%). The specialization like finance, marketing, HR is very popular and selected by 47% population. In the remaining 30% students, IT has been opted by 8%. But 22% of the students opted for new streams like logistics, operations, systems, agribusiness, international business etc. This clearly indicated the new emergent courses useful for the industry, business are now preferred by students.

6.7.3 Gender

Table 6.80 Gender

Gender	Respondents	%
Male	78	59
Female	54	41
Total	132	100

Fig. 6.42 Gender



Observation:

The ratio of female students is more as compared to male students (41%). It seems that in female students management course is very popular.

B) About Library Usage

6.7.4 Library Membership

All the students had library membership and were using the library facilities regularly.

6.7.5 Visits to Library

Table 6.81 Visits to library

Library Visits	Yes	%
Daily	83	63
Weekly	39	30
Fortnightly	10	7
Never	0	0
Total	132	100

Observation:

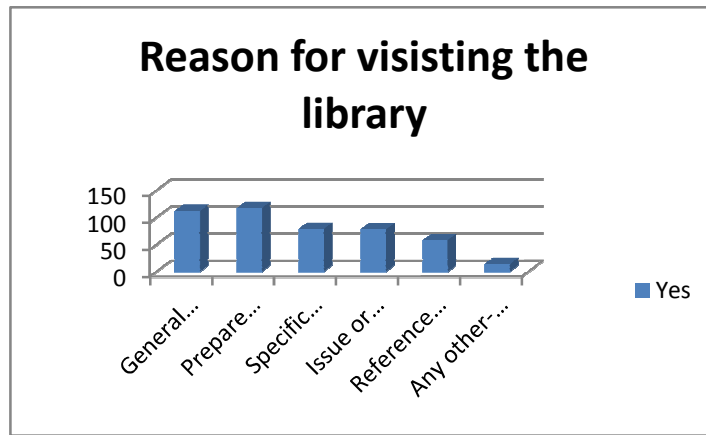
63% students visited the library daily but 37% users are irregular visitors either in a week or fortnight. Majority of the students visited the library daily either for issue or return of books, some for reading newspaper, a few for referring to periodicals and some for studying in the reading hall.

6.7.6 Reason / Purpose behind Visiting Library

Table 6.82 Reason / Purpose behind Visiting Library

Reasons to visit	Yes	%
General Reading	112	24
Prepare class notes	117	26
Specific reading	79	17
Issue or return of books	78	17
Reference searching	58	13
Any other- writing papers or project work	14	3

Fig. 6.43 Reason / Purpose behind Visiting Library



Observation:

50% of the students visit the library for general reading as well as preparing the class notes whereas 30% students refer library for reference collection and specific purpose like searching job opportunities, reading novels etc.

6.7.7 Time Spent in Gathering Information

Table 6.83 Time Spent in Gathering Information

Time spent in gathering information	Yes	%
1-2 hours	67	51
2-4 hours	51	39
4-6 hours	14	10
Total	132	100

Observation:

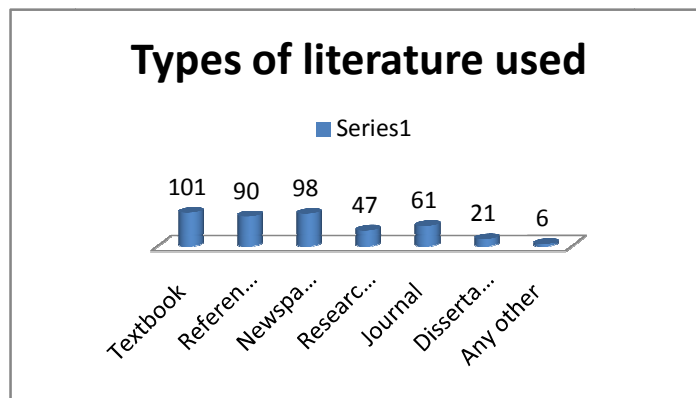
90% of the students visit library between 1-4 hours daily for the various reasons stated above in 6.7.6.

6.7.8 Type of Literature Used

Table 6.84 Type of literature used

Literature consulted	Respondents	%
Textbook	101	24
Reference book	90	20
Newspaper	98	23
Research report	47	11
Journal	61	14
Dissertation	21	5
Any other	6	3
Total	132	100

Fig.6.44 Type of literature used



Observation:

The management students use textbooks and newspapers more followed by reference sources and journals. The research reports are also used by 11% for the submission of their projects.

6.7.9 Purpose for Seeking Information

Table 6.85 Purpose for seeking information

Information seeking	Respondents	%
Reading	115	29
Class notes and tutorials	89	22
Updating knowledge	115	29
Research work	55	14
Entertainment	23	6
Total	132	100

Observation:

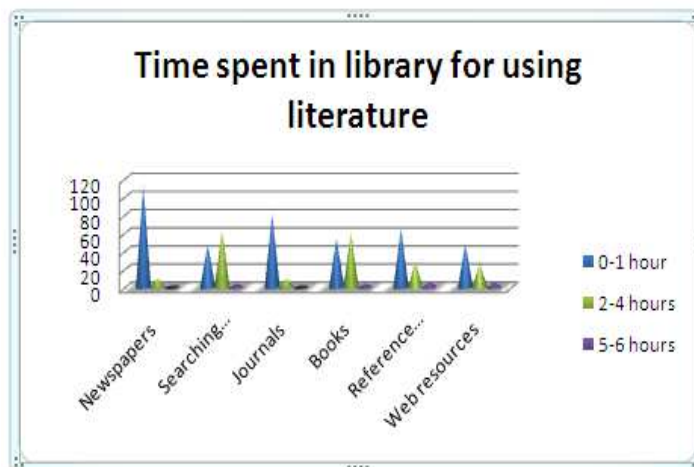
The main purpose behind seeking information is keeping updated in the area by reading library material. They also refer to textbooks prescribed in syllabus and reference sources for additional information. The students of MBA seek information for preparing seminars, projects, assignments, case studies, collecting statistics, company profiles, analysing business and management trends etc. and also update their field knowledge. 14% students visit library and use literature for preparing research reports. The rate of entertainment is very low which comes to 6% only. This indicates that students use library mainly for study purpose.

6.5.10 Time Spent in Library for Consulting Literature

Table 6.86 Time Spent in Library for Consulting Literature

Information sources	0-1 hour	2-4 hours	5-6 hours
Newspapers	112	10	0
Searching Internet	47	62	4
Journals	81	10	0
Books	54	60	4
Reference sources	65	28	6
Web resources	48	26	6

Fig. 6.45 Time Spent in Library for Consulting Literature



Observation:

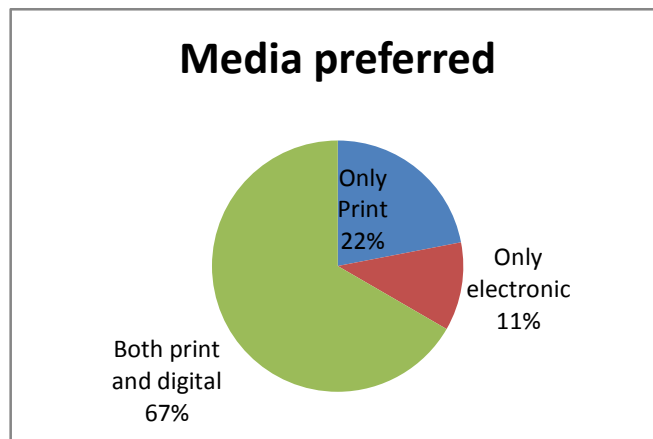
It has been observed that generally the students make use of library between 1-4 hours daily due to busy lectures schedule in which they perform various activities like browsing newspapers, referring to journals, using internet, reading books and reference sources are preferred. The library is used maximum by the students' i.e. 5-6 hours mainly for seminar work, project reports, assignments, preparation for exams etc.

6.7.11 Media Preferred

Table 6.87 Media Preferred

Media used	Yes	%
Only Print	29	22
Only electronic	15	11
Both print and digital	88	67
Total	132	100

Fig. 6.46 Media preferred



Observation:

From the data collected it is concluded that majority of the respondents preferred to use both print and electronic media and thus it can be seen that preferences are given to both media by the users. However the usage of electronic media (11%) is also seen in the survey and this is an indication of changing habits of users due to availability of sources in e-form.

6.7.12 Familiarity in using e-Documents

Table 6.88 Familiarity in using e-Documents

Familiarity in using e-Documents	Respondents	%
Yes	100	76
No	32	24
Total	132	100

Observation:

76% of the students are comfortable with the use of e-publications whereas the remaining are not so familiar.

6.7.13 Use of Internet for Information Collection

95% of the students use internet for collection of information they require for different reasons. This indicates that maximum numbers of students are aware of internet resources and use the internet for gathering information.

6.7.14 Web Tools for communication

80% of the students are familiar with web tools and are using it for sharing information like RSS feeds, twitter, blogs, chat etc.

6.7.15 Satisfaction from Library Collection

Majority of the students (74%) are satisfied with the library collection while 26% are not satisfied with the collection mainly due to insufficient copies in the library or unavailability of the latest edition of books. In some cases the suggested books are not purchased by the library immediately. Sufficient copies of updated editions of textbooks from the syllabus do not exist in the library.

C) Library Facilities

6.7.16 Browsing the Library Collection (Open Access)

85% libraries allow the students to browse the stack for reading purpose (open access for students). This is a very healthy sign. The remaining 15% libraries have the closed access system mainly due to shortage of staff or some management constraints.

6.7.17 Participation in Collection Development

89% of the institute's students participate in collection development process of the library. They suggest books to the library which covers syllabus, new additions, research work or related to general management techniques. Further it is also observed that 77% suggestions are considered after proper scrutiny and consulting the relevant faculties.

6.7.18 Co-operation from the Library staff

94% students have indicated that library staff is very helpful and they have frequent interaction with the staff for various purposes like getting desired books, project reports, journal articles, use of internet, photocopy facilities, reading material on similar topic.

6.7.19 Organization of Library Resources

Table 6.89 Organization of Library Resources

Organization of library resources	Respondents	%
Yes	128	97
No	4	3
Total	132	100

Observation:

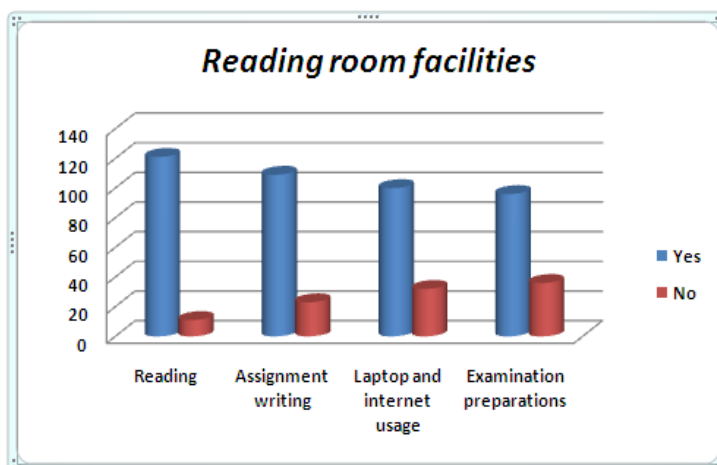
97% students opined that they are happy with the organization of literature available in the library and they could get the information available easily either using OPAC or consulting the library staff.

6.7.20 Use of Reading Room Facilities

Table 6.90 Use of Reading room facilities

Reading room facilities	Yes	%	No	%
Reading	121	28	11	11
Assignment writing	109	26	23	23
Laptop and internet usage	100	23	32	31
Examination preparations	96	23	36	35

Fig. 6.47 Use of Reading room facilities



Observation:

The reading room facility is generally used by 28% students during the examination period for silent reading. Whereas few students make regular use of reading room facilities for general purpose like reading newspapers, using internet etc. and 26% use reading hall for preparing assignments, seminar reports and research study purpose.

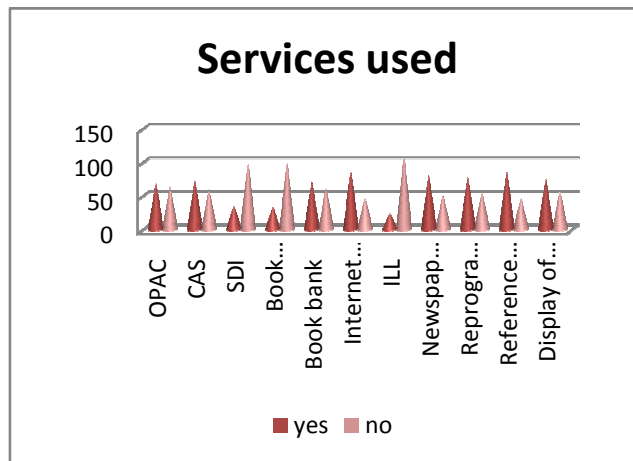
D) Services provided by the library

6.7.21 Services used

Table 6.91 Services used

Services used by Students	Yes	%	No	%
OPAC	68	10	64	9
CAS	73	10	59	8
SDI	35	5	97	13
Book exhibitions	33	5	99	13
Book bank	71	10	61	8
Internet for information gathering	86	12	46	6
ILL	23	3	109	15
Newspaper clippings	81	11	51	7
Reprographic service	78	11	54	7
Reference service	86	12	46	6
Display of new arrivals	76	11	56	8

Fig. 6.48 Services used



Observation:

Among the services provided by libraries, students have responded that they use services like internet surfing for browsing literature (12%), reference services (12%), reprographic service, CAS,SDI,OPAC, book bank etc.

6.7.22 Number of Books Issued

Libraries issue 2-3 books to students. 68% students are happy but 32% students have expressed their desire for more books for preparation of projects, seminars etc.

6.7.23 Awareness in Using Library Resources:

Only 88% of students are aware of using all the available library resources and accessing the library facilities.

6.7.24 Need of Library Orientation Programs

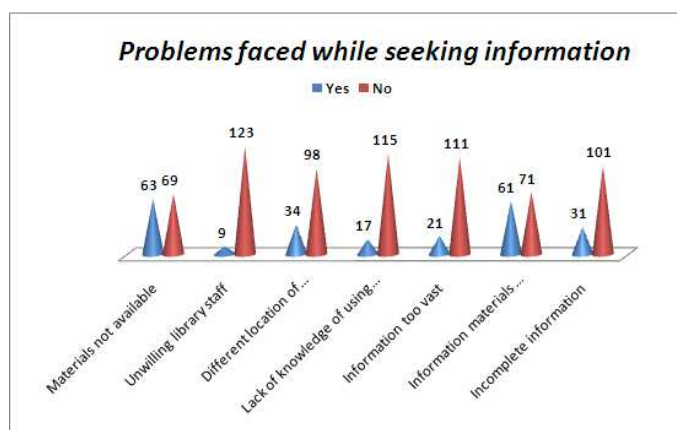
Nearly 67% students responded that they feel library orientation at the time of taking admission to the course might be helpful to them while consulting the literature. They strongly felt that due to unawareness of resources, usage is not properly reflected. 33% students are unaware of orientation.

6.7.25 Problems Faced while Seeking Information

Table 6.92 Problems faced while seeking information

Problems faced while seeking information	Yes	%	No	%
Materials not available	63	27	69	10
Unwilling library staff	9	4	123	18
Different location of information sources	34	14	98	14
Lack of knowledge of using library	17	7	115	17
Information too vast	21	9	111	16
Information materials outdated	61	26	71	10
Incomplete information	31	13	101	15

Fig. 6.49 Problems faced while seeking information



Observation:

The major problems faced by students in getting information are resources not available, outdated information material, incomplete collection, lack of knowledge of using libraries etc.

E) Electronic / Digital Information Resources:

6.7.26 Awareness of digital information resources in libraries

Majority of the students (77%) are aware of digital materials available in library but its effective use is not known to them.

6.7.27 Subscription to e-Journals

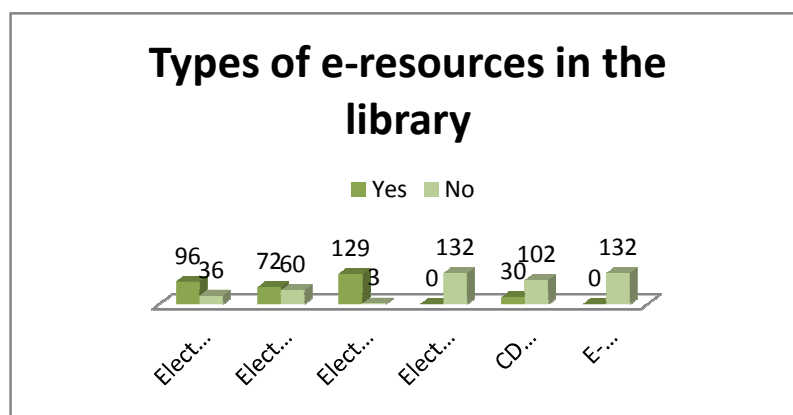
76% students are familiar with the e-journals subscribed by the library while 24% are not aware of the e-journals availability in library.

6.7.28 Type of e-Resources available in the Library

Table 6.93 Type of e-resources in the library

Type of e-resources	Yes	%	No	%
Electronic journals	96	29	36	8
Electronic books	72	22	60	13
Electronic databases	129	40	3	1
Electronic reports	0	0	132	28
CD ROM databases	30	9	102	22
E-thesis	0	0	132	28

Fig. 6.50 Type of e-resources in the library



Observation:

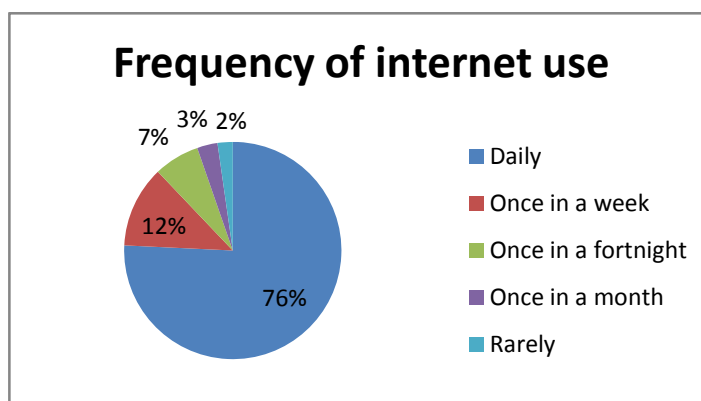
The students are aware of e-resources availability in libraries. Students are aware of e-books, e-journals, e-databases while the availability of e-thesis and e-reports is few in management libraries.

6.7.29 Frequency of Internet Use

Table 6.94 Frequency of internet use

Frequency of internet use	Yes	%
Daily	100	76
Once in a week	16	12
Once in a fortnight	9	7
Once in a month	4	3
Rarely	3	2
Total	132	100

Fig.6.51 Frequency of internet use



Observation:

Internet is heavily used in management libraries. 76% students depend on internet resources and they use it regularly. 24% users are rarely using the internet once in a week or month.

6.7.30 Purpose of internet use

Table 6.95 Purpose of internet use

Purpose of internet use	Yes	%
Study material	119	90
E-mail browsing and sending	108	82
General reading	92	70
Entertainment	90	68

Observation:

90% students use internet for getting additional study material and 82% students use for e-mail browsing and sending. 68% students make use of internet for entertainment purpose i.e blogging, chatting etc.

6.7.31 Co-operation from library staff

The co-operation from library staff is 76% only as expressed by the students. The others (24%) feel that the library staff is not always willing to help.

6.7.32 Open ended question

This was an open ended question put for the students to get suggestions to improve services and satisfying information needs. The suggestions received are summarized as under:

- Online renewal of books is necessary.
- Increase number of textbooks in the library.
- Reminder to students about last date of return of book through SMS or e-mail.
- Books which have simple language to be procured.
- Remove old and outdated books and editions from collection.
- Increase limit of books issued to students in home lending.
- Give staff training to handle the students and aware them about literature available in libraries and searching data on net.

Chapter Summary:

From the review of the librarian, faculty and students data analysis it is very clear that management libraries have to be modernized and more use of ICT and other technologies are to be implemented for qualitative collection development and provision of advanced library services in the era of e-publications and internet. The faculty and students seek information for various purpose and librarian acts as intermediary in assisting them in searching proper information. Users are now aware of technology and are using the techniques but they have no knowledge about systematic information searching and information sources available.

User needs better services and have to search information from different sources for study and research purpose. They seek information but without systematic methods, they are unable to prepare search query and use the tools properly. Training is necessary for both librarians and users. To satisfy the needs of users ISB studies helps a lot to librarian in understanding the level of users and needs of tem. The present data helped librarians in framing the library system to satisfy the users need. The survey has pointed out the facts of status of management libraries and how users are seeking information. Based on this survey in the following chapter findings and suggestions are darted and presented to improve the libraries and seeking methods of information.

Chapter 7: Findings, Suggestions and Conclusion

This chapter is the presentation of best practices to be used in management libraries to present better services to the users and satisfy their needs. Since there is a need to accept the changes due to technology in the profession, it is also necessary to adapt best practices to reshape the activities tuned to needs and using technology.

7.1 What is Best Practices:

Wikipedia has defined best practice as a method which gives superior results than those with other means. These results can be used as quality indicators the process of developing and following standards methods can be achieved through the best practices.

7.1.1 Best Practices for Management Libraries:

To enhance the status of management libraries there is a need to accept the new trends in ICT and advanced management techniques as well as adopt best practice that have consistently shown results superior to those achieved with other means and can be used as a benchmark (Business dictionary). ODLIS (Online Dictionary of Library and Information Science) describes best practices as the application of theory to real life situations and when they are properly applied best results can be achieved. These practices are also used as reference points in evaluation of effectiveness of alternative methods for completing the same task.

The research survey conducted has revealed that management libraries are using both the traditional and automation practices to fulfil the mission and objectives of the parent organization in imparting education, teaching, learning and training. The future of management libraries is to support formal and e-learning process to meet the growing demands of users and achieve the goals of the organization. It is necessary for these libraries to go in for the process of automation and other digital library initiatives. The management libraries have to consider the rapid changes in the field of management teaching and learning. The classroom teaching methods have shifted from traditional classroom instructions to case study methods, e-learning classes, interactive sessions and all these have to be positively considered by the future management libraries. There is a

need for re-engineering the libraries to provide better and improved services to meet the demands of the users. The library staff needs to acquire new IT skills to meet the ever increasing user needs. The management institute libraries must be ready to face the new challenges and cater to the increasing user demands. The library staffs have to play a role in guiding the users to the right source of information from the wide variety of information sources available. The management libraries assist the teaching faculty in their research work, enhancing the quality of teaching by providing different improved services. The libraries in management sectors are termed as information resource centres (IRCs), knowledge resource centres etc. as they disseminate information to the users using various technologies. The changes in libraries have occurred mainly due to changes in curriculum, teaching and learning methods and changes in user habits, technological changes, growing impact of globalization, information explosion and shrinking budgets. This has made it essential for the libraries to accept the changes and shift their existing practices to meet the user demands. Various best practices have to be adopted by the libraries to survive in this present age of competition.

There is a need to adopt best practices by the management libraries if they want to survive in present era of electronic competition. The different areas where best practices can be adopted and implemented in the management libraries are collection development, assessment of the collection, finance, collection management, library automation and use of ICT, user services offered by the library, user education and manpower development.

7.2 Application of Best Practices in Management Libraries:

Prasad (2012) is of the opinion that every library has to adopt the best practices and five steps for implementation of best practices by NAAC are:

1. Identify the best practice.
2. Implement the best practice.
3. Institutionalize the best practice.
4. Internationalize the best practice
5. Dissemination of best practice.

The mission and vision of the management institute is to be identified in the initial stage. The libraries have to consider the user needs, availability of resources, infrastructural facilities, financial resources available and staff strength along with their capability. The best practices have to be framed taking into consideration the institution as a whole and have to be in a documented form so that they do not focus on any individual and can be implemented by any one from the institution. The best practices require extra efforts from the part of the department which is implementing them and hence they are required to be an integral part of the institute. Mere formation of these practices is not enough but successful and regular implementation is also required. Many institutes are not ready to adopt new practices due to lack of enough knowledge and readiness to adjust to the changes. It is very essential to review these practices over a period of time and make necessary changes to avoid communication gaps which may result due to these new practices. Also the senior members may not be ready to accept these new practices easily. Several sessions and discussion forums may be necessarily organized by the institute on a periodic basis to ascertain the best practices for the institute.

Many efforts have been made at the national and international levels to develop best practices. The Association of Research Libraries (ARL) has prepared the Code of Best Practices in Fair Use for Academic and Research Libraries which contains clear and easy-to-use statements developed by the experts of various academic and higher education fields. It has been prepared solely for the librarians (Vyas, 2009). This code has been identified under different situations which the librarians face in their daily routine work like imparting user education programs on topics such as how to access the library holdings by using OPAC, display of library collections through exhibitions, digitization of special and reference collections, creating and maintaining institutional repositories, creation of online and offline databases and development of website and making available the resources displayed on the website. The American library association (ALA) has brought out best practices for creating a successful budget for the library. NAAC has also developed quality indicators for libraries in the form of library and information science: a case presentation.

7.2.1 Collection development and assessment of the collection:

A collection development policy should be formed which has to cater to the ever increasing and variety of demands of the users. The main aim of collection development policy is to make available the required resources at economical rates and in a short span of time also avoiding duplication.

Best Practices:

The collection development policy has to be prepared keeping in view digital resources which must contain selection, de-selection, purchase, maintenance and weeding policies. The collection development policy must be in written form and has to be reviewed continuously. Policy must take care of mission and vision of institute and the increasing and changing user needs. The collection of library must be qualitative and regular usage of resources needs to be considered to maintain a balanced collection.

7.2.2 Finance:

Any activity in the organization depends upon the availability of financial resources (budget provision). In case of management institutes in Pune the funding agencies are parent organizations which are private and mostly managed by trusts or society. The cost of information resources is increasing due to increase in the cost of publications and similar is the case of electronic resources. While formulating the library budget different use and need factors must be considered especially consortium or cost benefit/effective purchases. Budgets may never be sufficient and hence different policies and economic techniques have to be followed in all management libraries. MANLIBNET has been initiated but at local level but there is a need felt to develop library networks.

Best Practice:

It is essential for the institutes to procure the basic required textbooks for the students but the libraries also have to adapt practices like resource sharing. It is observed that many institutes even in the same campus are reluctant to share their information materials for the fear of losing their autonomy. Resource sharing must be encouraged as it is economical and beneficial. In case of electronic databases the concept of resource sharing is being practiced by some of the institutes like Tilak Maharashtra Vidyapeeth and

Symbiosis International University which centrally procures the required databases for the university and then the subscription cost is equally shared by the sister institutes. This saves the huge subscription cost which otherwise had to be borne by the single institution. In addition to resource sharing the development of IR, use of internet resources helps in gathering information. Libraries have to take extra initiatives in providing internet access to users.

7.2.3 Collection Management:

The collection of the library is classified, catalogued and arranged mostly subject wise in all the management institute libraries. The collection is mainly of printed materials like books, periodicals, case studies, project reports, thesis, back volumes of journals etc. The printed journals are more than the electronic ones. It is also observed that slowly e-resources are also being added in the collection and thus its management is essential in the coming years.

Best Practices:

The libraries have to procure more e-resources in form of electronic books, journals and databases etc. as per the changing needs of the users. The users need latest collections in the library. The organization of literature is to be displayed properly as per use base. The institutional repositories can be created based on an end user interface for searching the collection at micro level like the chapters, sections and paragraphs etc. Most of the digital collection which is also free provides opportunities to researchers to search, retrieve information in flexible manner and its use is increasing. The best literature on subject and area can be added in to catalogue with reference entry or in OPAC to know the availability to user. The non-active library collection can be effectively used by sorting and keeping them in reading hall and after consulting the teacher students can be asked to write a book review, a seminar, a project work or tutorial.

7.2.4 Library Automation and ICT Applications:

Use of ICT is increased as this technology is now affordable and majority of the management institutes in Pune are automated using library management software's, but

still many of them are storing data in EXCEL sheets or only on hardbound registers due to financial constraints. There is no uniform usage of library automation software's even among the sister institutes of the parent organization. The use of internet, e-resources, e-books and e-journals, databases are developed in management science and it needs the best ICT infrastructure in library. Library automation has relieved the duplication of work of the library staff and use of ICT has enhanced communication. Internet and web tools are boons to both librarian and users.

Best practices:

The libraries which are facing financial crunches in purchasing the library management software could adopt open source software's like KOHA, DSPACE which can also be useful in networking of the libraries. All the management libraries have to complete automation as this is the first step towards modernization. The facility of Web OPAC must also be initiated in all the libraries which will be very helpful for the users. The library should also develop library web page which gives details of services rendered along with the web links to subscribed resources. The rare collection of the library can be stored in digital form. With the growth of ICT technology library can adopt new techniques like instant messaging, content delivery (RSS/HTML feeds), pod casting and SMS enquiry. The concept of digital library can be introduced which includes Optical Character Recognition (OCR Technology), Markup language (HTML,XML, SGML), Cataloguing and metadata, User Interface design, Web technology. The usage of Desktop information delivery system and anytime anywhere access to the required information is always appreciated by the end users.

7.2.5 User Centric Library Services:

From the users survey conducted it has been found that the management libraries provide many services and few among them are current awareness service, selective dissemination of information, reference service, reading room, home lending, library catalogue, newspaper clippings, reprography, display of new arrivals, list of additions, inter library loan etc.

Best Practices:

Apart from the regular services some additional services can be provided like alert services, overnight issue, current contents service, Web OPAC, bibliographic compilation, indexing and abstracting services, ask-a-librarian, service on the home page of the library, best library user award etc. Inviting feedback and suggestions from the users on the services offered and making improvements accordingly can also be adopted by the library.

The students have to study in groups around a single PC for their group projects and assignments. However, during exams they prefer the traditional approach of sitting alone and studying. The library can offer them a variety of study space like: group study tables (talking, food and mobile phones allowed): group study rooms (use of PCs by booking system): individual study cubicles (self study): A.V room (watch academic videos or multimedia CDs)

7.2.6 User Education and Training / Orientation:

In the changing era and seeking information habits users feel they are not getting proper information due to lack of knowledge. Users felt that they need education, training or orientation to understand the available information sources, using proper information and searching for online information.

Best Practices:

The orientation programme to all the users is very essential for effective utilization of library resources. The library subscribes to many costly databases and information resources and if these are not used effectively due to unawareness of their existence the mere purpose of procuring the resources becomes a failure. Periodic user orientation programs are needed to solve user queries and make them familiar with the methods of assessing these costly databases. Allocation of library hour, providing sufficient amount of information about library in the prospectus are some of the measures which could be useful in making the users aware of library and their services.

7.2.7 Library Manpower and Service Quality Development:

The manpower available in any institute is the main reason for its success or failure and similar is the case of libraries. The librarians need to have traditional skills as well as modern technological skills to survive in this age of competition. The continuous training to library staff is also essential to get familiar with the trends and its applications in libraries.

Best Practices:

Some of the best practices which can be adopted by the library professionals are service oriented attitude of the library staff, readiness to accept new technological changes, create awareness of library services and encourage as well as attract the users, arrange various user oriented programs at periodic intervals as well gain expertise in them, provide quality services based on experience, motivating the users through book reviews etc.

Thus, best practices in different units helps in acquiring qualitative collection, organising available material and disseminating information to users, provide better services, train users for seeking information from various resources.

7.3 Model Plan for Modernizing Management Libraries

The library is a power house of knowledge and an important place to pursue research activities. It is also considered as a backbone and heart in any educational institution. The ICT applications and technological developments have changed the methods of collection and dissemination of information. The internet has encouraged the librarians to update their professional services. The traditional modes of information delivery have changed to network delivery modes. The technological changes have a direct impact on the library as today's library is directly linked to the computers. The internet has changed the face of libraries and the users need not personally visit the libraries as they can access the books in e-form i.e. e-books, scanned articles etc. The introduction of library software has changed the library functions.

7.3.1 Action Plan to Modernize Libraries:

The action plan is a blue print of activity to be performed in terms of defining the roles to be performed by individuals, the sequence in which these roles might be performed for the organization to achieve the set goals. The nature and needs of the organization to achieve its goals define the design and implementation of the action plan. The needs are ascertained by conducting a survey and then are finally laid down to prepare a plan for modernizing the existing library.

7.3.2 Steps required:

Before fixing an action plan to modernize the management libraries the first important step required is to consider the vision and mission of the parent organization along with the library if any. The modern libraries have to develop plans to fulfil the conditions like enhancement of library infrastructure, services and applied technologies, digitization, conservation and preservation of the available resources, staff training and development programs for library professionals, orientation and organization of library tours for the faculties and students, encourage ILL and resource sharing facilities between libraries (public, special, universities, government etc.), network building between organizations etc. Considering the timeframe the objectives must be so planned to suit the set goals. The new and innovative ideas introduced must be reviewed periodically and the components of plan must be discussed among many faculties and users and management.

There are three elements in an action plan viz. Specific task: it defines what will be done and the person responsible for completing the task. Time frame: the time set to complete the task and Resource allocation: the funds available for the activity to be performed.

The action plan covers three basic aspects like assessing the needs and mission of the institute, plan accordingly for improving the services and the final stage is of implementing the plan and evaluating the results achieved. The mission statement is an important aspect which indicates the goals of the institute and clearly defines the role of library along with its functions like what has to be achieved. The main aim of any library is to support the vision and mission of the institute. The actions may be either short term

or long term plans as it solely depends upon the tasks to be performed and goals to be achieved.

Mission statement: The mission of any management institute is to provide improved services to the new and existing students and faculties with a goal of overall development to enable them to be good managers and face the increasing competition. The main objective of any management library is to provide the required information sources to the students in completing their assignments and paper presentations. The strategic plan includes a formation of library committee consisting of librarians from renowned management libraries. A network of management libraries in Pune needs to be developed. There is no such network in Pune city at present. The future plan for management libraries has to take into consideration the changing market scenario which the future managers have to face. There is an increase in automation of the management libraries but use of ICT is not up to the mark and there is a need to go for complete automation. The plan for development of management libraries need to take into consideration important aspects such as space, ICT applications, use of electronic and digital resources, networking of libraries, database development etc. The plan must be a long term one without overlooking the budget factor. There is also a need to develop a library manual and collection development policy and to conduct staff development programs to train the staff for ICT applications. The user orientation and library tours are also essential to be conducted to create awareness and utilization of the existing library resources. While finalising a model for development of modern management institute library the following steps can be followed:

Aim: Plan for modernizing and automating the management libraries.

Objectives:

1. Create awareness of the available resources of the library.
2. Effective utilization of the library resources.
3. Networking of the management libraries.
4. Provide better library and information services

Purpose: To promote effective collection development and provide better services to library users by timely meeting the growing user needs.

Actions required: The actions required to be carried are:

1. There is a need to assess the existing library structure and functions of the management libraries. The expert committee reviews the existing situation and makes a detail list of the drawbacks.
2. The current trends in library profession are to be reviewed along with the modern techniques and plan to modernize the management libraries.
3. Appoint a committee of librarians from other renowned management and special libraries.
4. The existing structure of libraries has to be reorganized.
5. A fair and final sketch plan must be approved.
6. Collection development constitutes that the core collection of all management libraries is same like books on HRM, Principles of management, Marketing management but the reference collection like HBR cases, project reports, thesis can be shared with the other institutes. A written collection development policy including traditional and modern information sources must be prepared. The e-resources must be purchased at economical rates for the users. The library collection must cover the print as well as the electronic resources.
7. Organize and arrange the resources in such a way which facilitates easy retrieval of information.
8. Selection of suitable library automation software: There is a need to develop OPAC, Web OPAC, IR facilities.
9. There is also a need to encourage the libraries to take membership of other institutes

10. User awareness programs must be initiated to make the users aware about the available resources and also to teach them the methods of assessing the existing resources.
11. The library staff must be motivated to perform their functions efficiently and in a friendly manner.
12. The performance expectations from each and every library staff must be clearly stated and they should be motivated to work in this direction accordingly.
13. Professional development activities include introducing new initiatives in the library, cost effective techniques, information seeking etc.
14. Information services can be provided to the users in varied forms like CAS, SDI, News alerts, Online searching of databases, provision of reference service, OPACs etc.
15. The training to both the library staff and users for use of new informative products is very essential. Sufficient and IT qualified staff must be appointed in the management institute libraries while the existing staff must be given formal training in form of staff development programs, IT sessions etc.
16. Each management library has to develop its own library web page by providing essential web links to the sources essential for the users.
17. The action plan has to be reviewed periodically and evaluated using suitable methods.

7.3.3 Implementation and planning:

Before implementing any new plan it is essential to review the existing situation. The researcher has conducted a survey of management institute libraries of Pune city. On the basis of data collected it is observed that there is a need for re-engineering the libraries. An action plan has been prepared in this direction. The researcher has tried to outline a plan for the management libraries in Pune after completing the study and is based on the analysis derived.

The next task was to form a committee consisting of a group of librarians. The library performance can be enhanced by implementing the suggestions put forward by the committee members. The essential topics can be put for discussion in front of the committee members and expert suggestions can be derived in form of new ideas to be implemented in modernizing management libraries. All the possible options are to be discussed and the most beneficial ones can be selected considering the vision and mission of the parent organization. The mission of any library is user satisfaction by providing quality services in an economical and timely manner. The success of any library is measured by analysing the circulation records, use of information resources, new memberships and membership renewal etc.

The research study helped the researcher in finding facts to improve the proper usage of library and its collection. The measures required are improving the collection, providing better services, and use of ICT for searching and seeking information and following actions can be taken to fulfil these needs:

1. Isolating user needs at regular intervals and vision and mission of institute
2. Preparation of written collection development policy for acquiring both print and digital media. This policy must include other policies associated to this like acquisition, maintenance and preservation, information services, weeding policies etc.
3. Enhance the acquisition of e-resources and databases
4. Acquire skills by the library staff required in present technology era
5. Educate users for searching information based on their needs systematically building the search strategy
6. Use technology to maximum extent in libraries and also provide better services
7. Orientation courses to users

The researcher has prepared a model for re-engineering management libraries and also prepared a model for searching information online and offline for users. This might help in increasing accessibility to information sources by users.

7.4 Model for Effective Searching of Information

The librarian and library staff may initiate Seminar/Project/help guide to students for detailed process of information searching. Tentative model (steps) for effective searching of information by users can be developed as under for perfection in searching:

Stage 1: Topic of assignment: fix the topic, find out the keywords, synonyms etc. Trace and record the preliminary information available in encyclopedia, reference books, textbooks etc. Prepare list of keywords

Stage 2: Consult the faculties/ librarian to hunt for resources in which keywords may be covered.

Stage 3: Find out the possible sources of information both electronic and print. Evaluate the information resources

Stage 4: Find out how users search databases effectively

Stage 5: Get training from librarian or information experts

Stage 6: Search for information

Stage 7: Evaluate the information and review it as per use.

Stage 8: Redesign search strategy

Stage 9: Download information if free or acquire from library or through library networks

Stage 10: Use information for final use

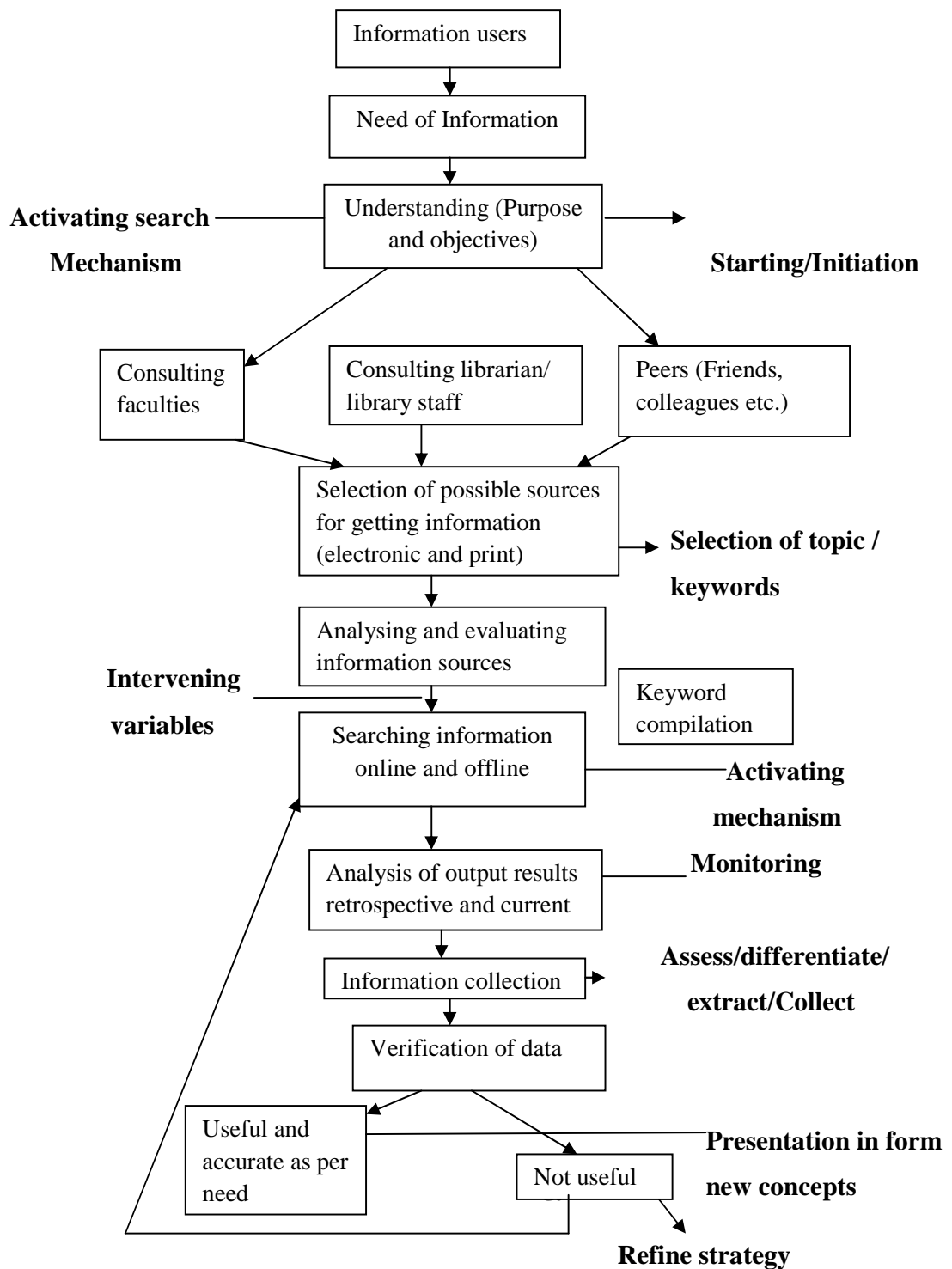
Stage 11: Cite the information properly

If users follow the above steps while searching information it is presumed that the information retrieved will have quality, accuracy and currency which will serve purpose of users.

7.5 Model of Information Seeking Behavior:

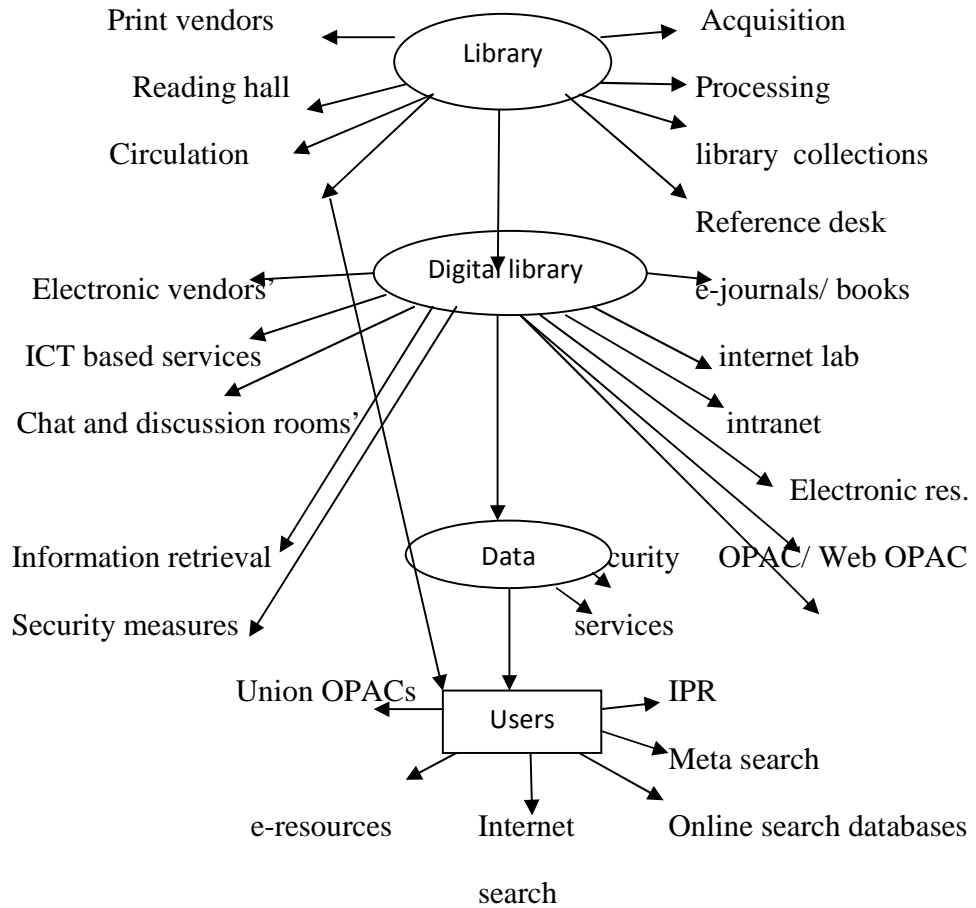
The following ISB model has been developed by researcher based on the different information seeking behavior models studied and concepts understood by the researcher which have been discussed in chapter five.

Fig 7.1 Model of ISB



7.6 Model of Traditional library components

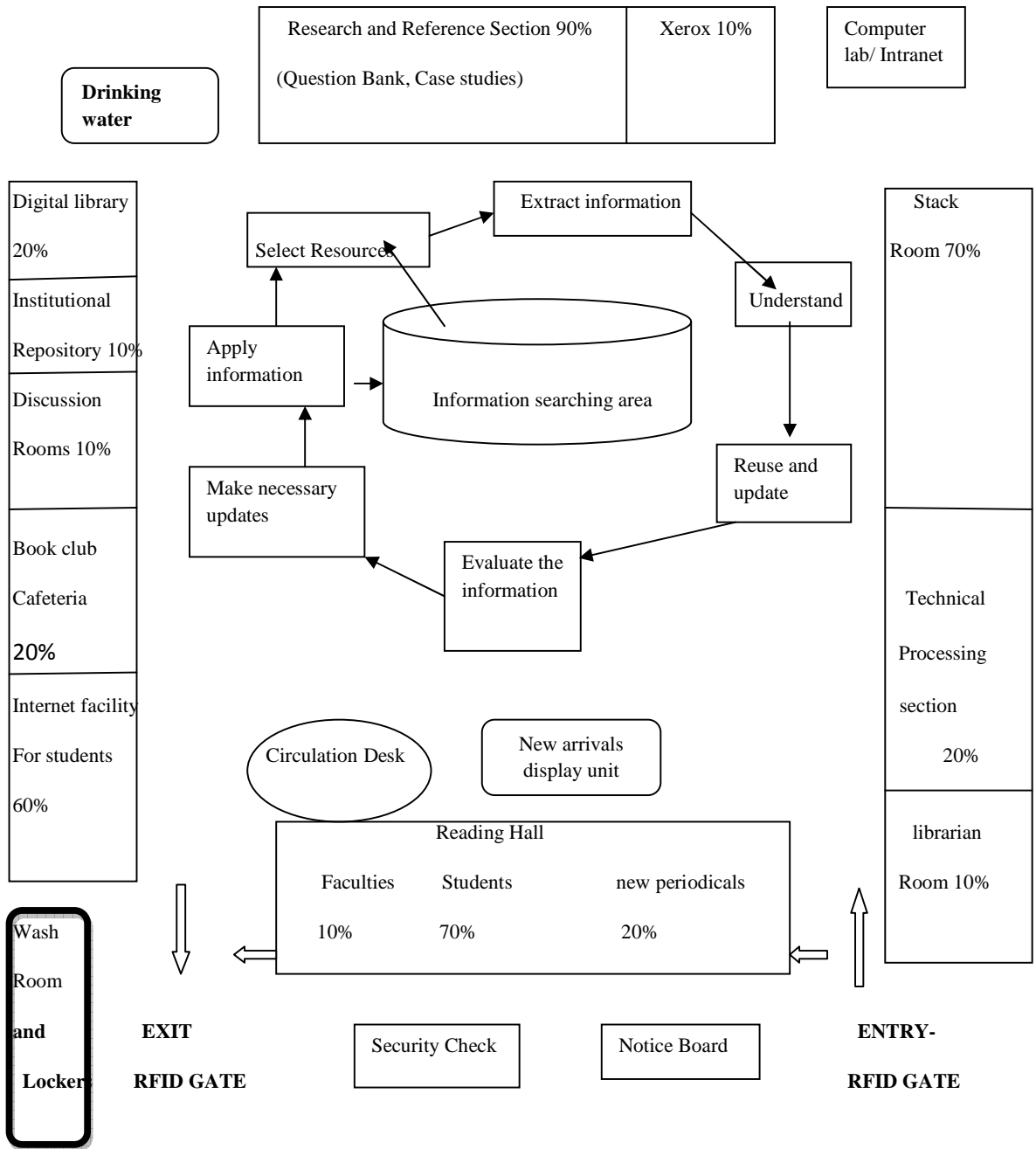
Fig 7.2 Traditional library components



7.7 Modern Management Library: Flow Chart

A model of modern management institute library has also been prepared by the researcher from the research study conducted and summarising the user needs and demands.

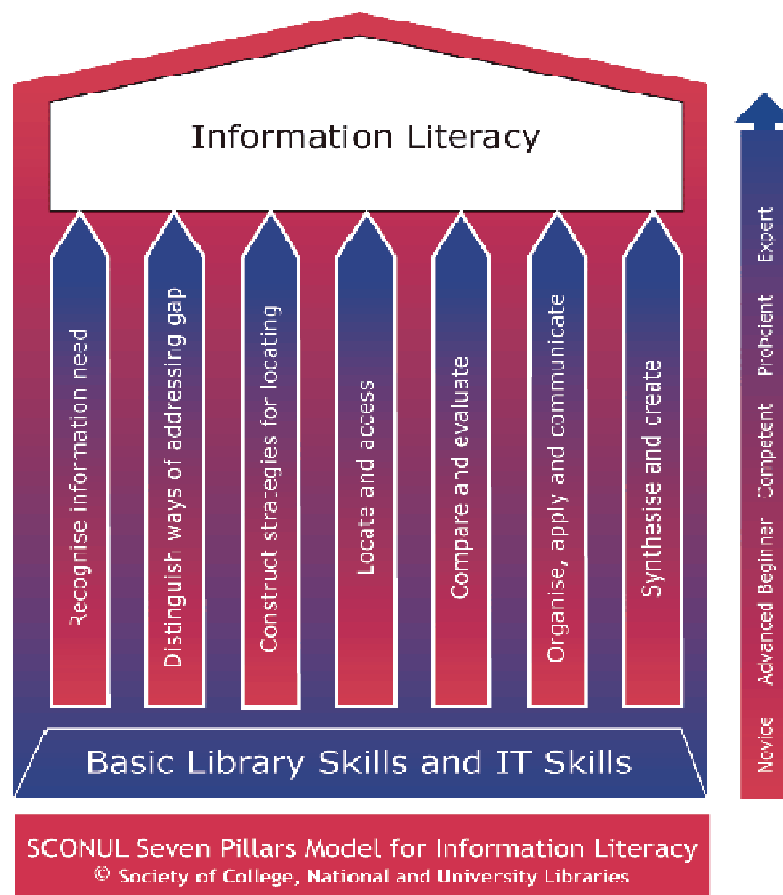
Fig. 7.3 Modern Management library



7.8 Need of Information Literacy

From the survey conducted it is evident that there is a need of Information literacy for both library staff and users. SCONUL(2011) model is very important for developing information literacy among the users as well as library professionals. This model suggests that ISB is essential to construct proper search strategies to get precision and recall for the survey. The users and librarians both have experience of locating information sources which contain information related to topic and access for getting the information. The search results are to be analyzed for accepting or redoing the experiment of search. The evaluation of resources retrieved is very important. The refined data is thus used by users for further communication. Thus, this model is very effective.

Fig. 7.4 Seven Pillars Model for Information Literacy



(Source: <http://www.sconul.ac.uk/sites/default/files/documents/coremodel.pdf>)

7.9 Eight W's for Virtual Information Searching:

The materials related to the 8W's have moved to the virtual enquiry website searching which uses the following links for retrieving or getting more information. The points are nearly same as other models discussed earlier. (<http://virtualinquiry.com/inquiry/ws.htm>)

- Watching (Exploring)
- Wondering (Questioning)
- Webbing (Searching)
- Wiggling (Evaluating)
- Weaving (Synthesizing)
- Wrapping (Creating)
- Waving (Communicating)
- Wishing (Assessing)

7.10 Kuhlthau's and Ross Todd's (IL) Model:

The model has described seven steps in model, which covers the similar concepts like:

- Initiation
- Selection
- Exploration
- Formulation
- Collection
- Presentation
- Assessment

7.11 Research Cycle:

The research cycle by McKenzie (1999) is described in the following diagram. The research cycle is continuous and adds information to the knowledge base. Information is the main factor of research cycle and seeking valuable information is a skill of the librarian.

Fig.7.5 Research Cycle



(Source: <http://questioning.org/rcycle.htm>)

From the above discussions it is very clear that user need information for various purpose and getting proper information is essential. The users now have to be information literate so that they retrieve proper information from the available resources. The model of ISB discussed in fig.7.1 is very useful while searching information.

7.12 Findings:

The data collected from the different management libraries and users (Faculty and Students) from Pune city was analyzed systematically and based on the analysis following findings can be drawn which are presented in the following paragraphs.

A) Management Institutes:

- 1) **Growth and Development:** Though the first school was initiated in 1970 by the end of 2010 nearly 109 institutes were developed to impart management education at various levels but real growth in management education institutes is reflected since 1991 and maximum growth is reported since 2001. This shows that management education has an increased demand due to globalization since 1991. It is also observed that all 98 institutes under survey are non-aided and managed by society, private trust or autonomous agencies.
- 2) **Staff and Students:** 36 institutes have moderate faculty staff for teaching and administration whereas 28 institutes have comparatively less faculty. It is found that management courses are managed with regular faculty staff as well as guest faculties. It is observed that management institutions are growing but intake capacity is ranging from 60 to 360 depending upon the number of management courses conducted by the institutes. It is seen that approximately 30 to 60 students are added in each batch.
- 3) **Courses:** It is observed that changes took place in management education system and in every institute post graduate degree i.e. master's courses are conducted. Earlier diploma courses PGDM, DBM are still managed in a very few institutes in addition to masters courses but now after graduation students' move directly

towards MBA. The BBA courses are initiated from standard 12th onwards and they lead to MBA. The recent development in management education system is through distance mode education and the courses are conducted on holidays due to establishment of open universities like IGNOU, YCMOU etc. In 22 institutes special courses conducted like Executive MBA, Career Development programs, MBA- Distance learning, Program for Defence personnel, PGDMLM etc.

- 4) **Accreditation:** 89% of the MBA institutes are not accredited by National Board of Accreditation. Only 13% institutes are accredited by the NBA, but few institutes are under the process of NBA accreditation in academic year 2012-2013. The management institutes are obtaining AICTE approval and only a few of them have both AICTE as well as NBA accreditation.

B) Management Libraries:

1. **Working Hours/Opening Hours:** All the management institutes have libraries to support educational system for learning and teaching. It is found that only 12 institute libraries which are old, prominent and are kept open up to 19 hours (residential MBA programs). 86 libraries are open up to 7-14 hours but 62 libraries have same working hours as of the institute office.
2. **Library Staff:** It is observed that all the management libraries have employed trained and qualified library staff and maximum staff members are M. Lib and I. Sc., 12 librarians are M. Phil, 13 librarians are SET/NET qualified, whereas 2 librarians are Ph. D. The Ph. D and SET/NET qualified staff are getting scales as per the UGC norms while the others are on a consolidated basis. In 13 institutes qualified professional staff managing libraries has experience of more than 10 years while remaining 83 libraries have staff with experience in between 3-9 years. In management institute libraries library staff is deployed at various levels like professional, technical, non technical, administrative etc. and on an average 4 staff members are available in every library categorized under professional and technical staff (60%) and non-technical.

3. **Library Users:** Management libraries are specialized academic libraries and the users are also related to management education only. From the visitors records it is reflected that in 46 institute's daily users on an average are 150 whereas 21 libraries have more than 250 users, the oldest and having maximum courses in 5 institutes have more than 400 users. The faculty uses libraries regularly in all the institutes. Many libraries allow membership facility to outside management users which includes guest faculty, distance learners etc. It is found that management libraries are heavily used by both professional staff and students to review the literature for completion of assignments, exam preparation, contribution to research etc. In 23 management institutes nearly 15-25 faculty members visit library regularly whereas in 75 institutes only 5-10 faculty visits library. It has also been observed that the number of faculties visiting the library is decreasing due to various reasons given as work load, more work responsibilities etc.
4. **Budget:** Overall budget provision for libraries seems to be inadequate to manage the demands of users and satisfy their needs. The librarians demand is for additional budget to modernise the libraries.
5. **Collection:** The collection of management libraries covers textbooks, reference books, Indian journals, few foreign journals, technical project reports, assignment (selected), class notes etc. The daily newspapers and magazines are available for general reading purpose. Collection development is more focused on syllabus and faculty needs. Only 3 libraries have collection more than 40000 volumes whereas 11 libraries have collection between 20000-40000 volumes. 84 libraries have collection ranging between 5000-20000 volumes. Research element is not yet introduced in all the institutes. Yearly addition to the collection ranges between 500-2500 and only in 16 libraries additions are more than 1500 books per year, whereas 79 libraries are procuring less than 1000 document per annum. It is also observed that the libraries established earlier and having more than 2-3 management streams are procuring more document than the recently established libraries having one or two courses. The major emphasis of collection development is towards books. Nearly 94 libraries are providing open access to

staff and students both. Management institute libraries are also getting gratis publications in their library and nearly 17 libraries receive documents like books donated by the students, faculties and others.

6. **Special Collection:** Apart from the textbooks, journals, reference books very few libraries (23) have special collections which includes HBR lecture series, GATT publications, Dr. Kasbekar collection on management, case studies related to management, psychometric tests and many others. It is a very good sign that these collections are housed for the readers but remaining 75% need to adopt such practices to enhance the quality of management education.
7. **Subscription to Journals:** The subscription to journals is main factor which is evaluated to judge the research level and it is found that nearly 24 libraries are subscribing to more than 100-200 journals but the journals are more at national level and in printed form while only a few foreign journals are subscribed. New established libraries have only few journals ranging from 5-10. Since international journals are costly maximum number of institutes has only 10 journals while there are some libraries which have more than 50 international journals also. Due to the increase in online journals libraries prefer to go for online version of international journals.
8. **Collection organization:** It is found that 81 libraries follow DDC classification scheme and 36 libraries are using AACR for cataloguing the documents. It is also observed that library classification is not properly done and maintenance of catalogue is also not proper. Hence, it is difficult to trace the availability of documents in library. The arrangement of books is based broadly on subjects.
9. **Resources Used:** It is observed that users (student and faculty) mainly consult the textbooks, reference books, newspaper and periodicals. Since management library function as academic library and impart management education it is observed that textbooks are consulted more. The reference books are consulted for fact finding and preparation of project reports, seminar works etc. but use of

periodicals is not up to mark, though considerable amount is spent on subscribing to periodicals which provide primary information to user.

10. **Space:** Availability of space for carrying out different library activities and stacking collection is very less. The shift towards e-publication is felt to have space for accompanying the existing collection as well as future requirements like chat rooms, seminar rooms, internet lab etc. Only five institutes out of 98 have a separate library building while the remaining 93 libraries have space adjusted in main building of the institute. 42% librarians are not exactly aware of the library area. It is seen that maximum libraries have an area of 400 sq. mt. which is insufficient as they follow the traditional practices and collection development is in the form of printed documents.
11. **Administrative and Financial Power:** It is observed that only 21 librarians from management libraries have the power of administration and finance but only limited Rs.2000 which is very less. All the time sanction is to be obtained from the management.
12. **Library Extension Programs:** It is observed that only 20 institute libraries are arranging extension programs to impart the functions and services offered by library to new entrants in the institute. This helps to create awareness of libraries and facilities provided by them. Programs like book exhibitions, authors' introductory lecturers, Librarians Day etc are conducted to increase the value of library.
13. **Reading Room Facility:** All the management institute libraries under survey have a reading room facility for the users with different capacities. The only difference is that in some institutes there is a separate place for the faculties and research scholars. As per the standard norms of the AICTE a seating capacity of 100 is expected and nearly 50% institutes fulfil this condition. The reading hall in majority institutes are open for 12 hours but in case of few institutes where the staff is limited to only one librarian and one attendant, the timings of the reading hall are same as of the library. During examination period most of the reading

halls are kept open from 7.00 am till 12.00 pm in the night for the students. 75 institute libraries do not provide facility of keeping libraries open on holidays mainly due to shortage of staff.

14. **Orientation Programs:** 16 libraries are managing library orientation programme which provide support for increasing use of library effectively and efficiently.

15. **Library Services:** It is observed that management libraries are providing basic services like CAS (85 libraries), SDI (65 libraries), ILL (94 libraries), newspaper clippings (95 libraries), reprographic services (86 libraries), reference services (96 libraries), book display (98 libraries) to users. Due to automation of libraries services based on OPAC are initiated by 65 libraries but Web OPAC facility is not reflected prominently (21 libraries). Since procurement of e-publications in these libraries is increasing new concepts of user oriented services are being initiated in few libraries like Alert services (63 libraries), Current contents (48 libraries), online and offline (58 libraries) have started. Internet use is increased in libraries and internet based teaching, learning is also used in the classrooms. About 96% libraries are providing internet access. ILL and EDSS are initiated in few libraries. Review preparations and database creation is very poorly developed but about 20 libraries have taken initiative in these activities. There is a need to evaluate the services provide by libraries to its users and feedback of users is necessary for improving the services. It is found that 54% libraries are evaluating the performance of their services.

16. **Information Products and Marketing:** Library catalogue and list of additions are the major information products generated and circulated by libraries. Whereas other products are in the initial stage of implementation. The library manual is prepared by only 25 libraries. Only 10% of the libraries scan the contents of periodicals and send it through e-mail to the faculties, while 90% of the libraries did not provide this service to users. It is observed that since information products are not yet developed in these libraries, marketing is very poorly developed. Eight libraries have made efforts in initiating this activity. Income generation is not possible in absence of information products but 88 respondents have pointed out

that they generate income through the means of fines for late return of books, fees for use of internet, photocopy facilities etc.

17. **Circulation:** 90% of libraries issue only 2-4 books for a period of 8 days and fine system is implemented for late return of books. Books issued to faculties vary in between 5-10 but 21 libraries have facility to issue more than 20 books at a time to faculty. It is observed that 68 libraries have completed bar-coding of library collection and only one library has the RFID facility.
18. **Automation:** Out of 98 libraries only 43 libraries have achieved full computerization and 20 libraries have partially finished automation but 35 libraries have not yet automated the libraries even though much economical library management software are available including free software's. Among the different library management software's available for automation it is found that SLIM21 and AUTOLIB are the prominent library software's used by libraries but surprisingly 13 libraries are using excel for data entry of books. Other software's are also used by some libraries like Libsuite used by 7 libraries. It is found that software's having powerful utilities are not used in these libraries but open source software's are used to develop library automation. 74 libraries have used library software for housekeeping operations. It is also noticed that many libraries (24) have not purchased all the modules of the software. The housekeeping operations are being carried out using library management software's in 74 (75%) libraries. It is found that all the housekeeping modules were not purchased by the library due to budget deficiency. Only 21(22%) libraries have provision for additional budget for automation, procurement of software modules and installation of CCTV which have not been purchased before.
19. **Memberships:** It is observed that only 17(18%) libraries are part of the library network and most of them are members of DELNET.
20. **Internet for Users:** Internet use is reflected more in management library. Almost 96 libraries have the internet facility available through Tata, BSNL, VSNL or Reliance and the speed ranges from 2- 10mbps. It is reflected that 96% librarians

are using internet for conducting various activities like online search, checking price of books, place order on Amazon.com or flipcart online book shops, sending reminders, classification of books, news, open source databases and other related aspects. It is observed that majority of the librarians 92% are using internet for searching information through various sites like Google, 12Managers.com, glossary of marketing terms etc. but 8% librarians are not using the internet mainly because it is not available in the library. The use of internet facility by the library staff is 92%.

21. **DLI:** Digital Initiatives are not yet considered as automation is not yet 100% completed. Libraries are developing their web pages either independently or attached to institutes home page. Only 17 libraries so far have developed their own web pages. For developing digital library free software's are available but only 4 libraries have shown interest in developing DL using Koha software. 39% libraries have started subscribing to digital information services. Digitization issues are considered in few libraries since there is a demand from the users to preserve the literature.
22. **Resource Sharing:** It is observed that only 11 libraries are providing services to outsiders. It proves that resource sharing is very poorly developed for exchanging information. It is observed that resource sharing activity is carried only in 38 libraries. The importance of resource sharing and library network is poorly developed in management sector. 85% of the libraries do not depend on any other libraries. 52% of the libraries do not have membership with other libraries and these are mainly new set up institutes and libraries of 48% have membership of other libraries like the British Council Library, Gokhale Institute of Economics and Politics, Jaykar Library, Maratha Chamber of Commerce etc. 44 (45%) librarians are providing electronic document delivery services to the users.
23. **User Studies or ISB Studies:** Few librarians responded that they are conducting the user surveys for improving the library services and activities, but not systematically.

24. **Safety and Security Measures:** After automation and internet facilities there is also a need for security measures in libraries like automated control gates, swiping cards, use of smoke detectors, humidity controllers etc. In the survey it is observed that only efforts taken by management libraries towards modernization are implementation of CCTV camera and Fire alarm system.
25. **User Satisfaction:** It is found that users of 58 institutes have more than 80% satisfaction from libraries. 24 libraries satisfy 70% needs of users where as 12 libraries satisfy less than 60% users. The user satisfaction can be increased through provision of additional services like ILL and DDS. At present 83 libraries do not conduct any programme of resource sharing. 47 libraries are taking membership of other libraries but it is not properly utilized by users as well librarians. It is found that 46 libraries initiated DDS activity among Pune city libraries recently.
26. **Equipments:** It is found that equipments like Xerox, scanner, digital camera, LCD, printers and colour printers, CD ROM, reader cum writer, laser printer, bar code printers, UPS facility, web browsing are established to support advance activities and services in many library with the help of ICT. Few libraries have also procured digital cameras, LCD projectors, bar code printers etc. Similarly 72% libraries have scanning facility in libraries.
27. **Subscription to E-resources:** 39% libraries have started subscribing to digital information services. The plan for digitization has been thought only by 24 libraries. 72 libraries have subscribed to various e-journals however the trend in subscribing to digital information is increasing slowly and e-books, databases are also being subscribed along with e-journals.
28. **ICT Trained Manpower:** All the librarians responded that their library staff are well versed with computer applications and they have also get help from the IT qualified staff available in the institute for solving problem as the library staff is not expert in all aspects.

29. **Library Policies:** It is observed that standard policy framework or library manual is not prepared in many libraries (82 libraries) hardly 16 libraries have prepared library manual for NAAC but not in detail, its utility is not to the mark. Library Advisory Committee (LAC) is available in only 64 libraries and 24 libraries do not have committee and the institutes' administration looks after the activities of library development as they are recently established. The established composition of LAC consists of faculty and student participation. But faculty contribution is in 64 libraries and only 29 libraries have student members participating in LAC but many times they do not attend the meetings of LAC. Library rules are framed prepared by all management libraries but they are not in detail, and have traditional look. Collection Development Policy (CDP) is prepared in 68 libraries and 31% libraries do not have any such policy. CDP is an essential factor which helps in proper collection development and collection management as well as proper utilization of library budget. It is also observed that out of 68 libraries no one has a detailed CDP in a written form. Though different policies have been framed but they are not up to the mark. The libraries instead of having CDP have different policies like weeding policy (89 libraries), stock verification policy (89 libraries), retro conversion policy (96 libraries) and evaluation of e-resources (30 libraries) while selection, preservation and maintenance etc. are not prepared which are more important. However there is a need to develop CDP in detail for every library.

C) Management Users (Faculty):

1. **Status of Qualifications Staff:** It is observed that only 2% of the faculties from management institutes are Ph.D's whereas most of them are post graduates (64% MBA and 23% M. Com). This concludes that masters' degree is sufficient for management teachers in all institutes. Research is not yet progressive in this field. The industrial experience in the field is more essential and hence many industry enterprisers are associated in teaching to MBA as visiting faculty. Only 32% faculty from the management sector is pursuing to Ph.D degree. This is also an indication that new management institutes now prefer higher level qualified staff.

2. **Age Group and Gender:** The average age of teaching faculties in management institutes is more than 40 years and 36% of the faculty are representing this age group. This is an experienced group and also qualified technically. 41% faculties are having an average age group 31-35 years. This is middle line faculty appointed in institutes for junior level teaching. However 41% faculties fall in the group of 25-30 years and these are young and newly recruited but dynamic in nature. Thus, in management education the average age of faculty is from 35-40 and this is very good combination. It is observed from the above table that the male faculties are more as compared to the female.
3. **Faculty Experience:** Experienced faculty is available in management education sector which is around 14% and have more than 12 years experience and 86% staff experience varies between 1-8 years. The senior faculty is generally hired from the industry sector based on subject expertise as visiting faculty. In the survey it is observed that maximum number of faculties 36% are specialized in marketing next is finance 27%. The specialization in the field like supply chain management is less and similarly in newly introduced courses faculty is less in number.
4. **Use of Library by Faculty:** It is found that 63% teaching faculty use library between 1-4 hours per day which is senior faculty and 37% teaching faculty spend more than 5 hours daily this is young faculty and has to take the help of library for various reasons. It is also noticed that teaching faculty undertaking research is using library more frequently and for longer hours. Majority of the faculties visit the library at least once in a week either for books or to view the periodicals. There are 41% who visit the library daily generally to read newspapers.
5. **Purpose of Visiting Library:** More time is spent on reading books and journals for research work by faculties. Faculty also spent time on reading mails and preparing for class notes and special writings. Less time is spent in the library for newspaper reading.

6. **Information Sources Used:** It is found that 63% faculties prefer books, journals, thesis, newspaper and these are consulted the most. 32% faculty uses reports, conference publications and internet resources. The database searching is not so popular in faculty. All the faculty of management institutes surveyed uses open access resources available for various purposes especially for teaching and research. Majority of the faculties visit the library at least once in a week either for books or to view the periodicals and 41% visited the library daily.
7. **About Library Facilities:** Faculty indicated that books are available on the subject as well minimum 5-10 journals are of the interest available in the library. They also consult Open Access sources for getting additional information using net. On request library staff assisted them in getting the books and desired information but awareness of information sources is not known to faculty and they need training for the same for effective searching of information. There is no separate reading room facility for the faculty. Nearly 64% faculties replied that they had the OPAC facility and were using it while 36% replied that there was no OPAC facility in the library as the library was not automated or automation work was in progress. Faculty is satisfied about issue of home lending books to them. Internet services are provided to faculty from libraries.
8. **Library and Information Services Used:** Faculty users are familiar with library and information services provided and using reference services and reprographic services. They are not aware of other services provided by the libraries.
9. **Information Seeking Purpose:** Maximum faculties are satisfied by using the library and use the collection for paper setting and class lectures. 20% use the library for research work it may be either paper preparation or their Ph. D. work. The purpose of general reading is also served by the library like providing newspapers, magazines and other informative documents. Apart from this awareness on subject topics, preparation for class notes, special writing is the concern behind searching information.

10. **Expectations of Faculties from Library:** Faculties need TOC services as well as article services on their subject, intimation of new arrivals, availability of subject databases and library services useful to them.
11. **Problems Faced While Seeking Information:** From analysis of faculty for understanding needs and problems faced while searching they have pointed out many problems but the main aspects are documents required are not available in the library, library catalogue and OPAC are not easily searchable, library staff is not available for help at difficulty, most of the literature is outdated etc. They expressed the need of training for searching information and using resources properly.
12. **User Satisfaction from Library Collection and Services:** 36% faculties have 70% satisfaction from the library services and resources, while only 9% users have 90% satisfaction level from the library collection. The faculties feel that the libraries should update their resources, weed out the outdated editions and increase the collection by adding books of specialization as well as general reading.
13. **Preference to e-resources:** 70% users had given preference for usage of electronic resources in form of databases, electronic journals, e-books etc. All the faculties use internet for searching management related information.
14. **LAC Members:** 40% of the faculties were the member of LAC while the remaining 60% were not aware of the LAC. All the faculties recommended books for the library.
15. **Expectation of Faculty from Libraries:** The faculties feel that library is heart of institute and expressed the following expectations:
 1. The libraries should adopt latest technology for effective information services.
 2. Bestselling books to be added in the collection. Latest editions of national and international books and journals in collection.
 3. Easy access to e- resources and scanning facilities to be added in libraries.

4. Information resources to be updated and libraries should be user-friendly.
5. The library professionals should be properly trained to provide advanced services.
6. The library should provide 24/7 internet and intranet facility to the users.
7. Library orientation programs, proper notification of library resources, guidance for usage is managed by library professionals.
8. Priority to be given for procurement of e-resources and databases.
9. Librarians should provide links to documents
10. Proper seating arrangement with comfortable furniture for long seating and reading.
11. Proper cataloguing and shelving of books and user friendly libraries.

D) Management Users (Students):

The data collected from the student users of different management libraries from Pune city and based on data analysis the findings drawn are presented in the following facets.

1. **Students Average Age:** It is observed that nearly 50% of population of students is between 21-22 years which is very normal age group and have joined management education immediately after graduation. The remaining 50% population is between 23-26 years of age group and out of these 14% students are in between 25-26 age group and it indicates that these age group students are working professionals and have joined MBA for career advancement or other purposes.
2. **MBA Courses:** The specialization like finance, marketing, HR is very popular and selected by 47% population. In the remaining 30% students, IT has been opted by 8%. But 22% of the students opted for new streams like logistics, operations, systems, agribusiness, international business etc. This clearly indicated the demand for new emerging courses useful for industry, business which is now preferred by students.

3. **Gender:** The female ratio is more as compared to male students (41%). It seems that in female students management course is very popular.
4. **Library Membership:** All the students had library membership and were using the library facilities regularly.
5. **Frequency of Library Visits:** 63% students visited the library daily but 37% users are irregular visitors either in a week or fortnight. Majority of the students visited the library daily either for issue or return of books, some for reading newspaper, a few for referring to periodicals and some for studying in the reading hall.
6. **Reason/Purpose behind Visiting Library:** 50% of the students visit the library for general reading as well as preparing the class notes whereas 30% students refer library for reference collection and specific purpose like reading the job opportunities, novels etc. 90% of the students visit library between 1-4 hours daily. The management students use textbooks and newspapers more followed by reference sources and journals. The research reports are also used by 11% for the submission of their projects.
7. **Purpose for Seeking Information:** The main purpose behind seeking information is being updated in the area by reading library materials, refer to textbooks prescribed in syllabus and reference sources for additional information. The students of MBA seek information for preparing seminars, projects, assignments, case studies, collecting statistics, company profiles, analysing business and management trends etc. and also update their field knowledge. 14% students visit library and use literature for preparing research reports. The rate of entertainment is very low which comes to 6% only. This indicates that students use library mainly for study purpose.
8. **Time Spent:** It has been observed that generally the students make use of library between 1-4 hours daily due to busy lectures schedule in which they perform various activities like browsing newspapers, referring to journals, using internet, reading books and reference sources are preferred. The library is used maximum

by the students' i.e. 5-6 hours mainly for seminar work, project reports, assignments, preparation for exams etc.

9. **Media preferred and used:** From the data it is concluded that majority of the respondents preferred to use both print and electronic media and thus it can be seen that preferences are given to both media by the users. However the usage of electronic media (11%) is also seen in the survey and this is an indication of changing habits of users due to availability of sources in e-form. 76% of the students are comfortable with the use of e-publications whereas the remaining are not so familiar. 95% of the students use internet for collection of information they require for different reasons. This indicates that maximum numbers of students are aware of internet resources and use the internet for gathering information. 80% of the students are familiar with web tools and are using it for sharing information like RSS feeds, twitter, blogs, chat etc.

10. **Satisfaction from Library usage:** Majority of the students (74%) are satisfied with the library collection while 26% are not satisfied with the collection mainly due to insufficient copies in the library or unavailability of the latest edition of books. In some cases the suggested books are not purchased by the library immediately. The books relevant to syllabus do not exist in the library. 85% libraries allow the students to browse the stack for reading purpose (open access for students). The remaining 15% libraries have the closed access system. 94% students have indicated that the library staff is very helpful and they have interaction with the staff for various purposes like getting desired books, project reports, journal articles, use of internet, photocopy facilities, reading material on similar topic. 97% students opined that they are happy with the organization of literature available in the library and they could get the information available easily either using OPAC or consulting the library staff. The reading room facility is generally used by 28% students during the examination period for silent reading. Whereas few students make regular use of reading room facilities for general purpose reading like newspapers or for regular silent study. The internet is made available to them through the library and 26% use reading hall for preparing

assignments, seminar reports and research study purpose. The co-operation from library staff is 76% only as expressed by the students.

11. **Role in Collection Development:** 89% of the institute's students participate in collection development process of the library. They suggest books to the library which covers syllabus, novels or fiction books, research books or related to general management techniques. Further it is also observed that 77% suggestions are considered the suggestions and acquire the books after careful scrutiny.
12. **Services Used :** Among the services provided by libraries, students responded that they use services like internet surfing for browsing literature (12%), reference services (12%), reprographic service, CAS, SDI, OPAC, book bank etc. Libraries issue 2-3 books to students. 68% students are happy but 32% students have expressed their desire for procurement of more books for study, preparation of projects, seminars etc.
13. **Need of Orientation:** Nearly 67% students responded that they feel library orientation is essential at the time of taking admission to the course, which might be helpful to them while consulting the literature. They strongly felt that due to unawareness of resources, usage is not properly reflected while 33% students are unaware of orientation.
14. **Problem Faced while Seeking Information:** Major problems faced by students in getting information are resources not available, outdated information material, incomplete collection, lack of knowledge of using libraries etc
15. **E-Resource availability:** Majority of the students (77%) are aware of digital materials, including internet connectivity available in library but its effective use is not known to them.
16. **Internet Usage:** Internet is heavily used in management libraries. 76% of students depend on internet resources and they use them regularly. 24% users are rarely using the internet once in a week or month. 90% students use internet for getting additional study material and 82% students use for e-mail browsing and sending.

68% students make use of internet for entertainment purpose i.e. blogging, chatting etc.

17 **Expectations from Library:**

- Online renewal of books and open access system.
- Increase copies of textbooks in the library.
- Reminder to students about last date of return of books issued through SMS.
- Remove old and outdated books and editions from collection.
- Increase limit of books issued to students for home lending.
- Give staff training to handle the students and aware them about literature available in libraries and searching data on net.

7.12.1 Findings related to ISB:

From the users survey both faculty and students it is observed that use of literature, use of library is normal and due to unawareness of available facilities the use is less. The information seeking analysis is separated and highlighted to improve upon the situation.

- 1) **Kind of Information Channels Available:** Information sources are abundant in management science and they are grouped into primary, secondary and tertiary resources. The information sources available in management sciences are:
 - a) Text books based on curriculum, additional reading material/literature supporting to curriculum, journals (Indian and foreign), conference proceedings, dissertations/ thesis, technical reports, market surveys, statistical data resources, marketing information, import/export data and policy data etc
 - b) Indexing and abstracting journals, reference sources like dictionaries, directories, data handbooks, glossaries, treatises, current developments etc
 - c) Reviews, translations, bibliographies, demographic resources
 - d) E-resources like e-books, e-journals, databases (online and offline), internet resources, databanks, IR, OPACs and Web OPACs of different subject based libraries, open source journals, free sites resources.
- 2) **Information Sources Used:** From the different primary, secondary and tertiary information resources users use only journals, textbooks, reference books, newspapers, encyclopedias, class notes, lecture notes/series, handouts, etc either made available from the libraries or from the past students. Recently they use

internet to seek some information required for completing final year projects, seminars, assignments etc. Most of the users are not aware of conference proceedings, treatises, annual reports, technical reports, handbooks, patents, standards, reviews, encyclopedia, case studies, trend reports, statistical data, online databases, e-resources and hence these resources are not used by the users.

- 3) **Information Services Provided:** The management libraries till date are providing traditional services based on print resources like CAS (monthly list, display of books, etc.), SDI on demand, reading room service, reprographic services, book bank facilities, circulation of books etc. Library catalogue based services are only provided by the library staff. It is noticed that no more efforts are made to reach to users giving outreach services form these libraries. The services like reference and referral services, TOC, bibliographies on topics, online offline search services, ILL, Newspaper Clippings, CAS, SDI based on user demands, alerts, company profile preparations etc. are not taken into consideration as yet. Most of the libraries have internet usage facilities but services are not provided using network or internet or open sources etc.
- 4) **Information Seeking Method:** The users are seeking information when need is raised like examination, assignments, seminars, project are allotted to the students of senior classes. The examination needs are fulfilled using class notes, text books, guides to text books curriculum, discussions with teachers, experts or getting information out off campus etc. The need of the seminaries and projects is completed using library catalogues, reference material available in libraries and recently internet resources. Since users are not aware of searching patterns for the information gathering on the net they are unable to use the net effectively due to lack of searching skills. Since many users are not accustomed with e-resource usage they are browsing print media more and the users are also not using abstracting and indexing journals, review articles etc.
- 5) **Information Search Assistance:** It is noticed that users are not approaching library staff and they are not aware of use of library catalogue and also do not have necessary searching skills. The users try to search information based on the help from their friends, seniors and sometimes faculty but rarely do they approach

the library staff. Further there are also no facilities available in many libraries like Reference Desk, Ask Librarian, OPACs etc

- 6) **Dissemination of Information to Users:** These practices are not followed in many libraries. Libraries associated with management education are not providing facilities like publishing on net or contributing to IR or union catalogue, broadcasting, research reports, OPAC and Web OPACs etc.
- 7) **Purpose of Information Seeking:** It is observed that management users are mostly searching information for preparing notes for examinations, updating their knowledge in the subject areas, assignment and seminar writings, preparation for competitive examinations, case studies, presentations etc. Senior students seek information for project writing, searching for jobs and opportunities for higher studies etc.
- 8) **Problems Faced while Seeking Information:** In the survey users opined that they are not getting literature required in the library, library staff is unwilling to assist, incomplete information, information sources are not available and hence not getting proper information through information sources. Users do not know the availability of information resources and their contents and searching methods, information is scattered and hence difficulties arise. Neither print nor electronic literature is sufficiently made available. The major problems are insufficient literature, limited hardware and weaker internet connectivity to access the net, insufficient computer terminals for searching information.
- 9) **Literature not Available in Library:** In survey users opined that they need specialized literature in management science like marketing research, financial information, economic trends, industry or company information/profiles, business news alerts, country information, analysis reports, statistical information, consumer trends, regulatory information, stock market trends etc.
- 10) **E-resource Usage:** Users of management libraries are still prone to use print resources but since past few years they are aware of internet resources usage and search engines providing free information. However the senior students are not happy and they need databases either offline or online but ease in searching of information is desired. The need expressed is e-journals, databases like Thomson

Reuters, business monitor online, data monitor, business insight, business source premiere, Lexis-Nexis etc

- 11) **Training to Use Library:** Users of management science expressed the desire of training in searching information, knowing the information sources available in print and e-form both. Since more and more information is appearing users felt a need to get trained by the librarians. They need training of information sources available in print and e-forms, method for searching information, search strategy preparation, evaluation of source, availability of source, specialty and utility of source, etc. Use of internet, searching of information on-line, is also requested. There is a demand for training for searching internet information using search engines; business related web sites, professional assisting web sites, Govt. web sites for data collection etc. Users also need training and orientation for using modern tools for data collection including free softwares.

7.13 Researchers Observation:

Information seeking behavior covers aspects like browsing, searching, linking and creating new information. The users while searching information on internet or web or using search engines or print resources do not follow systematic process of searching information and this leads to garbage information retrieval. Users are still unaware of types of information sources and its proper use. The modern channels of information gathering used are wikis, and many web 2.0 tools like facebook, discussion forums, blogs, etc. but its use for technical communication is rarely adapted for educational purposes. In brief it is found that users are seeking the information without having proper knowledge of searching (information literacy is poor). Users need instruction from the experts regarding searching for effective information. Instead of qualitative information sources available in libraries users are using free internet resources, websites, for information gathering without having skills of searching information. Users prefer to refer to only institutional library and not other member libraries related to subject. Google is the most favourite search engine for users to get information. The users are satisfied with the library services but they feel that training and outreach programs are essential. The library does not frequently organize special orientation, extension or training

programs for the users. The users prefer both the print and digital media for data collection; e-resources are used by senior class students and faculty only. The databases subscribed by the libraries are rarely used by the students and they prefer freely available internet resources more. Resource sharing concepts need to be followed in management libraries to achieve economy and providing better resources. From the librarians view though they know how to use the new technology due to limited staff and funds it is also not possible for them to apply these new tools and techniques.

7.14 Suggestions

Following suggestions are made to improve the use of library resources and providing qualitative services to users using modern electronic technology:

- 1) Though the growth in management education and management institutes is visualized but there is a need for qualitative assurance and compatible education for global sustainability. Quality in management education is to be improved to match the growing demand of society.
- 2) For providing qualitative education, management faculty development is equally important. There is a need for international training programs for scholars, eminent personalities involved in education sector. This helps in enhancing quality in education, encouragement for research, building innovative ideas, deputation, refresher courses and training programs are necessary for enhancing faculty performance. The facilities can also be encouraged to pursue the doctoral degree education in management.
- 3) For providing qualitative education efforts have to be made to support existing faculty along with inviting entrepreneurs, faculty deputations to foreign universities, inviting corporate for specialized lectures, giving solution orientation themes, organizing executive programs, supporting to e-management and distance learning programs.
- 4) To provide qualitative management education care is to be taken to implement changes taking place in the society by ensuring appointment of quality faculty for teaching. Libraries need to be supported with latest information materials relevant to global and Indian context, promoting research culture, accepting accreditation

systems, developing interaction with industry and bringing out specializations, development of global mindset among students.

- 5) For providing better management education management institutes play an important role. However evaluation and ranking of management institutes is necessary based on student input, number of courses, faculty, administrative set-up as well as information resources availability. Evaluation is nothing but examining these components which form the management education system and find out whether these components matches with the standard qualities to impart quality education. A periodic monitoring of system is required to identify problem areas and taking necessary actions to improve the efficiency of management education systems.
- 6) While evaluating the quality of business schools few aspects to be considered are size of organization (number of students and faculty, area available), quality, ownership, accreditation (AICTE, NBA, NAAC, UGC). B-schools collaboration with industry, visiting faculties from industry, internship training for students, team teaching, offering consultancy of industry, financial support etc.
- 7) The management institute libraries in Pune have to take proper initiatives to organize and rearrange their library resources in digital form so that the faculties and students can avail services of digital library by sitting at their own cubicles or anywhere in the premises.
- 8) There is a need to conduct in depth studies by librarians to find out the changes in the use patterns of users as the technology is becoming more and more sophisticated day by day.
- 9) Libraries have to focus more on electronic resources and economical qualitative collection development. Special training programs are to be organized for users to ensure proper usage of collection.
- 10) The libraries can procure printed copies of renowned management journals for the researchers to have an access along with the online copies. More foreign journals need to be subscribed.

- 11) A digital library could be set up or institutional repositories can be created for management institute libraries in Pune city for meeting the user demands and resource sharing projects need to be initiated.
- 12) Justification for the increased annual budget to be submitted to management and sufficient funds to be allocated for consortium development as well as subscription of databases. The management institute authorities could allocate sufficient funds on reviewing justification to central and departmental libraries to acquire the latest information resources and upgrade their ICT equipments and facilities.
- 13) The ICT revolution has enhanced the role of librarians as intermediaries. Although users prefer to work on their own, they also need the help of librarians' due to information overload and new forms of resources. Thus, librarians working in management libraries have to enhance their skills in providing information.
- 14) To support management education, well established management libraries are to be developed by adapting latest trends to get information easily. Efforts are to be made by librarians by sharing their resources and creating a clearing house for getting data and information useful to business school and management education programs.
- 15) Since funds are limited and resources are increasing it is very difficult to provide every information published in the area of interest to users under one roof. Libraries of management institutes and b-schools have to make more efforts of evaluating information resources and adapting new tools like sharing resources, developing consortia and obtaining support from clearing houses.
- 16) Local area or library networks of management institutes could be developed and the libraries could be connected for sharing resources and manpower expertise.
- 17) Training to users through orientation and tour to libraries should be given to users for getting reliable and authentic use of information sources. Information literacy programs for the users need to be organized.
- 18) The assistance to users can be given by providing a link to "Ask Librarian" which may include the FAQs and the operating hours, method of access or use, methods of searching the library collection, available resources in the library both print and

e-resources, searching OPAC and online databases, membership and use of collection of sister libraries.

- 19) More efforts are needed from the library personnel to keep the users well aware of various activities, services, collections and latest additions from time to time.
- 20) The scanned content pages of journals can be provided to the users using the intranet of the institute.
- 21) There is a need for user training as users are not aware of the advanced search facilities, internet resources, online databases subscribed in the library.
- 22) The library can build its own independent website and provide services like Bulletin board, links to online databases, Ask-a-librarian service, list of important websites (free as well as subscribed) which acts as information portal
- 23) The investment of library resources can be increased in terms of infrastructure, equipment and staff training to provide improved services to users. There is a need to develop a virtual library system.
- 24) A comprehensive list of e-resources available in management science can be prepared and analyzed before fixing for consortium subscription. There is a need of consortium at local level which can be considered as a boon.
- 25) Libraries may use all functional areas of softwares for automation so as to make effective use of library collection and provide information services to users.
- 26) The users in management sciences are facing the problem of scattered information and lack of time hence there is a need for more effective and timely tools and services to be developed by the organization.
- 27) Since most of the users are not well versed with the systems and services of the library various library orientation programs should be conducted periodically to make them aware of the library systems and services.
- 28) Emphasis may be given on developing an e-library and increase in subscribing to e-resources. A model e-library is to be developed along with printed resources. E-library must have e-books, e-journals, reports, projects, online and offline databases. A single access to all e-resources can be provided through the institute's intranet.

The researcher tried to complete the research study in all aspects and justified the objectives selected as well as hypothesis considered in the beginning of the study.

The objectives listed at number 1, “To study growth and development of management education and management institutes” is studied in detail in chapters 3. The detail study related to management education and institutes is deeply studied. The objectives listed at number 2, “To measure the awareness of users about facilities available in management libraries and assess its utility by them”. This objective is discussed in chapter 4 and tried to highlight different information resources available in digital form. Chapter 6 also elaborated how users use the resources effectively by asking them different questions. The objectives listed at number 3, “To study various types of information sources used by management users (Students and faculties) and identify the user preferences for using information materials (Print or electronic resources)”. This objective was tested in chapter 6. The objectives listed at number 4, “to find the information seeking behavior of management science users and difficulties faced while seeking information”. This objective is considered in Chapter 6 in which how information is collected is measured and in chapter 7 solutions and best practices for improving information searches are discussed elaborately. The objectives listed at number 5, “to review the status of present management institute libraries and study the role of library professionals in catering to the complex needs of users”. This objective is well studied and analysed in Chapter 4 in which norms for management libraries in ICT era, digital information resources, status of library services, role of information professionals are discussed. Similarly chapter 6 and 7 are also covering the information. The objectives listed at number 6, “To identify impact of internet and e-resources while seeking information by users”. This objective is discussed in chapter 5 in which ISB using web has been discussed as well as data is analysed and findings and suggestions related to this objective are presented in chapter 6 and 7. The objectives listed at number 7, “To suggest most viable strategies and policies in redesigning management institute libraries to improve library facilities and information services in order to satisfy the growing needs of the management user community”. In chapter 7 the researcher has presented two models pertaining to ISB and Information searching in digital era.

The hypotheses considered in the study are true and proved positive that is Management institutes and libraries are increasing but these libraries are yet to be tuned to modern and advanced practices to support the emerging need of users in chapters 3, 4, 6 and 7. This hypothesis is positive as many changes are yet to be implemented in many management libraries to serve user community better. The second hypothesis, "Management users need training to make effective use of information resources available in non print media" is discussed in 4, 6 and 7 and proved to be true as users felt that searching information electronically needs training and orientation for effective searching of information. The third hypothesis, "Information seeking behaviour studies are necessary to provide and promote user based services using ICT facilities in management libraries" as discussed in chapter 5, 6 and 7 elaborates the ISB studies and need is felt to conduct regular ISB studies due to changing environment in libraries, information sources, online searching, e-publications etc, and this hypothesis also proved positive.

7.15 Scope for Further Research:

The present study made an emphasis in finding information seeking habits of management users and these studies are not complete and have some scope for improvement. The present study conducted by the researcher covers management institutes conducting full time MBA courses. Similar studies can be carried out for other professional courses where no studies relating to ISB of users has been carried out so far. A study on networking of the management institute libraries, study of use of web resources can also be carried out which will facilitate resource sharing. These suggestions are implementable in phases but librarians have to take major lead in improving the library systems. To overcome the limitations following suggestions are beneficial for other researchers to conduct studies using different aspects like increase in sample, coverage of more institutions from other cities as well as select potential users in the survey.

7.16 Conclusion:

Use of ICT and application of modern techniques improves the status of libraries and reduces workload of library professionals and helps to provide better user services. ISB helps in procuring the required collections and provide qualitative information services

using networks/ internet resources and e-resources. The library is an intellectual place where minds meet each other. It is a service oriented department and serves the diverse needs of the user community. The librarian has to recognize and identify the best practices to survive in this competitive environment. This requires proper planning, following and implementing new trends, periodic review of the practices. The future strategies must be planned keeping in mind the objectives set by the parent organization. To develop and implement the best practices it requires participation, willingness, creativity, positive attitude, team building, capacity building, adopting new skills and problem solving nature of the library professionals. In a changing ICT environment the library professionals are forced to adopt and introduce IT based practices and library services. It is a high time that the librarians change their mindset and accept the challenges posed by the user community as well as ICT. There is a continuous need for training programs to be conducted for library users and attending workshops for gaining skills by the library professionals. It is necessary to review the best practices adopted periodically and make suitable modifications if required and reengineered the libraries.

Trends are shifting continuously information and network technology together has initiated the development of electronic publishing as the major cause for the development of electronic or digital libraries. To keep pace with trends and the user needs it is essential that libraries of any type must incorporate different criteria for selection of material in new formats (digital or electronic), librarians have to use IT tools more effectively to render library and information services. The process of collection development needs to be redefined and not only this but other issues like preservation, copyright, licensing, access to e-resources, use of internet resources are comparatively more complex than print resources.

Future libraries are replacing the digital contents and all type of libraries have to face the challenges. In Indian context special libraries and university libraries have taken a lead by adopting emerging technologies. Libraries are reshaping its practices of collection development and library services to tune to the need of users. The explosion of e-resources and increased use by the end users in the field of education, research, teaching, learning etc have forced libraries to change the pace. The libraries are treated as heart of learning and teaching institutes and hence forth the librarians have to concentrate on

electronic resource management and provide services based on digital resources which might be new or enhancement of the existing services. Another challenge to library profession is to tune with the changing trends and then educate patrons and users for the effective use and access of e-resources. Since the collection is shifting, library services are also enhanced and OPAC, digital repositories, CD/DVD access (Offline access), CAS, content page service, project management and online literature service etc are growing fast which are user based services and provided on demand services (Just for you).

Use of internet, ICT and concept of automation, are now common and everyone is aware of them. The traditional systems are replacing the modern systems and technologies like open source ILS, networking of libraries. 21st century has come up with new technology i.e. web technology and also called as social networking era in which users are interacting more virtually than physically. Use of Facebook, Twitter, blogs has taken lead in young generation for better and faster communication. Among the young users, academic books and physical libraries are less preferred than the virtual libraries. They need mobile based services.

The educational systems are also changing from formal education system to e-learning, distance learning etc. These systems need different environment which is ICT based and the e-publications will be more in demand and libraries are the backbone for the management of e-resources in academic library structure. In management education system institutes have already developed teaching system using internet and Wi-Fi connectivity to classes to develop traditional classrooms into a digital class room and student's visits to sites for case studies online and discuss in the class with teachers and colleagues. A virtual classroom concept is in practice. The libraries in management are going to change in the following course and have to develop chat rooms, seminar rooms, and tutorial rooms, webinar rooms and thus users might take benefit of world's valuable literature at their finger tips.

These changes have to be adopted by the librarian along with the requisite techniques and skills to sustain in this era and educate the users for the proper information searching and using it for developing qualitative knowledge base. So far the librarians have accepted

these challenges and there is a hope that this culture of librarianship grows in future also. Change is inevitable and for the better, everyone has to accept the change whatever the field may be including library and information sector. The information seeking of users is changing as their projects shifts and hence continuous and regular ISB studies are required or user surveys to be conducted to analyse the needs of users and how they could search better information. Librarians have to make user information literate. ISB studies remain active and have to be followed by every librarian in its area to sustain active collection in e-resource form. ISB studies are essential to find the patterns of use, level of awareness of users towards information sources and library services and expand library users by understanding behaviour of users by analysing people (users), their attitude, priorities and searching methods etc. Information technology and network technology boosted the development of electronic publishing and revolutionised libraries in terms of collection, services and dissemination of information. Due to these changes in the environment to meet user needs is essential and libraries have to incorporate different criteria's for selecting, collection, acquiring, organising, information resources as per user needs in different new formats along with traditional formats. The librarians have to use IT effectively to render proper services and redefine the process of collection development which is more critical than print format. TO satisfy user community in changing environment the major task of librarian sis to assess their needs, expectations through user of ISB studies to make them more satisfied in completing their task.

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Appendix – 1 Questionnaire (Librarian)

Information Seeking behavior of the Users of Management Institute Libraries in Pune

(A) About the Organization

1. Name of the Organization/ Institute / College: -----
2. Address of Organization: -----
Phone No: -----Fax No: ----- E-Mail:-----
3. Year of establishment: -----
4. Status of the Organization: Aided () / Non-Aided()
5. Name of the Funding Organization: State/Central/Private/Society or trust/ Autonomous
6. Total Number of Staff: Teaching ----- /Administrative -----
7. Course wise intake capacity per year (Based on admissions) -----
8. Number of courses conducted: UG: ----- PG: -----
9. Any Special Course Conducted (Please Specify): -----
10. Any Correspondence/Distance Learning Courses Conducted (Please Specify):-----
11. Annual Budget of the Organization (OPTIONAL):-----
12. Annual Budget of the Library: -----
13. NBA Accreditation for the Year: Yes () / No ().

(B) About the Library

1. Name of the Library : -----
2. Year of Establishment : -----
3. Library Working Hours : -----
4. Name of the Librarian : -----

5. Qualifications and Scale of the Librarian (Highest degree): -----
6. Phone No. ----- Fax No. ----- E- Mail ----- Web -----
7. Years of service in the current organization: -----
8. Total Number of Staff in the Library: -----
- Professional: ----- Technical: ----- Non-technical: ----- Administrative: -----
9. Total Strength of the Users: Students: Faculty ---- Students -----
10. Total Number of Documents / Books in the Library -----
11. Yearly Additions in the Library: -----
12. Does the Library Provides Open Access? : Yes () / No ()
13. Does the Library have a separate building? : Yes () / No. ()
14. Area of the Library: -----Sq meter
15. Does the Library have any Special Collections? Yes () / No (). If Yes, Please Specify: ----
16. Number of students visiting the library-daily: -----
17. Number of faculties visiting the library- daily: -----
18. Allocation of Budget (IF DECIDED): Print -----% Digital -----% Consortium -----%
19. Actual spent on Books (2010-2011): ---% Periodicals: ----% Consortia-----% Digital media -----%
20. Expenditure on Collection Development for Last Three Years (Budget)

Sr. No.	Financial Year	Books	Periodicals	Digital Resources	Consortia	Newspapers	Total
	2009-10						
	2008-09						
	2007-08						

21. Does the library have its own Webpage? Yes () / No ()
22. Is there provision to get additional Budget for Development of library: Yes () / No ()
23. Number of subscribed journals: Total: -----a) Print-----b) E-journals-----
24. Details of journals: a) Indian ----- b) Foreign ----- c) Peer-reviewed-----
25. Do you receive Gift / Donated Collections? Yes () / No () If yes, Number ----Per Year
26. Is the Librarian empowered with Financial and Administrative Powers? Yes () / No ()
27. Do the users consult the librarian in their project search: Yes () / No ()
28. Has the library Organized any Extension / Training / Seminar Programmes during last five years: Yes () / No () If yes, Please specify: -----
29. Classification System and Cataloguing code Used (Please Specify): -----
30. Arrangement of books: Subject wise/Classification scheme/any other (pl. specify)-----
31. Does Library provide Reading Room facility? : Yes () / No ()
- If Yes, Seating Capacity of the Reading Hall: -----
32. Timings of the Reading Hall: Normal----- During Examination-----
33. Is the library open on Sunday's also: Yes () / No ()

(C) About the Services Provided by Library:

- | | |
|--|------------------|
| 1. Is OPAC available to the users? : In house | Yes () / No () |
| 2. Is there a Web OPAC facility: | Yes () / No () |
| 3. Does the library carry out an orientation programme: | Yes () / No () |
| 4. Are you providing the following Service to the Users? | |
| 1. Current Awareness Services (CAS) | Yes () / No () |
| 2. Selective Dissemination of Information (SDI) | Yes () / No () |
| 3. Alert Services | Yes () / No () |

- | | |
|---------------------------------------|------------------|
| 4. Current Contents | Yes () / No () |
| 5. Bibliography | Yes () / No () |
| 6. Book Bank | Yes () / No () |
| 7. Internet Resources | Yes () / No () |
| 8. Inter Library Loan | Yes () / No () |
| 9. News Paper Clippings | Yes () / No () |
| 10. Reprographic Services | Yes () / No () |
| 11. Online Search Services | Yes () / No () |
| 12. Offline search services (CD Rom) | Yes () / No () |
| 13. Indexing and Abstracting Services | Yes () / No () |
| 14. Reviews Preparation | Yes () / No () |
| 15. Database Development | Yes () / No () |
| 16. Electronic Document Delivery | Yes () / No () |
| 17. Reference Services | Yes () / No () |
| 18. Referral Service | Yes () / No () |
| 19. Book exhibition | Yes () / No () |
| 20. Web OPAC | Yes () / No () |
| 21. Extension programme | Yes () / No () |
| 22. Scanning | Yes () / No () |
5. Are you developing following Information Products?
- | | |
|-------------------------|------------------|
| 1. Library News Letters | Yes () / No () |
| 2. Library Catalogues | Yes () / No () |

3. Library Annual Report Yes () / No ()
4. Library Manual Yes () / No ()
5. List of Additions Yes () / No ()
6. Indexing and Abstracting journals Yes () / No ()
7. Specialised databases Yes () / No ()
8. Any other PI Specify ----- Yes () / No ()
6. Maximum number of books issued to the students: -----
7. Maximum number of books issued to the faculties: -----
8. Do you apply Management Techniques to evaluate utility of Collection? Yes () / No () If yes, please Specify -----
9. Do you evaluate the services of library: Yes () / No ()
10. What do the users refer most in the library: Textbooks/ Reference books/ Newspapers/ periodicals?
11. Do you scan the articles from periodicals: Yes () / No ()

(D) About Library Modernization:

1. Status of the Automation (Please Specify): Fully () / Partially () / Initiated () / Not Yet ()
2. Which Software do you use for Automation: -----
3. Does it support all the House Keeping Operations? : Yes () / No ()
- Which Library Functions are not available in it? (PI specify) -----
4. Is your Library a member of any Library Network? : Yes () / No. If Yes, Please Specify ----
5. Any additional Budget made available for Automation, subscription to e-resources or Modernization? Yes () / No (). If yes (Please specify the activity) -----
6. Is Internet Facility available in the Library? Yes () / No. ()

If Yes Speed ----- Name of the ISP: -----

7. Are you using Internet for various activities of Library? Yes () / No ()

If Yes, Please Specify: -----

8. Does Library provide Intranet Facility to users Yes () / No ()

9. Are you using the Bar code / RFID Technology? Yes () / No ()

10. Is your Library in the process of Digital Library Initiative? Yes () / No ()

If Yes Please specify the status -----

11. Does the library have its own web page: Yes () / No ()

12. Are you providing services to Outside Users? Yes () / No ()

13. Do you Market the Information Products? Yes () / No ()

14. Are you generating Income / Revenue from the Services / Products?

Yes () / No () If Yes, How much: - Rs. -----

15. Are you conducting Users Survey to find user needs? Yes () / No ()

16. What safety measures are you following?

1. Smoke Detector System Yes () / No ()

2. Maintaining Relative Humidity in control Yes () / No ()

3. Close Circuit TV system Yes () / No ()

4. Installed Fire Alarm System Yes () / No ()

5. Maintaining record of the Visitors Yes () / No ()

6. Automatic Door Control system Yes () / No ()

7. Smart Card facility Yes () / No ()

(E) About Resource Sharing:

1. Are you sharing your resources among other libraries? Yes () / No ()
2. How do you meet the user's requirements? (Please Tick the appropriate)
1. In-house : ()
 2. ILL: ()
 3. Internet: ()
 4. Referral: ()
 5. Any Other: -----
3. What is the percentage of user satisfaction from the collection?
- Justify: -50% () 60% () 70 % (), 80 % (), 90% ()
4. Are you depending on the Resources of other libraries? Yes () / No ()
5. Is your Library a member of any other Library? Yes () / No ()
6. Is ILL facilities availed to from your library? Yes () / No ()
7. Are you providing Electronic Document Delivery Yes () / No ()
8. Do you Charge for consulting your library? Yes () / No. ()
9. From where you get full text articles? Name of the database: Please Specify:
- I) Subscribed: ----- II) Open Source: -----
10. Are you keeping record of Internet download? Yes () / No ()
11. Xerox facility in the library Yes () / No ()
- (F) About advanced technology:**
1. Scanners Yes () / No ()
 3. Digital Cameras Yes () / No ()
 4. LCD Projectors Yes () / No ()

- | | |
|----------------------|------------------|
| 5. Colour Printers | Yes () / No () |
| 6. CD Rom facility | Yes () / No () |
| 7. CD Writers | Yes () / No () |
| 8. Laser Printers | Yes () / No () |
| 9. Bar Code Printers | Yes () / No () |
| 10. UPS Facility | Yes () / No () |
| 11. PDF Acrobat | Yes () / No () |
| 12. Antivirus | Yes () / No () |
| 13. Web Browsing | Yes () / No () |
| 14. Web Design | Yes () / No () |
| 15. Open Office | Yes () / No () |

(H)About Electronic / Digital Information Resources:

1. Are you using any of the following software's for Digitization?

- | | |
|------------------------------------|-------------------|
| 1. D-space | Yes () / No () |
| 2. Green Stone | Yes () / No () |
| 3. Koha | Yes () / No.() |
| 4. Eprint | Yes () / No. () |
| 5. Any Other Please Specify: ----- | |

2. Are you acquiring Digital Information Resources? Yes () / No () If Yes, Please Specify: -----

3. Are you planning to Digitize Printed library Materials? Yes () / No ()

If Yes, Please specify which materials you would digitize: -----

4. Is there any Extra Budget sanctioned for Digitization Yes () / No ()

5. Are you subscribing to e-journals /e-documents? Yes () / No ()

6. What are the type of Digital Information Resources available in your Library?

1. Electronic Journals Yes () / No ()
2. Electronic Books Yes () / No ()
3. Electronic Databases Yes () / No ()
4. Electronic Reports Yes () / No ()
5. CD Rom Databases Yes () / No ()
6. E-thesis Yes () / No ()
7. Any Other Please Specify: -----

7. Usage of Internet

1. Internet facility for librarian: Yes () / No ()
2. Internet facility for library staff: Yes () / No ()
3. Online search through internet: Yes () / No ()
4. E-mail: Yes () / No ()

8. Are all the library users familiar with the database access subscribed by the Institute: Yes () / No ()

9. Are all the library staff familiar with the access to the subscribed databases: Yes () / No ()

(I) About qualitative library management

1. Have you developed a Library Manual? Yes () / No. ()
2. Is there a Library Advisory Committee Yes () / No ()
3. Is there a faculty member in the Library Advisory Committee: Yes () / No ()
4. Is there a student representative in the Library Advisory Committee: Yes/No
5. Are there Policies / Rules / guidelines framed for the activities of Library? Yes () / No ()

6. Is there a Collection Development Policy (both Print and digital resources)? Yes () / No ()

7. Have you developed any Weeding out Policy? Yes () / No ()

8. Have you fixed any Policy for Stock Verification? Yes () / No. ()

9. Have you fixed any Policy for the Retro Conversion? Yes () / No ()

10. Are you evaluating the usage of Electronic Resources? Yes ()/No. ()

11. Can you mention below any suggestions to improve management libraries?

Place: -----

Date: Name of Respondent & Designation

Appendix – 2 Questionnaire (faculties)

Information Seeking behavior of the Users of Management Institute Libraries in Pune

A) Personal Information:

1. Name of the Organization/Institute/College: -----
2. Name of the Principal / Director: -----
3. Name of the faculty : -----
4. Qualifications and Scale of the faculty: -----
5. Ph. D Research Work: Pursuing/Completed/Not yet registered
6. Phone No. ----- Fax No. -----
E- Mail ----- Web -----
7. Age group: -----yrs
8. Sex: Male/Female
9. Years of service in the current organization: -----
10. Subject specialization:
11. Usage of library facilities and time spent per day : (Tick the appropriate one)

Sr. No.	Duration of time spent	Yes
1	1-2 hours	
2	3-4 hours	
3	5-6 hours	
4	7-8 hours	

12. The purpose of visiting the library

Sr. No	Reason for visit	0-1 hour	2-4 hours	5-6 hours
1.	Reading newspaper			
2.	Reading mails			
3.	Referring to journals			
4.	Reading books			
5.	Preparing class notes			
6.	Research work reading			
7.	Special writing			
8.	Using reference books			

B) Library Usage:

1. Does the library provide open access: Yes () / No ()
2. Sources of information available in library preferred for collecting information:

Sr. No.	Particulars	Yes		No	
1	Books				
2	Journals				
3	Thesis				
4	Newspaper				
5	Reports				
6	Conference publications				
7	Internet resources				
8	Databases				
9	Trade literature				

10	Any other				
----	-----------	--	--	--	--

2. Number of visits to the library: daily/weekly/fortnightly/never.
3. Total number of books in your subject (approx):-----
4. Number of Journals Subscribed in your subject: -----
5. Do you consult the library staff for help on any research activities: Yes/No
6. Does the Library organize any Extension/Training Program: Yes () / No ()
7. Is the arrangement of books in the library comfortable: Yes () /No () (any suggestions) -----
8. Does Library provides separate Reading Room facility for faculties? : Yes () / No ()
9. Do the physical facilities of the library facilitate active learning? Yes () /No ()

C) Services provided by the library:

1. Is OPAC available to the users? Yes () / No ()
2. Does the library provide the following Services?
 - Current Awareness Services (CAS) Yes () / No ()
 - Selective Dissemination of Information (SDI) Yes () / No ()
 - Book Exhibitions Yes () / No ()
 - News Paper Clippings Yes () / No ()
 - Reprographic Services Yes () / No ()
 - Online Search Services Yes () / No ()
 - Reference Services Yes () / No ()
 - Any Other Yes () / No ()
3. Are the number of books issued to you sufficient: Yes () / No ()

4. What do you refer most in the library (multiple choices): Textbooks/ Reference books/ Newspapers/ periodicals?

5. Does your library have Inter library loan facility: Yes () /No ()

6. What is the purpose of Information seeking and is it satisfied by the library:

Sr. No.	Purpose	Option Yes/No	Library satisfaction Yes/No
1.	Research work		
2.	Reading in general		
3.	Paper setting		
4.	Class lectures		
5.	Any other(please specify)		

7. If the library undertakes the process of scanning of periodicals which field will interest you (Multiple Choice)

a. Editorial Comments: Yes ()/ No ()

b. Index page: Yes ()/ No ()

c. Cover page: Yes ()/ No ()

d. Summaries of articles: Yes ()/ No ()

e. Any other (please specify): -----

8. How do you obtain the journal articles (Multiple choices): Library/Personal subscription/ Internet

9. How does the library intimate you about new arrivals: e- mail /OPAC/ Personal visit to the library?

10. How often do you use the databases subscribed by the library: Always/ Sometimes /Never.

11. Which problems do you meet while seeking information from the library?

Sr. No.	Nature of problem	Yes/No
1.	Material is not available	
2.	Library staff are unwilling for service	
3.	Information sources are not properly located	
4.	Do not know how to use the catalogue	
5.	Lack of knowledge in using the library	
6.	Do not know how to access the OPAC	
7.	Information located at different places	
8.	Some of information materials are old and outdated	
9.	Any other (please mention)	

D) Library Modernization:

1. Is your Library a member of any Library Network? : Yes () / No

If Yes, Please Specify -----

2. Is Internet Facility available in the Library? Yes () / No.
()

3. Are you using Internet as an option for Library? Yes () / No.
()

If Yes, Please Specify: -----

E) Resource Sharing:

1. What is the percentage of your satisfaction from the collection?

Justify: -50% () 60% () 70 % () , 80 % () , 90% ()

2. Are you depending on the Resources of other libraries? Yes () / No ()

3. Is your Library a member of any other Library? Yes () / No ()

F) Electronic / Digital Information Resources:

1. Does the library have Digital Information Resources? Yes () / No. ()

2. What are the types of Digital Information Resources available in your Library?

-Electronic Journals Yes () / No ()

-Electronic Books Yes () / No ()

-Electronic Databases Yes () / No ()

-Electronic Reports Yes () / No ()

-CD Rom Databases Yes () / No ()

- E-thesis Yes () / No ()

- Any Other Please Specify -----

3. Are you using Internet for searching Management Information? Yes () / No ()

If yes please specify prominent sites -----

G) About the Collection Development and Policies:

1. Are you a faculty member in the Library Advisory Committee: Yes ()/No ()

2. Do you recommend books for the library: Yes ()/No ()

3. Does the librarian intimate you of the books purchased as your recommendation:

Yes ()/No ()

4. Can you mention any suggestions to improve management of libraries?

Place: -----

Date: -----

Appendix – 3 Questionnaire (Students)

Information Seeking behavior of the Users of Management Institute Libraries in Pune

A) Personal Information:

1. Name of the Organization/ Institute / College: -----

2. Name of the Principal / Director: -----

3. Name of the student: -----

4. Age: -----yrs.

5. Academic Year: -----

6. Name of the course: -----

7. Specialization: -----

8. Sex: Male/Female :

B) About the library

1. Do you have library membership: Yes/No

2. Do you visit the library: Yes/No

3. Library visit per week:

Sr. No.	Particulars	Yes
1	Daily	
2	Weekly	
3	Fortnightly	
4	Never	

4. Reason for visiting the library:

Sr. No.	Reasons to visit	Yes
1	General Reading	
2	Prepare class notes	
3	Specific reading	
4	Issue or return of books	
5	Reference searching	
6	Any other- writing papers or project work	

5. Time spent in library for information gathering per day

Sr. No	Time	Yes/No
1.	1-2 hours	
2.	2-4 hours	
3.	4-6 hours	

6. Which are the type of literature do you consult or use:

1. Textbooks: Yes () /No ()
2. Reference books: Yes () /No ()
3. Newspapers: Yes/No
4. Research projects: Yes/No
5. Journals: Yes () /No ()
6. Dissertation: Yes () /No ()
7. Any other (Please mention): -----

7. Purpose of information seeking

Sr. No.	Particulars	Yes	No
1	Reading		
2	Class notes and tutorials		
3	Updating knowledge		
4	Research work		
5	Entertainment		

8. How much time do you spare for consulting the following information resources?

Sr. No	Resources	0-1 hour	2-4 hours	5-6 hours
1.	Newspaper			
2.	Searching the internet			
3.	Journals			
4.	Books			
5.	Reference Source			
6.	Use of web resources			

9. Which form of media do you prefer for consultation of literature?

Sr. No	Media	Yes/No
1.	Only print media	
2.	Only e-media	
3.	Both print and e-media	

10. Familiar with e-documents: Yes ()/No ()
11. Internet used for information collection: Yes ()/No ()
12. Web tools for communication: Yes ()/No ()
13. Satisfied about library collection: Yes () /No ()

C) Library facilities

1. Permitted to browse the library collection: Yes ()/No ()
2. Are you allowed to suggest books for the library: Yes ()/No ()
3. Does the library purchase books as per your needs/suggestions: Yes ()/No ()
4. Is the library staff helpful while getting information: Yes ()/No ()
5. Is the arrangement of books in the library useful to users: Yes ()/No ()
6. Do you use the reading room facility of the library for:
 1. Reading: Yes() / No()
 2. Assignment writing: Yes() /No()
 3. Laptop and internet usage: Yes()/No()
 4. Examination preparation: Yes()/No()

D) Services provided by the library:

1. Does the library provide following Services?

1. Current Awareness Services (CAS)	Yes () / No ()
2. Selective Dissemination of Information (SDI)	Yes () / No ()
3. Book Exhibitions	Yes () / No ()
4. Book Bank	Yes () / No ()
5. Internet Resources	Yes () / No ()
6. Inter Library Loan	Yes () / No ()
7. News Paper Clippings	Yes () / No ()
8. Reprographic Services	Yes () / No ()
9. Reference Services	Yes () / No ()

10. Display new arrivals Yes () / No ()
11. Any Other Yes () / No ()
2. Are the number of books issued to you from the library sufficient: Yes () / No ()
3. Awareness in accessing library materials: Yes () / No ()
4. Do you feel training is essential for accessing the library materials: Yes () / No ()
5. Which problems do you meet while seeking information? (Multiple tick)
1. Material is not available: Yes () / No ()
 2. Library staff are unwilling for service Yes () / No ()
 3. Information sources are located at different places Yes () / No ()
 4. Lack of knowledge of using the library Yes () / No ()
 5. Information is too vast. Yes () / No ()
 6. Some information materials are too old Yes () / No ()
 7. Incomplete information available in library Yes () / No ()
 8. Any other (Please mention) -----

E) Electronic / Digital Information Resources requirement:

1. Awareness of digital material in the library: Yes () / No ()
2. Does the library subscribe to e-journals /e-documents? Yes () / No ()
3. What are the types of Digital Information Resources available in your Library?
1. Electronic Journals Yes () / No ()
 2. Electronic Books Yes () / No ()
 3. Electronic Databases Yes () / No ()
 4. Electronic Reports Yes () / No ()
 5. CD Rom Databases Yes () / No ()
 6. E-thesis Yes () / No ()
 7. Any Other Please Specify: -----

4. How often do you use the Internet?

- | | |
|-------------------------|----------------|
| 1. Daily: | Yes ()/ No() |
| 2. Once in a week : | Yes()/No() |
| 3. Once in a fortnight: | Yes()/ No () |
| 4. Once in a month: | Yes()/ No () |
| 5. Rarely: | Yes()/ No () |

5. Frequency of use of Internet:

Sr. No.	Particulars	Yes
1	Daily	
2	Once in a week	
3	Once in a fortnight	
4	Once in a month	
5	Rarely	

6. For which purpose do you use the Internet?

Sr. No.	Particulars	Yes
1	Study material	
2	E-mail browsing and sending	
3	General reading	
4	Entertainment	
	Total	

7. Does the library staff help you while searching any information on the Internet if required: Yes () /No ()

8. Do you want to add in terms of valuable suggestions for input in library?

Place: -----

Date: -----

Appendix – 4 List of Management Institutes (MBA)

Sr. No.	Name of the institute	Establishment year	Address
1	Abhinav education society's Institute of Management and Research	2007	A/P Narhe, Pune 411 041
2	Aditya Institute of Management	2009	S. No. 42 (Part), Narhe - Ambegaon, Next to Springdale School, Narhe, Pune – 411041.
3	AIMS Institute of Management Studies	2009	Plot No.2, Sur. No. 13/2, Sagar, Society, NDA, Pashan Road, Bavdhan, Pune 411 021.
4	AKI's Poona Institute of Management Sciences & Entrepreneurship	1990	Poona College Campus, Camp Pune-411 001.
5	Alard Institute Of Management Sciences	2005	Survey No. 50, Marunje, Near Rajiv Gandhi IT Park, Hinjwadi, Pune - 411 057.
6	Allana Institute of Management Sciences	1998	2390-B, K. B. Hidaytullah Road, New Modikhana, Azam Campus, Camp, Pune – 411001.
7	All India Shri Shivaji Memorial Society's Institute Of Management	2002	Kennedy Road, Near R.T.O., Pune- 411001.
8	Apex Institute of Management	2004	Survey No. 59, Apex Hills, Near Bishop's School, Undri, Pune - 411 060.
9	Arihant Institute of Business Management	2010	276/1/2, 2771/1/2, 278/2, Bawdhan Bk. Pune 411 021.
10	ASM's Institute of Professional Studies	2008	Chinchwad, Old Pune Mumbai, Highway, Pune-411 018.
11	ASMA Institute of Management	2007	Shastri Campus, S. No. 85, NDA Road,

			Shivane, Pune-23
12	Audyogik Shikshan Mandal's Institute of Business Management & Research	1995	MIDC, Block 'C', Chinchwad,Pune-411019.
13	Audyogik Shikshan Mandal Institute of International Business and Research	1994	Purna Nagar Complex, STP Buildings A, B & C Chikhali Road, Pune-400 019.
14	Bansilal Ramnath Agarwal Charitable Trust's Vishwakarma Institute Of Management	2001	Survey Number 3/4, Laxminagar, Kondhawa (Budruk), Pune-411048.
15	Bharati Vidyapeeth's Institute of Management and Entrepreneurship	1979	Erandwane Campus, Paud Road, Pune 411 038.
16	Camp Education Society's Institute Of Management	1990	2015/C, Jan Mohammed Street, Pune Camp, Pune - 411 001.
17	Dhareshwar Institute of Management	2010	Survey No. 48, Dhayari, Dhayari, Pune 411041.
18	Dyanganga Institute of Career empowerment and research	2008	Sr. No. 39, Narhe, Pune-041.
19	Dnyansagar Institute of Management and Research	2008	S.No. 4/2,4/3, Near Shree Chatrapati Shivaji Sport City, Balewadi, Pune – 411045.
20	Dr. D. Y. Patil Centre for Management and Research	2004	Tathwade, Pune 411 033
21	ENAIC Institute of Computer Application	2008	Gat No. 720 (1 & 2), Pune – Ahmednagar Road, Wagholi, Pune – 412 207.
22	Foresight Institute of Management and	2000	Prestige point, 283 Shukrawar Peth, Behind BSNL Telephone

	Research		exchange, Bajirao road, Pune 411002
23	G.H Raison Institute of Engineering and Technology	2008	Gat No.1200, Pune-Nagar road, Wagholi, Pune 412 207
24	Gensis Institute of Business Management	2011	S. No. 208, Pune Saswad road, next to SP Infocity, Fursungi, Pune 412 308
25	Imperial College of Engineering and Research	2006	Gat 720/2, Nagar Road, Wagholi, Pune 412 207
26	Indian Institute of Cost Management & Research	1973	85/1, Chiplunkar Road, Erandawana, Pune- 411 004
27	Indian Institute of E-Business Management	2001	S. No.114/1/3, Wakad-Marunje Road, Off Mumbai-Bangalore Highway, Wakad, Pune 411 057
28	Indian Institute of Management Training	2005	Pune EL-39/5, M.I.D.C., Indrayani Nagar, Bhosari, Pune 411026
29	Indira College Of Engineering and Management	2008	S.No. 64,65, Gat No. 276,At Post : Parandwadi, Near Somatnephata,Tal. Maval, Dist.: Pune - 410 506.
30	Indira Global Business School	2009	64/65, Parandwadi, Maval, Pune – 410506.
31	Indira Institute of Management	1994	85/5-A, "TAPASYA", New Pune Mumbai Highway, Tathwade.
32	Indyana Group of Institutions	2009	IGI, Survey No. 114, Village: Nere- Dattawadi, Jambe, Hinjewadi, Chandkhed Road, Pune 411033.

33	Institute of Management and Career Development	1991	Modern High School Campus, YamunaNagar,Nigdi, Pune-44
34	Institute of Management Education Research and Training	2006	302/A, Marathwada Sadan, Deccan Gymkhana, Pune- 411 004.
35	Institute of Business Management & Research	1984	S.No.130, Mumbai-Banglore Highway, Opp. Wakad Police Chowky, Wakad, Pune-411 057
36	International School of Corporate Management	2006	"Shroff Suyash", S. no. 74 + 75 / 2, 3rd Floor, P. K. Shroff Road, Near Pan Card Club, Baner, Pune 411 045
37	International Institute of Information Technology	1999	P-14/1, Pune Infotech Park, Phase- 1, Hinjewadi, Pune 411 057.
38	Jai Shivaji Pratishthan's Chatrapati Shivaji Institute Of Business Management And Research	1999	J.P. Trust, Vidya Niketan, English Medium School, 634/9, A/1, Bibwewadi Road, Pune - 411 037
39	Jaywant Institute of Management Studies	2004	Survey No.80, Pune-Mumbai Bypass Highway,Tathawade, Pune 411 033.
40	Jayawantrao Sawant institute of Management and Research	2009	S.No.58, Indrayani nagar, Handewadi Road, Hadapsar, Pune – 28.
41	JSPM's Kautilya Institute of Management and Research	2000	Gat No. 720 (1 & 2), Pune – Ahmednagar Road Wagholi, Tal-Haveli, Pune – 412 207.
42	Kasegaon Education Society's Rajarambapu Institute of Business Management	2007	S. No 65, Ambegaon (Bk). Tal. Haveli. Pune-46
43	Lexicon Institute of Management	2009	Gat No.726,Wagholi,Taluka-

	Education		Haveli,Pune- 412207
44	Lotus business school	2007	S.No. 52/53, Jhambe Road, Pune Mumbai Expressway.
45	L. N. College of Business and Technology	1999	LN-Mastermind college, 71/1/2, Krishnanagar, New Sanghvi, Pune- 411027
46	Magarpatta City Institute of Management and Technology	2010	Survey No.130, Plot No.MP4, Magarpatta City, Hadapsar, Pune 411028
47	Maharashtra Jain Sanskritik Mandal's (Akluj)Institute of Management , Social Science & Research	1984	1165, Sadashiv Peth , Tilak Road, Pune – 411 030.
48	Mahatma Phule Institute of Management	1994	Anna Saheb Magar College Campus, Manjari Road, Hadapsar. Pune 411028.
49	Mamasahab Mohol College of Business Administration	2008	Ghotawade Phata, Pirangut, Paud Road, Taluka: Mulshi, District: Pune. Pincode: 412 109.
50	Marathawada Mitra Mandal's Institute of Technology	2008	S. No.35. Plot No.5/6, Lohagaon Tal. Haveli, Dist. Pune – 411032
51	Matrix Business School	2005	Off Westernly Bypass Road, Survey No. 9/1/5 & 9/2/4, Wadgaon, Ambegaon (BK), Pune-411 041.
52	MERC Institute of Management	2008	Gat No. 167, Bhukum, Paud Road, Opposite Shell Petrol Pump, Pune – 412115.
53	Moment Institute of Business Management	2009	Survey No.54/14/18. Ambegaon Bk. Taluka Haveli Pune - 411

			046.
54	MIT Academy of Engineering	2006	Dehu Phata, Alandi (D) Pune-412 105
55	MIT School Of Management	2007	S.No. 123, Saraswati Vishwa Building,"A" Wing 3rd Floor, MIT Campus, Paud Road, Kothrud, Pune. 411038.
56	MIT School of Telecom Management	2007	S.No.124, Paud Road, Kothrud, Pune – 411038.
57	Modern Institute of Business Management	2010	P.E. Society, Shivajinagar, Pune 411 004.
58	Nav-Sahyadri Charitable Trust's Institute of Management Science	2008	Pimpri Bk, Tal: Khed, Dist : Pune, Pin : 410 501.
59	NBN Sinhgad School of Management Studies	2011	10/1,Ambegaon-Bk, Tahasil-Haveli, District-Pune-411041
60	Neville Wadia Institute of Management Studies and Research	1990	19, Principal V. K. Joag Path, Pune - 411001
61	N. S. Dixit Educational Foundation Institute of Management and Technology		City international school building, Kumar crystal, Aundh, Pune-7.
62	Novel Institute of Business Management and Research	2005	Plot No. GP - 193, "G" Block, MIDC Near Thermax Chowk, Sambhajinagar, Chinchwad Pune - 411 019.
63	Padmashree Dr. D. Y. Patil Institute of Management Studies	2004	Sec.29, Behind Akurdi Railway Station, Pradhikaran Nigdi, Akurdi, Pune-411 044
64	Padmashree Dr. D.Y. Patil Institute of Engineering & Technology	2009	Pimpri, Pune - 411 018
65	PDEA's Institute of Technical Education, Research & Management	2010	Sector No. 28, Ganganagar, Pradhikaran, Akurdi, Pune - 44

66	Pratibha Institute of Business Management	2008	Block No. D-III, Plot No. 3, Behind Mehta Hospital, off Mumbai-Pune Road, Chinchwad, Pune 411019.
67	Pravara Centre for Management Research and Development	2010	Off Senapati Bapat Road, Near Patrakar Nagar, Pune - 411 016
68	Pune University's department of management science	1971	University of Pune, Ganeshkind Road, Pune 411007
69	Raja Shivaji Pratishthan's Institute of Management & Computer Studies	1998	Baburao Sutar Path, Rambaug Colony, Opp. Krishna Hospital, Paud Road, Kothrud, Pune 411038.
70	Rajarshi Shahu School of Business Studies	2010	Sr. No. 12/2/2 & 14/9, Near Sanas Crane, Narhe, Pune – 411041.
71	Rajgad Institute of Management Development	2008	Opp. Dhankawadi Post Office, Pune-Satara Road, Pune - 411 043
72	Rajiv Business School	2008	Sr. No. 31, Near Dange Chowk, Tathawade, Pune-411033
73	RMD Sinhgad School of Management Studies	2011	Address: 111/1 , Warje, Pune-Mumbai Bypass Highway, Pune-411052
74	Sadhu Vaswani Institute of Management Studies	2010	6, Koregaon Park, Pune-411001.
75	Sahyadri Institute of Management Studies	2007	Post. Tathawade, Tal. Mulshi, Dist. – Pune
76	Sai Sinhgad Business School	2003	Survey No. 9/1/3, Ambegaon (Bk), Pune- 411041.
77	Sankalp Business School	2008	S.No.9/1/1, Ambegaon (BK.), off

			Sinhgad Road, Behind Sinhgad College, Vadgaon Bk.,Pune - 411041
78	S. B. Patil Institute of Management	2009	Pradhikaran, Nigdi, Pune – 411 044
79	Shri Chatrapati Sambhaji Shikshan Sanstha`s Institute For Management Excellence & Development	2009	S.No. 40, Shiv Smarak Samiti, Dhankawadi Pune 411 043.
80	Shri Shivaji Maratha Society's Institute of Management and Research	2001	S. No. 74/1 A, 74/1 B, Parvati, Aranyeshwar, Pune 411 009
81	Siddhant Institute of Business Management	2005	Chakan - Telegaon Road, Sudumbare, Pune- 412 109.
82	Silver Bright Institute of Management	2008	Plot No. 67A, Block D-2, MIDC, Chinchwad, Pune
83	Sinhgad Academy of Engineering	2005	S. No. 40/4 A, Near octroi Post, Kondhwa –Saswad Road, Pune – 411048.
84	Sinhgad Business School	2007	Kashibai Khilare Path, Erandwana Gaothan, Pune, 411004
85	Sinhgad College of Engineering	1996	S. No. 44/1, Vadgaon (Budruk), Off. Sinhgad Road, Pune 411 041.
86	Sinhgad Institute of Management	1994	S.No. 44/1, Vadgaon Budruk,Off . Sinhgad Pune 411 041
87	Sinhgad Institute of Management Business Administration & Research	2004	Kondhwa (Bk), Pune- 411048.
88	Sinhgad Institute of Management and Computer Application	2004	S.No.49, Off Westerly Bypass, Pune-Mumbai Express Way, Narhe, Pune - 411041
89	Sinhgad School of Business Studies	2010	S.No. 45/15/1/2, 45/15/2, 45/15/3, Narhe, Pune - 411041

90	S.K.N. Sinhgad School of Business Management	2010	S.No.10/1, Ambegaon (Bk.), Pune-411041
91	Smt. Hiraben Nanavati Institute Of Management & Research For Women	1996	Near Cummins Engineering College, Karve Nagar, Pune 411052
92	Smt. Kashibai Navale Sinhgad School of Business Management	2010	10/1,Ambegaon-Bk, Tahasil-Haveli, District-Pune-411041
93	Suryadatta Institute of Business Management and Technology	2008	Survey No. 342, Off. Pashan Chandni Chowk Road, Behind DSK Ranwara, Near Lalani Quantum, Pune 411021.
94	Suryadatta Institute of Management and Information Research	1999	2074, Sadashiv Peth, Vijayanagar Colony, Pune-411 030.
95	Suryadatta Institute of Management and Mass Communication	2008	Survey No. 342, Off. Pashan Chandni Chowk Road, Behind DSK Ranwara, Near Lalani Quantum, Pune 411021
96	Symbiosis Centre for Information Technology	1999	Symbiosis Infotech Campus, Plot No. 15, Rajiv Gandhi Infotech Park, MIDC, Hinjewadi, Pune - 411 57.
97	Symbiosis Centre for Management and Human Resource Development	1993	Symbiosis Infotech Campus, Plot No. 15, Rajiv Gandhi Infotech Park, MIDC, Hinjewadi, Pune - 411 057.
98	Symbiosis Institute of Business Management	1978	Gram: Lavale, Tal: Mulshi, Dist: Pune – 411042
99	Symbiosis Institute of International Business	1992	Symbiosis Infotech Campus, Plot No. 15, Rajiv Gandhi Infotech Park, MIDC, Hinjewadi, Pune - 411 057.
100	Symbiosis Institute of Management	1993	Range Hills Road, Khadki Cantt,

	Studies		Pune 411 020
101	Symbiosis Institute of Telecom Management	1996	Gram: Lavale, Tal: Mulshi, Dist: Pune - 411042
102	Symbiosis School of Banking Management	2010	Gram: Lavale, Tal: Mulshi, Dist: Pune – 411042.
103	Synergy Institute Of Management	2008	1785, Sadashiv Peth, Near Khajina Vihar Chowk. Off Tilak Road, Pune-411030.
104	Training and Advance Studies in Management and Communication (TASMAC)	2002	TASMAC House, Plot No.14, TASMAC road, Pune 411 014
105	The Shetkari Shikshan Mandal Sangli's Pd. Vasantdada Patil Institute of Technology	2006	S.V. No. 33/22, Bavdhan (Khurd), Tal-Mulshi, Near Chadani Chowk, Tal-Mulshi, Pune 411021.
106	Tilak Maharashtra Vidyapeeth Institute of Management	2006	Tilak Maharashtra Vidyapeeth, Mukundnagar, Gultekdi, Pune 411037
107	Trinity Institute of Management and Research	2008	S.No. 25 7 27 Village Pisoli Tal-Haveli, Dist-Pune-411 048.
108	Unique Institute of Management	1987	S. No. 36/3 C Katraj Kondhava Road, Katraj, Pune- 411 046
109	Viva Institute of Management Studies	2004	Sr. No. 41, Bhukum/ Bhugaon, Pirangut Road, Pune – 411042.
110	Yashaswi Education Society's International Institute of Management Science	2009	S.No169/1 A, Elpro International Chinchwad, Pune-411 033.
111	Zeal Institute of Management & Computer Application	2009	S. No 39, Narhe, Pune - 411 041.

Out of the above mentioned institutes following under mentioned institutes were reluctant to give responses either due to various administrative constraints.

Sr. No: 20,21,22,23,24,42,44,45,61,64,82,93,104.