SKILLS AND COMPETENCIES OF COLLEGE LIBRARY PROFESSIONALS OF MIZORAM IN CHANGING INFORMATION SCENARIO: A STUDY

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CERTIFICATE

This is to certify that the thesis entitled **"SKILLS AND COMPETENCIES OF COLLEGE LIBRARY PROFESSIONALS OF MIZORAM IN CHANGING INFORMATION SCENARIO: A STUDY"** submitted by **B. LALHLIMPUII** for the award of the Degree of Doctor of Philosophy in Library and Information Science is carried out under my supervision and incorporates the students bona-fide research and this has not been submitted for award of any degree in this or any other university or institute of learning.

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DECLARATION

I, **B. Lalhlimpuii**, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form basis of the award of any previous degree to me or to the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the degree of Doctor of Philosophy in Library & Information Science.

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ABREVIATIONS AND ACRONYMS

Abbreviation	Description
ACRL	Association of College and Research Libraries
APA	American Psychological Association
BA	Bachelor of Arts
BBA	Bachelor of Business Administration
BCA	Bachelor of Computer Applications
BCI	Bar Council of India
BCM	Baptist Church of Mizoram
B.Com	Bachelor of Commerce
BDP	Bachelor of Degree Program
B.ed	Bachelor of Education
BEI	Behavioural Event Interview
B.Opto	Bachelor of Optometry & Opthalmic Techniques
BPP	Bachelor of Preparatory Program
BSW	Bachelor of Social Work
CADC	Chakma Autonomous District Council
CAS	Current Awareness Service
CCC	Course on Computer Concept
CEC	Consortium of Educational Communication
CPD	Continuing Professional Development
CTE	College of Teacher Education
D.Ei.Ed.	Diploma in Elementary Education
EAN	European Article Numbering
EBDs	Educationally Backward Districts

E-book	Electronic-book
EI	Emotional Intelligence
ELH	Education, Libraries and Heritage
ETDs	Electronic Theses and Dissertations
E-zine	Electronic-magazine
FAQ	Frequently Asked Questions
GAC	Government Aizawl College
HATIM	Higher and Technical Institute of Mizoram
HEC	Higher Education Commission
HERA	Higher Education Role Analysis
IASE	Institute of Advanced Study in Education
ICFAI	Institute of Chartered Financial Analyst of India
ICT	Information and Communication Technology
ICU	Intensive Care Unit
IGNOU	Indira Gandhi National Open University
IPs	Information Professionals
IR	Institutional Repositories
ISRO	Indian Space Research Organization
IT	Information Technology
ITIL	Information Technology Information Library
LICs	Library and Information Centres
LIS	Library and Information Science
MBSE	Mizoram Board of School Education
MCON	Mizoram College of Nursing
M.ed	Master of Education
MHRD	Ministry of Human Resource Development
MIE	Mizoram Institute of Education

MLT	Medical Lab Technology
M/S	Middle School
MZU	Mizoram University
NAAC	National Assessment and Accreditation Council
NCERT	National Council of Educational Research and Training
NEC	North Eastern Council
NEHU	North Eastern Hill University
NIELIT	National Institute of Electronics & Information Technology
NIRF	National Institutional Ranking Framework
NTS	Normal Training School
OPAC	Online Public Access Catalogue
PMBOK	Project Management Body of Knowledge
PR	Public Relation
PRINCE	PRojects IN Controlled Environment
PUC	Pachhunga University College
RFID	Radio Frequency Identification
RIPANS	Regional Institute of Paramedical and Nursing Sciences
RIT	Radiography & Imaging Technology
RSS	Really Simple Syndication
SITs	Satellite Interactive Terminals
SLA	Special Library Association
SWAIT	Strength, Weakness, Aptitude, Interest, Threats
SWOT	Strength, Weakness, Opportunity, Threat
TOCs	Table of Contents
TTI	Teacher Training Institute
UGC	University Grant Commission

UGTTI	Under-Graduate Teachers Training Institute
UPC	Universal Product Code
VoIP	Voice over Internet Protocol
VTU	Visvesvaraya Technological University
WWW	World Wide Web
ZMC	Zoram Medical College

CHAPTER 1

INTRODUCTION

1.1. Introduction

The application of Information and Communication Technology (ICT) has greatly transformed the way of functioning of the libraries. Libraries have to perform their duties and responsibilities in different environment in storing, disseminating and organizing information which all required professional expertise. It is not only the size of the library, its environment, the facilities that are provided to the users and its content (both physical and digital resources) that matters; but what matters the most is the quality of the library professionals who will serve the library users. Consequently, in order to ensure the library's smooth operation and to offer its users the best possible services, the Library and Information Science (LIS) professionals require to develop their skills and competencies in various skills which include ICT skills, managerial skills and, personality development and communication skills. The revolutionary changes that has brought up by the rapid advancement in ICT in information processing, storage and dissemination, and to communicate more effectively in information demands the LIS professionals to develop their ICT skills in the changing information scenario. To meet current challenges, the LIS professionals require to possess managerial skills in carrying out the plans and policies, and to critically assess the relevance and value of modern management techniques. To add value to the services provided by Library and Information Centres and to enable the users to understand library services, the LIS professionals need to have effective and interactive communication skills and should develop their personality skills in certain areas which include professional communication skills, marketing skills, public relations, leadership and vision, conflict and crisis management, time and stress management etc.

Due to the recent trends of ICT in Library and Information Centres (LICs), the library professionals are facing a lot of difficulties and challenges. Therefore, different types of skills and competencies are required in order to tackle the problems and difficulties in handling information resources. They require ongoing revitalization by gaining new skills and core competencies in order to survive and never become obsolete in an era of rapid information change.

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn"…..Alvin Toffler (Goodreads, n.d.).

1.2. Concept of Skills

Skill is the ability to do something well because of training and practice; it is something that someone is able to do well, especially when it has been acquired through practice (Manser, 2014). Skill is an individual's ability, capability or expertise which is acquired through training or special knowledge.

According to Merriam-webster (Skill, n.d.) dictionary, 'Skill is the ability to use one's knowledge effectively and readily in execution or performance; a learned power of doing something competently; a developed aptitude or ability.'

A skill is the acquired ability to accomplish an action with predetermined results and good execution frequently within a certain amount of time, energy, or both. Domain-general skills and domain-specific skills are two common categories for skills. Time management, teamwork, leadership, and self-motivation are some examples of generic skills needed in the workplace, whereas domain-specific abilities are only used for a certain position. When a skill represents a body of knowledge, it may be referred to as an art. Even though skills are a part of the arts, not all talents are related to the fine arts (Skills, n.d.). While skills are sometimes thought of as inborn, natural qualities, they can also be learnt or improved (Skills – Definition, Concept, Characteristics, Types, Human and More, 2022).

1.3. Concept of Competencies

Competency is the capability, knowledge and attributes to do something efficiently and successfully with the required skills. There are many definitions of competency defined by various authors:

"Competencies are motives, traits, self-concepts, attitudes or values, content knowledge or cognitive or behavioural skills- any individual characteristic that can be measured or counted reliably and that can be shown to

differentiate significantly between superior and average performers, or between effective and ineffective performers"…. (Spencer & Spencer, 1993).

"Competencies are a set of interrelated knowledge, skills and attitudes that represents a key component of a person's job role and responsibility, that associates with performance in a job, that can be measured against well-established standards, and that can be reinforced through training and development"…(Parry, 1996)

"Competencies are skills, knowledge and capabilities that individuals should have possessed when completing assigned tasks or achieving the goals"… (Chung & Lo, 2007).

"Competencies are those direct and indirect skills and behaviours that allow individuals to perform given tasks or assigned roles effectively"… (Draganidis & Mentzas, 2006).

Competency is a collection of skills that an individual possesses that help both themselves and their employer in attaining their objectives. One is considered competent if they have the necessary knowledge, acquired skill sets to go with their knowledge, attitude, social skills, and physical characteristics (Competency, n.d.).

1.4. Skills vs. Competencies

Although the terms 'skills' and 'competences' are frequently used interchangeably, they are not the same thing. Skills are typically easier to define and describe because they tend to be more specific. On the other hand, competencies are far more inclusive because they cover knowledge and abilities in addition to skill sets (Difference between Competencies and Skills, 2022). A skill is a particular learned ability. They are the capabilities of an individual. The activities that personnel are trained to undertake are referred to as skills. Skills, knowledge, and behaviour are all included in competencies. They reflect an individual's performance at work. It is possible for someone to be skilled at leading meetings, forming teams, and managing relations with customers. By describing cumulative knowledge, abilities, conduct, and expertise, well defined competences lead to proficiency (Team, 2020).

The capacity to carry out tasks and find solutions is known as a skill. It may involve expertise, mastery of a task, and the capacity to carry out difficult job duties and is an acquired capacity to produce desired outcomes. Knowledge and skills alone do not constitute a competency. By utilising and mobilising psychosocial resources (including abilities and attitudes) in a specific situation, a competency entails the capacity to handle complicated demands (D'Addario, 2022).

The following are the various points that highlight the differences between skills and competencies (Torres, 2021):

1.4.1. Skills

i) **Skills are agile and efficient:** It is simpler to keep track of skills because they are more controllable and smaller than competences. As a result, skills serve as the basis for degree measurement.

ii) **Skills can be developed:** Skills can be learnt in a period of days, weeks, or months and developed by practise over time.

iii) **Skills can be measured:** Skills can be tested and standardised, as opposed to being outcome-based or value-based. We can assess development, track advancement, and match employees to on-the-job learning opportunities by using a common rating system that considers skills as a unit.

iv) **Skills are applicable:** Tasks, projects, and roles are the three elements that make up work. Tasks require the use of skills. Project completion depends on completing tasks. Projects are also how roles are structured. This implies that skills are how work is accomplished. Being good in customer service isn't enough to make sales; one also needs to be good at communication, active listening, project management, and negotiation.

v) **Skills are transferable:** Skills can be transferred between organisations, positions, projects, and responsibilities. Examples include programming and project management.

1.4.2. Competencies

i) **Competencies are powerful, with limits:** A competency includes more than simply knowledge and ability. There is a mixture of attitudes

and behaviours. It can also refer to skills. However, it might be difficult to manage a model that is this big and intricate.

ii) **Competencies are value-based:** Competencies are unique to a project or organisation. They are difficult to quantify or define since they are influenced by values and culture. For instance, depending on the situation, different standards for competency in analytical ability may apply.

iii) **Competencies are rigid:** In actual situations, competencies lack agility. To develop a certain competency, it may take weeks, months, or even years. Adaptability and agility are essential for success in our fast-paced and ever-changing world.

iv) **Competencies are non-transferrable:** It can be challenging to transfer competencies throughout an organisation since they are frequently assigned to specific tasks or behaviours. It is difficult to imagine how one's ability could perform in a different role as a result.

1.5. Changing Role of Academic Libraries

The social, political, economic, and technological advancements that are occurring in society are having an impact on libraries as they go through a period of significant transition. Academic librarians no longer have to perform menial tasks like cataloguing and classification. To meet the unique needs of the customer, they now have to serve as information navigators and change facilitators. Using technological tools and procedures is now necessary for this (Raju et al., 2021).

Supporting research is an important role of the library. In assisting researchers in managing their research questions and achieving their goals, libraries are now taking on a comparatively larger role. Libraries of this generation are making an effort to offer excellent scholarly collections and resources to fulfil the needs of researchers. Through lending materials and offering online reading lists, libraries are paving the way for users to access information and serve as a pillar. The provision of an environment that fosters the development of research capabilities and skills is typically a priority for libraries. Academic libraries are commonly associated with a parent organisation or educational institution and usually serve two complementary

purposes: 1) To support the curriculum that the parent body uses 2) To assist faculty and student researchers in their research endeavours. Access to e-resources is offered by modern academic libraries. Academic libraries should be aware of its users' demands as well as the mission and different academic programmes of the institution or university. Academic libraries implement a programme for collection development in which they also create a rare collection where the research requirements can be satisfied. These are typically referred to as special collections (Devan Nv, 2020).

1.6. Skills and Competencies of LIS Professionals

The job of library professionals need to be changed in this digital era, even if the resources and methods used to provide necessary information and turn it into knowledge are continuously changing. Due to the development of technology, when libraries are flooded with electronic information sources and a world where everyone has access to the Internet, one would believe that a librarian is no longer necessary. It would seem that in addition to a computer programme or database being able to provide some sort of condensed data, finding, selecting, checking, and making a vast amount of electronic information available efficiently while also understanding the needs of the users, requires an information specialist like library professionals (A. Patel, 2014).

The fast changing information technology, create both new challenges and opportunities in which the library professionals must overcome a variety of difficult obstacles, take of technology advancements, and adapt well to changing conditions. LIS professionals that possess the newest technology skills are in high demand. As long as they develop their technological and professional competencies and seize these opportunities, they have great opportunity and promising career prospects. If not, surviving in contemporary libraries becomes even more challenging. The professions most likely to survive, flourish, develop, and achieve in the future as opposed to decline and suffering are those that anticipate and accept change in a positive, creative, and intellectual manner. To have a successful future in the twenty-first century, LIS professionals must have a vision for contemporary professional

skills and technological competencies. LIS professionals may effectively manage evolving technology by using a variety of channels and methods to build their professional competencies. The significant strategies for enhancing professional competencies include obtaining formal qualifications, pursuing a doctoral degree, distance and E-learning courses, reading professional literature, tours and visits to well-managed libraries, membership in professional bodies, attending professional meetings, giving presentations at seminars and conferences, publishing articles in journals and books, participation in specialist groups and personal interactions with other experts, attending workplace training sessions, induction programmes, staff development seminars, and projects for research and development (Patel & Bhavsar, 2012).

Library and Information Science profession is more multi-faceted that deals with the entire universe of knowledge. The LIS professionals need to possess various types of skills and competencies to succeed with deliberate changes and to move forward and achieve new levels of success.

❖ **Technological Skills**

Nowadays, ICT is highly regarded as an important component of libraries. The application of technologies in libraries is reshaping and moulding the world of academic libraries, and moreover provides value-added services to libraries. To meet the educational goals and objectives, such technologies must be fully utilized in a strategic way. The requirement to work with these technologies has compelled the LIS professionals to acquire and develop their skills and competencies in this changing information environment. The changing library profession demands the LIS professionals to acquire various technological skills such as the ability to handle sophisticated technology including networking and Internet skill, library automation, e-resource management, content management, organization of information on Internet and Intranet, information management which includes the ability to collect, access, store, retrieve and disseminate information to the users, etc.

❖ **Managerial Skills**

It is highly essential for the library professionals to develop their managerial skills to properly carry out the plans, policies and decision-making of the libraries. The areas in which library professionals need to possess managerial skills in the changing information scenario includes vision, leadership, innovations, public relation and marketing, project management, problem solving, resource generation and mobilization, collaboration and partnership, appreciation or tolerance, comfort and humour, ability to manage change and capacity to manage within the changing trends.

❖ **Personality Development and Communication Skills (PDCS)**

The LIS professionals need to possess certain personal qualities in order for the library to operate efficiently and provide value-added services. The term 'personality' describes a person's traits, behaviours, actions, mind-set, attitude, and particular perspective on the world. One's personality is greatly influenced by genetics, family history, different cultural origins, environment, and current circumstances. One's personality can be seen in how they interact with other people. Anyone who has a likeable personality will be respected and valued. The development of one's personality is significantly assisted by effective communication abilities. People can express themselves more persuasively when they communicate. The best way to convey ideas, emotions, and expertise is through good communication, which is made possible by these talents. These traits will aid them in carrying out various strategies and policies of the library in an efficient manner (Juneja, n.d.).

1.7.   Scope and Significance of the Study

The scope of the study is confined to the area of Technological skills, Managerial skills and, Personality Development and Communication Skills of professionally qualified LIS professionals who are working in college libraries in Mizoram. The scope of the present study and its coverage is limited to 36 college libraries

(presented in the enclosed Appendix-I) which are affiliated to Mizoram University who have their own library. These colleges are the backbone of higher education in Mizoram in which libraries play an important role to supplement higher education. Therefore, it is highly felt that LIS professionals working in college libraries should develop their skills in order to cater the requirements of the users and for the development of the libraries.

1.8. Statement of the Problem

The advances in ICT have occurred revolutionary changes in library environment. These changes demand the LIS professionals to acquire new skills and competencies for an effective functioning of the libraries and to provide better services to the users. Lack of technological skills of LIS professionals of Mizoram hamper in providing qualitative services to the users. Generally, the lower level staffs in libraries do not possess the skills and competencies that should be acquired by LIS professionals. So, this deficiency greatly leads to poor services of the libraries. To achieve this LIS needs to develop professional skills comprising of – ICT Skills, Personality Development and Communication Skills and Management Skills, it is required to take up a research in this particular area so as to enhance the professional skills of LIS professionals of Mizoram and to provide quality in library and information services.

1.9. Objectives of the Study

The objectives of the present study are:
1) To assess the existing ICT skills and competencies, Managerial skills and Personality Development and Communication skills acquired by the LIS professionals working in college libraries of Mizoram.
2) To appraise the type of skills required in changing information scenario.
3) To identify the problems faced by the LIS professionals in acquiring these skills.
4) To suggest different models and strategies to be adopted for acquiring these skills for better performance and wider impact on services.

1.10. Research Methodology

The study applies a qualitative method which is descriptive in nature to assess the skills and competencies of College Library professionals who are working in Institutes/Colleges affiliated to Mizoram University. The study included a census of Library professionals ranging from 'College Librarian' to 'Library Assistant'. The questionnaire was sent to the census of 54 Library professionals and a total 50 responses were received from 22 Librarians, 4 Deputy Librarians, 4 Assistant Librarians, 1 Library and Information Officer, 1 Professional Assistant, 1 Semi-Professional Assistant and 17 Library Assistants which give the total response rate of 92.6%.

➢ **Data collection Techniques**

A structured questionnaire tool was adopted to collect primary data from the practicing LIS professionals. Various questions relating to the services of the libraries, experiences, different skills and competencies possessed by the LIS professionals of Mizoram and other questions which are relevant for the study are formulated in the questionnaire. The questionnaire was designed based on the literature review and broad areas of skills and competencies that include ICT skills, managerial skills and, Personality Development and Communication Skills were identified from various sources. Questions were asked to self-assess the skills and competencies of library professionals.

➢ **Analysis and Interpretation**

Analysis and interpretation of data is the most important part of a research as it leads to the findings of a research work. The data obtained from the questionnaire were analysed using MS-Excel for appropriate statistical analysis and description which are presented in the form of tables and graphs.

1.11. Hypotheses

The following hypotheses are drawn based on the objectives of the study:

H_1 Lack of ICT infrastructure creates barriers in the technological up-skilling of LIS professionals.

H_2 Poor vision and managerial ability restrict the development of libraries.

H_3 Personality development and communication skills enhance user's satisfaction and quality of services.

1.12. Review of Literature

Morgan (1996) gives a personal view of the key skills required of the academic librarians in the future. He highlights some of the core skills and qualities which are essential, and are grouped under the headings of credibility with academic staff; teaching and training; IT-related skills and management skills. There is a variety of elements hidden behind the notion of 'credibility' which includes status, academic qualifications, subject-based knowledge, academic activities, personal qualities and professionalism. He stresses that IT-related skills will continue to be highly prized assets in the future, and discussed these IT-related skills and competencies under two headings: 1) tailored navigational support and 2) IT management. He also highlights three areas of management which will be important for the academic librarian. They are: management of change, financial management and strategic awareness.

Rehman et al. (1997) recommend that professionals should have sufficient awareness of the contextual variables and impact of environmental dynamics on the academic library. They identify sets of foundational and operational skills for entry-level professionals of academic libraries in Malaysia. They also need to understand their job responsibilities within the institutional context as well as the organization's mission and objectives, structure, and interdepartmental relationships. Another requirement is regarded to be a solid foundation in information technology. Each expert regarded knowledge of collections and related resources as being of utmost importance. Future professionals are anticipated to possess a strong foundation in

management, which includes planning, decision-making, evaluation, supervision, communication, and financial management skills.

The findings of Bull's (2000) doctoral dissertation, "Managerial Styles of Library Directors in Institutions of the Council for Christian College and Universities," revealed that there is a dominating managerial style and that institutional criteria do not distinguish the style. Libraries of all sizes employ directors with varying degrees of managerial strength, and the services and collections offered do not change in response to the director's management style.

Abels et al. (2003) highlighted two types of competencies required for the Information Professionals (IPs) which are documented by the Special Libraries Association (SLA). They have explored and shared their vision of the skills and competencies required for specialized information management. The required competencies are of two types: 1) Professional competencies and 2) Personal competencies. Professional competencies relate to the practitioners knowledge of information resources, access, technology, and management as well as their capacity to use this knowledge as a foundation for delivering the greatest calibre of information services. There are four main competencies, each of which is complemented by particular skills: i) Managing Information Organizations; ii) Managing Information Resources; iii) Managing Information Services; and iv) Applying Information Tools and Technologies. Personal competencies represent a set of attitudes, skills and values that enable practitioners to work productively and positively impact their organizations, clients and profession. These skills include effective communication, showcasing the added value of their work, and remaining adaptable and upbeat in a constantly changing environment. These two competencies are anchored by core competencies which must be possessed by every information professional.

Ameen (2006) mentioned in his study the improper awareness among LIS professionals of Pakistan regarding the importance of inculcating leadership qualities as an important skill for the managerial level. He highlighted that the overall culture does not encourage the development of leadership attributes among the educated

people, and lack of initiatives for self-development among LIS professionals as one of the hindrances in the development of professionals as a community. The findings show that the LIS professionals can develop a leadership trait by providing them a conducive environment and needed training.

Farkas (2006) found out that the skills that are important to the jobs of librarians in various areas were not taught in library school. She emphasized that the courses that are taught in the school are not relevant when it comes to practical on a day-to-day basis. She came up with two broad competencies: Basic Tech Competencies and Higher Level Competencies. The Basic Tech Competencies comprises of: The ability to embrace change; Comfort in the online medium; Ability to troubleshoot new technologies; Ability to keep up with new ideas and librarianship (enthusiasm for learning). Higher Level Competencies comprises of the following: Project management skills; Ability to question and evaluate library services; Ability to evaluate the needs of all stakeholders; Vision to translate traditional library services into the online medium; Critical of technologies and ability to compare technologies; Ability to sell ideas/library services.

The developments in ICT have made the revolutionary changes in every walk of life and in every field of knowledge, where the field of Library and Information Science is not an exception to it. The role of library and information professionals has changed since there is a change in the needs and interests of the readers, and to cope up with the changes in technological environment. Babu et.al (2007) analysed the ICT skills of library professionals and found that the LIS professionals working in engineering educational institutions in Tamil Nadu acquire basic skills in ICT, but need to concentrate and focus more on network-based services and digital library services.

Librarianship holds indispensable roles in life-long learning and educational activities which are tremendously affected by on-going technology. Librarians must understand and utilize the "state-of-art" technologies that include the classroom, the teaching environment and teaching strategies that define the context of learning and education. Miller (2007) in his research finds that the current core pre-professional

training does not fully meet the challenge of preparing new librarians for new learning and education. He developed a proposed core course to be offered in a graduate library science program that infuses the introduction of new technologies in every session that would be updated as library related ICT offerings advance.

Singh and Pinki (2009) summarized different set of skills under three broad categories i.e., generic skills, managerial skills and professional skills which are required by LIS professionals to manage the contemporary change brought up by technology driven environment. The authors stressed on the need to equip the LIS professionals with core competencies and emerging skills required for the service delivery in electronic information environment, where these skills are also related to understand how to utilize with a proper blending of traditional library skills for providing information with a single click in order to fulfil Ranganathan's fourth law of library science, i.e., "Save the time of the user". The authors also opined that apart from the traditional and ICT skills, LIS professionals must possess generic skills which must be continuously updated so as to meet the need of changing service delivery mechanism.

Batool and Ameen (2010) investigates the type and level of technological skills possessed by library professionals and found out that the library professionals have the kind of IT expertise which could be utilized for the requirement of library automation. They further stressed that they need advance knowledge, skills and training to provide advanced technological information services. This study adopted and customized a technology evaluation list called Technological template (T-template) for local use, which was used by Education, libraries and heritage department (ELH), ICT service in UK, California and Alberta Public libraries to assess the core technological expertise of their staff.

Haneefa and Shukkoor (2010) assessed the level of ICT literacy among the library professionals of Calicut University, Kerala. The study reveals that the young professionals are more ICT literate than the senior professionals and highlights that the professionals need to improve their formal and informal computer education and in the use of various ICT-based resources, services and tools in order to provide

effective information services to the users. The use of digital library and institutional repository software was also very low among the professionals. The existing ICT training and orientation provided by the Calicut University library are insufficient to create ICT literacy among the library professionals. Most of the library professionals need training in management, digital library and IR software in order to enhance their level of ICT literacy.

Nagata (2010) adopted Behavioural Event Interview (BEI) which has been administered to library staff in order to explore what competencies the LIS professionals possess and utilize. He also applied Higher Education Role Analysis (HERA) instrument which was designed and developed as the job evaluation scheme by Educational Competencies Consortium Ltd. Findings from BEI reveals that the competencies of the interviewees can be classified exclusively into three categories: 1) Cognitive/Intellectual competencies 2) Interpersonal competencies and 3) Motivation competencies. The superior performers have shown their excellent interpersonal skills and high motivation during their interviews and some of their cognitive/intellectual competencies were easily confirmed by HERA survey results. The author opined that threshold competencies (knowledge and skills) are essential to performance and further advocated that the association between knowledge and core-personality (motive, traits and self-image) of "competency" and seeking to identify ways for these to work together to improve staff performance. It is visible from this study that most superior performers have the kind of communication where, members of the community learn from each other and develop themselves not only through knowledge, but also in core-personality competencies in their work places including networked communities.

A study was carried out by Safahies and Asemi (2010) assessing the level of computer literacy skills of librarians in the University of Isfahan, Iran and also examining their avenue of computer literacy, software used , benefits derived from the computer and the problems faced from effective usage of computers. The findings reveal that a majority of respondents do not yet possess a good level of computer literacy and a relatively long period of computer use do not necessarily improved computer literacy skills of the library staff which might be due to the lack

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of equipping the librarian with trainings and essential knowledge of computer and ICT skills. The problems that hamper their effective use of computers include frequent breakdowns of systems, electric power failures and inadequate computers in the library as well as inadequate computer skills. They recommended that the authorities should organize regular training programs for the librarians and hope that their study could provide a framework for designing computer literacy programs that ensure all the technological facilities are utilized effectively by the library staff that would lead to the efficiency and effective services of libraries.

The true development of libraries necessitates strong leadership to discharge their duties for the common cause of serving users, as the library internal activities are interrelated to each functional unit of the library, according to Jange (2011), who emphasises the importance of leadership in particular libraries where group work and team spirit are required.

Satpathy and Maharana (2011) made an analysis on the ICT skills of LIS professionals working in engineering colleges of Orissa and found out that all the respondents are computer literate and have sound knowledge on the various ICT tools available in libraries. The professional's area actively participated in various ICT related activities like professional forums, mailing list, social networking, blogging etc. and through this participation, they keep themselves update with the new developments in libraries. Formal education and training is the main method of acquiring ICT skills by them and the main constraints encounter by the LIS professionals in acquiring ICT skills is the tight working schedule of the libraries, poor infrastructural facilities and lack of cooperation from the authorities. The authors further expressed their opinion that the professional qualification, experience and designation effect their professional skills and competencies to a great extent.

Thanuskodi (2011) after examining the ICT literacy level of library professionals emphasizes that, the library professionals must possess sufficient knowledge of new ICT skills in various areas which includes library automation, e-resources management, content management, organisation of information on Internet and Intranet, developing and maintaining digital libraries and Institutional repositories,

web based library services etc. In his study, he found out that the library professionals of engineering colleges are in leading position as they have undertaken different computer courses and training from certain sources. However, the library professionals feel that they need training on handling library management software packages, use of online catalogue, e-resources management and Internet tools and techniques. Most of the respondents possess knowledge on LIBSYS automation software and have high level use of search engines such as Google and Yahoo. The author further added that professionals with right ICT skills and expertise will have plenty of opportunities in future and that it will be crucial for the management of technology intensive libraries.

Anyaoku (2012) conducted a research among 184 librarians in Nigeria and found out the improvement of computer literacy level of librarians when compared to results of previous studies which could be the result of increased awareness and diffusion of ICT in different areas. Generally, the library staffs have a positive attitude towards the implementation and usage of ICT in the library. However, there is still need to make sure that every librarian is well-equipped with the required skills and competencies so as to enable himself effectively function in the computer age.

HebrangGrgic and Zivkovic, (2012) presented the results of a survey of reference librarians in Croatian academic libraries, in which this survey is a part of an international study. Three sets of skills and competencies such as general skills, technological skills and personal skills are analysed. Search skill is considered the most important general skills (82.9%) while online searching skill (97.8%) is the most important skill for the respondents. The far most important personal skill for today's librarians in Croatian academic libraries is verbal communication (90.2%). Again, the respondents were asked to mark general, technology and personal skills for the future. The results shows that the skills that are important for today will also be important for the future.

Kattimani and Naik (2012) evaluated the competencies in librarianship and ICT skills between different designations of library professionals viz. Librarian, deputy librarian, assistant librarian, library assistants and others working in the engineering

college libraries affiliated with Visvesvaraya Technological Universisty (VTU), Karnataka. The findings show that majority of the library professionals under study have chosen this profession by accident. The significant difference is observed between different designations towards competence on operation of computers, creation of files and folders, RFID, library automation software modules, various operating systems, Internet-related skills, web designing, search engines and digitization of Institutional Repository. Librarians have more skills on web designs compared to all designations. The problems faced by majority of the library professionals are financial problems, overload of work and negative attitude of the higher authority in acquiring ICT skills. The authors recommended that the higher authority should depute their library professionals to suitable ICT-based training courses periodically, i.e., at least once in a year.

Mathew and Baby (2012) conducted a survey to study the skills and awareness of library professionals about various technologies, its applications and services. The analysis reveals that the library professionals are moderately skilled in various technologies and its applications, but the awareness level with regard to the emerging web tools and services was low. They mentioned that most of the library professionals have a positive attitude towards the application of ICT based services in libraries. The library staff could not possess/gain valuable experience due to insufficiency of infrastructure facilities that could also enhance technology based services to the users. Lack of training in ICT applications is the main problems in ICT utilization by majority of library professionals. They further suggested that the university authority and Library associations must give due importance to organize trainings and workshops to enhance the professional skills giving equal opportunities to all the professionals irrespective of their grades and designations.

Pandita and Singh (2012) discussed nine main managerial attributes of a librarian and emphasized that a librarian performs as an efficient library manager and perform as a thinker, a strategist, an architect, a coordinator, a contributor, a builder, a sensor, a scanner and a leader. They further stressed that library professionals are managers in their own way and their managerial trait and skill are inherently develop and attain through their profession.

Ansari (2013) investigates the proficiency of ICT skills of library professionals at the universities of Karachi, Pakistan. The researcher explored that majority of the library professionals are moderately proficient and they are not equally proficient in all areas of ICT skills. Neither gender nor types of universities (government/public universities and private universities) have a significant bearing on their proficiency, but the working experiences of the library professionals do have an impact on one's skills. The LIS professionals who earned their MLISc degree in the last five years have ICT skills. Mostly they are working in pre-automation libraries, they do not have a chance to utilize their skills due to the unavailability of ICT related tools.

Arokyamary and Ramasesh (2013) highlights that an ideal LIS professionals requires to acquire various skills which includes professional skills, management and knowledge management skills, ICT skills (IT and communication) and teaching and other skills in the ever changing face of libraries and due to the emerging ICT trends and technologies. They further stressed that the key success factor of performing the role of information support system for the whole of society lies within a library system and its personnel. Due to lack of funds and motivation, the LIS professionals do not have the chance to make use of various programs such as workshops, trainings and conferences. They suggested that the institutions should encourage and motivate the professionals to attend such programs keeping in mind that the investment in such training will always profit the institution, and by this, the libraries can effectively participate in demonstrating high level entrepreneurship responding to faster changing needs of library clientele.

Chawner and Oliver (2013) in their studies identified the most noticeable changes in the skills where the respondents felt which would be needed in the future for the library professionals, which are in the general qualifications, skills and knowledge, while personal skills are the most stable. Predictions for future competencies such as the ability to deliver outreach services and advocate for the library, added by increased research and publishing provide clear signals for educators to take into account when developing curricula and designing courses. While educators can emphasize the importance of understanding the organisational context, managers of

libraries have the responsibility to ensure that appropriate training and resources are provided for their specific setting.

Grandbois' (2013) exploratory research shows that 73% of the schools examined offer management courses, however there are significant differences between nations and institutions. In addition to interviewing 15 directors of information services in the international sector in the Geneva, Switzerland area, the study included an assessment of school of information curricula in 26 countries. The study also discovered that 66% of directors received their management training from their institutions, while 80% acquired those abilities on the job.

Based on the evidence, Kumbar and Pattanshetti (2013) listed broad essential digital competencies for Indian School librarians. Those digital competencies include: basic skills of IT, awareness of Communication & Networking Technologies, knowledge of Web based tools and technologies, knowledge of different types of databases like the Bibliographic databases, Non-bibliographic databases, Statistical databases, Full text databases etc., library automation in-house operations, knowledge of all types of e-resources and web based resources, exposure to Library Networks, Consortia, skills of using Information Retrieval Tools and Web based Search Tools, knowledge of design and delivery of web based services, the flair for creating Digital content, the awareness of Open Educational Resources, exposure to Content Management Systems, some in creating Learning Object Repositories, knowledge of E-learning tools and technologies, skills of designing Library Website, aptitude for Integrating digital content with school curriculum, Information Literacy skills with regard to digital resources, awareness of Multimedia Tools, knowledge of Web 2.0 and Library 2.0, awareness of use of social media, skills to keep track of recent trends in information technology, digital resources. Based on these competencies, the authors proposed a training model for imparting digital competencies stating all the requirements and contents for the proposed training programme.

In Iran, LIS departments basically offer four levels of LIS education programs, i.e., Associate, Bachelors, Masters and PhD. Robati and Singh (2013) in their study identified different competencies needed by special librarians at different levels of

LIS education. The findings indicated that the main competencies that were expected from special librarians with any qualification are Information Technology competencies. Communication and interpersonal skills were identified as the second most important competencies for special librarians with Associate and Bachelors degree qualification. However, information organization and research competencies were identified important for special librarians with a master degree qualification.

According to Barui (2014), a skill is the capacity to carry out the technical, technological, and behavioural demands of a job. He categorized skills into hard and soft skills. The traditional LIS skills, information technology skills, knowledge management skills, subject or domain expertise, and management skills are the five areas under which the hard skills are categorised. Communication skills, time management skills, leadership skills, and planning skills are some of the categories under which soft skills are categorised.

Deng et al. (2014) conducted a survey and semi-structured interviews among the University of South Carolina SLIC employers aiming to understand which skills are important and why form the LIS professionals' perspective. The respondents claimed that technological skills were highly important for all employees, and the basic business skills such as an understanding of budgeting, vendor relations, organizational workflow, or principles of strategic planning were viewed as indispensable for new comers in the field of information management. Information analysis and searching capabilities were described as vital skills on today's job market. Further, the respondents portrayed the information professional as an ethical leader, independent thinker and dedicated service provider, and they are expected to possess a high level of accountability, adaptability, customer focus, developing talent and drive for excellence. Knowledge of telecommunications and networking as well as network security is among the most important areas of expertise. Moreover, soft skills such as teamwork, project management and time management were also viewed important.

According to Enache and Crisan (2014), the Internet makes it easier to learn, practise, and develop different communication abilities. These abilities include the

use of a foreign language, the use of specialised scientific language, oral communication, the use of animation techniques, written communication, the use of drafting techniques, communication through image and sound, the use of information techniques, and interpersonal communication.

A number of soft skills and competences that are necessary for library professionals were also emphasised by Kolle and Parmeshware (2014). They came to the conclusion that in order to manage the difficulties and adapt to the circumstances brought on by the development of ICT and management techniques, library professionals needed to have key competences and soft skills. Gabhane (2015) made the point that life skills and soft skills are both acquired, not inherited. Intelligence, communication, management, negotiation, and other personality traits are developed as a result. The combination of hard skills (technical knowledge) and soft skills drives the library profession forward and helps librarians develop their personalities, both of which are necessary for success.

Leong et.al. (2014) found that both staff and employers are responsible for sourcing learning opportunities and utilizing effective learning strategies. Individuals' motivation and learning skill levels have significant impact on the effectiveness of Continuing Professional Development (CPD) and also the learning climate in their organizations. They recommended that a deliberate and thoughtful approach to CPD will result in the increasing benefits of LIS professionals and organizations.

Sadlapur and Patil (2014) highlighted significant soft skills required for Library and Information Science professionals for carrying out library jobs and services more effectively. Such soft skills include communication skills, leadership skills, negotiation skills, listening skills, interpersonal skills, team work, public relation, presentation skills, teaching skills, writing skills and customer service.

Seena and Pillai (2014) studied the ICT skills among library professionals in Kerala University Library System. The study revealed that the library professionals in Kerela University library system have relatively average level of skills in various ICT related tasks in libraries. A few of the professionals have additional technical qualifications like DCA and PGDCA in addition to the basic qualification. The

respondents relatively possess a higher level of awareness in using Windows, Linux and MS Office package; and seem to be more familiar with LIBSYS software. The professionals have more skills in using KOHA among open source software and D-Space among digital library software. The respondents possess a high level of skills in the use of e-resources and have average skills for managing ICT based library services. All the professionals expressed a positive attitude towards the application of ICT in libraries. A significant number of professionals highlights that the main constraint in the application of ICT in libraries is inadequate training in ICT applications.

Kaur and Gupta (2015) in their findings revealed that LIS professionals of Panjab University are not restraining themselves to mere qualifying degrees but are extending their domain by going for higher degrees like PhD and MPhil. They possess a relative higher level of awareness in Library Management software, RFID Technology, MS Office package as compared to general ICT based applications. The maximum number of respondents possesses high skills and abilities in using and managing OPAC facility, Library website, online journals and Open Access journals. Mostly, the professionals have high skills in managing ICT based library services. The study revealed that the LIS professionals have an encouraging approach towards the usage of ICT in their libraries emphasizing that, ICT application enhances knowledge and skills among library professionals, creates awareness about the library among the users, provides quick access to current data, improves quality of library services, increases library usage and simultaneously helps in reducing the workload of the library professionals.

Koh and Abbas (2015) in their study identified top competencies such as ability to learn, adapt to new situations, collaboration, serve as an advocate, and serve diverse people; and skills that include management, program development, grant writing, technology and facilitating learning that are required for professionals as well as relevance of higher education to prepare them for their current positions.

Moita (2015) emphasised the significance of communication skills for library and information professionals and stressed the need for them to remain updated with the

information world and be capable of serving the digital culture. He added that library professionals should develop knowledge and skills in areas including teaching, negotiating, writing, project management, public relations, interpersonal skills, and customer service. He came to the conclusion that information and communication skills are closely related to personality development in the field of librarianship.

The hard skills needed by today's workforce are progressively being replaced with soft talents. High-level technical training is simply insufficient if a person lacks the softer, interpersonal, and relationship-building abilities necessary for effective communication and collaboration. Soft talents for the librarianship include time management, leadership, public relations, writing, presentation, and conflict management. Since librarianship is a service-oriented career, developing soft skills will help success in the profession (Ashalatha, 2016).

Bansode and Viswe (2016) conducted a study on ICT skills of library professionals working in university libraries in Marathwada region and found out that the ICT literacy among library professionals under study is satisfactory and they have significant basic ICT skills to handle the ICT tools and services of the library. But they still need to develop their ICT skills and implement it to provide effective ICT-based services in the library. They further stressed that the existing ICT training and orientation provided by the university libraries are not sufficient to create ICT literacy. They suggested that the library authorities should organize in-house training, workshops, seminars and conferences more frequently in order to enhance the ICT skills of the library professionals.

Cririta (2016) highlights that the managerial culture establishes the critical links between elements outside the company and its internal environment through the value system that permeates its tasks and roles as a separate component of organisational culture. Today, both specialists and non-specialists are aware of the influence of cultural factors on organisational communication, employee commitment, motivation, and rules of socio-organizational behaviour, as well as organisational performance, management, change implementation, leadership, and competitive advantages. The author also highlighted the Schroder Behavioural

Framework which was grouped into 12 clusters. The figure shows the subdivision of high performance competencies in cognitive skills (thinking), motivational skills (implies), directional (implies) and performance related skills (acting).

Figure 1: Schroder Behavioural Framework

Library and Information Science professionals must prioritize in continuous professional developments which also include managing projects and implementing operational and strategic planning in information and documentation units. Serrano and Aviles (2016) identify the academic librarian's project management skills from 70 universities throughout the world. They suggested to include project management courses in LIS University education and highlighted commonly used project management methodologies such as Project Management Body of Knowledge (PMBOK Guide), Scrum, PRINCE 2 (PRojects IN Controlled Environment), and software like Basecamp, Microsoft (MS) Project, GET CAESAR and Asana.

Gulati (2017) conducted a study on the awareness and perception of library professionals towards the usage of Web 2.0 tools found out that the library professionals have high acquaintance with blog, wikis, RSS feeds, social networks and YouTube; and are much aware of Web 2.0 tools by Internet use skills. They have a positive perception towards the usage of Web 2.0 tools in libraries considering it as

an effective way to develop and enhance quality of library services as it enables them to reach a larger audience at the least cost.

Khan and Bhatti (2017) mentioned that digital competencies for developing and managing digital libraries were finalized into three main categories which were selected and reviewed by a panel of experts. These categories include – i) Digital competencies for developing digital libraries; ii) Digital competencies for managing digital libraries; and iii) Digital skills to apply security measures to protect digital contents. They recommended that librarians should attend training and workshops in order to acquire digital skills and that the university libraries should get sponsorship from Higher Education Commission (HEC), IFLA and non-governmental organizations to increase their funds and to develop required IT infrastructure and skilled staff.

Leong and Woods (2017) presented a set of competencies for librarians working in academic libraries in an intense research environment. These competencies are built on the Core Competencies for 21st Century CARL Librarians (2010) which have amended and adapted for the current Australian library and information context. These competencies are broadly classified into seven sets which include – i) Context knowledge, ii) Personal skills that consist of various attributes, skills and competencies, iii) Leadership and management, iv) Collections and discovery, v) Learning and teaching, vi) Research and publishing, and vii) Professional engagement.

Continuing Professional Development (CPD) is vital for library professionals working in modern libraries in the digital age. Rajan and Gopikuttan (2017) in their study revealed that most of the professionals who are working in central government and special libraries have possessed high professional qualifications, where some of them (i.e. 44%) have additional technical qualifications like DCA, PGDCA, PGDIT, PGDLAN, etc. Many professionals joined for higher degree in LIS and IT courses after entering the library profession. They showed a positive attitude towards CPD and felt that workshop is the most effective type of CPD. Further, the authors emphasized that CPD is a joint responsibility of both employer and employees,

where the professionals can achieve CPD only through a planned action and supportive environment. Stressing that the authorities should provide a warm atmosphere and support for Continuing Professional Development of employees and should make use of all the available opportunities to attain it.

These days, it is more and more expected of library professionals to conduct their own research in addition to support the research of academics in other fields. Academic librarians are now creating their own research and scholarly works in response to this imperative call to action in order to further their own knowledge of the profession and to give back by sharing their own expertise. Clement Ola (2018) suggested that in order to ensure the long-term growth of libraries, librarians should maintain a high level of ICT application and research skills.

Oyedokun et.al (2018) in their study categorized ICT skills into three level of skills viz. basic, intermediate and advance skills. They found out that there is still a room for improvement with the use of advance ICT tools such as programming, networking, hyper linking, and knowledge taxonomy and library automation. The study revealed that the library staffs consider acquiring additional qualification in computer science as the main source of acquiring ICT skills since the library school failed to provide adequate ICT skills to the librarian.

Effective communication is the key elements of not only individual life but also organisational success. Librarians having good and effective communication skills are very essential. Afkhami et.al (2019) assessed the status of librarians' communication skills and found out that the level of librarians' communication skills was below the desired level and there was no significant difference between the status of librarians' communication skills in terms of demographic and professional characteristics. The librarians were weaker in verbal skills than that of non-verbal communication skills.

According to Balagopal (2019), managerial skill development increases the effectiveness of library services and products. Time management skills can be used to provide quality services while also saving users' time. The library professionals should be encouraged to develop their decision-implementation skills, and he

emphasized the importance of teamwork skills in this regard. Planning, organising, leading, controlling, and decision-making are the fundamental managerial skills that are required to be a good manager.

According to Kumar and Bhatt (2019), soft skills are just as crucial as hard skills for performing a job well. They also emphasise the necessity of professional communication. No matter their degrees or credentials, library professionals struggle to stand out in the global market due to a lack of emphasis on the development of soft skills and professional communication.

Technical, interpersonal, and conceptual skills are all crucial managerial traits for librarians (Tamhane & Ganesa, 2019). Technical skills include expertise in a certain field and understanding of a method or technique. Effective communication with others is one of human abilities. The capacity to think abstractly, analyse the forces at work in a situation, be creative and innovative, and evaluate the environment and the changes taking place in it are all examples of conceptual skills.

Effective communication, which helps in expressing ideas in the most well-constructed and persuasive manner, is a key aspect of personality, according to Sarkar (2020). She made a point of saying that developing effective communication skills could be done via consistent practise. We can infer that greater interpersonal relationships result from successful communication, and that dynamic personalities facilitate effective communication. These two elements are inversely dependent on one another. In order to understand any difficult situation or individual, communication is a necessity. A better place in life and acceptance come from developing our own unique personalities. Both of these elements contribute to our ability to live successful, stress-free lives.

Sadlapur and Kamble (2021) concluded in their study that in order to better serve their users and assist them in making wiser decisions at work, the staff should receive training in soft skills, leadership, decision-making, and etc. in addition to technology. Professionals are always helped to stay up to date with information by training and development programmes. LIS professionals encounter a variety of difficulties as a result of the significant shift in educational patterns; nonetheless, the growth of

capacity building enables them to overcome these difficulties. All LIS professionals should therefore have acquired perspective and competencies in the present environment and should be ready to face the complicated issue.

Shukla and Poluru (n.d.) proposed a model of e-learning through VHRD by designing e-learning modules that help the professionals for their self development formally or informally within their workplace. The following figure depicts the 'E-learning cycle through VHRD'
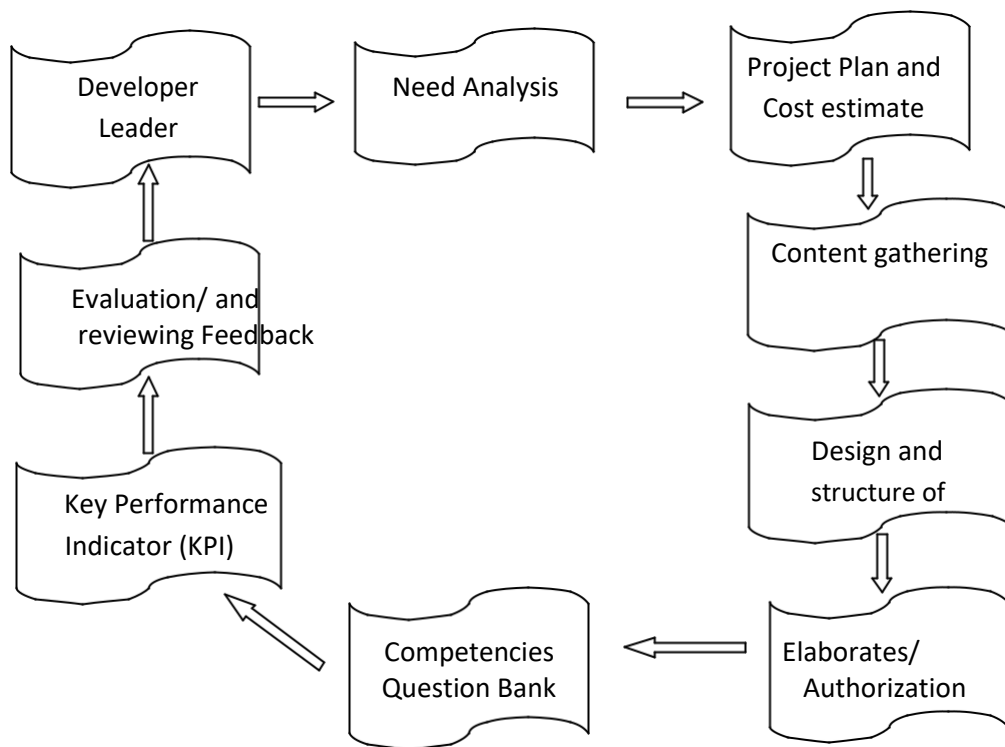
(Source: *Shukla & Poluru, n.d.*)

Figure 2: E-Learning Cycle through VHRD

1.13. Research Gap

The study conducts a literature review, focusing primarily on the ICT skills, managerial skills and, personality development and communication skills of library professionals. The survey and literature review revealed that there have been several studies on these topics, including recent studies on information literacy skill and

competency, library automation skill, library professionals' communication, and human resource development. However, none have been done on the skills and competencies of College library professionals of Mizoram. As a result, this study aims to fill up the research gap.

1.14. Chapterization

The present study is divided into five chapters:

Chapter 1:   Introduction

The first chapter introduces the concept and definition of skills and competencies, and presented the changing role of academic libraries and library professionals in the changing information scenario. It also describes the various skills and competencies that should be possessed by the LIS professionals which include ICT skills, Managerial skill, and Personality Development and Communication Skills. It further provides a brief description of the study's purpose, significance, problem statement, and goals, hypotheses, research gap, research methodology, review of literature and organization of the chapters.

Chapter 2:   College Libraries in Mizoram: An overview

Chapter 2 highlights the general information of formal education in Mizoram and presents a brief information of the Colleges/Institutes and its libraries that are affiliated to Mizoram University.

Chapter 3:   Skills and Competencies of LIS Professionals

Chapter 3 discusses various concepts and areas of skills and competencies that should be possessed by the LIS professionals. These skills include ICT skills, Managerial skills and Personality Development and Communication Skills.

Chapter 4:   Data Analysis and Interpretation

Chapter 4 deals with the analyses and interpretation of collected data. The data obtained from the questionnaire were analysed using MS-Excel and presented in the form of tables and graphs. It also highlights the testing of hypotheses of the study.

Chapter 5:   Findings, Suggestions and Conclusions

Chapter 5 provides the findings based on the objectives of the study, suggestions for the enhancement of skills and competencies of LIS professionals, suggestions for further research and conclusion of the study.

Appendices and Bibliography have been provided at the end of the thesis. Bibliography is presented as per rules provided by the APA (American Psychological Association) 7th edition standard and References are generated using Scribbr APA Citation Generator.

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CHAPTER 2

COLLEGE LIBRARIES IN MIZORAM: AN OVERVIEW

2.1. Introduction

Mizoram became the 23rd State of India on 20th February 1987 with Aizawl as its capital. The Missionary activities in Mizoram played a major role in the spread of education by introducing Roman script for Mizo language and starting formal education. Education in Mizoram is undertaken by two departments, i.e., Department of School Education and Department of Higher and Technical Education.

The Department of School Education looks after Elementary, Secondary and Higher secondary as well as Adult Education. The trifurcation of Education Department in April 1989 resulted in the establishment of the Department of Higher and Technical Education who looks after higher education from college level upwards including Science & Technical Education in Mizoram. Presently, there are 27 collegiate institutions under the jurisdiction of Higher & Technical Education Department.

The Department of Higher & Technical Education is a Nodal Department of Mizoram University (MZU; Central University), Institute of Chartered Financial Analyst of India (ICFAI; private university), National Institute of Electronics &Information Technology (NIELIT; erstwhile DOEACC), Regional Institute of Paramedical And Nursing Sciences (RIPANS), Mizoram College of Nursing (MCON) and Zoram Medical College (ZMC; erstwhile MIMER).

2.2. Colleges and Institutes Affiliated to Mizoram University

Presently, there is 1 constituent college and 35 colleges affiliated to Mizoram University. Pachhunga University College is the first college in Mizoram and the only constituent college of MZU. The first Government financed college in Mizoram is Lunglei Govt. College which became provincialized in 1976 by the Government of Mizoram. It is also the only college which offers the study of Philosophy in Mizoram. Govt. Aizawl College has the first and largest IGNOU Study Centre in Mizoram offering various programmes in Post Graduate degree, Under Graduate degree, Diploma courses and Certificate courses. It also has GAC-NIELIT Study Centre which was established on February 2013 that offers Computer Applications, Office Automation and Web Designing. Govt. Zirtiri Residential Science College is

the first and only Science College in Mizoram. There are some colleges who have adopted villages and schools where activities have been conducted in the villages for the welfare of the people.

In terms of student's enrolment, Govt. Aizawl North College is the biggest Art College among the institutes affiliated to MZU. Higher and Technical Institute of Mizoram (HATIM) is the first Christian college in Mizoram which was established in 2007 and run by the Baptist Church of Mizoram. There are two institutes under study, which offers Under Graduate courses and Higher Secondary education, namely St. Xavier's College and Helen Lowry College. Zoram Medical College is the first medical college in Mizoram. It was previously known as 'Mizoram Institute of Medical Education and Research'. It started its first MBBS academic session from 2018-2019.

Table 1: Details of Affiliated Colleges and Institutes of Mizoram University

Sl. No.	Name of the College/Institute	Year of Estd.	Address	Nature of Affiliation	UGC Recognition
1.	Pachhunga University College	1958	College Veng, Pin No. 796001, Aizawl	Constituent	2(f) & 12B (1969)
2.	Lunglei Govt. College	1964	Lunglei, Pin No. 796701 District: Lunglei	Permanent	2(f) & 12B
3.	Govt. Champhai College	1971	Champhai, Pin No. 796321 District: Champhai	Permanent	2(f) & 12B
4.	Govt. Serchhip College	1973	Serchhip, Pin No. 796181 District: Serchhip	Permanent	2(f) & 12B
5.	Govt. Aizawl College	1975	Sikulpuikawn, Pin No. 796001	Permanent	2(f) & 12B

			Aizawl		
6	Institute of Advanced Study in Education (CTE)	1975	Republic Field Veng, Pin No. 796005, Aizawl	Permanent	2(f) & 12B
7.	Govt. Saiha College	1978	Saiha, Pin No. 796901 District: Siaha	Permanent	2(f) & 12B
8.	Govt. Kolasib College	1978	Kolasib, Pin No. 796081 District: Kolasib	Permanent	2(f) & 12B
9.	Govt. Hnahthial College	1979	Hnahthial, Pin No. 796571 District: Lunglei	Permanent	2(f) & 12B
10.	Govt. Hrangbana College	1980	Chanmary, Aizawl, Pin No. 796007,	Permanent	2(f) & 12B
11.	Govt. Lawngtlai College	1980	Lawngtlai, Pin No. 796891 District: Lawngtlai	Permanent	2(f) & 12B
12.	Govt. Zirtiri Residential Science College	1980	RamtharVeng, Aizawl Pin No. 796001	Permanent	2(f) & 12B
13.	Govt. Mamit College	1983	Mamit, Pin No. 796441 District: Mamit.	Permanent	2(f) & 12B
14.	Govt. J.Buana College	1983	Bazar Veng, Lunglei Pin No. 796701,	Permanent	2(f) & 12B
15.	Govt. Mizoram Law College	1983	Luangmual Pin No. 796001, District: Aizawl	Permanent	2(f) & 12B

16.	Govt. Saitual College	1984	Saitual, Pin No. 796261 District: Aizawl	Permanent	2(f) & 12B
17.	Govt. Khawzawl College	1985	Khawzawl, Pin No. 796310 District: Champhai.	Permanent	2(f) & 12B
18.	Govt. Zawlnuam College	1986	Zawlnuam, Pin No. 796471 District: Mamit.	Permanent	2(f) & 12B
19.	Govt. Aizawl North College	1988	Ramhlun, Aizawl, Pin No. 796012 , District: Aizawl	Permanent	2(f) & 12B
20.	Govt. Aizawl West College	1990	DawrpuiVengthar, Aizawl Pin No. 796001, District: Aizawl.	Permanent	2(f) & 12B
21.	Govt. T.Romana College	1992	Republic Veng, Aizawl Pin No. 796001, District: Aizawl	Permanent	2(f) & 12B
22.	Govt. J.Thankima College	1992	Bawngkawn, Aizawl Pin No. 796014, District: Aizawl.	Permanent	2(f) & 12B
23.	Govt. Kamalanagar College	1992	Chawngte, Mizoram, Pin No 796772, District: Lawngtlai	Permanent	2(f) & 12B
24.	Govt. Johnson College	1993	ShivajiTillah, Khatla, Aizawl, Pin No. 796001,	Permanent	2(f) & 12B

			District: Aizawl		
25.	RIPANS	1995	Zemabawk, Aizawl, Pin No. 796017 District: Aizawl	Permanent	2(f) & 12B
26.	NIELIT, Aizawl	2001	Zuangtui, Aizawl, Pin No. 796017, Distirct: Aizawl	Permanent	AICTE
27.	MCON	2005	Falkawn, Aizawl, Pin No. 796005 District: Aizawl.	Provisional	-
28.	HATIM	2007	Falkawn, Pin No.796701 Chandmari –III, Lunglei District: Lunglei	Permanent	2(f) & 12B
29.	Aizawl City College	2015	c/o J.L.High School Khatla, Aizawl Pin No. 796001 Aizawl, Mizoram	Provisional	-
30.	Divine Mercy College	2016	Bawngkawn-Lunglei Road Aizawl, Mizoram-796014	Provisional	-
31.	St. Xavier's College	2017	Lengpui, Aizawl Mizoram	Provisional	-
32.	Helen Lowry College	2017	Vaivakawn- 796009 Aizawl, Mizoram	Provisional	-
33.	DIET, Aizawl	2018	Chaltlang, Aizawl, Mizoram Pin No. 796012	Provisional	-

34.	DIET, Lunglei	2018	Melte, Ramzotlang Lunglei, Mizoram Pin No. 796691	Provisiona l	-
35.	SCERT	2018	Chaltlang Aizawl,Mizoram Pin No. 796012	Provisiona l	-
36.	ZMC	2018	Falkawn, Aizawl, Mizoram. Pin No. 769005	Provisiona l	-

(*Source: https://mzu.edu.in*)

2.2.1. Pachhunga University College

Pachhunga University College (PUC) is the first college in Mizoram and is the only constituent college of MZU. It was established on 15th August 1958 as "Aijal College" and was renamed in 1962 as "Pachhunga Memorial College" in honour of Mr. Pachhunga, a leading entrepreneur who funded its initial management. The college became "Pachhunga Memorial Government College" when it was provincialized by the Assam Government in 1965. On 19th April 1979, the North Eastern Hill University (NEHU) adopted the college as its constituent college and it eventually received its fourth name "Pachhunga University College". On 2nd July 2001, MZU was established and the entire management of PUC was handed over to the new university. The college was accredited A+ (CGPA of 3.51) in 2016 by the National Assessment and Accreditation Council (NAAC). The University Grant Commission (UGC) conferred "College with Potential for Excellence" to PUC. One of the main priorities of the college is research mobilization. The college received the "Best College" award from Zoram Research Foundation consecutively in 2004 and 2006. It is listed among the best 150 colleges in India by the National Institutional Ranking Framework (NIRF). In 2011, the Department of Biotechnology of India set up Institutional Biotech Hub and upgraded to Advanced Institutional Hub in 2017 and later in that year, the DBT awarded its Star College Scheme.

The college has adopted three villages namely Phulpui, Lungleng and Dulte. The main aim of the village adoption program is to provide deeper insights into the possibilities of making the future prospects of the village better through academic intervention. The college caters Undergraduate courses in 23 subject areas of Arts, Science, Commerce and Management. It has opened three Postgraduate courses in Mizo, Philosophy and Life Science, and became the first college with Post-graduate Departments in Mizoram.

2.2.1.1. About the Library

PUC Library is the oldest academic library in Mizoram which was established in the year 1958 that was also the establishing year of the institution. A separate library building was first set up in 1960. In 1981 due to local insurgency, the library building along with all the collections was burnt down. Then took its rebirth, the college library has been developing its resources in terms of collections, staff and building. Due to the need for an extension, the library building was rebuilt and started functioning in full swing since 12th July, 2013. However, with its new building and restoration, the library now has a collection of 603548 total numbers of books, 31 journals, 13 popular magazines and subscribes 7 newspapers that includes local and national. The library is fully automated with SOUL 2.0 library software and RFID technology was installed in the library for its management. It provides various services to the users that include Online Public Access Catalogue (OPAC), N-LIST (INFLIBNET), automated circulation service, Current Awareness Service (CAS) etc. The library also has free WIFI Internet access. The library building provides ramps for physically challenged students. In 2018, for the first time since its inception, the library organized a 'Library Week' which was a huge success by using the theme "Read and Connect". The events included Book Fair, Essay writing competition, Meet the Author, Poetry writing competition, etc. Little Free Library was established within the campus in 2019 which aims to make the students, faculties and others to make use of their free time to read books and other reading materials.

The library has a seating capacity of 300 to 320 for students and 20 in faculty reading room. One corner inside the teacher's reading room is dedicated for students who are

inspired of and to help them in preparing competitive examinations. The library has a total number of 4 library professionals where 3 are regularly recruited and 1 contract basis.

2.2.2. Lunglei Government College

Lunglei Government College was established in the year 1964 by the then elites of the Lunglei Society. It became provincialized in 1976 by the Government of Mizoram and is the first Government financed college in Mizoram. In 2017, the college was awarded Grade B++ by NAAC and it was recognized by the UGC under Section 2(f) and 12B of the UGC Act in 2008. The college is affiliated to Mizoram University.

The college provides two streams of Undergraduate degree courses i.e., Arts and Science offering 8 subject areas of Arts and 6 subject areas of Science. It is the only government college which offers the study of Philosophy in Mizoram. In 2008, the Consortium of Educational Communication (CEC) and Indian Space Research Organization (ISRO) sponsored INFINIUM and EDUSAT Satellite receiver having the objective to impart better education in the college. The college also offers a Certificate Course in Computer Application since 2009 with the financial assistance of UGC.

2.2.2.1.   About the Library

The College Library has a good number of collections which are broadly classified into four categories, namely Arts, Science, General and Reference books. Currently it has a collection of 16182 books, 1850 Reference books, 25 journals, 220 magazines and 3 newspapers. All the books are systematically classified with a classification scheme of DDC 23rd edition. The library was fully computerized using SOUL software in 2016. One of the most important services the library provides is the UGC-Resource Network Centre, which is established within the library which facilities in teaching and learning where the students and teachers can easily accessed online resources.

2.2.3. Government Champhai College

Govt. Champhai College was established in the year 1971 by the philanthropists of Champhai town and the people of the neighbouring village. Initially it was established as a private college but in 1978, it attained the status of Deficit Grant-in-aid under the Government of Mizoram. The college was affiliated to Gauhati University, and then to NEHU till 2nd July 2001. Now it is affiliated to Mizoram University. The college received UGC recognition under Section 2(f) and 12B in 1987. The college was assessed by NAAC and attained 'B' grade in 2004. Again, it was re-assessed and received 'B++' grade in the 2nd cycle in 2016.

The campus covers an area of 11.66 acres (34.94 bighas) of land where its congenial strategic location has scope for its expansion.

The college offer various courses in 4 streams, i.e., Art, Commerce, Computer Science and Science.

The college is an approved Indira Gandhi National Open University (IGNOU) Study Centre that offers Certificate, Diploma, Undergraduate degree and Master degree courses through distance mode.

2.2.3.1.   About the Library

The college library is situated below the administrative office. It has a spacious reading room which holds a seating capacity of 50 users. The teaching staff, non-teaching staff and the students of the college are the users of the library. The library has a collection of 17946 books, 690 Reference books, 533 General books, 1063 Competitive materials and subscribes 8 Journals, 4 magazines and 3 daily newspapers. The UGC Network Resources Centre is available in the library. The library is automated using SOUL 2.0 library management software.

2.2.4. Government Serchhip College

Govt. Serchhip College is situated at the heart of Serchhip town where the campus area covers 210437 sq.m. of land. It was established in 1973 and was provincialized on 1st January 1989. The college was affiliated to NEHU in 1975 and when MZU

was established, it was subsequently affiliated to it. The college was accredited by NAAC with 'B' grade in 2011 and re-accredited 'B+' grade in 2016 in the second cycle. It is listed under Section 2(f) and 12B of the UGC Act 1956.

The Village Council of Serchhip North has recently deployed Solar Street Light in the college campus.

The college offers traditional courses in Arts, Science and Bachelor of Computer Applications with a total of 13 departments. IGNOU Study Centre was opened in 2002 and it is a valuable asset to the college.

2.2.4.1. About the Library

The College Library is spread over an area of 775.15 sq.m. of land. It has a stack area for Arts, Science and Reference books. It provides reading room which include reading tables and cubicles which hold a seating capacity of 32 users. The library provides OPAC facility and reprographic services to the users. It is automated using SOUL 2.0 software. The library is a member of N-LIST and it provides the facility of Internet access to e-journals and e-books to all the faculties and students of the college.

The library remains open from 9:00 AM to 5:00 PM during summer and from 9:30 AM to 4:00 PM during winter.

2.2.5. Government Aizawl College

Government Aizawl College (GAC) was established in the year 1975 as a private Arts College. Commerce and Science Streams were added in the year 1986 and 1988 respectively. But the Science Stream was no longer continued and was detached from the College in 2001 following the policy of the Govt. of Mizoram to amalgamate Science Stream in Govt. Zirtiri Residential Science College, Aizawl. The college was included under Section 2(f) and 12B of the UGC Act. It was awarded 'B+' Grade in 2004, 'B' Grade in 2011 and 'B' Grade in 2016 by the NAAC. It is affiliated to Mizoram University.

There are nine (9) different Departments in the college namely English, Mizo, Political Science, History, Economics, Education, Sociology and Hindi, and also the Commerce Stream. The academic programmes include IGNOU Study Centre which is the first and largest Study Centre in Mizoram offering various programmes in Postgraduate degree, Undergraduate degree, Diploma courses and Certificate courses. The GAC-NIELIT Study Centre was established in February 2013 offering courses on Computer Applications, Office Automation and Web Designing, and houses 30 sets of computers.

The institute has a new campus at Salem Veng, Mualpui and it was inaugurated on 26th February 2018. The Commerce Department and the 4th Semester began their first classes in the new campus on 8th March, 2021. Some of the buildings and blocks are still under construction.

2.2.5.1.   About the Library

The college Library is located on the second floor of the college building and is easily accessible for the users. It has a good number of collections which includes Course Books, Reference Books, Special collection, rare book collections, journals and magazines etc. The library is automated using SOUL library management software. Automated Circulation System was introduced in the library. E-resources are accessible for the users through UGC N-LIST.

There are 2 library professionals working in the library. One is the Librarian and the other is an administrative staff attached to the library that has possessed Library and Information Science degree. There is one supporting library staff who is currently pursuing Library Science through distance mode.

2.2.6. Institute of Advanced Study in Education (IASE)

The IASE was established in the year 1975. It was first known as Mizoram Institute of Education (MIE) and later became the College of Teacher Education (CTE) in 1997. It was further upgraded to its present status of an IASE in 2005. It offers Bachelor of Education (B.Ed) course, Master of Education (M.Ed), B.Ed (Multimode), Course on Computer Concept (CCC) and Value Added Courses.

IASE is one of the most prominent and prestigious teacher educational institutions in Mizoram. It is remarked as a 'Model IASE' in the country by the Government of India. IASE takes the key role for designing and formulating a special and innovative B.Ed. Multimode programme which is one of its kind in India where the objective is to clear the backlog of untrained teachers in Secondary and Higher Secondary schools in Mizoram.

2.2.6.1.   About the Library

IASE Library is automated using SOUL 2.0 library management software in 2017. It has a total collection of 13078 books consisting of 11002 Text books, 2076 Reference books, subscribes 8 journals, 3 magazines and 9 daily newspapers. The Barcode system is implemented and used in the library with effect from April, 2012. The library has a collection of Dissertations of M.Ed. students which are submitted in the institution and a copy of PhD Thesis submitted by the Faculties having Doctoral degree.

2.2.7.   Government Saiha College

Government Saiha College came into existence as a result of public demand in the year 1978. It was recognised by the Government of Mizoram in 1979. It received its affiliation from NEHU in 1980. The college was upgraded to the status of Deficit in 1985 and became a full-fledged government college in 1992. It is now affiliated to Mizoram University.

Initially, the college offered a Pre-university course, and then started Bachelor's degree course in 1980 when it received its affiliation from NEHU. The college offers three years Undergraduate courses in Arts stream in seven subjects namely English, Education, History, Sociology, Mizo, Political Science and Economics. It also offers education through open learning and distance learning under IGNOU Study Centre.

2.2.7.1.   About the Library

The Library is looked after by one library professional. The library provides various services to its users which include circulation service, reference, periodical and

reprographic service. All the in-house operations of the library are done manually. It has a collection of 10000 Textbooks, 1089 Reference books and subscribes 4 daily newspapers.

2.2.8. Government Kolasib College

Government Kolasib College was established in the year 1978 as a private college and was initially named 'Kolasib College'. After its affiliation to NEHU, the first Pre-university batch of students appeared for University examination in 1979. Undergraduate courses were opened in 1981. It attained the status of Deficit in 1985 and became provincialized in 1992. Later, it was renamed 'Government Kolasib College'. When MZU was established, its affiliation was transferred to it.

The college offers various courses in Arts, Science and Computer Science. There are eight subjects in Arts namely English, Education, Economics, Mizo, Geography, History, Political Science and Public Administration; five subjects in Science namely, Botany, Zoology, Chemistry, Physics and Mathematics. The college also offers Bachelor of Computer Application course. It is also an approved IGNOU Study Centre that offers distant learning courses.

The college is recognized by UGC under Section 2(f) and 12B of the UGC Act 1956. It was accredited 'B' grade by NAAC in 2019.

2.2.8.1. About the Library

The Central Library is well-equipped with the latest facilities and resources. It has a total collection of around 10000 volumes of different subject areas. The library also houses reference books, periodicals and old question papers. Reprographic facility is also available to the users. It is automated using SOUL software.

2.2.9. Government Hnahthial College

Government Hnahthial College is located in Hnahthial which is the southern region of Mizoram. It was established on 20th July 1979. The campus covers 268.86 bighas of land. It became provincialized in the year 1981. It is affiliated to Mizoram University and is listed under Section 2(f) and 12B of the UGC Act.

The college offers various facilities that include Indoor Stadium which houses Badminton Court, Gymnasium, Women's Hostel and Boys Hostel. The institute is an approved IGNOU Study Centre where students can pursue Undergraduate and Postgraduate studies.

The college offers Undergraduate programmes in the subject of English, Mizo, History, Political Science, Economics, Education and Geography.

2.2.9.1.   About the Library

The institution has a well-established library. It has gradually developed its collections and now it has 4867 number of Text books, 323 Reference books and subscribes Journals and daily newspapers. It provides Internet facility with e-resources where the users could easily access the Internet free of cost. The library is automated using SOUL 2.0 software. OPAC is available for the users where one could easily locate books and other reading materials available at the library. Every year, the library gives away 'Best User Award' to the students and teachers who visit the library most frequently. This award is intended to motivate the students and teachers to visit the library as frequently as possible and make maximum utilisation out of it.

2.2.10. Government Hrangbana College

Hrangbana College was established in the year 1980 and it was named after Mr. Hrangbana, a late philanthropist and prominent businessman who generously donated a sum of Rs. 1 lakh for its establishment. The new college started its first academic session 1980-81 and introduced Commerce subject which started from 1981-82 session. The college received the status of Deficit Grant-in-Aid in 1985 and was provincialized in 2003. The college is affiliated to Mizoram University. It is listed under 2(f) and 12B of the UGC Act. The NAAC accredited 'B++' grade in 2006 and 'A' grade in 2011. The college is an approved IGNOU Study Centre where the students can pursue Undergraduate and Postgraduate studies.

2.2.10.1. About the Library

Government Hrangbana College Library was established in the year 1980. It is located in the sixth and seventh floor of the college building. The library provides a reading room facility for the users which hold a seating capacity of 75 students and 5 seats for the teachers. The library organized Orientation programme for fresher students on how to use the library and browsing system. In 2005, SOUL 1.0 Library Management Software was installed and became the first user in Mizoram. The library was fully automated using SOUL 2.0 library software and RFID technology was installed in 2017. Being INFLIBNET SOUL Coordinator, the library organized Regional Training Programme on Library Automation in 2010 and 2012. It also organized UGC sponsored Workshop on SOUL 2.0 in 2015. Besides this, the Library Committee also organized 'Book Fairs' collaborating with renowned publishers in 2013, 2015 and in 2017.

The college library provides a Book bank facility that functions as one of the section of the library where the current students can be a member of it (optional) which could be renewed in the next year by paying requisite fees and depositing a sum of money for security which is refundable. The benefits of membership of Book bank is that a member can borrow a maximum of 5 books at a time for two semesters i.e. one year while a library member can borrow 3 books at a time for 15 days.

2.2.11. Government Lawngtlai College

Government Lawngtlai College was established in 1980. It is located in the southern region of Mizoram 300kms away from Aizawl, where it is ideally situated on a hillock within Lawngtlai town. In spite of being located in a remote and backward region, it has been producing successful undergraduate students and has been maintaining good academic record right from its inception. The college was upgraded to a Deficit status in July 1988. It is affiliated to Mizoram University and recognised by the UGC.

The college offers Undergraduate courses in various subjects like English, Geography, History, Education, Political Science, Public Administration, Economics, Mizo and Sociology.

2.2.11.1. About the Library

The Library constantly updated its reading materials and maintains records of all books in the library. It houses a good number of books, Text books, General books, Reference books and subscribes journals and daily newspapers. It provides reprographic facility to the users and reference service is one of the essential services provided to the users apart from the text books.

2.2.12. Government Zirtiri Residential Science College

Govt. Zirtiri Residential Science College is the first and only science college in Mizoram. It was established in the year 2000 by an act of the State Assembly with the primary vision of providing science education. The college is affiliated to Mizoram University and it was accredited 'B' grade by NAAC in 2009. The main objectives of the college are: a) to be at par with esteemed college outside the state in terms of teaching learning process and also in terms of research b) to continuously strive to provide a platform for more students who cannot afford to pursue higher studies elsewhere. The priority of the college is to meet the needs and demands of the students of Mizoram which, in spite of high literacy percentage still lags behind in the field of science and technology. The college offers 10 Undergraduate courses in the subjects of English, Mathematics, Botany, Zoology, Chemistry, Physics, Biochemistry, Electronics, Geology and Home Science. It also offers Undergraduate course in Computer Science and 1 Certificate value-added course.

2.2.12.1. About the Library

The college library is located at the entrance of the building which is easily accessible for the users. The library renders various services like Reprographic service, Documentation service, Bound volumes of Journals, Circulation service, etc. The library books are kept in an open access for easy location and access. Orientation programme is conducted at the beginning of every session for newly admitted

students. CCTV was installed in the library for security purpose. The library has 13110 total numbers of books, subscribes 12 journals and 3 daily newspapers. It is fully automated using SOUL 2.0 in 2012. UGC-Network Resource Centre (UGC-NRC) is placed inside the library premise which is equipped with Broadband Internet facility that facilitates the users to access the Internet freely for their academic information requirements.

2.2.13. Government Mamit College

Government Mamit College was established in 1983 under the patronage of local enthusiasts who are longing for higher education including local leaders, Village Council members and local educated persons. It is located in Mamit town in the western part of Mizoram which is 96kms away from Aizawl, the capital city of Mizoram.

Mamit District, where the college is situated is inhabited by the minority tribes like Brus (Reangs, also called Tuikuk), Chakmas and majority Mizos. It is educationally backward and as such, it was identified by the Ministry of Minority Affairs as one of the 90 Districts in India as very Backward District. Likewise, it was too identified by the UGC as one out of the 374 Educationally Backward Districts (EBDs) in India and as such proposed for conversion of the college into a Model College, being one of the Educational Backwards Districts in India.

The College was initially a private college which was run by the financial contributions of the local people, imminent persons and Village Council leaders. It was upgraded to the status of Deficit in April 1993. It is affiliated to Mizoram University and is listed under Section 2(f) and 12B of the UGC Act 1956. It is accredited 'B' grade by the NAAC in 2016.

The college has an IGNOU Study Centre that offers a variety of courses in Undergraduate and Postgraduate studies including Diploma courses. The college offers four subjects namely Economics, Education, History and Political Science.

2.2.13.1. About the Library

The college library has a well-furnished and spacious reading room for its users. It provides reprographic facility and Internet facility where users could freely access e-resources which are available through N-LIST. The college library has 5856 Text books, 182 Reference books and subscribes 15 journals. It is automated using SOUL 2.0 library software.

2.2.14. Government J. Buana College

Lunglei Night College was established in the year 1983 having the purpose of providing higher education to the young people and to the poorer sections of the society who could not afford to attend Day College. The name of the college was changed in 1987 to J. Buana College, after Mr J. Buana who donated a handsome amount of Rs. 2 lakhs at its initial stage. Its name was again modified to Government J.Buana College when it was provincialized by the Government of Mizoram on 11th October 2007. The college is affiliated to Mizoram University and is listed by the UGC under Section 2(f) and 12B of the UGC Act. It was accredited 'C' grade by NAAC in 2015.

The college offers Undergraduate Courses in the subjects of English, Mizo, History, Geography, Economics, Education, Political Science, Public Administration and Commerce.

2.2.14.1.   About the Library

The library is fully automated in 2019 by using SOUL 2.0 software. It has so far procured around 7620 Textbooks, 74 Reference Books, subscribes 12 journals and collects 10 CDs and DVDs. The library also has a good collection of reference materials where books were donated by the alumni and well-wishers which are very helpful to the students. UGC-NRC was established where the users access unlimited e-resources for academic pursuits.

2.2.15. Government Mizoram Law College

Government Mizoram Law College was established in the year 1983 and it was initially named "Aizawl Law College". Later in 2004, the college was amalgamated with Liandingpuia Law College and hence the college was named as "Mizoram Law College". The college was upgraded to the status of Deficit Grant-in-Aid in 2006 and provincialized in 2013. It is affiliated to the Mizoram University and the Bar Council of India (BCI). It follows guidelines, rules and regulations laid down by MZU and adheres to the syllabus prescribed by the BCI.

The main objectives of the institution are to promote legal education and legal literacy in the State. It offers Three Year Unitary Course of Law. The college is recognized by the UGC under Section 2(f) and 12B of the UGC Act 1956. It was accredited by NAAC and graded 'C' grade with SGPA (1.97) in 2019.

2.2.15.1.   About the Library

The College Library has a good number of collections mainly related to legal books and journals. Currently, it has total collections of 14400 books, 16 Journals, 7 e-Journals and subscribes 9 Magazines and 7 daily newspapers. The library is automated using SOUL 2.0 in the year 2012.

2.2.16. Government Saitual College

Govt. Saitual College was established in the year 1984. Initially, the classes were conducted in the premises of Govt. Primary School and Govt. Saitual High School. Later, the college was allotted an extensive area of land covering 65.56 Bighas in the northern part of Saitual town for its permanent campus. It started regular classes and office works in its permanent campus on 3rd June, 1996.

The location of the college is of strategic importance for the higher education of the youth in this region as it is the only Degree College in the north eastern region of the State that consists of four MLAs (ST) constituencies namely: Chalfilh, Lengteng, Tawi and Tuivawl.

The College was upgraded to Deficit Grant-in-aid status with effect from 1st April, 1993 and later provincialized on 11th October, 2007. It has been listed under Section 2(f) and 12B of the UGC Act. In 2009, NAAC accredited 'C' grade in the 1st cycle and re-accredited 'B' grade in 2014 in the 2ndcycle.The college is affiliated to MZU offering seven departments such as English, Mizo, History, Economics, Political Science, Education and Geography with both General and Honours courses.

2.2.16.1.   About the Library

Library is the heart of the institution and a house of information and knowledge that is an essential organ of the institution. The College Library is housed in the main building with a total area of 47sq.m. It has a total seating capacity of 12 users. It has a collection of 8897 Text books, 1193 Reference books, 6 Journals and provides Internet facilities to the users. OPAC facility is available for the users and e-resources are available through N-LIST (INFLIBNET). The library is fully automated using SOUL 2.0 library software in 2013.

2.2.17. Government Khawzawl College

Khawzawl College was established in 1985 and was initially managed by the College Managing Board who looked after the college in respect of management, collecting funds, appointing lecturers etc. The college got provisional affiliation to NEHU on 15th May 1992 and was later upgraded to Deficit status with effect from 1st April, 1994. It was granted a permanent affiliation to MZU on 1st July 2006. It was listed by the UGC under Section 2(f) and 12B of the UGC Act 1956. In 2017, the college was accredited 'C+' grade by the NAAC.

The college is located in the north eastern part of Khawzawl town which is 40 km away from district headquarters of Champhai District, 160 km from Aizawl which is the capital of Mizoram and 70 km from Myanmar Border. The land of the college covers an area of 9.30 Bhigas of land.

The college offers Undergraduate courses in the subjects of English, Mizo, Economics, Education, History and Political Science.

2.2.17.1.   About the Library

The library building was attached to Academic Block which covers an area of 108sq.m. It was fully automated in 2018 by SOUL 2.0 library management software. The library has a collection of around 6000 textbooks and subscribes periodicals and daily newspapers. It provides reprographic facility and a scanner which is an important service to the users. It also provides free WIFI Internet facility with a certain sets of computers to the users.

2.2.18. Government Zawlnuam College

Govt. Zawlnuam College was established in the year 1986. It is located in Zawlnuam, Mamit district of Mizoram which is a place of far distant from the State capital Aizawl and has borders with the states of Tripura and Assam. The college has adopted a village namely 'Zawlpui', a village bordering Tripura where some welfare activities have been conducted in the village. The college has various supporting facilities such as library, language lab, computers, classrooms, sport facilities including gymnasium, basketball court, volleyball court, etc.

The college offers BA courses in the subjects of Mizo, English, Economics, History, Education and Political Science. It is affiliated to Mizoram University and follows University guidelines and timeline for various curricular and extra-curricular activities. The college obtained a 'C' grade by NAAC in 2016. It has taken various initiatives to make the campus eco-friendly like preserving and maintaining biodiversity, minimizing e-waste having the policy of low carbon emission, policy of low energy consumption and use of well-planned garbage bins on the campus and its timely disposal.

2.2.18.1.   About the Library

The College has a well-established and air-conditioned library which is available to the users for consultation and reference. It has a collection of 4900 Textbooks, 1104 Reference books and subscribes 4 Journals. The library is fully automated with SOUL 2.0 in 2016. The library is monitored by Library Development and Research

Promotion Cell who ensures its proper functioning, services and collection development.

2.2.19. Government Aizawl North College

Government Aizawl North College is located in the northern side of Aizawl that attracts the students from the north of the city and from all around the State and it was established in the year 1988. The institution was recognized under section 2(f) and 12B of the UGC Act on 27th September, 2005. It is affiliated to Mizoram University. The college offers seven Undergraduate programmes in various departments such as Economics, History, Political Science, Geography, English, Mizo and Education. The college was awarded 'B' grade by NAAC in 2009 and 'C' grade in 2019. The college has an adopted school at Sihhmui village, Aizawl district where the 6th Semester core students take turns to visit the adopted school once in a month, to help the teachers in teaching the students which in turn the school acted as a good place of practice teaching which was benefitted by the college students. The college also introduced Mentor-Mentee system where each faculty members acted as a mentor, are allocated a certain number of students as mentee, where the mentor helps his or her mentee in all walks of life. The college also conducts remedial coaching class for backward and academically weaker students for the preparation of semester examination. The college introduced Certificate Course on Computer Concept (CCC) in collaboration with National Institute of Electric and Information Technology (NIELIT) on 1st September, 2016. The college accommodated more than thousand students in every academic session that makes it the biggest Art College under MZU in terms of enrolment of students.

2.2.19.1.   About the Library

The College Library was established in the year 1988. It is the centre of learning and knowledge for students and faculties. It is automated using SOUL 2.0library management system. The library has a total collection of 10934 books, 19 periodicals including journals, magazines and daily newspapers. The library is listed under N-LIST funded by Ministry of Human Resource Department (MHRD), Government of India through INFLIBNET Centre. The Internet facilities are available in the library

since 2010 which was powered by BSNL where students, faculties and other users can access to it.

2.2.20. Government Aizawl West College

When the State government upgraded 'Aizawl College' to the status of government aided college in 1989, the evening college became a day college. So, considering the need of those students for pursuing their higher studies who could not afford education in day-college, a new college was opened in the western part of Aizawl city having the objectives of imparting college education in the evening hours for deserving students. The college was first affiliated to NEHU and when MZU was established in 2001, the affiliation was transferred to the new university. There are eight existing departments namely Economics, Education, English, History, Mizo, Political Science, Public Administration and Psychology.

2.2.20.1.   About the Library

The college library is located on the ground floor of the college building providing an ideal reading atmosphere for the users. It is the main source of information and knowledge for the students and teachers. It is opened from 9:00AM to 5:00PM on all working days. The library is fully automated with SOUL 2.0 version in the year 2012. It has a total collection of 13569 books, 4 journals, and subscribes 3 magazines and 5 newspapers. The library has various sections like Periodical Section, Readers Section, Back Volume of Periodical Section, Circulation Section and Documentation Section. The library holds a sitting capacity of 35 readers at a time.

2.2.21. Government T. Romana College

In 1992, due to the need of colleges to pursue further studies, a new private college was established and named 'T. Romana College' after the name of Mr T. Romana, who generously donated a sum of one lakh rupees and permitted to use his private building for the establishment of the new college. The college was granted affiliation by NEHU in 1995 which now has its permanent affiliation by the MZU in 2007 and recognized by the UGC under 2(F) and 12B of the UGC Act. In the same year in 2007, the college was accredited 'C++' by the NAAC and 'B' grade in 2014.In the

3rd cycle, the college was accredited 'B' grade on 25th January 2021. The college was upgraded to the status of Deficit Grant-in-aid in 2003 and was provincialized in 2008. The college offers three-year degree course (six semesters) in the Arts Stream in various subjects like English, Mizo, History, Political Science, Economics, Sociology, Education and Public Administration. The college is an approved study centre of Indira Gandhi National Open University (IGNOU) where the students can pursue their Bachelor's Degree in Social Work, Human Rights and others. The college also offers 'Certificate courses in Computer Application and Mobile Phone Repairing where the courses are introduced by the UGC under Career Oriented Course Programme. The college accommodates economically and academically disadvantaged students by offering concession of fees and even exemption if required and rendering help in all possible walks of life.

2.2.21.1.   About the library

The college library caters to the requirements of the college students and teachers. The library is located within the college new campus which is easily accessible for the users. The library is automated with SOUL 2.0 library software in 2017. It has total collections of 10159books including Text Books, Reference Books and others, and subscribes 12 journals, 5 magazines and 5 daily newspapers. The library provides a reading room facility that holds a sitting capacity of about 70 readers at a time. UGC sponsored Network Resource Centre is established within the library with 4 sets of computers where students and faculties could access the Internet facilities. The library also provides e-resources through UGC N-LIST.

2.2.22. Government J. Thankima College

It was highly felt by the residents of Bawngkawn, Aizawl that there is a need to open a new college to meet the growing demand for quality education and learning. So, a new college was established in the year 1992 and it was named 'J. Thankima College' after the name of Mr J. Thankima, who generously endowed the initial campus. The college received its Deficit status on 11th November 2002 and it was provincialized by the Government of Mizoram in the year 2007. Its name was changed to 'Government J. Thankima College'. The college was affiliated to

Mizoram University in the year 2007 and was accredited 'C++' grade by NAAC in the same year. In the 2nd Cycle Assessment and Accreditation, it was awarded 'C' grade with a CGPA of 1.78. It is listed under Section 2(f) and 12B of the UGC Act.

The college functions from three campus, where the Central campus is located at Brigade area of Bawngkawn, South campus at Bawngkawn and North campus at Durtlang Mel 5. On 26th January 2017, the college administration was shifted to the Central campus which housed the administrative buildings, classrooms and other buildings and offices. The college offers Undergraduate courses in seven disciplines such as Economics, Education, English, Geography, Mizo, History and Political Science.

2.2.22.1.   About the Library

The college library was established in the same year when the college was incepted i.e., 1992. It is a learning and knowledge centre of the institution that provides adequate materials and serves the various needs of the academic community. The library organized orientation programme for fresh students every year. It has a reading room with a seating capacity of 20 people. Currently, the library has a total collection of 8544 books, 11 journals and provides e-journals that are received from INFLIBNET. It also subscribes 8 magazines and 5 newspapers.

2.2.23. Government Kamalanagar College

Govt. Kamalanagar College was started on 4th April 1992. It is located in Kamalanagar, Chawngte which is the headquarters of Chakma Autonomous District Council (CADC) in Mizoram. It is 287 km from Aizawl via Thenzawl World Bank road, or 335 km via National Highway 54. It can be reached by road transport and helicopter service.

The college got its Deficit status on 1st January 2007 and was provincialized on 19th September 2013. UGC has given recognition under Section 2(f) and 12B of the UGC Act 1956. It was granted permanent affiliation by Mizoram University.

On the midnight of 29th August 2012, the whole campus caught fire and all the office documents, library books, furniture and the whole building was burnt down and turned into ashes. The students have no classroom where the teachers took their classes under the tree and wherever possible. Despite all these hurdles and problems, the college could begin its academic session of 2013-2014.

The college offers Bachelor degree course in the subject of Mizo, Hindi, English, Economics, Education, History, Political Science and Public Administration. The college has functioned Distance Educational hub of IGNOU Study Centre and offers Distance courses on Bachelor of Preparatory Program (BPP), Bachelor Degree Program (BDP) in Political Science, History, Public Administration, English and Economics, and Post graduate courses in different subjects.

2.2.23.1.   About the Library

The College Library is one of the most important elements that support its parent institution in teaching and learning by providing reading materials for the students and the teachers. It houses a collection of Text books, Reference books and journals. It also subscribes daily newspapers. It is looked after by one library professional.

2.2.24. Government Johnson College

Government Johnson College was established in the year 1993 by the community leaders of Khatla, and its initial name was 'Khatla Arts and Commerce College'. It is named after Mr P.P. John, a prominent resident of Khatla who generously donated a sum of Rs.12 lakhs for its establishment. Later, the Commerce Stream was discontinued and the college was named 'Johnson College'. It was amalgamated with Bungkawn College on 24th October 2002. The college offers various subjects namely English, Mizo, History, Education, Political Science and Economics. It has been granted UGC recognition under 2(f) and 12B of the UGC Act and is affiliated to Mizoram University.

2.2.24.1.   About the Library

The college library has a separate building with a seating capacity of 30 readers at a time. The library has developed a collection of 10200 books, 7 journals, 5 magazines and subscribes 8 newspapers. The library provides e-resources to the users through N-LIST (INFLIBNET). It also provides various services such as Circulation service, Reference service, Reprographic service, etc. The library is automated using SOUL 2.0.

2.2.25. Regional Institute of Paramedical and Nursing Sciences (RIPANS)

To overcome the need to provide basic paramedical health care facility in the health institution of the North Eastern Regions, RIPANS was established in 1996 by the Ministry of Home Affairs, Government of India under North Eastern Council (NEC). It provides various courses that include B.Sc. Nursing, B.Pharmacy, B.Sc. MLT (Medical Lab Technology), B.Opto (Optometry & Opthalmic Techniques), B.Sc. RIT (Radiography & Imaging Technology). M.Pharm courses were introduced in 2016. All the allotted seats in different disciplines of the Institute are distributed as per quota fixed to the beneficiary states. The Institute is affiliated to MZU.

2.2.25.1.   About the Library

RIPANS Library is housed with a good collection of books and journals. It has a total collection of 34597 books, subscribes 28 journals, 4 daily newspapers, 3000 e-books and 14 e-journals. The library is automated using TLSS Library Management Software. It is equipped with RFID technology. The library provides OPAC services to its users.

2.2.26. National Institute of Electronics & Information Technology (NIELIT)

NIELIT Aizawl was established in the year 2001. It was formerly named as 'DOEACC' Centre and located at Industrial Estate, Zuangtui in the northern side of the capital city of Mizoram. It offers various courses in the field of Electronics, Computer Applications and Information Technology (IT). The courses include non-formal courses, formal courses such as MCA, BCA, DETE, DCSE and Short Term

Course namely CCC and Multimedia. The institute has an extension centre at Pukpui, Lunglei.

2.2.26.1.   About the Library

NIELIT Library is housed with a collection of essential books on electronics, computers and communications, etc. It has a collection of 11403 volumes of books, 17 related journals and 20 magazines, and subscribes 7 local and national newspapers. The library is automated using self-developed in-house design software. The Centre subscribes online IEEE Xplore Digital Library where students and faculties can freely access to it.

2.2.27. Mizoram College of Nursing

Mizoram College of Nursing (MCON) is a nursing college run by Civil Hospital Aizawl under the Department of Health & Family Welfare, Government of Mizoram. It was established in 1980, and the initial intake of students is only 20 seats for General Nursing and Midwifery Course. The institution was upgraded to College of Nursing in 2005 and began introducing 4 Years Course Bachelor of Science in Nursing. It is recognized by the Indian Nursing Council and affiliated to Mizoram University.

2.2.27.1.   About the Library

The college library is automated using Library Management Software SOUL 2.0 which is run by one stand-alone server with one client computer. The library provides materials of latest Nursing and Medical books and relevant journals, magazines and newspapers. The library is well-equipped with surveillance system for security purpose, document laminator, printers, barcode reader and photo copier. It has a collection of 3012 books, subscribes 10 titles of journals and 1 local newspaper. E-resources can be accessed through subscription of N-LIST (INFLIBNET).

2.2.28. Higher and Technical Institute of Mizoram (HATIM)

Higher and Technical Institute of Mizoram (HATIM) was established in June 2007. It is the first Christian college in Mizoram which is established and run by the Baptist Church of Mizoram (BCM). The institute offers Undergraduate Courses on four (4) departments viz., Department of Computer Science that offers Bachelor of Computer Applications (BCA), Department of Commerce that offers Bachelor of Commerce (B.Com), Department of Social Work that offers Bachelor of Social Work (BSW) and Department of English that offers Bachelor of Arts (B.A.) core English, Philosophy (Elective) and History (Elective).

The BCM Assembly has approved the plan to open two new Bachelor programmes i.e., Bachelor of Business Administration (BBA) and Bachelor of Mass Communication and Journalism which are yet to be implemented in the near future.

HATIM is affiliated to Mizoram University. The institute has been shifted to a new campus which is located at Kawmzawl, Pukpui in the southern part of Mizoram. It is listed under Section 2(f) and 12B of the UGC Act 1956.

2.2.28.1.   About the Library

HATIM library started its initial stage only with 120 books. But now it has a collection of 7200 Text books, 600 Reference books, 1300 General books and 55 Bound volumes. It also subscribes 6 Peer-Reviewed Journals, 35 magazines and 6 daily newspapers. All the reading materials are classified using DDC 23rd edition. The library used SOUL 2.0 software for library automation. It also provides seating capacity of 50 users in the reading room. The library use biometric enrolment system where it records the user's attendance using fingerprint identification. The library conducts 'User Orientation Programme' every year for the newly admitted students to make them acquainted with the facilities and services provided to them.

2.2.29. Aizawl City College

Aizawl City College was set up in 2015. It was established to cater the needs of the growing demands and was permitted to open evening classes in JL Higher Secondary

School premises. The college was affiliated to MZU in 2016 and recognized by the UGC. It offers various Bachelor Degree Courses on different subjects such as English, Mizo, Political Science, Education, Sociology and History.

2.2.29.1.   About the Library

The institution has a library with a good and cosy interior. The library holds a seating capacity of around 25-30 users. The working hours of the library is 4:00 Pm to 7:30 Pm since the classes are held in the evening. It provides materials not only on the academic requirements but also reference books on various subjects and general awareness. The library has subscribed6 Journals each of every subject which are offered by the College and subscribes to leading daily newspapers and magazines of national and local issues. Various areas of library house-keeping operations like acquisition, circulation, classification, cataloguing, accessioning, etc. are carried out manually. There is no library professional working in the library. It is looked after by the administrative staff of the college.

2.2.30. Divine Mercy College

Divine Mercy College is the first college which offers Bachelor of Social Work in Mizoram. It also offers B.A Degree Course in English, Mizo, History, Political Science, Geography, Education and Economics. The college was established in 2016 and it is provisionally affiliated to Mizoram University. It is situated at Bawngkawn on the northern part of Aizawl.

2.2.30.1.   About the Library

Despite its young age since its inception, the college library is developing its collections and procured numerous volumes of Text Books, Reference Books and subscribes to journals and publications mainly focused on social work, sociology and communities. It is the main centre of information and learning and caters the information needs of the Undergraduate students and faculties of the institution. There are no library professionals working in the library. An establishment clerk is looking after the maintenance and services of the library.

2.2.31. St. Xavier's College

St. Xavier's College was established in 2017. It is situated at Lengpui on the Buichali Road which is about 1.5kms away from the Lengpui Airport. It is the first catholic college in Mizoram. The college offers various courses of Three Years Bachelor Degrees in Arts in the discipline of Psychology, Education, Sociology, English, Mizo, Political Science, History and Commerce. It also offers Higher Secondary Courses in Arts and Commerce. It is named after St. Francis Xavier, one of the first Ten Companions of St. Ignatius of Loyola, the founder of the Society of Jesus.

2.2.31.1.   About the Library

St. Xavier's College Library is the main centre of information and knowledge of the institution. It serves the College students as well as the Higher Secondary students and faculties. The library is automated using SOUL 2.0 software. It has a collection of 1341 books, subscribes 2 journals and 2 daily newspapers.

2.2.32. Helen Lowry College

Helen Lowry College is run by the Seventh Day Adventist Church in Mizoram. On 17th January 1950, it was opened as Helen Lowry School. In 1980, the Education Department, Government of Mizoram recognized it as a full-fledged high school (i.e., up to Class-X). On 26th June 2000, Helen Lowry School was allowed to function as a higher secondary school by the School Education, Government of Mizoram. It was further upgraded to Helen Lowry College on 23rd August 2017. The college offers courses in Bachelor of Commerce and Bachelor of Arts in the subject of English, Education, History, Sociology and Political Science.

The Elementary, High School and Higher Secondary School programs are fully accredited to Mizoram Board of School Education (MBSE) and the college is affiliated to Mizoram University.

2.2.32.1.   About the Library

Helen Lowry College Library was established in the year 2017. It has a total collection of 959 books and subscribes one (1) daily newspaper. The library serves

the users from the Elementary to the College level. One library professional is looking after and maintain the library.

2.2.33. District Institute of Education and Training (DIET), Aizawl

DIET was established in the year 1953 as 'Junior Basic Training Centre' for the untrained Primary School teachers. In 1974, it was amalgamated with 'Normal Training School(NTS)' which was meant for the untrained Middle School (M/S) teachers, and known as 'Under Graduate Teachers Training Institute (UGTTI)'. On 1st July 1980, the name was changed to 'Teacher Training Institute'. It was finally upgraded to 'District Institute of Education and Training (DIET)' in December 1988. In every academic year, DIET enrols 100 pre-service student teachers for a training of 2 year Diploma Course for the untrained teachers.

2.2.33.1.   About the Library

The library is a learning centre of the pre-service and in-service teacher trainees. The area of the library is 2150sq.ft. which holds a seating capacity of 60 readers. It has a total collection of 6833 books, 4022 titles, 400 reference books and subscribes 5 journals. There is one library professional working in DIET Aizawl Library.

2.2.34. District Institute of Education and Training (DIET), Lunglei

District Institute of Education and Training (DIET) Lunglei was established in the year 1974. Its initial name was 'Under Graduate Teacher Training Institute (UGTTI)' and the name was changed to 'Teacher Training Institute (TTI)' on 4th July 1980. It was upgraded and the name 'District Institute of Education and Training' was given on 4th February 1993. It was located at Venglai, Lunglei when it was incepted, but it was shifted to its permanent campus at Ramzotlang, Melthum. The institute has a good facility for women and for differently abled person. DIET Lunglei offered Teacher Education Programmes on Diploma in Elementary Education (D.El.Ed.) and Bachelor of Education (B.Ed.). D.El.Ed is affiliated to MBSE and B.Ed is affiliated to Mizoram University.

2.2.34.1.   About the Library

DIET Lunglei has a well-established library which has a collection of 3821 books, subscribes 8 journals, 5 magazines and 2 newspapers. It has a seating capacity of 75 users in the reading room. The institute has provided a good number of computer sets with the Internet facilities where users could freely access to it. EDUSAT is established in the ICT Resource Centre that is used to provide educational programmes and video conferencing between the Hub and other Satellite Interactive Terminals (SITs) located in different part of the state.

2.2.35. State Council of Educational Research and Training (SCERT)

SCERT was established on 20th January 1980. It is the state counterpart of the National Council of Educational Research and Training (NCERT) New Delhi dealing with the academic aspects of different levels of education like Primary Education, Secondary Education, Teacher Education, In-service Orientation Programmes and Continuing Education. It mainly deals with Curriculum and Textbook Development, Promotion of English, Science and Mathematics, Vocational Guidance and Counselling Services, Special Education, Environmental Education, Computer Aided Education, Educational Research and Non-Formal Education for the general public on specific issues. These objectives are achieved through Training and Research by providing extension and in-service training to teachers, educators, supervisors and educational administrators. It has undertaken Research work restricted to action research, case studies and survey projects funded by the Government of India.

In the new building named "Silver Jubilee Building", the Indian Space Research Organisation (ISRO) in collaboration with the Ministry of Human Resource Development (MHRD) has provided Teaching End Studio with EDUSAT facilities which will be used to provide educational programmes and video conferencing activities between the Hub (Teaching End Studio) and 50 other SITs which are located in different parts of the state.

2.2.35.1. About the Library

Since its inception in 1980, the SCERT has a well-established library. It has developed its collections and services, and acquired latest books on education of Indian and Foreign editions. Around 75% of the collections are related to education. The library has a good collection of Reference books and books published by SCERT and NCERT, and volumes of Annual Report since its inception, i.e., 1980. The library also provides Newspaper Clipping service for the users. All the collections are systematically and properly classified by using DDC 19th edition.

2.2.36. Zoram Medical College (ZMC)

Zoram Medical College (erstwhile MIMER) is the first medical college in Mizoram. It was established by the Government of Mizoram under the Centrally Sponsored Scheme 'Establishment of new medical colleges by upgrading district/referral hospitals'. It was inaugurated on 7th August 2018. MBBS degree is recognized by the Medical Council of India and the Government of India, and it is affiliated to Mizoram University. The college has an intake capacity of 100 students and started its first MBBS academic session from 2018-2019. ZMC provides various facilities such as Blood Bank, Central Laboratory, Quarters for staff, Hostels for students, Intensive Care Unit (ICU), Radiology, Operation Theatres, Lecture Theatres and Library. It provides different courses and presently it has 21 existing departments.

2.2.36.1. About the Library

ZMC Central Library is located in the second floor of the Administrative building. It is housed with a collection of the latest national and international publications of medical textbooks and journals. The library has a total collection of 4016 books, 28 national journals, 21 international publications and subscribes 6 daily newspapers. The library is automated using LibSys 7 which is equipped with KSmart-RFID Library Security Gate, Staff Station and Biometric Reader and PAD Antenna. The members of the library are the Faculty, Residents, MBBS students, Paramedical Institute Employees and Non-Teaching Staff. It also provides the services of E-

Library with 16 computers and computerized bibliographic catalogue search facility i.e., WebOPAC is provided to the users.

Table 2: Staff Position of College Libraries under Study

Name of College	No. of LIS Professionals		Total
	Regular	**Contract/Daily/Casual**	
Pachhunga University College	3	1	4
Lunglei Govt. College	1	1	2
Govt. Champhai College	1	-	1
Govt. Serchhip College	2	-	2
Govt. Aizawl College	1	-	1
IASE	2	-	2
Govt. Saiha College	-	1	1
Govt. Kolasib College	1	-	1
Govt. Hnahthial College	2	-	2
Govt. Hrangbana College	2	-	2
Govt. Lawngtlai College	1	-	1
Govt. Zirtiri Residential Sc. College	1	1	2
Govt. Mamit College	2	-	2
Govt. J.Buana College	1	1	2
Govt. Mizoram Law College	2	-	2
Govt. Saitual College	2	-	2
Govt. Khawzawl College	1	-	1
Govt. Zawlnuam College	1	-	1
Govt. Aizawl North College	2	-	2
Govt. Aizawl West College	1	1	2
Govt. T. Roman College	1	-	1

Govt. J.Thankima College	1	-	1
Govt. Kamalanagar College	1	-	1
Govt. Johnson College	1	-	1
RIPANS	1	1	2
NIELIT	1	-	1
Mizoram College Of Nursing	1	-	1
HATIM	2	-	2
Aizawl City College	NIL	NIL	NIL
Divine Mercy College	NIL	NIL	NIL
St. Xavier College	1	-	1
Helen Lowry College	1	-	1
DIET, Aizawl	1	-	1
DIET, Lunglei	1	-	1
SCERT	1	-	1
ZMC	4	-	4
Total			**54**

(*Source: Data collected through Questionnaire*)

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AQAR 2017-18. Govt. Mamit College.

AQAR 2018-2019. Govt. Saitual College.

AQAR 2019-2020. Govt. Serchhip College.

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CHAPTER 3
SKILLS AND COMPETENCIES FOR LIS PROFESSIONALS

3.1. Introduction

The dramatic changes occurred in libraries of 21st Century have direct significant impact on the skills and competencies requirements of library and information professionals. The increasing amount of data, the transforming information into digital form which is the result of the emergence of computer and Internet which nowadays instantly connect the people all around the world (Saenwa et al., 2009), the changes in teaching, learning and research behaviours, have collectively transformed the traditional academic library beyond recognition.

The Special Library Association (SLA) outlined various skills and competencies of Information Professionals (IPs) for the 21st century (Abels et al., 2003).

vi) Professional Competencies (knowledge of information resources, access, technology and management) under which there are four major competencies each augmented with specific skills:

Managing Information Organizations

Managing Information Resources

Managing Information Services

Applying Information Tools and Techniques.

v) Personal Competencies (a set of attitudes, skills and values that enable IPs to work effectively and positively).

vi) Core Competencies (anchor professional and personal competencies).

To work in Knowledge Management environment, different types of skills and competencies required among Library and Information Science (LIS) professionals such as Information Technology skills, Management skills, Communication skills (Chaubey,2015).The National Knowledge Commission (2007) sketched out the recommended minimum skills required for LIS professionals:

❖ Library and information-handling skills;
❖ Service orientation;
❖ ICT knowledge skill;
❖ Communication and training skills;

- ❖ Marketing and presentation skills;
- ❖ Understanding of cultural diversity;
- ❖ Knowledge mapping skills.

To cope up with the changing library environment and to provide efficient services to the users, the existing library professionals need to develop their skills through various activities and programmes which is a part of the Continuous Professional Development (Ajeemsha & Madhusudhan, 2012). So, the basic skills and competencies required for LIS professionals can be summarised into three main categories:

- ❖ Information and Communication Technology (ICT) Skills;
- ❖ Managerial Skills; and
- ❖ Personality Development and Communication Skills.

3.2. Information and Communication Technology (ICT) Skills

ICT skills refer to one's ability to effectively use various digital technologies to retrieve, assess, store, produce, present and exchange information, to communicate and participate in collaborative networks via the Internet. The Association of College and Research Libraries (ACRL) defined ICT skills as "skills that enable an individual to use computers, software applications, databases and other technologies to achieve a wide variety of academic, work-related and personal goals" (ACRL, 2007). Williams et.al. (1998) broadly defined ICT skills as "skills that include technical and application competence. The technical competence mainly encompasses handling hardware and software, and application competence includes capability in handling and making use of ICT for specific purposes, personal and professional applications" (as cited in Tyagi et al., 2020)

However, the library professionals need to possess the minimum ICT skills which include the following (Buarki et al., 2011):

5) Use office application (Word, Excel, Spreadsheets and others);

6) Use and manage library automated systems (acquisition, catalogues, circulation and current awareness);

′ Maintain in-house databases;

′ Design and construct web pages;

′ Databases, online and Internet searching for information retrieval; and

′ The use of Web 2.0 technologies (blogs, podcasts, wikis, Realty Simple Syndication (RSS) feeds and social networks).

3.2.1. ICT Skills and LIS Professionals

Nowadays, ICT is highly regarded as an important component of libraries. The application of technologies in libraries is reshaping and moulding the world of academic libraries, and moreover provides value-added services to libraries. To meet the educational goals and objectives, such technologies must be fully utilized in a strategic way. The requirement to work with these technologies has compelled the LIS professionals to acquire and develop their skills and competencies in this changing information environment. The changing library profession demands the LIS professionals to acquire various technological skills such as the ability to handle sophisticated technology including networking and Internet skill, library automation, e-resource management, content management, organization of information on Internet and Intranet, information management which includes the ability to collect, access, store, retrieve and disseminate information to the users, etc.

3.2.2. Applications of ICT Tools in Libraries

In a library, the term 'ICT' is used to refer to the applications of computers and other technologies that consists of hardware, software, Internet and media in different library activities such as acquisition, collection development, circulation, resource sharing, periodical control, knowledge organization, storage and dissemination of information (Adebayo et al., 2018).

There are various ICT tools and applications that are used for different library services which includes various house-keeping operations, management and administrative functions of the library.

3.2.2.1. Library Automation

Encyclopaedia of Library and Information Sciences stated that "Library Automation is the use of automatic and semi-automatic data processing machines to perform such traditional library activities as acquisitions, cataloguing and circulation. These activities are not necessarily performed in traditional ways, the activities themselves are those traditionally associated with libraries; library automation may thus be distinguished from related fields such as information retrieval, automatic indexing and abstracting and automatic textual analysis" (Allan Kent, 1977).

The use of computers, associated auxiliary media such as magnetic tapes, discs, optical media, and computer-based products and services in the performance of all types of library activities and operations is referred to as library automation. Automation of library activities delivers services in a very efficient, quick, effective, appropriate and cost-effective manner. In today's libraries, automation is both economically viable and technologically necessary to meet the demands of new knowledge, the massive rise in the collection of materials, and the challenges of their acquisition, storage, processing, dissemination and transfer of information (Bhardwaj & Shukla, 2000).

3.2.2.2. Barcode Technology

A barcode is a machine-readable representation of numbers and characters that is made up of bars and spaces. It is a printed set of parallel bars or lines of varied width used to input data into a computer system. The bars are black on a white background and vary in width and quantity depending on the application. The bars represent the binary digits 0 and 1, which can be used to represent values ranging from 0 to 9 and can be processed by a digital computer. The code is moved across a scanner incorporated into a checkout counter or other surface using a handheld scanner or barcode pen, or the code is moved across the scanner by hand. The data in the barcode is then stored or immediately processed by the computer (The Editors of Encyclopaedia Britannica, 2019).

Over the years, a variety of bar code standards have emerged, each with its own symbology. A symbology definition specifies the information needed to print a barcode, as well as how to read and decode the barcode using a scanner or reader. Barcodes can be two-dimensional or linear. Single-row black and white bars are used in linear barcodes. Linear barcodes include the following:

➢ Universal Product Code(UPC) and ii) European Article Numbering(EAN)

The 12-digit numeric UPC contains a unique manufacturer ID number as well as the product number. The five digits on the left of the UPC code are assigned to a certain manufacturer or maker, and the five digits on the right are used by that manufacturer to identify a specific product type or make.EAN is identical to UPC but employs a 13-digit number system. In most cases, a barcode contains only this information.

(Source: https://www.engineersgarage.com)
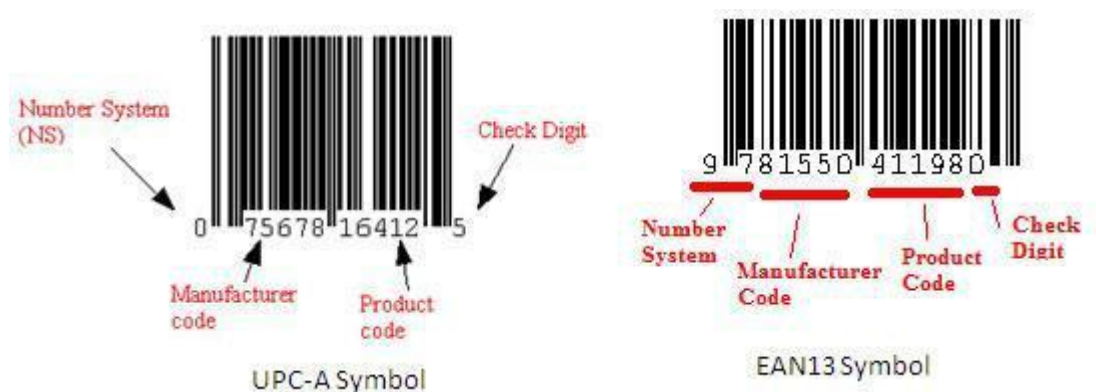
Figure 3: Types of Linear Barcode Structure

3.2.2.2.1. Applications of Barcode Technology in Libraries

The use of barcodes improves operational efficiency and accuracy. The primary goal of today's libraries and information centres using barcode technology is to improve library processes by enhancing the effectiveness of library transactions, reducing the workload of the library personnel, and enhancing services for library users. Barcode technology is crucial to automating library operations, particularly the circulation system, library inventory, and periodical control.Barcode technology is more affordable and is included in prominent library automation software packages.

Therefore, this technology has been used by the vast majority of automated libraries in India. Some of the application of Barcode technology in libraries include accessioning, membership identification, circulation, library attendance system, issue of 'no due' certificate, inventory and periodical control, stock verification, user statistics, checking system at the gate (Chanda, 2020).

3.2.2.3. RFID Technology

Radio Frequency Identification (RFID) is a wireless technology that uses radio frequency waves to transfer data. The system may vary in terms of the types of device and complexity. It contains three components: 1) RFID Tag, 2) RFID Reader and 3) an Antenna. RFID Tags are made up of integrated circuit and an antenna, which are used to transmit data to the RFID Reader which is also called 'an interrogator'. The reader then converts the radio waves to a more usable form and then transferred the information through a communication interface to a host computer system (*What Is RFID and How Does RFID Work*, n.d.). There are two types of RFID tags, passive RFID and active RFID. Passive RFID tags receive its power from the reader and do not have a battery. While active RFID tags are powered by batteries (*Radio Frequency Identification (RFID)/ FDA, n.d.*).

3.2.2.3.1. Types of RFID

There are three main types of RFID systems (What Is RFID? | the Beginner's Guide to How RFID Systems Work, 2022):

1) Low-frequency RFID system- These range from 30 KHz to 300 KHz

(Source: https://www.atlasrfidstore.com/)

Figure 4: Low-frequency RFID system

High-frequency RFID system- Primary frequency range is 13.50 MHz
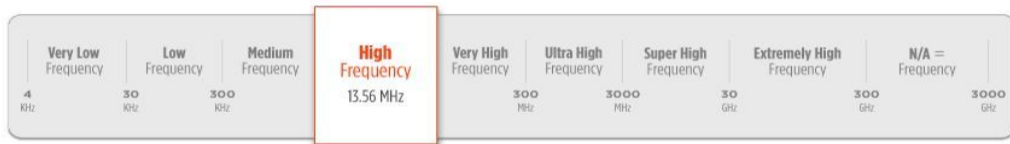
Figure 5: High-frequency RFID system

2) Ultra-high frequency RFID system- These range from 300 MHz to 3000 MHz
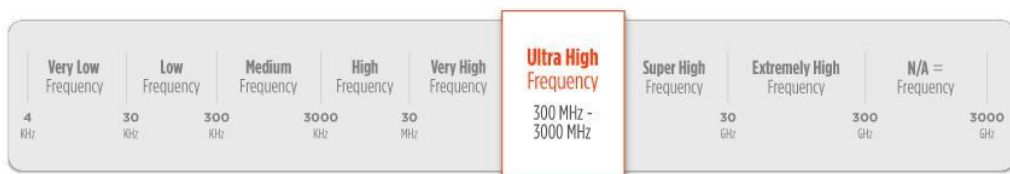
Figure 6: Ultra-high frequency RFID system

3.2.2.3.2.   Applications of RFID in Libraries

The basic objective of a library is to provide maximum opportunities to its users for maximum utilization of available resources. Libraries have been seeking technological aids so as to improve the efficiency of various library activities and services. RFID system is one such tool when its first applications dated back in the late 1990s when it was used to replace electro-magnetic and barcode systems (Mulla 2) Chandrashekara, 2006). Special microchips known as RFID tags are placed on books for the purpose of making information services more efficient and for security reasons that enable digital tracking of materials as well as also reduces the amount of time required to perform circulation operations (Janakiraman & Subramaniyan, 2016). The applications of RFID systems in libraries consist of RFID tags, self-check-out station, book drop system (Return station), security gates, automated

sorting station, staff work station and inventory control etc. (Singh & Mahajan, 2014).

3.2.2.4. Library Website

It has been determined that the library website serves as a platform for the library to recommend websites and direct users to pertinent and up-to-date electronic information resources. It could be used to make it easier to access particular Internet and other digital resources (Shiloba Gbaje & Kotso, 2014). The creation of a library website creates an environment for information where time and location are no longer constraints on the availability of information resources and services.

The traditional library is where the user visits to access the services and materials it has offered. The library website is a brand-new tool for learning more about the library resources and services. It is the best place to begin to visit the library and learn more about its resources and services. Through this virtual entrance, customers access the library and make use of many of these services. Resources can be accessed from any place irrespective of their location. An excellent website has a good combination of information, design, and accessibility. This quality enhances the functionality and usability of the library and its website (Kumar, 2014).

3.2.2.5. Institutional/Digital Repository

A repository is a technological platform that enables open access to knowledge and is intended to store, preserve, and disseminate the products generated by institutions. An institutional repository is an online archive for gathering, storing, and sharing digital copies of an institution's intellectual work, especially the intellectual output of a research institution (Ramírez-Montoya & Ceballos, 2019). These intellectual outputs include research articles, reports, photos, course notes, video lectures, e-learning tools, theses, and dissertations. The concept of institutional repository evolved as a result of the open access movement and the availability of open access tools for the storage and dissemination of open-access intellectual work (Haneefa & Ashraf, 2017).

3.2.2.6. Digital Library System and Services

A digital library is a library that contains a collection of digital items such as text, images, audio, and video that are kept in electronic media formats, as well as tools for managing, archiving, and retrieving the files and media that make up the library's collection. The electronic content may be locally stored or remotely accessed through computer networks. It is a collection of digital documents that are available online or on read-only memory discs like compact discs (Kaur, 2015).Due to their ability to provide users with online access and interaction with the electronic versions of full-text documents and the associated images, digital libraries differ greatly from traditional libraries. Many digital libraries also provide an access to other multi-media content like audio and video (Narasappa & Kumar, 2015).

3.2.2.6.1. Digitization

Digitization is a key component of creating digital collections. It is the conversion of printed form which includes books, journal articles, photographs, artworks, and microforms into electronic form through scanning, sampling, or even re-keying (Cleveland, 1998).It is one of the most recent techniques for controlling information sources in the new information era, when information technology has helped in making information accessible to people even at home (Pandey & Misra, 2014).

3.2.2.6.2. Requirement for Digital Libraries

A digital library can be created and run in an environment that is technologically enabled by the Internet and World Wide Web (WWW). The Internet offers TCP/IP and/or its related protocol for information access, and the web offers tools and techniques for publishing content over the Internet. In the age of digital technology, it seems to reason that a central backup or archive should be established, one that will store both domestically produced information and information imported from elsewhere. A few of the prerequisites for digital libraries include (Kaur, 2015):

- Audio visual
- Computer
- Network

- Printer
- Scanner
- Storage devices
- Software

3.2.2.7. Library Alert Service

The main goal of a library is to give prompt and quality services to its users. The introduction of new technologies has made it necessary for libraries to absorb, adopt, and offer IT-based services to the users. Electronic alerting services help the users by keeping them up to date with current news and newly published literature on a particular topic. Electronic alerting tools are available on many library websites, online databases, and publications (B et al., 2010). Web alert services are features offered by journal publishers or included with scholarly databases that enable users to receive email or text messages when new resources on a given topic are published, or when something of interest to a library has been added to a database, or when new articles have been published in a journal Content Alert Services, 2022).

3.2.2.7.1. Types of Alert Services

There are several types of alert services which are as follows (Kumara, 2016):

- **Table of Contents (TOCs):** The term 'TOCs' refers to the Table of Contents service. The table of contents of freshly released journals that the user has selected, frequently together with links to the articles, are sent to the user as part of TOC's service, which enables them to stay up to date with newly published scholarly literature. These are readily available before the printed version is published. Examples of email TOC services offered by publisher databases include EBSCO, ProQuest, and ISI Web of Science. The Table of Content service is accessible through regular email notifications. The frequency of email alerts varies according to the publisher's database updates.
- **Search Alerts:** One of the services offered by the library is search alerts. It is also known as Search Alerts or Keyword Alerts. The user-created

search is re-run by the library on a regular basis to match with the most recent updates and send the alerts.

- **Citation Alert:** One of the web-based library services is citation alerts. Citation notifications allow users to keep track of when an author or specific article is cited in newly released articles. While databases can offer citations from a variety of sources, most publisher sites restrict results to those appearing in their journals.

- **New Publication Alerts:** This alert service notifies users when a publisher or professional group releases new publications (other than journal issues). Books, proceedings, newsletters, standards, and other materials might be included in this notification service. Publisher databases like Annual Reviews, BioOne, EBSCO host, Engineering Village, Google Scholar, IEEE Xplore, and PubMed, among others, provide alert services to registered users. Depending on their research topic, libraries can utilise this service to create alerts for their users. To access the content and determine if the publication is available in print or online, library off-campus users must sign into the publisher's website.

- **RSS:** The term 'RSS' refers to Really Simple Syndication. It is possible to implement RSS in library alert systems because it is a Web 2.0 technology that may be used for sharing and delivering information. There are several databases and publishers that offer RSS feed notifications for particular topics or contents. RSS alert systems are now available on a large number of library websites and blogs. By subscribing to several feeds, the user will save time by finding links to any or all fresh content in one location rather than having to visit their website.

- **New Book Alerts:** Even though new books on a subject are produced or added to the library's collection, the user might still want to be informed. If a user has been informed for a freshly released book, they can recommend it for purchase or ask to borrow it through an interlibrary loan. This alert service will aid in bringing users to the library.

- **Webpage Alerts:** This alert service offers notification of new web publications. Examples of online webpage alerts include Google Alerts and The Scout Report. By signing up for these notifications, libraries can provide researchers and educators at the institution with information about useful web resources.

- **Conference Alerts:** The conference alert service offers comprehensive information about the conferences that will be presented on the library website. Depending on the user's research interests, libraries will provide this service.

3.2.2.8. Library Portal

The library portal serves as a tool for Web-enabled information services and serves as an efficient key to knowledge. For its users, the library portal acts as a seamless gateway to a wide range of online resources and library services. Links to significant digital resources that are beneficial to both users and parent organisations are also available on library portals. Educational portals have the ability to inform users about their resources. Enterprise portals are concerned with customers and employees, while government portals deal with the public and communities (Mane & Panage, 2016).

3.2.2.8.1. Role of Librarian/Library Professionals

The librarians/library professionals play an important role in developing and managing library portal. They play the role of an information architect, content creator, copyright experts, metadata creators, portal specifier and portal educator (Barman, 2014)**.**

- **Librarian as an Information Architect**

The librarians are practically responsible on how their libraries' collections are organized. They bring their expertise with material, their understanding of copyright, their dedication to providing excellent customer service, and their experience building specialised web-based information delivery systems to the creation and implementation of library portals.

- **Librarian as Content Creators**

In the area of portal design, the librarian offers digitised copies of content like papers, newspapers, theses, dissertations, and many other documents. These are uploaded and linked to the library portal so that users may quickly access them.

- **Librarian as Copyright Experts**

With the advent of web-based course management systems, setting up electronic resources and online content for learning portals has benefited from librarians' knowledge of current copyright policy.

- **Librarian as Metadata Creators**

Data about data is known as metadata. The collective term 'metadata' refers to standard bibliographic information, summaries, indexing phrases, and abstracts. The metadata is generated by librarians or information experts.

- **Librarian as a Portal Specifier**

The following should be kept in mind by the librarian when specifying a portal (Boss, 2002):

- The portal should be web-based.

- The portal must support a variety of protocols and formats, including Z39.50, HTML, SQL, Open URL, MARC format, and any others that may be developed.

- TCP/IP functionality is required.

- Links to other portals for libraries

- Use of the library's subscribed to internet databases.

- Access to all forms of material records.

- Provision of search features, etc.

- **Librarian as a Portal Educator**

The librarians instruct the users on how to use the different features that are provided by the library portal and how to navigate it.

3.2.2.9.   Web 2.0

"Web 2.0 is the business revolution in the computer industry caused by the move to the internet as a platform, and any attempt to understand the rules for success on that new platform."– *Tim O' Reilly.*

It is essentially an upgraded version of the original worldwide web, distinguished particularly by the shift from static to dynamic or user-generated content and the expansion of social media. Web 2.0 is a concept that includes web-oriented architecture, social web, and rich web applications. Without a change in any technical requirements, it refers to modifications in the way web pages are created and accessed by users (Lipika, 2016).

Web 2.0 is referred to as an alternative media or medium of communication amongst Internet users. Libraries are also utilising this emerging technology to improve their current services and develop new ones to reach every underserved area of society. Web 2.0 provides libraries with a platform through which they can communicate with their users. By implementing Web 2.0 technology on their websites, libraries can promote participation, teamwork, and user community feedback. Web 2.0 enhances the services offered by libraries rather than replacing the current technology that is currently in use (Walia& Gupta, 2012).

3.2.2.9.1.   Web 2.0 Tools and Technologies in Library and Information Centres

- **Blog**

A website with user-submitted information or opinions posted in a chronological order is referred to as a blog. In the evolution of web 2.0, blogs have been considered as playing a key role. By encouraging user feedback, blogs have been shown to encourage interaction among readers. They also serve as a tool for sharing information, marketing library services, promoting information literacy, offering reference services, disseminating newly acquired items, giving readers access to book reviews, promoting new books, hosting book discussions, and promoting the library (Idiegbeyan-ose et al., 2019).

- **Bookmarking and Tagging**

People can save or bookmark their favourite websites, blogs, photographs, articles, or podcasts using social bookmarking tools if they provide the necessary title or description. Teachers and information professionals can give students web citations or bibliographies of electronic content by using social bookmarking. A tag is a label used to make it easier for a user to find a bookmark they have created. With the use of these tags, subsequent searches can be more effectively categorised (Rakshikar, 2015).

- **Bibliographic Reference Managers**

These programmes are used to manage bibliographic references. They specifically enable one to manage research collections, add footnotes, construct bibliographies, and capture bibliographic data about research materials. Additionally, some of these tools make it simple to exchange references with other researchers. By importing entries from multiple library catalogues and databases, they enable quick and easy compilation of a bibliography in libraries. A few good examples include BibMe, CiteULike, Zotero, and RefWorks (Kwanya & Stilwell, 2017).

- **RSS Feed**

RSS was developed by a website publisher and includes a running list of all articles and other content posted on the website, with the most recent item always at the top of the list. Each entry includes information on the article, including its title, summary, and content link (Johnson, 2021).Among Web 2.0 technologies, it is the most popular and simple tool. It can be used as a tool for information transmission. In its simplest form, RSS is a form of XML coding that enables users to receive updates from websites in a personalised way without going to the site itself (Walia & Gupta, 2012).

- **Podcast**

A collection of audio and video files that may be downloaded or played online make up this digital medium. It has been used in university libraries to tell users about

library resources, workshops, research opportunities, and events. Podcasts have been quite effective in educating listeners about how to access library resources (Idiegbeyan-ose et al., 2019).

- **Instant Messenger**

This system of real-time messaging offers communication in real time. Currently, reference-chat services are offered by libraries using this platform, allowing librarians to interact with customers and respond to their questions. It has the advantage of quickly resolving customers' problems. It is now used in websites for libraries that offer interactive elements. Users give this service excellent grade because it helps them save time and provides quick responses to their questions (Walia & Gupta, 2012). The majority of libraries in underdeveloped nations have not yet utilised this benefit (Idiegbeyan-ose et al., 2019).

- **Social Networking Sites**

With the use of social networks, individuals, businesses, institutions, and organisations may now share information on various levels. It is possible to create a profile where you can download files, images, music, and video clips, send emails, publish blogs, and use instant messaging. Online communities are becoming more and more as a result of social networking. Users and librarians may be able to add and exchange resources dynamically through social networking in addition to communicating with one another. Libraries can set up their own social networking accounts, and users can access those accounts to access the library's website and search for other users who may share their information needs. Libraries can also recommend resources to users (Rakshikar, 2015).

3.2.2.10.   E-resources

An electronic resource (e-resource) is defined as a resource that needs computer access or as any electronic product that delivers a collection of data, including full text databases, electronic journals, and image collections, other multimedia products, and numerical, graphical, or time-based information. It also refers to any electronic product that is commercially available and has been published with the intention of

being marketed. The library system and the way we perceive information sources are both being transformed by Internet e-resources. It has made buying information sources easy and quick (Kenchakkanavar, 2014). The term 'E-resource' refers to the dissemination of knowledge by any electronic medium, including CD-ROM, floppy discs, magnetic tape, and computer networks for items like e-books, e-journals, and electronic theses and dissertations (Srivastava, 2005). E-resources offer improved services to the user community, and their primary goals are to give current information, save time for users and staff, store a huge amount of material, solve the library's space problem, and encourage effective and affordable information delivery to all users. (Pachauri, 2017).

3.2.2.10.1. Types of e-resources

E-resources come in many different forms, such as full-text databases, indexing and abstracting databases, reference databases, numerical and statistical databases, and e-audio/visual resources, etc.

- **E-Database**

Information that has been structured and entered into records makes up an electronic database. A computer application helps the user choose the desired pieces of data from an electronic database. Products including periodical indexes and abstracts, directories, dictionaries, and other reference materials are included in e-databases. Users of the electronic database can conduct searches by subject, type, title, or keyword using the Boolean logic tool (Pachauri, 2017).

- **E-Book**

"An e-book (electronic-book) is a book publication made available in digital form, consisting of text, images, or both, readable on the flat-panel display of computers or other electronic devices" ("Ebook," 2022). "It is a digital file containing a body of text and images suitable for distributing electronically and displaying on-screen in a manner similar to a printed book" (Arthur Attwell, 2021). It is a book that can be read electronically on a computer or an e-book reader. Users prefer electronic books over print books because of characteristics like portability, upgradeability, note-

taking, citations, adjustable font size, references, links to related websites, searching, etc (Pachauri, 2017).

- **E-Journal**

A periodical publication in electronic print, typically available online, is referred to as an electronic journal. When looking for articles on a particular topic, users can search journals' full texts or content pages. Instead of going to the library to read the journal, users can read it on their desktop directly after downloading it and can print the article anytime they need it. E-journals are full-text publications that may be accessed online or through an intranet. It may be offered for free or as a component of services that cost money. A significant portion of electronic publication is made up of e-journals (Kavithanjali, 2019).

- **E-Zine**

E-resources like e-magazines are electronic publications that are available online or on CD-ROM. The abbreviation "e-zine" stands for "electronic magazine." By definition, it is a type of magazine that is published and disseminated digitally rather than through the traditional printing process with paper materials (10+ E-magazine Examples – PSD, AI, n.d.).

- **E-Newspaper**

A self-contained, reusable, and updatable version of a typical newspaper that collects and stores content electronically is known as an electronic newspaper (Electronic Newspaper, n.d.). Direct links to an e-Newspaper can be emailed or shared with individuals, it can be embedded on a website, and it can be shared on social media. Similar to how a newspaper is read, pages are turned (E-newspapers and Online Newspaper Publishing, 2022).

- **E-Thesis and Dissertation**

E-Theses and Dissertations (ETDs) are electronic versions of the documents that describe a researcher's intellectual work (*Types of Electronic Information Resources - Limbd.Org*, n.d.). Due to the fact that they store the university's intellectual

resources, university libraries are actively involved in this development. Some Electronic Thesis and Dissertations (ETDs) in Institutional Repositories (IRs) are born-digital, i.e., submitted in digital form, while others are print-based T&Ds that have been scanned in order to become digital (Baro et al., 2014).

3.2.2.11.　　Virtual Reference Desk

Libraries are striving to meet the demands of the academic and research community by upgrading their resources and service offerings. One of the methods is to offer a reliable reference service. The main goal of reference services is to assist users in choosing the appropriate resource and applying it to their needs. The way libraries provide services has changed dramatically as a result of information technology (Khan et al., 2017).

Virtual reference, commonly referred to as digital reference, is an online reference service that lets users ask questions of the library directly or via the library's website. The user could be at home, at work, in class, or in a library. On their websites, certain virtual reference services also provide access to particular databases, selected reference tools, and Frequently Asked Questions (FAQ) answers. The use of the term 'virtual reference' would be inaccurate without the question-answering service that utilises Internet technology. No matter how many reference resources are made available online, the service cannot be considered a virtual reference if reference librarians cannot be contacted for assistance(Boss, 2014).

"Virtual reference is reference service initiated electronically for which patrons employ technology to communicate with public services staff without being physically present. Communication channels used frequently in virtual reference include chat, videoconferencing, Voice-over-IP, co-browsing, e-mail, instant messaging, and text" ("Guidelines for Implementing and Maintaining Virtual Reference Services," 2017). "Reference services requested and provided over the Internet, usually via e-mail, instant messaging ("chat"), or Web-based submission forms, usually answered by librarians in the reference department of a library, sometimes by the participants in a collaborative reference system serving more than one institution. Synonymous with chat reference, e-reference, online reference, real-

time reference, and virtual reference"(Joan M. Reitz, 2004). The provision of real-time personal assistance to users via web-based interactive software is the simplest definition of virtual reference services (Arya & Mishra, 2012). The user, the interface (online form, email, chat, video, etc.), electronic resources (including electronic or CD-based resources, web resources, local digitised material, etc.), print resources, and the information professional are typically included in a virtual reference transaction (Kumar, 2005).

3.2.2.12.   E-Publishing

The term 'electronic publishing' refers to the numerous ways that authors, and others can publish books, articles, and other literary works as digital material. Electronic publishing is simply the newest sector of the publishing industry, where works of literature are published digitally rather than on physical pages and in print form and can only be accessed in certain ways ("Electronic Publishing," 2017).A broad definition of electronic publishing is digitally produced non-print content. According to Jones and Cook (2000), the phrase 'electronic publishing' encompasses a wide range of digitally produced products, including websites, newsgroups, mailing lists, bulletin boards, and CD-ROM-based media. Communication and information management are the two main categories that can be applied to anything created electronically. CD-ROMs and websites are frequently characterised as information management tools, but newsgroups, forums, and mailing lists can be categorised as communication tools. Differentiation frequently comes to whether the primary goal is communicating or storing information or resources (information management) (Ludwick & Glazer, 2000).

The publisher is more ready to publish unproven authors and manuscripts with unconventional characters, plots, and lengths when there is less risk involved.E-publishing has a number of advantages, some of which are listed below (Kayne, 2022):

> Publishing of accepted manuscripts more quickly. With this strategy, material is typically published within a few weeks to a few months of acceptance, as

opposed to having to wait up to a year or two for a manuscript to be published.

➤ E-publishing gives authors more control over the process of preparing their works for publication. In order to increase the marketability of a piece, a paper publisher could ask a writer to change a character, the plot, or other elements. However, the writer will typically have more control. An e-publisher may also offer advice.

➤ The text can be simply updated frequently for practically no expense by the author. For work involving quick-changing industries, like computer technology, this is especially useful. The publisher does not have to invest in printed books that are already stacked on shelves, thus text can be electronically updated in a matter of seconds.

➤ For works with slower sales, e-publishing gives extended longevity. Electronic storage allows for unlimited archiving, however paper publishers will remove slow movers from active status (print). As a result of having access to their whole catalogue for extended periods of time, this allows new authors time to develop a following.

➤ Like conventional books, electronic publications have an ISBN number. This implies that anyone can enter a physical bookstore and place an order for an electronic copy of the book.

➤ Through this strategy, writers frequently receive a bigger percentage of royalties because the initial financial setup for the publisher is so much less than for a paper publisher.

➤ When publishing electronically, authors typically keep all additional rights to the work, including the freedom to later submit the work to a paper publisher, adapt it for a screenplay, or utilise it in another way. However, in the initial basic contract, paper publishers have a tendency to demand as many rights as they can from the author.

3.2.2.12.1. Categories of E-Publishing

Electronic publishing can be categorized into two ways ("Electronic Publishing", 2018):

➢ **Offline**

When information is published offline, it is completely transferred into the user's or buyer's ownership and is accessible as many times as needed without being changed further. Discs that are physically transportable and palpable, like computer software or reference material. An electronic reader, such as a computer or CD player, can be used to access it repeatedly.

➢ **Online**

When publishing online, the data is kept on a computer that is under the publisher's control and is typically only available after paying a charge for each usage. Online publishing allows for constant updating, management, and improvement in contrast to offline publication. It is impossible for the publisher to quickly update the database when publishing offline. Therefore, it is necessary to periodically give each user new editions or supplements

3.3. Managerial Skills

All kinds of organisations require management, and libraries are no exception. Working in the electronic environment requires the managerial competency or talent, and the library professionals are expected to possess a wide range of managing abilities. It is essential to begin with technical awareness, along with abilities for technology assessment or evaluation and the selection of relevant items and technologies. Since librarians oversee a library and information centre, they should possess certain fundamental managerial abilities to oversee the various sections of the library. They ought to be required to use some of these managerial abilities in motivating, making decisions, and planning (Angeline & Rani, 2019). It is highly essential for the library professionals to develop their managerial skills to properly carry out the plans, policies and decision-making of the libraries.

There have been many distinct management theories that have developed over time. These theories have been highly dependent on the dominant type of employment or sector. Human relations, systems theory, X and Y theory and classical management theory are some of the most well-liked management theories. The objectives, areas of concentration, and management procedures are different according to these ideas.

The various theories address managerial duties as well as employee demands and incentives. Some advocate for centralised administration and a strict top-down hierarchical structure, while others support a decentralised, more flexible hierarchy with both horizontal and vertical decision-making (Classical Management Theory, 2022). Theorist Robert L. Katz (1933-2010) is renowned for developing a framework for comprehending management abilities. In his 3 Skills Taxonomy, Katz categorised skills in the following ways:

➢ **Conceptual** - The ability to develop thoughts is a concept. Managers create ideas, comprehend abstract relationships, and employ innovative problem-solving techniques.

➢ **Human** - Ability to engage with people successfully is a human skill. Employees and managers collaborate and interact.

➢ **Technical** - Technical skill requires expertise in a process or technique. Managers employ specialised procedures, methods, and equipment.

The relative value of having technical, human, and conceptual skills depends on a manager's position within the firm. Top-level managers carry out higher-level planning, like mission and strategy, which calls for more conceptual expertise. Supervisors handle specialised value-delivery processes, which calls for technical expertise to manage their area of expertise. Human skills are necessary for managers at all levels to effectively engage and communicate with others. In the meantime, technological advancements continue to change the core organisational structure of businesses and necessitate new managerial techniques (Gordon, 2022).

Management Level	Type of Skills Needed		
Top Management	Technical Skills	Human Skills	Conceptual Skills
Middle Management	Technical Skills	Human Skills	Conceptual Skills
Supervisory Management	Technical Skills	Human Skills	Conceptual Skills

(Source: https://www.webstreaming.com.br)

Figure 7: Katz's Three-skill Approach

3.3.1. Library Management

For any organization to be effective and efficient, management is a crucial technique. It is important to remember that managing the library is a must. This is done to make sure that its parent organisation achieves the main reason it was established, which is typically learning, teaching, and research. Bello et al., (2014) points out that when discussing library management, the resources, users, and employees should all be taken into account. This is necessary because without them, the library will not function efficiently. However, management is a crucial tactic that must be used in the library system. Under the direction of library administrators, this can enable efficacy and efficiency in library operations with the use of minimal resources and little time. The successful and efficient management and administration of a library and all of its books, periodicals, magazines, and journals falls under the purview of the profession of library management. One manager or a small group of individuals may be sufficient to manage a small library, but a large library organisation, like a municipal library or a state library, may require a whole team of people in order to administer effectively (Library Management Hierarchy, 2022). "Library management is a sub-discipline of institutional management that focuses on specific issues faced by

libraries and library management professionals. Library management encompasses normal managerial tasks, as well as intellectual freedom and fundraising responsibilities. Issues faced in library management frequently overlap with those faced in managing non-profit organizations. The basic functions of library management include, but are not limited to- planning and negotiating the acquisition of materials, Inter-Library Loan (ILL) requests, stacks maintenance, overseeing fee collection, event planning, fundraising, and human resources" (*Library Management - Wikipedia*, n.d.).

Luther Gullick proposed some fundamental principles of administration to ensure the better operation and seamless operation of an organisation. These are referred to as "POSDCORB," which is an acronym for the subsequent seven components (LISBDNETWORK, 2013):

     P - Planning

     O - Organizing

     S - Staffing

     D - Directing

     CO - Coordinating

     R - Reporting

     B - Budgeting

- **Planning:** To determine the purpose and ideals of an institution via planning and forecasting is the main responsibility of an administrator. Planning entails both forward-looking and analytical planning. Planning requires taking an inventory of the current situation and any related factors. In a phased programme, solutions are proposed to address the issues. In addition to making an effort to fix the fundamental flaws, future consequences are also taken into consideration. The same is true for library planning.

- **Organizing:** Planning to be fruitful needs a sound organization, which means such a structure of authority is established which is capable of achieving the set goals. Work-subdivisions are planned, specified, and

coordinated for the intended aim through the structure. The type of authority to be granted for a service area is decided upon when it comes to library organisation.

- **Staffing:** An organisation needs appropriate staffing and recruitment practises in order to operate efficiently. At the time of appointment, candidates' actual experience with a range of employment to their credit for a range of positions should be taken into account. Training employees and maintaining comfortable working conditions are also part of staffing. A qualified, competent individual with research ability should be the main librarian.

- **Directing:** The Chief Librarian's personality traits have an impact on how well the staff works. He needs to have the capacity to carry out his responsibilities as a leader. Not only should he be knowledgeable, but he should also be able to inspire confidence in the staff. Through his diligence and genuine concern for the wellbeing of the staff, he should demonstrate what a perfect leader should be. Making decisions on the fly and translating them into orders and instructions is part of directing.

- **Coordinating:** Harmonious relationships between the various parts of an organisation are crucial. If the head is aware of all the tasks and their effects, including any administrative machinery, he deems is practically required to intervene with, coordination can be achieved. The sort of organisation that has been established will determine whether it is a functional organisation, a line organisation, or a line and staff organisation. There should be delegation of authority for proper operation, but the chief should be the only one who is held accountable.

- **Reporting:** It entails keeping the library administration well informed of the work's advancement or regression. An annual report must be provided to the relevant executive authority by the library administrator. The Chief Librarian is kept on guard by this routine regarding his actions. The leaders of various sections of the library may keep accurate records and statistics on the work done to that end.

- **Budgeting:** It includes accounting, control, and financial planning. Without appropriate funds, no organisation can run smoothly. The authority must be persuaded by the librarian that libraries are valuable in their services.

3.3.2. Areas of Managerial skills

3.3.2.1. Leadership Skills

In order to preserve the history, bring the present together, and fight to create a better future, there is an urgent need for a strong, dynamic, and visionary leadership. Transformational and evidence-based library leadership must be established among the library leaders if libraries are to survive, remain competitive, and be viable. The complexity of leadership responsibilities in libraries is increasing, and good managers who follow the rules can no longer handle them well. In libraries, leadership is founded on relationships. Mostly art, with some skill. Leadership in a library involves more than simply what one person does; it also involves what others do (Parashar, 2015).

The leader, the follower, and the situation all play important roles in the complex phenomena of leadership. Since each subordinate is essential to the proper operation of the library, librarians must also have strong leadership qualities in order to manage subordinate staff in the various departments of the library. The librarian should lead by example for his team (Joseph. S & Devi, 2020).

3.3.2.1.1. Qualities of a Leader

Some of the qualities that make a good leader can be summarised as follows:

- ➢ **Intelligence:** A leader needs knowledge and intelligence that are above average.
- ➢ **Self-assurance:** He needs to believe in himself and have a strong determination to succeed.
- ➢ **Sound Physique:** In order to carry the responsibility of leadership, one must be in good physical and mental condition.

- ➢ **Maturity:** He should be emotionally stable and have a cool demeanour at a high level.
- ➢ **Empathy:** He must be able to understand other people's perspectives.
- ➢ **Decisiveness:** He must be able to make timely decisions and exercise solid judgement.
- ➢ **Foresightedness and vision:** He should be able to look ahead and predict what will happen.
- ➢ **Motivation:** He should know what drives people.
- ➢ **Responsibility:** He must be ready to accept responsibility for the results of any actions he does.
- ➢ **Open mind:** Depending on the situation, he should be able to accept and apply new ideas.
- ➢ **Human relations**: He must be able to comprehend people and build cordial relationships with his subordinates.
- ➢ **Communications skills:** He should be able to express himself fully.
- ➢ **Decision making skills:** He must comprehend that "Leadership is a process of Decision-making."
- ➢ **Trustworthy:** He must be dependable and honest, as well as impartial.
- ➢ **Emotional stability:** He should analyse situations logically, make decisions without prejudice, and maintain emotional stability. He should also not lose his anger easily.

3.3.2.1.2. Leadership Style

The way a team leader manages and guides its members is referred to as their leadership style. There are various leadership styles used by leaders in various circumstances. The leadership style results from the leader's personality, philosophy, experience, and value system. This is the leadership behaviour's practical side. The leadership style that an organization's leaders employ is crucial to its success. Some of the leadership styles are discussed below:

- ➢ **Positive Style:** By rewarding them for improved performance, a leader can encourage his team to put forth extra effort. The efficiency increases as

the reward increases. High morale, high job satisfaction, and his contribution to organisational production are all outcomes of good leadership.

- **Negative Style:** If the job is not up to the organization's standards, the leader penalises his staff for their poor performance. The punishment is determined by the performances. If there are further flaws in the performance, the punishment will be harsh.

- **Autocratic (Authoritarian) Style:** In an authoritarian leadership style, the leader makes all decisions on behalf of the team without consulting or soliciting their feedback. All power and accountability rest with the leader. They are in charge and determine what must be done. Before a decision is made, no employee input is sought. Everyone is required to support the leader's choice after it has been made. The crew often has some measure of dread for the leader.

  However, in situations where the decision needs to be taken quickly and the leader is experienced and informed about the conditions around it, autocratic leadership can be a successful strategy. There are other situations where it is also ideal, including when making a decision that doesn't need the team's involvement or approval to be effective (Leadership Styles, 2022).

- **Democratic (Participative) Style:** In a democratic leadership style, decisions are made after receiving input from the team. Each team member gets the chance to influence the course of ongoing initiatives under this collaborative and consultative leadership style. However, the final decision-making authority rests with the leader. The ability to give lower-level employees a voice and make them equally relevant in the organisation makes democratic leadership one of the most well-liked and effective leadership philosophies. In order to complete tasks, it makes use of the abilities and experiences of the team members. Team members' participation and creativity are fostered by the democratic leadership style, which frequently results in high productivity and job satisfaction.

- **Laissez Faire (Free Rein) Style:** Under this style, the leaders have no authority or accountability. When given authority, subordinates make

decisions on their own. It is employee-centred. It is up to subordinates to decide on their own objectives and plan of action. They are motivated by themselves and self-train. The group's leader serves as a liaison between the group's members and the outside world. He provides the workers with the information they require. The staffs use the information to carry out their duties. Laissez-faire leadership is typically appropriate when team members are highly talented and motivated and have a history of producing good work. It is frequently better for a leader to take a backseat and allow his team work once it has been established that they are self-assured, competent, and driven (Pillai & Kala, 2013).

➢ **Formal Leaders:** Formal leaders have formal power over their subordinates. They are legitimately chosen by management. The subordinates' social and psychological needs are not met by them. They are managers more than leaders.

➢ **Informal Leaders:** Informal leaders are not formally in charge of the workforce. Instead of because of their place in the hierarchy, they benefit from having the power to give orders and instructions due to their unique personal traits, skills, and other factors. Managers do not appoint them. They are more likely to obey informal leaders when given the option to pick between formal or informal leaders' orders. Management generally opposes unofficial leaders.

➢ **Employee Oriented Leadership:** The leader is more focused on their subordinates. Such leaders make an effort to improve the working environment and conditions, as well as to meet the demands of employees and take into account their preferences and views.

➢ Task (Production) Oriented Leadership:

This type of leadership is characterised by a belief that the only thing that matters is that employees do their tasks. All the while, they keep their employees busy. They don't take into account the human side of subordinates.

3.3.2.2. Decision-making Skills

Decision-making skill is one of the most important managerial skills. Developing decision-making skill among library staff members is recommended. The team should make wise decisions quickly to create a highly quality environment. Another technique to advance the profession is to carry out the decisions in a useful and efficient manner.

Making decisions is one of a manager's primary responsibilities. The manager's choice establishes the parameters within which other team members must decide and act. The process of choosing a plan of action to address a particular issue is referred to as decision-making. A decision includes the act of choosing as well as the option selected among the available alternatives (Kumar & Sachdeva, 2012).

Some prominent definitions of Decision-making are given below (Aayat, n.d.):

According to Koontz and O'Donnel, "Decision-making is the actual selection from among alternatives of a course of action."

According to George R. Terry, "Decision-making is the selection based on some criteria from two or more possible alternatives."

According to Louis A. Allen, "Decision-making is the work which a manager performs to arrive at conclusion and judgement."

Based on the definitions given above, decision-making entails choosing the best alternative that is available to address an issue. It is therefore obvious that making a decision is necessary when there are numerous options for carrying out a task. To put it another way, if there is just one way to complete a task, no decision is required because the chosen technique is already a choice.

3.3.2.2.1. Characteristics of Decision-making

The following are some of the basic characteristics of decision-making:

➤ Choosing the best option is the goal of decision-making, which is a selection process. It seeks to choose the best course of action.

➤ It is an intellectual process. It requires judgement, analysis, and thinking. It is a human process that heavily relies on the application of intellect skills.

➤ It entails the organization's commitment to taking a specific course of action and using resources in a particular way. Time, energy, and resources must also be committed.

➤ If a decision is made in the framework of the organisation, it will be focused at attaining its goals. Making decision is a process that prioritises goals. To accomplish specific objectives, decisions are taken.

➤ In order to reach a decision, careful assessment and analysis are required; therefore decision-making requires evaluating the options that are available.

➤ The process of decision-making is dynamic. A temporal lag and dimension in time are involved.

➤ Managers make decisions for resolving disagreements, crises, and difficulties as well as eliminating pointless duties.

➤ Situations affect how decisions are made. A manager may make a choice in a specific situation while taking into account the situation's unique variables.

3.3.2.2.2. Decision-making Process

There is no standardised procedure for making-decisions. However the typical steps involved in decision-making procedure are given below (Pillai & Kala, 2013):

❖ Setting objectives

❖ Identify the problem

❖ Diagnosis the problem

❖ Establish objectives

❖ Collection of relevant information

❖ Developing alternative solutions

❖ Evaluate alternative

❖ Make final choice

❖ Implement the alternative

❖ Feedback

Knowing one's goals is the first stage in decision-making. The standards by which the ultimate result is to be judged are the objectives. To accomplish a specific organisational objective or goal, decisions must be made. Before identifying an issue, the management must first comprehend the precise purpose of the decision-making. If the issue is not clearly described, the decision could actually make it worse rather than simplify it. In the second step, the issue must be precisely defined and recognised. As the appropriate response can only be found for a right query, a thorough knowledge of the true problem is the most crucial step in the decision-making process.

By gathering the data and facts that contributed to the issue, managers can identify its underlying cause. In order to take corrective action, a diagnosis aids in identifying the issue, its origin, severity level, and causes. If the issue is identified, half of it is resolved. To gather relevant background knowledge and facts for the scenario, a detailed analysis of the issue is required. The issue should be subdivided into numerous smaller issues, and each one of those issues needs to be meticulously and methodically investigated. Any issue may entail a variety of circumstances, some of which are immediate and others which are distant. The goal that managers hope to accomplish as a result of their decision-making is known as the objective. Setting goals entails choosing a problem to tackle.

Managers gather data from both the internal and external environments in order to come up with solutions to problems. Information gives the inputs needed to produce solutions. Quantitative or qualitative information is available. It must be trustworthy, sufficient, and timely so that the appropriate action can be made when it is needed.

To build an alternative solution, there must be two or more options. The decision-maker should come up with a number of potential solutions for an issue after analysing it with the use of pertinent data. Most problems in the world can be solved with the development of alternatives. Alternative approaches to the issue must be created immediately. Making the choice is the correct thing to do. With regard to strengths and shortcomings, all options are compared to one another. If they aid in

the accomplishment of the goal, they are valuable. To determine their impact on the issue, alternatives are rated according to acceptable standards.

The next stage is to assess and analyse the options using a set of choice criteria. This standard makes it desirable to observe the ideal result of any action conducted. The management must assess each alternative's execution and impact.

The best option is chosen after all potential solutions have been evaluated. It requires the capacity to distinguish between forces that can be seen and those that cannot, between forces that are palpable and those that are not, and between facts and speculation. A poor decision would render useless all the work done in the preceding actions. An assessment of the results and effects of many options is necessary for making the best decision. Making the best decision necessitates estimation of the results and effects of potential options.

Implementing the choice is the next challenge after making the final decision. At this stage, the decision must be accepted by those who will be immediately impacted by it, and control must be established to ensure that the decision is being implemented correctly. Other steps in the decision-implementation process include motivating staff and coordinating their efforts.

Monitoring the implementation process is necessary to determine whether organisation members find it acceptable. To determine if the goal for which it was chosen is realised or not, the alternative should be routinely reviewed through progress reports. Any deviations should be investigated to determine their root causes. The choice ought to be altered as needed. Continuous information should be sent to management, who should then assess it in light of any decisions they have made.

3.3.2.2.3. Models of Decision-making

Models represent the behaviour and perception of decision-makers in the decision-making environment. There are two models that guide decision-making behaviour of managers. They are – Rational or Normative Model and Non-rational or Administrative model.

- ➤ **Rational or Normative Model**

Making rational decisions involves approaching problems in a methodical, systematic, unbiased, and reasoned way. It requires the capacity and readiness to respond favourably to arguments, to be rational, to cogently connect means and aims, and to visualise the entirety of the decision-making environment, both short- and long-term. Knowing the facts is necessary for rational decision-making because it enables problems to be accurately identified and characterised, objectives to be clearly stated, alternative courses of action to be established, and a final decision to be reached.

- ➤ **Non-rational or Administrative Model**

Non-rational models are descriptive in nature; they do not represent what is ideal, but rather what is most useful in the particular situation. The best choices under the circumstances are made by decision-makers based on the information they can collect and process. They are sufficient and do not place an unnecessary burden on the manager's time and resources (Pillai & Kala, 2013). Non-rational model is characterised as a judgement procedure that is used when an immediate or routine answer is required, when one lacks the time to complete a systematic process, and when it is difficult to gather knowledge about the topic or problem leading to uncertainty (Bartol et al., 2007).

3.3.2.3. Change Management Skills

With the rapid growth of technology and the changing needs of clients, suppliers, co-workers, and library users, the world around us is continuously changing, and this can have an impact on how teams and individuals work. Being able to handle change well (and with the least amount of disturbance as possible) is a crucial ability to have as a senior librarian or library professionals managing a team. Change is an integral component of every workplace.

Skills in change management are those that can help the organisation with internal changes. The success of an organisation depends on effective change management. The organisation will have more success with change initiatives if it encourages

people to acquire change management skills (9 Change Management Skills (and How to Highlight Them), 2022). Learning these skills helps people advance in their careers. Therefore, initiatives for change management are more successful if they include strategies for equipping your staff with essential management skills (Hicks, 2020). A transformation in an organisation might involve:

➢ **Transitional Change:** Changes that an organisation takes to alter how it functions while keeping the majority of its present state.

➢ **Transformational Change:** The current operations of an organisation must be completely altered.

➢ **Developmental Change:** Changes that businesses make to enhance their current operations.

Change occurs in every organization. A planned approach of responding to changes in the workplace or the development of coping skills are two examples of adaptation to change. Terry Paulson quotes about 'Change' as, "It's easiest to ride a horse in the direction it is going." This means that rather than fighting against change, understand how to take advantage of it (Alex, 2016). The following are some important abilities for developing change management skills:

➢ **Leadership:** The handling of change requires strong leadership. Providing employees with support throughout organisational changes and assigning tasks to the right people are essential. Vision, motivation, honesty, and transparency are among the characteristics of a leader (Leadership Skills, 2018).

➢ **Communication:** At every stage of a change project, effective communication skills are crucial. At all organisational levels, communication means taking the time to comprehend the individuals involved in the change.

➢ **Strategic Thinking:** For creating a change management strategy, strategic thinking is a crucial skill. Understanding the needs of the organisation and how a change can influence them is essential. Managers must carefully consider how to interact with staff, develop a programme that will benefit the company, and get the most out of their resources.

➢ **Organization:** Organization is a crucial skill that can support change management. To develop a clear change management plan, it is required to organise a variety of information, including people duties, project goals, timeframes, and other crucial information.

➢ **Active Listening:** Active listening is a crucial component of effective change management. Employee feedback must be taken into consideration at all stages of organisational development. This can help the company implement a change that all parties are on board with, making the transition more seamless. You can employ these talents by taking the time to hear comments and actively seek out staff input.

➢ **Project Management:** Project management abilities are extremely beneficial to change management. You can better understand all components of implementing an organisational change with project management experience, including the change management plan, resources, outcomes, accountability, and other elements. You may evaluate the change, decide how to keep it on track, and assess progress with the help of project management skills.

➢ **Digital Literacy:** Digital literacy is becoming a need for all jobs, including those in change management. There are a number of causes for this, including: Today's change initiatives are frequently fuelled by digital technology, the outcomes of a change programme can be improved by digital technology, agile business approaches, for example, can shorten change programme times, cut costs, and produce better outcomes. This does not imply that change agents must learn programming. However, change management needs to be aware of how digital affects all contemporary organisations. People who do so will succeed more than people who don't ("7 Must-Have Skills for Change Management Positions," 2019).

➢ **Analytical Skills:** Analysis skills are needed in change management. You can make the greatest selections for the company with the aid of these skills and an understanding of your research. For instance, to determine how a proposed change could affect future sales, you could use financial information from your company.

3.3.2.3.1. Factors for Organisational Change

There are various factors that causes change in organisation which are broadly divided into two categories (Pillai & Kala, 2013).

- **Internal Factors:** There are various internal factors that occur changes to organisation which are as follows:

  ❖ **Deficiency in the Existing System**: When the current structure or methods are unable to accomplish organisational goals, changes are required. These organisational flaws include an unnecessarily long chain of command, an unmanageable span of control, a lack of coordination between departments, barriers to communication, a disparity in authority and responsibility, a lack of uniformity in policies, a lack of cooperation between line and staff, etc.

  ❖ **Changes in Managerial Personnel:** Changes in the managerial staff within the organisation may take place due to new recruitments, transfers, promotions, or may be brought on by growth and technology advancements. Certain organisational changes accompany changes in top-level managers. Whenever a manager is appointed, he or she favours his or her own organisational objectives, policies, and manner of operating that differ from those of his or her predecessors. Managers differ in their talents, styles, ideologies, etc. Change is implemented by dynamic managers in an effort to lead the market and thus, introduces significant adjustments to the organisation in order to accommodate his working style.

  ❖ **Employee's Pressures:** Employees' constant demands for improved job security, better working conditions, higher pay, participation in managerial decision-making, improved safety and welfare, etc., reflect poor managerial behaviour and may compel managers to change their policies. Change is therefore required to foster friendly relationships within the organisation.

  ❖ **Changes in Production Technology:** Organizational structures change as production technology advances. The most dynamic and important

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component causing changes in organisational designs, goals, strategies, and policies are without a doubt technology. Another internal cause for change is the introduction of new machinery. Employees may need to redesign their job within their work group or have their duties restructured. They may also need to receive training on how to use the new equipment.

❖ **Leadership Change:** Along with a change in leadership, numerous substantial changes in organisational structure, policies, and personnel are implemented (Alex, 2016).

▪ **External Factors**

An organisation must change in order to adapt to the new environment since changes in the environment regularly occur that include economic, social, and political changes. The following are a few of the external forces that influence change:

❖ **Market Situations:** The organisation is compelled to make changes in order to survive and develop in a market by changing market conditions, such as changes in the nature and extent of demand caused on by varying consumer needs and preferences, changes in volume of supply, the entry of new suppliers with new products, changes in the market conditions relating to price quality and packaging, etc. Changes might also result from competitors offering better services or running better advertisements, etc.

❖ **Legal Requirement:** Organizations are forced to make the necessary changes as a result of changes in the government and legal regulations. Organizations are required to modify their policies in response to new laws, taxation policies, court decisions, and other factors.

❖ **Economic Factors:** Changes in economic conditions such as fluctuating interest rates and exchange rates, adjustments to fiscal and monetary policies, inflation, rising costs of living, etc., call for adjustments to organisational policies. For instance, the demands of the global economy compel organisations to increase their cost effectiveness. However, even in a healthy

economy, uncertainty regarding interest rates and exchange rates can lead to situations where organisations are forced to make changes.

❖ **Social Changes:** Social changes are reflected in terms of people's demands, wants, and working styles. Several factors, including the degree of education, the sense of individuality, and the global impact of new

information sources, have contributed to social developments Changes in organisational rules are also necessary as a result of natural disasters like floods and earthquakes.

3.3.2.4. Strategic Management

A strategy is defined as "a unified, comprehensive and integrated plan that relates to the strategic advantages of the firm to the challenges of the environment. It is designed to ensure that the basic objectives of the enterprise are achieved through proper execution by the organisation" (Kumar et al., 2014).

The management of an organization's resources to meet its goals and objectives is known as strategic management. It involves developing goals, assessing the external and internal environments of the firm, evaluating strategies, and ensuring that management implements the strategies across the entire organisation (Kenton, 2022). Harrison and St. John defined Strategic management as " the process through which organisations analyse and learn from their internal and external environments, establish strategic direction, create strategies that are intended to help achieve, established goals, and execute these strategies, all in an effort to satisfy key organisational stakeholders" (as cited in Gupta, 2014).

3.3.2.4.1. Advantages of Developing Strategic Management and Measurement Skills at Workplace

The following are the main benefits of strategic management and measurement skills in the workplace (Fitzgerald, 2022).

➢ The development of strategic management and measurement abilities enables people to understand the significance of measurement in the workplace.

➢ People will have a greater ability to handle different kinds of change.They react to difficulties and obstacles in their jobs in a more positive manner.

➢ People will acquire a greater sense of control, better self-esteem, and a sense of purpose, all of which will improve their mental health and wellness.

➢ The development of a workforce with excellent measuring skills also encourages stronger organisational commitment, productivity, and job satisfaction.

➢ More cohesive teams, less conflicts, decreased absenteeism, and a better organisational culture will all be advantageous to the company.

3.3.2.5. Marketing/Promotion and Advocacy Skills

Promote oneself, profession, and services are all skills that library managers must possess. Especially in times of political unrest, library administrators frequently have to fight hard for their libraries. Promotion is fundamentally a way of telling them what you can and do. The advantages for individuals who market their library services include greater usage, higher value in the organisation, education of users, and changed perceptions. The marketing plan leads to the promotional plan. It has to deal with how to accomplish the predicted goals. It includes a description of the service that needs publicity, a description of the audience that publicity is intended for, details of the campaign strategy to be used, such as the type of publicity to be used and the distribution method(s), the execution of the campaign, and an analysis of the campaign's effectiveness. The ability to assess the advertising campaign's performance will also be ensured by the establishment of clear promotional objectives.

In reality, 'marketing' is a much broader management process that encompasses recognising, anticipating, and satisfying client requirements. It is typically related with promotional activities and advertising. Marketing and advocacy are closely related. They both focus on promoting libraries and library services. The budget cuts and the introduction of sophisticated technology in libraries have created new opportunities for marketing information products and services. If the libraries miss the opportunities, it will be grabbed by the commercial sellers (Sharma & Bhardwaj, 2009). Resource management is a key component of effective library advocacy;

success depends on being able to work effectively with less (Brown, 2018). Sarah said,

"What you do every day at your job matters. Every interaction, every decision, every project you choose to do or not do. It's easy to become complacent and fall into a routine. Don't do it. Our work is revolution writ large. Continue that revolution in some small way every day, no matter what your job is. Question authority, say no to no, and keep our professional values in mind at all times. The community you serve depends on you." (Hoenke, 2018).

Advocacy also includes monitoring library statistics and overseeing staff performance in order to demonstrate and quantify achievement. The work of staff members is reviewed and overseen by a library manager, who also addresses any concerns and issues and finds solutions. Regular staff meetings and consultations are necessary for problem-solving.

3.3.2.5.1. Qualities that Library Professionals should possess

The library professionals should acquire marketing/promotion skills and should possess some qualities that include the following:

♣ Establish a Favourable Reputation

Since most users have negative perceptions about librarians, one of the main issues facing information librarians is to cultivate a positive image. People have long assumed that librarians are 'trained' or 'talented,' but not necessarily 'professionals,' and many are unaware of the educational prerequisites or training needs (Ajileye-laogun, 2004). Users may believe they are more capable and knowledgeable than library employees in some situations where librarians are only retrieval clerks or have low social status and may not see the need to seek assistance from a librarian. As a result, librarians must show that they possess a variety of talents in addition to their formal education.

Be Proactive

The library's assistance may not be sought by users due to language barriers (Patten, 2002). For information or instruction, some users are forced to turn to friends rather than the library staff. Since interactions between library professionals and users can elicit information about customer requirements and also allow the services agent to explain the organization's products and how they can meet the customer needs, all library professionals must communicate with users about their services (Rowley, 1998).

Create Good Connections

Delivering high-quality information services to customers cannot be rushed. In accordance with Curry & Copeman (2005), a high-quality reference service entails a partnership between the user and librarian within a "Cycle of Dimension of Service": readiness to help, knowledge of how to help, assessment of the user's needs, and action (physically moving with the user).

Establish a Pleasant Atmosphere

The capacity to foster a friendly environment, patience, and foster trust with users is skills that librarians must develop. Users are attracted to enter the library when the library professionals are inviting, kind, and helpful; however, they are driven away from a library if the librarians are rude and lazy. The user will be persuaded that the library has an approachable and trustworthy information expert if she or he is polite and professional.

Have Effective Cross-cultural Communication Skills

The communication styles of people vary greatly, and one part of communication style that information librarians need to grasp is language usage. Some words and phrases have diverse meanings in various cultures (DuPraw & Axner, 2002).

3.3.2.6.   Networking Skills

Good networking skills are a need for a successful library manager. This is for the interest of the library, career, and the users. The high-level planning of library events is frequently the responsibility of library managers, who may also assign staff members to handle the day-to-day details of the event's administration (Brown, 2018).

Networking is the ability to communicate with people and organisations that have similar interests in order to exchange information and ideas. It also helps in establishing relationships. In order to connect with others and establish enduring mutual relationships, a person needs to possess certain skills (What Are Networking Skills?, 2021). They aid in making contact and opening a line of communication. Beyond the realm of skill development, networking should be established as a habit because it can help in advancing professional growth and career. Developing networking abilities will not only help in building stronger connections, but it will also help in putting in contact with potential mentors, keep informed of current business trends, and give access to the tools needed to advance one's career (What Are Networking Skills and Why Are They Important?, 2022). Building self-confidence, enhancing communication skills, assisting in the search for mentors, and enhancing elevator pitches are just a few of the reasons why networking skills are essential.

There are different skills required for networking with people. Some of these are communication, active listening, public speaking skills, social skills, empathy, positivity, emailing skills, focus, humour etc. There are various ways to develop networking abilities which are discussed below (Top 7 Networking Skills (How to Develop and Highlight Them), 2021):

❖ **Establish Networking Objectives:** Setting goals can help you to make sure that your time and resources are being used effectively to build a strong network. Understanding what you hope to achieve by engaging with people in the profession is the first step in establishing your aim. You might expand your network to find better employment prospects or get career guidance.

❖

Improve Communication and Public Speaking Skills: To enhance your networking skills, develop effective communication and public speaking techniques. When speaking to someone, make an effort to keep eye contact, and nod your head to indicate that you've heard what they've said. Your ability to establish rapport and relationships with others will grow as your public speaking abilities advance.

❖

Ask for Constructive Feedback: You can enhance your communication style by receiving constructive and honest criticism. Ask your friends how you are communicating with them so you can sharpen your skills even more. Your networking capabilities may be significantly impacted by this.

❖

Participate in Networking Events: Attending networking events and establishing connections with professionals from various fields is a beneficial strategy to develop this skill set. Ask pertinent questions to demonstrate your sincere interest, and pay great attention to other people's comments before responding to their inquiries. Keep your attention on developing lasting relationships while attending such events.

❖

Read Books: It is always a good idea to read books about improving your interpersonal communication and relationship-building skills.

❖

Speak with a Coach or Mentor: Mentors have a wealth of information they can impart. Therefore, getting in touch with someone who has a track record of networking success might help in learning a good amount on how to network effectively.

3.3.2.7.   Motivation Skill

A desired activity or response from a stakeholder can be elicited through the use of motivational skills. When dealing with clients, subordinates, senior management, suppliers, donors, team members, financing sources, and supervisors, employees can use motivational skills to boost their chances of success (Doyle, 2020). Motivation is a complicated emotion and behaviour that is impacted by both internal and external variables. When someone is motivated internally, they are doing it because they enjoy it and want to succeed for its own sake. Extrinsic motivators are things that

originate from the outside, like winning a reward or obtaining a rise. Extrinsic motivation occurs when people take actions in order to obtain something else.The American Management Association lists some of the main factors that affect motivation viz., leadership style, compensation plan, work environment, and culture (Hays, 2019). For motivation to be successful, a thoughtful strategy is needed. The following actions can be taken to achieve the desired results:

- Determine the personality traits and preferences of the person or group that needs to be driven. One set of people may not be motivated in the same way as another group of people.
- Identify motivational tactics suitable for that aim.
- Express to the motivational target your expectations for their performance. Alternately, make it obvious how the user can get the desired result.
- Explain the benefits, rewards, or penalties if the expectations are satisfied or not.
- Discuss how well or poorly the anticipated results are progressing.
- Address any issues or barriers preventing success.
- Offer incentives for successful outcomes.
- Issue alerts before enforcing penalties.
- Thank those who gave the appropriate response.

3.3.2.8. Financial Management Skill

One significant pillar that serves as the foundation for the entire library system and service is finance. Since library is a non-profit organisation, the income is lower while the expenses are higher. The librarians should exercise careful supervision over the library's financial affairs in order to close the gap between income and spending. The income from various sources such as government money, university grants, donations from people and organisations throughout the world, gifts, and endowments must be gathered and used wisely. It is necessary to promptly collect the fines and other penalties. Always keep in mind user types, existing resources, future needs, coordination with other organisational departments, etc. while

budgeting your financial resources. The majority of expenses go toward collection development. For the development of the collection, a justified method should be used. The cost of the service could be reduced by implementing technology development in user services (Sharma & Bhardwaj, 2009).

The majority of organization successes are accomplished with the aid of financial management. A comprehensive understanding of their financial health can be obtained with the help of sound financial planning. Planning, organising, directing, and controlling different financial activities, such as the acquisition and use of an enterprise's funds, constitute financial management. The core of solid financial management is essentially the application of general management principles to the enterprise's financial resources (What Is Financial Management: Definition, Objectives, Functions, 2021).

3.3.2.9. Teamwork Skill

Effective teamwork is a result of strong leadership. Groups of people can achieve things that no individual alone could ever aspire to. A team led by a librarian can go from being ordinary to being extremely effective by keeping the right balance of job and person (Ashalatha, 2016). The cooperation in groups and teams is essential because all library operations required group work. To do this, the managers or librarians must create a sense of unity among the various types of library staff. Therefore, library professionals must understand how to foster teamwork and bonding among library professionals.

Teamwork is essential in every organization, especially in highly digitised world of today. According to studies, organizations that encourage teamwork innovate faster, recognise errors more quickly, come up with better solutions to issues, and are more productive. Enhancing cooperation strives to improve output and performance for the advantage of the organization. The following are some of the benefits of teamwork (The Importance of Teamwork in Your Organization, 2022):

- **It maintains an enjoyable work environment**

Strong employee relationships are created through teamwork since the more closely co-workers are together, the more they get to know one another and grow to like one another. As they collaborate more, they grow more accustomed to each other's preferences, dislikes, strengths, and shortcomings. A team that has been working together for a long time will inevitably grow more collaborative, which leads to a more enjoyable work environment for everyone. A pleasant work atmosphere increases productivity, which enables organizations to accomplish their objectives more quickly.

- **It increases work efficiency**

Tasks are completed more quickly and effectively by team members than by individuals. By sharing ideas and duties, working as a team on various jobs reduces workloads for all employees. Teamwork is essential because it allows members to share ideas and duties, which lowers stress levels and enables them to be more careful and thorough when accomplishing tasks.

- **It increases learning opportunities**

The level of professional experience, competence, and abilities that individual employees possess differs. Through collaboration, these workers can communicate with one another throughout a project. Because they can gain skills from more experienced employees, this engagement is an excellent learning opportunity for new employees. New employees might also provide more experienced employees with new and creative ideas. Teamwork is important because it enables both new and experienced employees to challenge one another's ideas and methods in order to come up with a realistic solution that will enable workers to finish the tasks at hand.

- **Teamwork leads to increase accountability**

Individual workers are more likely to have low morale and be less responsible. With teamwork, confidence is maintained since no member wants to let the team down. Moreover, when working as a team, each individual is held accountable, especially if they are surrounded by

experienced, well-respected colleagues who have a strong reputation of diligence and responsibility.

3.3.2.10.   Negotiating Skill

The goal of negotiation is to find a solution that both parties can agree on. It is a procedure that has two possible outcomes: either both parties are satisfied with the outcome or both parties fail. Since he is the head of the library, the librarian will encounter many circumstances where he must negotiate with others (Ashalatha, 2012). One of the most significant activities of a library or information centre is acquisition toward collection development, hence it is crucial for a library professional to possess strong negotiating abilities when dealing with publishers, vendors, partners, etc. In order to maximise profit and other benefits for a library and its users, negotiation skills enable libraries to obtain documents at extremely cost-effective prices. Negotiation skills are crucial for providing various library services and activities in addition to the area of purchasing materials for libraries (Pandita & Singh, 2012). Every day, librarians engage in negotiations. He may do so with his supervisor, subordinates, suppliers, publishers, his family, and so on. The majority of people utilise bargaining as a routine daily action to influence others and to accomplish personal goals. In fact, negotiating is not only a frequent action but also a necessity for leading a fruitful and fulfilling life (Bolman Pullins et al., 2000). When handling bulk purchases, specialized database subscriptions with vendors, occasionally in delicate circumstances like library committee meetings or to avoid unreasonable demands from haughty users, etc. these skills are necessary in libraries.

3.3.2.10.1.   Important Negotiating Skills

The abilities that are required vary depending on the situation, the goal, and the people or organisations involved. Here are a few essential negotiation techniques that can be used in numerous circumstances (Negotiation Skills, 2021):

❖ **Communication**

The foundation of any negotiation is communication. The negotiation's outcome is determined by how you communicate. It requires recognising nonverbal signs, choosing the appropriate words, and expressing ideas in a captivating and interesting manner. Negotiators frequently listen carefully so they may comprehend the other party's message. A constructive discussion ensures a win-win arrangement and prevents misunderstandings that can prevent the parties from coming to a resolution.

❖ **Emotional Intelligence**

The difference between a successful and poor negotiation is their capacity to manage and control their own emotions as well as those of the opposing party. People with high Emotional Intelligence (EI) are able to recognise and express their feelings appropriately, as well as those of others, and can use these abilities to help them find answers.

❖ **Active Listening**

A good negotiation depends on active listening, which makes sure you pay attention to the other side and comprehend what they are trying to communicate. Furthermore, active listening ensures that you don't miss any important details, which fosters confidence and speeds up the consensus-building process.

❖ **Persuasion**

A crucial negotiation skill is the ability to persuade others. You can use it to clarify the reasons your suggested solution will benefit everyone involved and persuade others to share your viewpoint. Negotiators should not only be convincing but also assertive when necessary. While respecting the viewpoints of the opposite side, assertiveness enables you to convey your thoughts.

❖ **Adaptability**

A successful negotiation requires the flexibility to adapt. Every negotiation is distinct from the others, and the circumstances within a single negotiation can alter from day

to day. An involved party, for instance, might suddenly alter their demands. Though it can be challenging to prepare for every conceivable circumstance, a skilled negotiator is able to adjust quickly and, if necessary, come up with a new strategy.

❖ **Planning**

A successful negotiation requires the capacity for planning, preparation, and forward thinking. Planning skills are required not only for the negotiation process but also for determining how the terms will be implemented.

❖ **Integrity**

Integrity or upholding high moral and ethical standards is a crucial negotiating ability. Being considerate, respectful, and truthful helps the other side believe what you have to say. You should be able to fulfil commitments as a negotiator. Avoid making excessive promises in order to establish reliability.

❖ **Decision-making**

Effective negotiators have the ability to make quick decisions while negotiating. In a negotiation situation, it could be necessary to accept a compromise. Remember that the consequences of choices made could last a long time for the organisation. While making a decision, it is critical to carefully consider all of your possibilities. Going back and forth between the options without finding a solution could cause more tension.

3.3.2.11. Planning and Forecasting Skill

Generally speaking, planning and forecasting is a managerial process that involves figuring out what to accomplish, how to do it, what is needed, etc. well in advance. In other words, planning and forecasting thoroughly research the future course of action. It also thoroughly researches the action or process, the person who is in charge of completing the process, the deadline by which the work or process must be finished, any challenges that must be overcome to finish the task, etc. The changing information technology has given the library a variety of strategies to manage its resources in accordance with the needs of its users. Professionals in the library must

possess the necessary planning and forecasting abilities to be ready for such issues. Having the following abilities is expected of managers: i) the ability to plan ahead, ii) the ability to forecast future environmental trends affecting the organisation, iii) the ability to state organisation objectives, iv) the ability to choose strategies that will help in achieving these objectives with respect to future trends and the ability to interact with intermediate planning systems, such as using a computer (Tella & Sharma, 2014).

Forecasting is the examination and explanation of a future condition as it relates to the undertaking's activities. It is a method that considers information and facts from the past and the present in order to predict future events. Simply explained, forecasting is the process of predicting future trends and events as well as their effects on the corporate organisation.

Planning can be characterised as a fundamental managerial activity that determines in advance what, how, and when something is to be done. It is the process of planning a future course of action that concentrates on achieving the project's goals. It is a purpose-driven, intellectual, and pervasive activity. Management skills like critical thinking, foresight, decision-making, experience, and creativity are all need for planning and forecasting in order to complete the challenging task effectively and efficiently. As the planning presumptions are dependent on forecasts, forecasting has a significant impact on the planning process (Surbhi, 2017).

3.3.2.12. Conflict Resolution Skill

When two parties are in a direct conflict over ideas or interests, it is called a conflict. All forms of antagonism or adversarial interactions inside or among individuals, groups, or organisations are referred to as conflict. It is a disagreement, difference, or struggle between two parties that is denoted by an outward display of antagonism and/or deliberate interference with the pursuit of the objectives of the opposing side. Conflict is a natural by-product of a competitive setting and it does happen in all types of organisations. In this regard, one cannot spare the library. Conflicts in the library may result from differences in personnel, procedures, communication, and administration. In such circumstances, the librarian's role becomes extremely

important. Good management and strong interpersonal relationships give people a sense of purpose and confidence, which fosters constructive conflict. Negative conflict is a by-product of poor management, which also creates uncertainty and low morale (Ashalatha, 2012). Therefore, it is vital to resolve these conflicts in the libraries as they occur. Work is always hampered by conflicts. For this reason, library personnel must be aware of the strategies for preventing and resolving conflicts in libraries.

The following are seven conflict resolution skills that are applicable in the workplace (*7 Conflict Resolution Skills (and How To Use Them at Work) | Indeed.Com*, n.d.):

➢ **Active Listening**

The management and resolution of conflict depends heavily on active listening. When a co-worker is confronted about how their actions are disruptive, the employee can learn the source of the issue and what to do about it by attentively listening.

➢ **Bias for Action**

A bias for action entails actively searching out the next steps rather than passively waiting for someone else to take them. This might show up in conflict resolution as a co-worker actively seeking to talk to someone about something they may have upset them about as soon as they can.

➢ **Perspective-taking**

Gehlbach (2004) defined perspective-taking as "The ability to understand how a situation appears to another person and how that person is reacting cognitively and emotionally to the situation."

In other words, it is the ability to understand other's point of view, perspective, experience, and beliefs while putting oneself in their shoes. The foundation for interpersonal understanding is established by this recognition. It is impossible to fully understand another person's point of view. However, making a conscious effort to grasp another person's perspective can change interactions, generate new neural connections, and result in true learning (Abernethy, 2020).

➢ **Facilitation**

Action taken to aid or facilitate improvement or progress in anything is facilitation. It involves facilitating conversations between individuals and groups about issues that affect them, debating opposing viewpoints, and coming to an agreement on potential solutions (Association, 2017).

➢ **Mediation**

When a problem is resolved through mediation, a neutral third party is involved. A qualified professional, a member of the public, or a party not involved in the dispute who can offer an unbiased viewpoint can all serve as mediators.

➢ **Problem-solving**

Finding an effective remedy and identifying the problem's root cause are made possible by problem-solving abilities. A manager may use their problem-solving abilities to find points of agreement between two opposing team members during conflict resolution.

➢ **Responsibility**

In order to resolve conflicts, it's crucial to have the ability to hold people accountable for their actions.

3.3.2.12.1. Ways to Prevent Conflict

Conflict may be avoided at work and in relationships by implementing the following advice (Scott, 2022):

❖ **Be Respectful**

Respecting others' opinions, especially when they differ from your own, is a good general rule. Attempting to imagine yourself in another person's position could be helpful. Perhaps their upbringing, life experiences, and morals play a role in what people say and do.

❖
Pick Your Words Wisely

When speaking to someone, especially if you disagree with them, be careful how you phrase your sentences. For instance, beginning a phrase with "I feel that..." or "I think that..." highlights the fact that you are speaking from personal experience and are not assuming that you know what's best for other people.

❖
Know When to Apologise

In the first place, a disagreement can be avoided by owning up to a mistake. Even if you may not see anything wrong with what you did, try to see things from the other person's perspective. It can help to express your regret for upsetting their feelings.

❖
Invite Assistance

Both conflict resolution and conflict prevention might benefit from asking for assistance. Try discussing the problem with a dependable friend or co-worker to gain unbiased counsel. Another option is to speak with a mental health expert. If there is a possible conflict at work, it is advisable to speak with a human resources person. To stop a situation from getting worse, they might give you advice and even deal with it directly.

❖
Determine When to Leave

You might choose to leave a disagreement behind for the time being, or you might opt to leave a job or a relationship forever. Always keep in mind that you have every right to establish healthy boundaries, including time and space apart from someone, in order to safeguard your safety and sense of well-being.

❖
A Word From Professionals

Conflict and confrontation are avoided by the majority of individuals. However, resolving a dispute can be made a little bit simpler by understanding and applying conflict resolution techniques. Keep in mind that you need not handle problems on your own. You can better handle conflict by speaking to a loved one you can trust, a

mental health professional, or a work advisor. This will give you the assurance that you have a network of people who are helping you and who will support you.

3.3.2.13. Public Relation Skills

Effective Public Relation skills are necessary for librarians to draw users to their libraries in a variety of ways. It promotes relationships with users and staff. Good interpersonal skills are only one component of public relations. The library professionals must prioritise their public relations as well as maintaining positive working relationships with one another. Public relations in the context of the library profession refers to having positive relationships with fellow professional colleagues from other institutions, notable figures in the field of library science, library vendors, book publishers, and so forth. The second law of library science, "Every reader his or her book or information," is easier to uphold when there is a strong public relationship between the librarian and the public (Ashalatha, 2012).

3.3.2.13.1. Types of Public Relation (PR) Skills

There are various types of public relation skills which are discussed below (Public Relations Skills, 2022):

❖ **Communication Skill**

To facilitate the right flow of information between a client and the public, public relations specialists need to have good communication and active listening skills. Using communication skills effectively can improve audience engagement, result in more effective PR efforts, and result in more interesting material that is suited to the demands of the client. Working as a team can be more successful when there is effective communication, such as when ideas are communicated to colleagues more clearly.

❖ **Research Skill**

The success of a PR effort is influenced by research. Expanding knowledge of a client's product or service is essential for PR professionals. Research can be used to pinpoint a target market and work out how to appeal to them. Using this information,

communications can be marketed using platforms that a client's target market chooses. This improves the efficiency of marketing initiatives in terms of cost. An effective campaign may also be carried out with the aid of up-to-date information of market developments, competition, technology, and consumer trends.

❖ **Writing Skills**

A public relations specialist needs to have excellent writing abilities to provide engaging media content and to compose formal emails, speeches, and client statements. Writing content that has the desired effect on clients and influences them according to those clients' needs is crucial for PR specialists. Additionally, it's crucial to have unified messaging across all mediums, including employing the same vocabulary and tones.

❖ **Social Media Expertise**

Publicists need to have a thorough awareness and expertise of all modern social media platforms. Each social media network may need a different approach because of how they operate and who they can reach. Understanding social media may assist identify the platforms that various audiences favour as well as the messages and tones that are more suitable for each channel.

❖ **Creativity**

When creating original marketing tactics, resolving problems, or generating a fresh branding strategy for an already-existing good or service, public relations work frequently calls for creative problem-solving. Since every PR campaign is different, it's helpful to have a range of tactics that can assist you in problem-solving, brainstorming, and teamwork to satisfy the needs of a client.

❖ **Time Management**

Time management skills are crucial for PR professionals. A campaign deadline can be met or adhered to with the help of effective time management skills, which also make it possible to maintain organisation and focus on the goals. A fast-paced workplace like PR requires the ability to multitask in order to succeed. To

accomplish desired results, multitasking involves managing multiple clients with different needs and deadlines.

❖ **Relationship-building Skill**

Building a professional network is possible for PR professionals through developing fruitful relationships with corporations, the media, and the general public. In addition to written and verbal communication skills, one should be able to build relationships while displaying charm and confidence. These connections can be created using interpersonal abilities including active listening, patience, emotional intelligence, and excellent leadership.

3.3.2.14.   Project Management Skills

Barbara Allan defines project management as "Project management involves using a range of management skills and techniques to successfully carry out a project. The types of activities involved in project management include: thinking ahead, carrying out research, planning what happens where and when, managing the people and resources, monitoring the project, changing the plan, communicating with people, evaluating the project" (Allan, 2004).

3.3.2.14.1. Essential Project Management Skills (Joubert, 2019)
➢ **Effective Communication Skills**

To successfully oversee the completion of projects, project managers need to have great communication skills. Learning to communicate well should be a project manager's top priority. This includes having a clear vision of what you want to accomplish and being able to communicate it to others. It also entails knowing how to approach people and develop meaningful connections with co-workers. An easy and effective first step toward developing this skill set is to take the time to think about what you want to say—and how you want to say it—before communicating.

➢ **Negotiation**

Leading a project requires constant negotiation, from resource management to supplier engagement to team dispute resolution. A competent project manager is

often a skilled negotiator with the capacity to keep concerned parties happy and working toward a common objective at all times. Unavoidable debates regarding budgets, scope creep, resources, and timeframes may quickly turn antagonistic if not handled tactfully. Intelligent and thoughtful project managers instinctively know when—and how—to apply persuasive techniques that will encourage solutions and prevent strained professional relationships.

➢ **Time Management**

One of the most important project management skills is the ability to handle a complicated timeline with consistency and calm while assisting others in staying on task. Inherent problem-solving skills and the capacity to recognise potential problems before they arise and provide strategies to avoid them are both essential.

➢ **Leadership**

Strong leadership abilities are vital while overseeing a team or project. By successfully coaching, directing, and inspiring co-workers, a project can advance and provide a successful result. Strong leaders also promote a productive workplace by regularly engaging with their teams and assisting their staff in acquiring crucial project management skills.

3.3.2.15. Risk Management

One of the most important skills for project managers is risk management, which entails detecting and preparing for potential risks. The most effective project managers are able to recognise risks from the commencement of a project and create effective mitigation strategies in the event that the risk does in fact emerge.Project managers sometimes choose to disregard risks and make the assumption that they won't occur because by definition, risks are uncertain events. However, project managers can prepare in advance to avoid significant issues that could otherwise derail a project by being aware of what positive or negative effects may happen to the project if the risk occurs.

➤ **Empathy**

Empathy is the capacity to comprehend how others may be feeling and to consider situations from their point of view. It gives project managers the ability to interact with everyone more kindly and effectively.

➤ **Critical Thinking and Problem Solving**

All professionals could benefit from developing critical thinking skills, but the field of project management is one where it is extremely helpful. The greatest project managers are proactive rather than reactive, and they apply their critical thinking abilities to steer clear of challenging or unclear assignments.

3.4. Personality Development and Communication Skills (PDCS)

The most significant observable characteristic of a person is their personality. It depicts one's personality, conduct, habits, relationships, and performance in both their personal and professional lives. A person's perceived suitability, acceptability, and responsibility in their work as well as their service time are determined by their personality.

A person's personality is viewed and assessed from two perspectives. The exterior side is one angle that can be seen and felt. The other is the inner side, which is invisible and unnoticeable. Two people have clearly distinct personalities, which suggest that they have unique outer and interior characteristics. Physical bodily features, bearing, conduct, habits, movements, and performance are examples of how external characteristics are displayed in the visible and perceptible realm. Inner qualities can be seen as intelligence, expression, tenacity, abilities, character, skill, responsiveness, and temperament. Because they are founded on genetic variations in one's look and dispositions and react differently to changes in settings like education, upbringing, training, etc., inner and exterior qualities are acknowledged for their importance (Onkar, 2011).

3.4.1. PDCS and LIS Professionals

For the effective functioning and value-added services of the library, the LIS professionals need to have some of the personal attributes in certain areas which include attitude, appearance, time and stress management; professional communication skills that consists of both verbal and written, understanding the audience, presentation, body language, interpersonal skills and ability to listen skills, etc. It is these qualities that will help them in effectively carrying out certain plans and policies of the libraries.

3.4.2. Inner Traits of Personality

Inner qualities, which denote characteristics related to nature, behavior, character, and intelligence, are what are known as a person's inherent characteristics. These characteristics determine human qualities and are supposedly projected through specific notable physical body features. A person is motivated and driven by these innate qualities to act and behave a certain way, which helps him form his distinctive features and characteristics. A person will react to these features depending on their degree or strength present in them, as it has been discovered that a person's exterior traits are associated to his interior traits. So it is clear that a person's uniqueness is established by the fact that not all features are necessarily present and their corresponding levels are not the same.

It is emphasized that the inner traits are invisible and imperceptible. As a result, they must be monitored, evaluated carefully, accurately and realistically. Any incorrect interpretation of an observation produces wrong judgment and misperceptions about the character and behavior of the person.

3.4.3. Outer Traits of Personality

These are outwardly apparent characteristics that can be observed as being an essential element of a person and give the sense of their entire appearance at first glance. It is undoubtedly a hurried and immature action, but it does help in creating an impression at first glance with such prominent, obvious traits. The visible features

as listed below are unquestionably important in determining a person's personality (Onkar, 2011).

- Body features and their size and sharpness such as nose, eyes, ears, forehead, height, hairstyle, appearance, bearing, hands, legs, palm, structure etc.

- Dress, style, make up, color.

- Mannerism, pertaining to style of walking, talking, gesticulation, seating position.

- Expression verbal as well as written, its style, toning, naturalness, depth.

- Self-control and Temperament especially to provocative, irrelevant and absurd questions and behavior under difficult condition in group activities leading to give voluble expression to your emotive feelings and mental state.

- Intelligence pertaining to questions by the members in the interview apart from your performance in the written tests or examination.

- Performance pertaining to your physical activity which is watched and observed in group activities like discussion, project work or exercise.

- Body Language pertaining to your body movements, indicating functional and operational parameters each conveying its own meaning and impression.

3.4.4. Five Pillars of Personality Development and Career Advancement

According to Onkar (2011), the following five pillars are responsible for the effective development and advancement of personality:
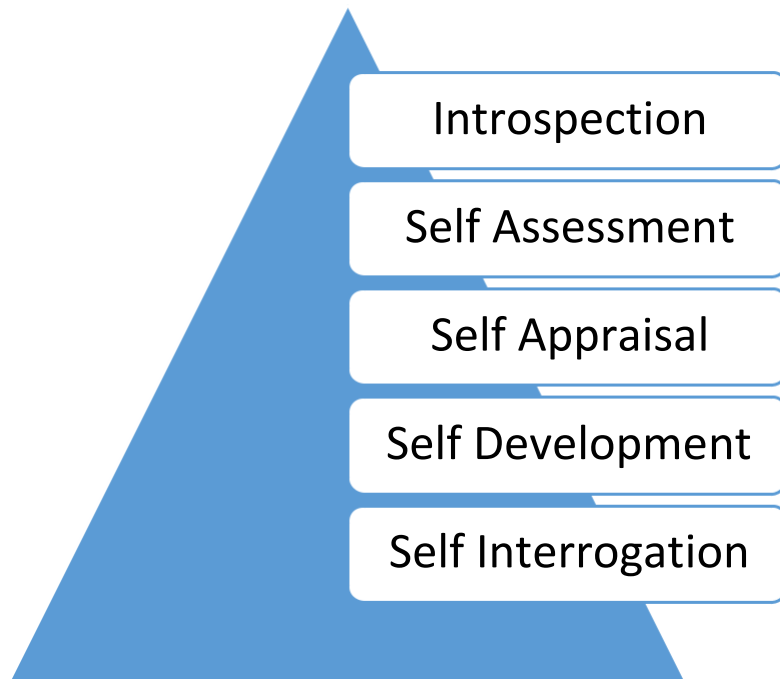
Figure 8: Five Pillars of Personality Development and Career Advancement

3.4.4.1.   Introspection – The First Pillar

The first and most important step in pursuing personality development and career advancement is introspection. As a result, it is regarded as one of the foundational pillars upon which their entire structure is built. According to the Cambridge dictionary, "Introspection is an examination of and attention to your own ideas, thoughts and feeling" (Meaning of Introspection in English, 2022). It is also described as "the examination of your own thoughts, ideas, and feelings" in the Collins dictionary (Definition of "introspection," 2022).

Opening up a path and turning one's focus inside is called introspection. By beginning to examine oneself and searching for one's strong and weak qualities in the form of characteristics or traits that are both positive and bad in nature. Only after engaging in adequate introspection it is feasible to acknowledge that there was something fundamentally wrong with oneself. To do this, one must conduct

extensive homework in the form of self-assessment and self-appraisal, which are fundamental parts of the introspective process.

3.4.4.2.   Self-Assessment – The Second Pillar

After the necessity and realisation for doing introspection under the given circumstances have been established, the second step is self-assessment. It demonstrates a genuine practical method for realistically evaluating one's capabilities and potential in a practical, objective manner. It may be seen as a technique to explore one's true perspective in a realistic way. It is a self-centred activity that one performs in order to identify both positive and negative traits, determine their relative levels, and determine whether one's nature, behaviour, character, or performance is often dominated by either positive or negative traits.

3.4.4.3.   Self- Appraisal – The Third Pillar

The third step is self-appraisal once the introspection and self-assessment processes have been completed. It is known as the third pillar because it serves as the foundation for the entire process of seeking counselling and advice. This is also a self-centred procedure that is directed at oneself and serves as one's important and critical effort in revealing the true and valuable information about oneself, as well as its flaws, in a brave, frank, and transparent way without hesitating.

The act of judging and measuring a system's value, quality, and working conditions is known as an appraisal. As a result, it turns into a declaration of one's own value, virtue, and condition. In management terminology, the acronym SWOT is used as a technique for conducting evaluation of an organisation, company, industry, or project. The following word is represented by each of its shortened letters:

S-Strength

W-Weakness

O-Opportunity

T-Threat

It is suggested to use the same acronym for carrying out self-appraisal with the modifications listed below:

Letter O for Opportunities is omitted

Letter A is added for Aptitude

Letter I is added for Interest Areas

Threat is undoubtedly represented by the letter T, but it also stands for Time and Opportunity, broadening the meaning of the letter.

As a result, the management abbreviation SWOT is changed to read as SWAIT and is effectively utilised to conduct self-appraisals of people to measure their professional performance and potential. Currently, the acronym SWAIT is defined as follows:

S- Strength

W-Weakness

A-Aptitude

I-Interest

T-Threats

3.4.4.4. Self-Development – The Fourth Pillar

Self-development is the fourth pillar that strongly supports personal growth and career advancement and makes a significant contribution to their promotion. Its focus is only on an individual and their professional endeavours. The actions taken for self-development are intended to update and improve one's career prospects, which will increase the probability of success. In order to make the best possible use of others for gaining concrete benefits and positioning oneself squarely in the competitive race, the process of self-development relies on utilising all available sources and agencies and seeking appropriate advice from time to time. It actually brings out a

few key characteristics that are essential for starting the process within oneself and sustaining it over the course of one's life.

3.4.4.5.   Self- Interrogation – The Fifth Pillar

The fifth pillar and last action in the process of achieving personal development and career advancement is self-interrogation. There is a fear that by questioning oneself, one may reveal themselves. Most people are affected by this dread, and as a result, they strive to avoid it and avoid being around it. Self-interrogation entails engaging in introspection of a particular kind and having the mental capacity and motivation to do so.

3.4.5.   Areas of PDCS

The library professionals should develop their personality and communication skills in various areas which are mentioned below:

3.4.5.1.   Interpersonal Skills

The skills used to interact with others are known as interpersonal skills. It is also known as people skills. It requires the use of skills such as behaving, communicating, listening, and relating with people. It is a connection between two or more people that could end shortly or persist for a very long time. Typically, this kind of bond is created by interactions between parents and children, teachers and students, affection, solidarity, and professional and social obligations. The ability to relate to others is what is generally meant by interpersonal skills. When evaluating a person's ability to function in a professional setting, communication and interaction skills are frequently utilised as the primary metrics. The degree of employee interdependence rises when there are healthy interpersonal relationships at work (Alex, 2016).

A focused public relations strategy is required for the field of librarianship. It's time to promote our expertise and professionalism. A good library public relations campaign may depend heavily on interpersonal and communication skills. We will undoubtedly be on the road to developing effective public relations if we put our abilities to use at the library and market it as a business (Tanawade, 2011).

According to Angoff (1973) "the aim of public relation in library and information centres, is to communicate essence of the library to the appropriate users, to whom it has so much to offer and to fix the idea in their minds that the library is source of incalculable value." Library professionals interact daily with various tiers of society, including management, users, colleagues, vendors, etc. To interact with each of them effectively, interpersonal skills are necessary. In order to effectively manage the library and serve every user, library professionals must first establish a good working relationship with all departments (Joseph & Devi, 2020).

3.4.5.1.1. Types of Interpersonal Relationships

There are different types of interpersonal relationships. Each one is distinct, but they are all equally significant. They are dependent on the interpersonal connection and expectations of the relationship (Franz, 2021):

- **Family Relationships:** Family relationships are formed via regular encounters between members of a household who are related by blood. Our family may consist of our parents, siblings, grandparents, aunts, uncles, cousins, caretakers, and guardians. These are the very first connections we ever make. We frequently develop strong bonds with our families. This kind of connection can last a lifetime.

- **Friendships:** Friendships are voluntarily bonds with individuals who are not always blood relatives or living in the same family. Some relationships are even more significant than those with family. While some of these connections might only survive a short while, some bonds will endure.

- **Romantic Relationships:** Romantic relationships are comprised of people who are dating, coupled, or married. Relationships with romantic partners are distinct from those with family and friends because they frequently involve higher levels of physical intimacy.

- **Platonic Relationships**: Platonic relationships take place when people are close and bonded in a non-sexual way.

- **Professional Relationships**: It's common to develop close relationships with colleagues because you might see them more frequently than your own

family. Your connections made as a result of your shared experiences may change the atmosphere at work. Professional relationships are typically defined as formal exchanges focused on business objectives.

3.4.5.1.2. Stages of Interpersonal Relationships

There are five stages of interpersonal relationships that are identified by George Levinger (Figueroba, 2020):

- **Acquaintance**: It is a stage of getting to know one another. The foundation of any relationship is mutual understanding. Sometimes they might and abruptly end it. People decide to connect with one another when they are interested in one another.

- **Build-up:** It is the phase where a friendship develops. Since the two people involved are no longer strangers, they are beginning to build trust with one another. The friendship is in its developing stage at this point. As a result of no longer being strangers, the two involved are beginning to trust one another. If the relationship is to last for a longer time, people need to be reasonable. People who share common interests and connections will, for the most part, get along better with one another when they appear to have different goals and connections from those of people with arranged establishments and different objectives.

- **Continuation Stage**: This stage occurs when a relationship grows into long-term commitments. When individuals opt to be in one other's company and look out for one another after properly understanding one another. Intimacy is a key component of this stage, which is defined by the development of a bond with a special friend or love interest. Closeness includes the stage of relational responsibility, in which two people covertly give their attention to one another, and the social holding stage, which is created freely through social responsibility. For the two to be in a relationship for all time, trust and transparency are essential.

- **Deterioration:** Withdrawal, a reduction in self-exposure, an increase in dishonesty, and the transmission of more negative than positive messages are

all characteristics of intrapersonal dissatisfaction and interpersonal deterioration. This stage is not experienced by all relationships.

- **Ending:** The conclusion of a bond is the last stage. The following factors, such as separation or divorce, lead to the breakup of the relationship. It is the place where nasty and offensive comments are used against one another to reveal their inadequacies. Apart from the person you are in a relationship with, it is always essential to take excellent care of yourself and your emotions.

3.4.5.2. Communication Skills

Communication is an essential component of human behaviour. Every action we take revolves around that. Depending on how well we are able to interact with other members, our activities will succeed or fail. The ability to communicate is the glue that holds every organisation together, and without it, no organisation could function. Effective verbal and nonverbal communication is a component of communication skills. Professionals in the field of library science need good communication skills to comprehend user needs and effectively interact with the users.

3.4.5.2.1. Verbal Communication

The word verbal means 'connected with words and use of words.' Verbal communication is any form of communication that uses words. They can be written or spoken and they are the most precise and powerful sets of symbols. Words can both denote and connote meanings. For this reason, all serious or official communication is typically verbal. Verbal communication can be divided into two types (Jain & Biyani, 2007):

- ❖ **Oral Communication:** Oral communication is defined as communication that takes place through the spoken word. In oral communication, words should be carefully chosen to convey the exact shade of meaning that they denote. In most communications, the message's sender or his representative is the speaker, while the message's recipient or his representative is the listener. Some of the factors in oral communication include:

- o The speaker
- o How he speaks
- o What he speaks
- o To whom he speaks
- o Whether he receives a feedback

Oral communication has several requirements, some of which are as follows:

- o Clear and proper pronunciation of words
- o Clarity and exactitude
- o Conciseness
- o Right tone
- o Right pitch
- o Right style and vocabulary

❖ **Written Communication:** A "Written Communication" is the transmission of information by letters, circulars, manuals, reports, telegrams, office memos, bulletins, etc. It is a less flexible and formal way of communicating. A written document that is properly kept becomes a permanent record for future use (https://www.yourarticlelibrary.com). Technology has expanded the range of textual communication through email and other such facilities. Some of the factors in written communication include (Jain & Biyani, 2007):

- o The writer
- o The content
- o The language used
- o The purpose of the communication
- o They style adopted – formal or friendly
- o The receiver

Written communication has several requirements, some of which are as follows:

- o How much to put in writing
- o What to leave out
- o When to stop
- o When to convey

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o To whom to convey

o By what means to convey

3.4.5.2.2. Non-Verbal Communication

Non-verbal communication is the process of communicating ideas without the use of written or spoken language. In other words, non-verbal communication refers to any communication that takes place between two or more people using facial expressions, hand gestures, body language, posture, and gestures (Non-Verbal Communication, n.d.). The main elements of these non-verbal communications include personal appearance, posture, gestures with different part of the body, facial expressions, eye contact, the distance between the speaker and the listener, the tone of the speaker, the volume of the speaker, the pauses taken between words and sentences and, the emotional content of the communication (Jain, 2016).

3.4.5.3. Listening Skills

Effective listening is essential to all communication because without it, messages can be readily misread, communication breaks down, and the sender of the message can easily become upset or irritated. In order to provide services and respond to inquiries from the user community, librarians must have excellent listening skills (Kolle & S, 2014). Being constantly in contact with many consumers requires the librarian to be a good listener. Only by paying close attention one can serve the community more effectively by meeting their particular needs.

To listen is to pay close attention to what others are saying. It also implies to answer a question or a request. Receiving, analysing, and responding to the messages sent by the sender constitute the process. Communication requires active listening. Being an excellent listener is one of the key elements of communication (Jain, 2016). In order to have mutual understanding and cooperation with colleagues, superiors, and subordinates, effective listening is crucial.

The capacity to effectively take in information when speaking with others depends on listening abilities. Effective workplace communication depends on having these abilities. Having effective listening skills will help you make sure you comprehend

the material completely, interpret messages effectively, and make the most of your conversations and communications (Listening Skills, 2021).

The four pillars of communication are Speaking, Reading, Writing, and Listening. The first step to comprehension and communication is listening. It is the capacity to hear, understand, process, and react to oral messages. It's crucial to listen when communicating because failing to do so might result in misunderstandings, incorrect information, and a breakdown in communication.

In contrast to hearing, listening requires focus and active participation in what is being said. It entails paying attention to the speaker's whole communication style, including both verbal and non-verbal indicators, in addition to what is being stated. All walks of life value good or effective listeners because they are sympathetic friends, engaged employees, have social skills, confidence, and self-esteem (Effective Listening Skills, n.d.).

3.4.5.3.1. Types of Listening Skills

The following are the types of listening skills that can help in becoming a better listener (Listening Skills, 2021):

- **Deep Listening:** When you genuinely want to comprehend the speaker's viewpoint and message, deep listening happens. In order to fully comprehend the speaker's experiences, thoughts, feelings, and goals, deep listening entails paying attention to both verbal and non-verbal signs. When establishing relationships, trust, and rapport with co-workers, clients, customers, or vendors, this kind of listening is very helpful.

- **Full Listening:** In order to properly understand a speaker's message, one must make an effort to thoroughly appreciate its practical content. Active listening techniques like paraphrasing and asking clarifying questions are frequently used in this sort of listening. When understanding instructions, absorbing new information, or mastering new abilities, complete listening can be especially beneficial.

- **Critical Listening:** When listening to a speaker, critical listening requires utilising logic and reasoning to distinguish between opinion and fact. In order to discover factual material in communication, critical listening typically includes drawing on your prior knowledge or experiences. In careers that require persuasive speaking, arguing, or investigative skills, critical listening might be extremely crucial.

- **Therapeutic Listening:** Therapeutic listening is a more personal form of listening that frequently includes learning about a speaker's difficulties or emotional issues. This kind of listening is frequently crucial to success in a profession that deals with delicate subjects or emotional exchanges at work. Developing therapeutic listening skills is frequently beneficial for therapists, medical professionals, and counsellors.

3.4.5.4. Stress Management

The current situation might be very stressful for library professionals. The challenges that library professionals are currently facing varies greatly. Whatever the causes, he or she frequently has to manage the issue by themselves. Stress occurs when a library professional face a circumstance that they cannot handle. They experience stress even when they are overworked or overwhelmed. Patil (2014) highlights the stressors of today's library professionals and divided them into two broad categories such as general problems and personal problems. General problems include various areas like 'Qualifying NET / SET exam, different pay scale with same qualifications, different responsibility, workload, and working hours, career advancement by accumulating more API points, writing academic papers. Personal problems includes

i) Interpretations of the circumstance or occurrence lead to stress or peace. ii) Do you ever feel like "everything is a mess and chaos and I can never cope with it"? iii) Too much work and long hours have stressed out my mind. iv) Institutional politics might occasionally make people less confident in their ability to do their duties v) There isn't enough time to study books on success, positive thinking, personality development, or self-improvement. Vi) Mind set is influenced by reading, attitude, and thinking vii) Do not allow themselves time viii) Hobbies and passions are distinct from work chances ix) The student cannot begin any activity that is relevant

to our passion x) Sometimes we postpone critical tasks by substituting low-priority actions for high-priority ones xi) Do you agree with those librarians who believe that the idea of God is not at all required for their peace? xii) Some librarians steer clear of spirituality, religion, and prayer.

The biggest stressors for many college librarians are lack of office staff, lack of funds, a principal, and management, library staff employed for additional tasks outside the library, organizational Politics, etc. Women make up a large portion of the library profession, and they often have to strike a balance between work at the office and work at home.

Any type of change that causes strain on the body, mind, or emotions is referred to as stress. Your body reacts to everything that demands focus or action by causing stress. Merriam-Webster dictionary (n.d.) defined 'Stress' as "a physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation." There are several potential "stressors" that can cause stress. A situation may be viewed as "stressful" by one person but only "challenging" by another because everyone's experience of what is considered "stressful" is based on their own perceptions of what they encounter in life (based on their own unique combination of personality traits, resources, and habitual thought patterns).

Stress management is "a set of techniques and programs intended to help people deal more effectively with stress in their lives by analysing the specific stressors and taking positive actions to minimize their effects" (Young, 2020). There are numerous effective techniques to manage stress. The greatest stress management strategies typically incorporate a variety of stress relievers that deal with stress physically and psychologically while also promoting resilience and coping mechanisms (Scott, 2022).

3.4.5.4.1. Tips for Stress Management

The American Psychological Association (Stress Tip Sheet, 2007) provided the following seven tips to assist people with stress management plans:

- **Understand Your Stress**

How do you cope with stress? For every person, it may be different. You can be more prepared and use the tools in your stress management toolbox when necessary if you know how you react to stress.

- **Identify Your Stress Sources**

What makes you stressed out? Be it work, family, transition or any of the other many potential triggers.

- **Learn to Recognize Stress Signals**

It's critical to be aware of your own stress symptoms because everyone processes stress differently. What internal warning signs do you have? Low stress threshold, headaches, stomach aches, or a mix of the aforementioned "symptoms of stress".

- **Recognize Your Stress Strategies**

What strategy do you usually use to relax? These habits may have been developed over many years and aren't always the best choice. For instance, some people self-medicate with alcohol or overindulge to deal with stress.

- **Implement Healthy Stress Management Strategies**

It's wise to be aware of any unhealthy coping mechanisms you may be using so that you can replace them with healthy alternatives. For instance, if you frequently overeat, consider trying meditation instead or deciding to call a friend to go about your problems. According to the American Psychological Association, altering one behaviour at a time is the most efficient way to bring about good change.

- **Make Self-care a Priority**

We prioritise our own needs over those of others when we take time for ourselves. Although at first this may seem self-centred, it is similar to the flight analogy in that we must put our own oxygen mask on before helping others. It is common to ignore the most basic factors that contribute to wellbeing, like getting enough sleep, eating healthily, relaxing, and exercising.

- **Ask for Support When Needed**

Speak to a friend or member of your family if you're feeling stressed out. Stress can also be reduced by talking to a healthcare provider, who can also teach us better coping strategies.

3.4.5.4.2. Types of Stress

Stress doesn't always have negative or harmful effects. One could encounter a variety of forms of stress, such as (Scott, 2022):

- **Acute Stress:** The form of stress we experience most frequently in day-to-day living is acute stress, which can be either beneficial or more upsetting.
- **Chronic Stress:** Chronic stress is a type of stress that feels unending and unavoidable, such as the burden of a miserable marriage or a difficult job. It can also result from traumatic experiences and childhood trauma.
- **Episodic Acute Stress:** Acute stress that appears to be widespread and a way of life are known as episodic acute stress. This type of acute stress results in a life of constant distress.
- **Eustress:** Eustress is joyful and entertaining. It's regarded as a healthy form of stress that can keep you motivated. It is related to adrenaline rushes, such as those experienced while skiing or racing against the clock.

3.4.5.5. Marketing Skills

Maintaining awareness of the materials and services that suit the users' needs and interests requires effective library marketing. To raise awareness of the library's importance and increase its user base, effective marketing abilities are required. Marketing serves as a link between the library's resources and services and the requirements of its users. The abilities will aid in establishing a connection between the library and its users, who are aware of numerous other methods they can obtain information without even visiting the library or speaking to a librarian. Librarians must convince their customers that they can better meet their demands than other suppliers due to the ongoing competition from other information providers

(Canzoneri, 2014). Because of the limited funding available and the introduction of new technology and its use in libraries, new opportunities for marketing library materials, goods, and services have emerged. The prospects will be seized by commercial vendors and technology experts if libraries and library professionals fail to seize them (Patil & Pradhan, 2014).

Marketing is the process of marketing and selling goods or services. There are some crucial skill sets that have the power to influence people, close deals and creating enduring customer relationships. It is the marketing strategy that drives business to grow and prosper. Deep, meaningful relationships with clients can be cultivated with the aid of marketing expertise. Marketing abilities ensure long-term brand affinity and loyalty, helping businesses win customers for the long run rather than only concentrating on short-term outcomes (Ciechanowski, 2022). The appropriate strategies may increase product sales and profits of the business.

3.4.5.6. Time Management

Information that is not given at the "Right Time" is useless, even if it is given later. To ensure that consumers receive the appropriate information at the appropriate time, it is crucial for library staff to manage their time. Professionals in libraries can provide services and ensure user happiness by managing their time wisely (Shettar & Chavan, 2016). "Save the time of the user" is the fourth law that Dr. S.R. Ranganathan outlined, and it speaks to how both users and library staff should manage their time. Very few people can honestly say that they know how they spend their time. Working long hours does not always indicate that you have too much work on your desk. It can imply that your time management skills need to be improved. Therefore, planning is a crucial component of time management (Reddy and Jyothy, 2014).

The ability to use time effectively and productively is known as time management. It is a technique of organising and balancing time between various tasks. Effective time management enables to complete a work in a specified amount of time during challenges and constrained time. Time management skill is the ability to manage time effectively and get the desired results in a specified period of time. Some of the

most crucial abilities related to effective time management include organisation, prioritisation, goal setting, communication, planning, delegation, stress management and flexibility (Time Management Skills: Definition and Examples, 2022).

Time management is a challenging task when you have limited free time and a lot to get accomplished in your personal and professional life. Better time management abilities can help to become a better employee as well as a great candidate when applying for new chances. The following are some ways to improve time management skills:

- Prepare a schedule and follow it strictly
- Set some boundaries for yourself
- Fix deadlines
- Set long and short term goals
- Manage your calendar effectively
- Prioritise your assignments

3.4.5.7. Presentation Skills

Presenting is communicating to an audience in order to convey a message. Presentation skills are the skills required to deliver effective presentations to a variety of audiences. These abilities cover a variety of areas including presentation structure, slide design, voice tone, and how one presents themselves physically ("Presentation Skills," 2021). Presentation skills are necessary for drafting, library committee meetings, and even day-to-day tasks that represent the library to its users. By way of decoration, user guides, library interiors, etc., it not only highlights personal skills but also library appearance.

3.4.5.7.1. Important Factors of Presentation

The important factors that must be taken into account in order to make the best presentation are mentioned below (Presentation Skills Ultimate Guide and How to Give a Good Presentation, 2002):

- Audience
- Voice and language
- The presenter
- Timing and structure

Audience

It is important to think about the audience when organising a presentation. Consider the impact of the audience's demographics, such as age, gender, literacy, and social status, and how that will impact the content you are presenting. The following are the five different categories of audiences:

1) **The Uninformed Audience:** The audience doesn't know much about the subject you're discussing. They truly lack any prior notions about the matter. As a result, you must inform them so that they are aware of it.

2) **The Hostile Audience:** The hostile audience is one that either dislikes you personally or your message. They also have some knowledge of the subject. As a result, you should speak in a cordial manner and place focus on points of mutual interest. In addition, respond to criticism with reasoning and facts.

3) **The Apathetic Audience:** Apathy in the audience refers to a lack of interest or indifference. To understand the reason for the audience's apathy and how to pique their interest, you must extensively research them.

4) **The Mixed Audience:** The mixed audience consists of both informed and uninformed individuals. The informed can either be open to ideas or hostile, as opposed to the uninformed that may have no opinion on the subject. When communicating with this group, use facts with caution while appealing to their emotions.

5) **The Favourable Audience:** People who agree with you or your attitude and values make up the favourable audience. Do not, however, take them for granted. Reinforce their existing ideas and provide them with facts to help them become more realistic.

Voice and Language

Consider using slang, buzzwords, technical terminology, colloquialisms, and metaphors depending on the audience's level of understanding when planning your delivery and language use. It's also important to consider if you should use a universal language or a different language when addressing a group that is geographically diverse. Consider using more simple phrases and sentence structures if you are speaking in a neutral language that isn't the audience's first language in order to get your ideas understood. When you focus on your voice, you should consider your pitch, tone, and tempo. Considering on how you emphasis words with volume and pauses. The 5 Ps of Presenting might be helpful in this regard:
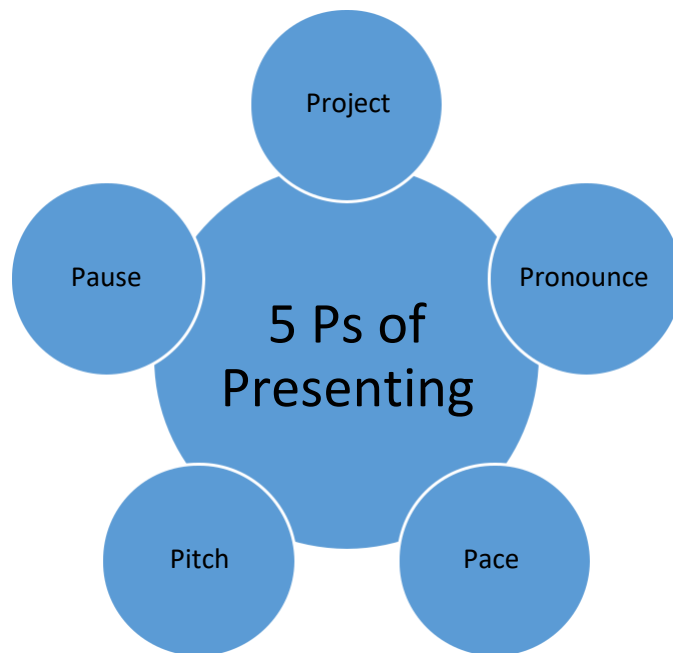
(Source: www.makingbusinessmatter.co.uk)

Figure 9: The 5 Ps for Better Presentation Skills

❖ **Project:** Direct your voice toward the audience so that they can clearly hear you whether or not you have a microphone. Also, before speaking, take a long breath to ensure that your voice has enough air to project without sounding trembling or exhausted.

❖ **Pause:** More frequent pausing draws the attention of the audience. It actually demonstrates confidence. A major point is highlighted by silence and pause following it. Yes, a few verbal pauses like "oh" or "um" are OK. However, a lot of them can irritate. Practice pausing silently to sound intellectual rather than immature.

❖ **Pitch:** Change up your tone to prevent monotony from making the audience fall asleep. Talk as if you are sharing a wonderful tale with friends. Avoid making inflated pitches.

❖ **Pace:** Don't speak slowly. Instead, speak just a little bit more quickly than usual—but never too quickly. Fast speakers do in fact lose their listeners. Establish a speed at which you and your audience can communicate.

❖ **Pronounce:** Say your speech loudly and clearly. The audience will find it difficult to understand or follow your speech if you mumble.

The Presenter

When you give a presentation, the audience will initially assess your likeability based on how you appear. To be effective when speaking to a group of people, it's important to dress appropriately for the setting in which they work. Your intact enthusiasm for the subject is the second thing that stands out. Even if you feel nervous, your genuine enthusiasm and in-depth knowledge of the subject will always come across. Make sure you are prepared and that the subject you are presenting is one you are truly enthusiastic about. Furthermore, one of the best ways to demonstrate your own passion to others is to be able to draw on personal experience. The last thing that people will notice is your body language. This is a clear indication of someone's level of anxiousness. It is essential to utilise the space you have if you have it. You may learn how to move when and how to move with purpose.

Timing and Structure

In order to improve your presentation skills, you must learn effective time management. To be able to change timings based on audience participation, timings should be created with a little flexibility. You must have the ability to change the subject when you notice a listener losing interest in what you are saying and change

the conversation to something more captivating. Consider the changes you make between various points. You run the risk of losing your audience if you move too quickly, but doing so while moving slowly could also have the same result.

You should be able to make a well-organized presentation that is understandable to your audience if you concentrate on these four crucial areas. The four primary areas should be covered while structuring your presentation:

i) Introduction
ii) The main discussion with key concepts
iii) Conclusion with summary
iv) Questions (if appropriate)

3.4.5.8. Teaching Skills

The abilities and knowledge required by a teacher or instructor for lesson preparation, instructing students, communicating with the students and their parents, and diligently working with administrators are referred to as teaching skills. Both formal education and professional experience help teachers develop their talents. Lessons planning and delivering instructions to the age groups they are certified to teach are duties that fall under the purview of teachers. To have a beneficial educational impact on young brains, teachers must integrate both hard and soft skills (Bhasin, 2021).

Teaching skills are very much required for Librarians. Library conducts Orientation and training programs to its users. To conduct these programs Library professionals should have effective teaching skills.

3.4.5.8.1. Teaching Skills for Effective Teaching

"One book, one pen, one child and one teacher can change the world"

More than people realise, teachers have a huge impact on students' lives. A teacher with the appropriate abilities can inspire and have an impact on a student's entire life. They serve as catalysts for pupils' great ideas, enabling them to reach their full

potential. It is crucial for teachers to possess specific abilities in order to create such long-lasting effects (12 Skills Teachers Require to Be Effective in Teaching, 2018).

- **Discipline Skills**

A teacher must have discipline in their classrooms in order to be considered effective. The discipline of the teacher guarantees that constructive behaviour is promoted inside classrooms, which is a crucial aspect of effective classroom management. Contrary to popular belief, discipline does not involve punishing pupils. Instead, it is a method for controlling and directing pupils. The type of relationship a teacher with the students has a direct impact on discipline.

Being respectful, reacting to pupils, and showing an interest in them are some of the most crucial discipline skills a teacher may possess. A teacher should be adept at creating routines that are both efficient and flexible.

- **Classroom Management Skills**

As a teacher, one may win half the battle by making sure that the students behave well. However, one must also be able to assist students in creating good work and study habits in order to become a successful teacher. Developing clear ground rules that emphasize the value of maintaining classroom dignity is the first step in effective classroom management. Teachers should be patient with their students and show them a lot of love and caring. When one show empathy as a teacher, especially during student conflicts, he or she will win the hearts of the students.

When a teacher shows a desire to listen to the issues that the students are having, the student-teacher relationship improves. In order to create a healthy, productive, and secure learning environment in the classrooms, it is crucial for teachers to build strong relationships with their pupils.

- **Observation Skills**

Teachers have a primary role to fully comprehend students' cognitive, emotional, and social development. A teacher should be aware of the various students' learning capacities since a classroom is made up of children from various family

backgrounds. Here, observation is the key competency every teacher needs to have in order to be a successful tutor. There may be both smart and slow learners in a class. Teachers encounter this difficulty every day as they attempt to implement particular teaching strategies that will ensure that no student falls behind.

- **Student Engagement Skills**

Every teacher deals with a group of kids every day who have various learning philosophies. While some students show a genuine interest in what they are learning, others become distracted at the slightest provocation. As a result, in order to be considered an effective teacher, one must learn how to engage kids and inspire them. By employing a variety of techniques, including the use of images, spectacular achievements, and statistics, teachers may engage pupils with the educational material. One of the best strategies to ensure that the students are interested in the lesson is to establish a solid rapport with them. Genuinely care for them and their interests. Take their questions and suggestions seriously. Some teachers have a natural skill for engaging their students, but others can learn these skills with effort. If done well, one develops the reputation of being the student's "go to" person for any emotional or academic help.

- **Strong Communication Skills with Students and Teachers**

Having great communication skills is crucial for teachers. The ability to communicate is always being put to the test while working as a teacher. The students will be drawn to the teacher due to his/her persuasive speaking abilities and thorough knowledge of the material, which will encourage them to pay close attention to what he/she is saying and focus intently. When a teacher is able to answer students' questions and remove their doubts, he/she may engage them in the subject matter. This shows the preparedness of the teacher.

A good teacher should also be in contact with the parents of their students. You'll be able to close the communication gap between parents and students once you start communicating with them frequently. The methods that teachers will use to keep in touch with parents include parent-teacher conferences, phone calls, and emails.

Through such discussions, teachers can inform parents of the strengths and flaws of their children.

- **Teaching Skills**

Every competent teacher needs strong interpersonal skills in addition to effective speaking and presentation abilities. Teaching is regarded as a noble vocation that has the power to improve students' lives. All of these and more are examples of teaching skills, including excellent organisational abilities.

Teachers should arrive at class fully prepared for their lectures, bringing all necessary teaching aids with them. An excellent teacher should score highly on empathy and rapport-building techniques in addition to motivational abilities that will keep the flame blazing in the bellies of students. Effective teaching techniques can include timely feedback on your students' performance and behaviour.

- **Subject Matter Expertise**

Every teacher has a certain area of expertise. Effective teachers support the modifications to their favourite subject's curriculum despite having years of classroom experience.

They will make sure that their students receive the best education possible from them by keeping themselves up to date with the new topics that are added to the course.

Students will feel more comfortable asking questions when professors exhibit a high level of subject matter expertise since they will believe their queries will be answered right away. Thus, engaging lessons in the classroom will be made possible by the general understanding of the subject the teacher have chosen to teach.

- **Time Management Skills**

Effective teachers should carefully organise homework assignments with the goal of providing students with repetitive practise. By framing and structuring assignments that will let students sit for studies at home, he/she may ensure that classroom time is used as effectively as possible. To provide students with a high-quality education

while also meeting their individual learning needs, effective time management skills are essential.

- **Clear Planning Skills**

The objective for each class should be crystal clear in the plan. A teacher can feel more secure in their lesson plans when they have planned ahead. While planning, it is important to account for holidays and unforeseen circumstances. Additionally, implement strategies to help absent students catch up with the rest of the class.

- **Passion and Positivity**

Being passionate about teaching is a requirement to be an excellent teacher, however it isn't strictly a skill. When you are passionate about what you do, you can learn from your mistakes and are constantly looking for ways to become a better teacher.

It's crucial to keep a positive outlook since a teacher serve as an example for the students. The treatment of each student will be reflected in how they act and develop. As a result, keep a positive outlook on each of the students and keep away from undesirable situations in the classroom.

- **Be a Team Player**

Students would adore having teachers who are approachable and empathise with them. Working with the pupils as a team will help them learn while having fun, as opposed to pushing them to learn through punishment.

It promotes a good environment in classroom and encourages students to associate studying with enjoyable pursuits. Students will feel more connected to the teacher and to one another if he/she is a team player.

- **Patience**

It is challenging to manage a classroom full of students. Few students would put the teacher's patience to the test. The results, however, will only be bad if the teacher lose his/her composure in such trying circumstances. A teacher could successfully

change the classroom environment by exercising patience and working one-on-one with problematic kids.

3.4.5.9. Problem-solving Skills

In the library, there are numerous issues that need to be resolved, and the librarian should be an expert in doing so. The librarians should be capable of making good book purchases, resolving issues with users and staff, and forming strong bonds with the library committee. Every time there is an issue in the library or a query regarding the library, the librarian should be prepared to handle them.

The ability to recognise a problem, pinpoint its root cause, and identify every available option for resolving it are all examples of problem-solving skills. The ability to employ the proper techniques to approach unforeseen difficulties in a systematic way is known as problem-solving. It takes quick thinking to pinpoint the root of the problem and implement a solution. Finding the issue is the first step in problem solving.

The ability to solve problems is viewed as a soft skill (a personal strength) as opposed to a hard skill that may be acquired through education or training. The capacity for problem-solving is regarded as a soft skill, which denotes that it is more of a personality trait than a competency acquired in school, on the job, or through technical training. You may have been born with or developed a natural aptitude for problem-solving, but that doesn't mean you can't improve it. This is a skill that can be developed and fostered, allowing you to get better at solving issues over time (Problem Solving Skills, 2021).

3.4.5.9.1. Steps in Problem-solving

There are five primary steps typically used in problem-solving (Doyle, 2020):

- **Analyse Contributing Factor:** To fix a problem, you must identify its underlying cause. To resolve this, you must collect and analyse data, identify any contributing factors, and decide what issues must be resolved. These

abilities are required which include collecting data, analysis of data, fact-finding and historical evaluation.

- **Generate Interventions:** Make a list of potential remedies after identifying the cause. Teamwork is occasionally required since two (or more) minds are frequently better than one in this situation. It is uncommon for one strategy to be the obvious solution to a complicated problem; instead, it is best to come up with a number of options to cover all possible scenarios and minimise your exposure in the event that the first approach you employ fails.

  These abilities are needed for this which includes Brainstorming, Creative thinking, Prediction, Forecasting, Project design and Project planning.

- **Evaluate Solutions:** Evaluation of the best solutions may be carried out by assigned teams, team leads, or forwarded to corporate decision-makers depending on the nature of the issue and chain of command. Whoever makes the decision must consider the likely expenses, the necessary resources, and any potential obstacles to a successful solution implementation. This requires several skills, including Analysis, Discussion, Corroboration, Teamwork, Test development, Mediation and Prioritizing.

- **Implement a Plan:** Once a plan of action has been chosen, it must be carried out together with measurements that can be used quickly and accurately whether it is effective. Skills such as Project management, Project implementation, Collaboration, Time management, Benchmark development and Prioritizing are required.

- **Assess the Solution's Effectiveness:** The most effective problem-solvers have procedures in place to assess whether and how soon a solution is working after it has been put into practise. By doing this, they are able to determine as quickly as possible if the problem has been solved or if they need to adjust their approach to it in the middle of it. This necessitates skills such as Communication, Data analysis, Surveys, Customer feedback, Follow-through and Troubleshooting.

3.4.5.10.   Negotiation Skills

Every day, librarians engage in negotiations. He may do so with his supervisor, subordinates, suppliers, publishers etc. When handling bulk purchases, specialised database subscriptions with vendors, etc., these skills are needed in libraries. Additionally, on occasion, in delicate circumstances like library committee meetings or to avoid unreasonable demands from haughty users (Joseph & Devi, 2020).

People resolve disagreements through negotiation. By using this method, a compromise or agreement can be reached without conflict or dispute. Negotiation is a conversation between two parties to resolve disagreements or problems such that both parties are happy with the outcome. Typically, a compromise involves both giving and taking. When both parties are willing to make concessions in order to end a dispute peacefully, negotiation is the consequence (Negotiation Skills, 2021). Win-win negotiations are the best because they result in agreements that protect the interests of both parties. Interpersonal, communication, and problem-solving abilities are all necessary for successful negotiation (Negotiation Skills, n.d.). Negotiation skills are the skills used when two or more parties can come to an agreement on a rational solution.

3.4.5.10.1. Essential Skills for Negotiation

- **Communication:** Being able to communicate well with other negotiators allows one to have peaceful discussions and strive toward a mutually acceptable outcome. Giving and receiving is a natural part of any negotiation, so it's critical to express your views clearly and pay attention to the wants and desires of others. Without this ability, it is impossible for everyone to leave the negotiation satisfied because important aspects of the conversation may be missed (Miller, 2021). The basis of any negotiation is communication. The success of the negotiation depends on how you communicate. It requires recognizing nonverbal signs, selecting the appropriate words, and articulating your ideas in a captivating and interesting manner. You need to get your point through to the party without being overly lengthy. In order to fully

comprehend what the other party is saying, negotiators frequently practise active listening.

- **Emotional Intelligence:** Emotions affect negotiations in both good and bad ways. While it's crucial to avoid letting them stand in the way of coming to a mutually beneficial agreement, you can still take use of them. People with high emotional intelligence are able to recognize others' emotions, appropriately assess and express their own feelings, and use these emotions to help find answers. At the negotiating table, positive emotions have been shown to increase feelings of trust, whereas negative emotions can be transformed into excitement.

- **Planning:** Planning is useful during negotiations since it guarantees that the choice will be carried out successfully. The first step in every negotiation is preparation. You should have a clear notion of what you want to accomplish and where your boundaries are. Without sufficient planning, it's possible to forget crucial elements of your agreement. Planning effectively before the negotiation guarantees that you are aware of the long-term effects of the negotiation conditions.

- **Value Creation and Persuasion:** One of the most effective tools you can add to your toolbox is the ability to add value during a negotiation. Successful negotiators possess the power to influence other parties. Without the ability to persuade, it is challenging to demonstrate how the solution will be advantageous to all sides. The other party's willingness to accept your answer depends on your ability to persuade them.

- **Strategy:** The opposing party may occasionally object to the solutions that are provided. The best negotiators frequently have one or more backup plans. Before starting a negotiation, take into account all potential solutions to the issue. You require a thorough awareness of negotiation strategies, as well as the capacity to add value. You may design a customised approach for each negotiation you take part in by understanding what works and what doesn't.

- **Reflection:** Last but not least, you must evaluate prior negotiations and pinpoint areas for development if you want to complete and advance your negotiation skills. Consider what worked well and what could have been done better after each negotiation, whether it was successful or not. By doing this, you will be able to assess the strategies that were effective for you and those that were ineffective.

3.4.5.11.   Leadership Skills

Leadership abilities are a must for library professionals. The ability to lead is necessary for library professionals since they collaborate with supporting staff, manage the workload and hours of the library, and interact daily with a variety of users (Wani, 2019). Leadership is a complex phenomenon that involves the situation, the follower, and the leader. To effectively manage subordinate staff in various departments of the library, librarians must have strong leadership qualities. This is because each department's staff member is crucial to the proper operation of the library. The librarian should lead by example for his team (Joseph & Devi, 2020).

Professionals that possess leadership qualities can guide teams, projects, and organisations. When leading others to a common objective, leadership skills are needed. If you're in charge of a project or in management, you must have the ability to inspire others to finish a set of responsibilities, frequently on time. In order to be a good leader, you need to have a variety of abilities functioning together. Any organisation needs strong leaders. They can support the development of strong teams within an organisation and guarantee the success of projects, initiatives, or other work-related tasks. Anyone may develop their leadership skills by learning how to practise and hone them. Good leaders have great interpersonal and communication skills (Leadership Skills, 2018).

3.4.5.11.1. Effective Leadership Skills and Competencies

- **Emotional Intelligence:** One of the most crucial soft talents for leadership is emotional intelligence. Leaders have to deal with a range of delicate and demanding situations, and they need sound judgement to be able to act effectively in them. Managers can support their workers by making

decisions by having a thorough understanding of what employees may be considering or experiencing in specific circumstances. These leaders are more likely to build stronger relationships with their teams and are less likely to alienate their workers. Employee morale may be maintained and many workplace problems can be avoided by leaders who are able to read emotions and anticipate possible reactions. Leaders can reduce tension and identify problems inside the department with the help of these talents. Additionally, emotional intelligence merely improves how likable and trustworthy leaders are with their team (Robinson, 2022).

- **Relationship Building or Team Building:** Building and maintaining a cohesive team of people who are all working toward the same objective demands leadership skills. Other leadership qualities, such as excellent communication and conflict resolution, are necessary for team creation. As it improves the effectiveness of communicating tasks, responsibilities, and goals, relationship building may be one of the most crucial leadership abilities (Leadership Skills, 2018).

- **Problem-solving:** One of the most crucial leadership skills is problem solving. For customers, the business, and the team, leaders devote a lot of time to putting out fires and finding solutions. These people must be able to think creatively, conceive fresh approaches, anticipate outcomes, and test hypotheses in low-risk situations. Leaders differ from the rest of the workforce in this way. Good leaders are adept at resolving problems that come up at work. Identifying a step-by-step approach and remaining composed are frequently necessary for effective problem solving. Leaders who have strong problem-solving abilities can make quick judgments, work through issues with both internal and external teams, and guarantee projects are finished on schedule and to the required standards.

- **Decision-making:** Quick decision-makers who act on the knowledge at hand make for effective leaders. Time and experience are necessary for making wise decisions. Effective decision-making may be done swiftly when a leader is competent and confident. These managers are aware of when to

hold off until they have more information, how to gain new perspectives, and how to weigh their options before choosing the best one. Excellent decision-makers are capable of foreseeing outcomes and difficulties and can plan for the best and worst-case scenarios. Along with being able to convince others to support the strategy, these leaders can defend and explain their choices to higher-ups, their own teams, and other departments

- **Communication:** Effective communication skills are essential for leaders. This is the keystone on which all other aspects of leadership depend. Because what is not said is frequently as least as essential as the words selected, they must not only be excellent communicators but also be skilled listeners and interpreters of body language and other nonverbal cues (Top Leadership Skills You Need, 2011).

- **Delegation:** Leaders that handle everything on their own are not really leaders. By definition, leadership entails task delegation and team direction. One of the most important leadership skills is the ability to delegate. To avoid overload and ensure that projects are done on time, great leaders know how to divide, balance, and rebalance workloads. These people are aware of when and to whom to assign responsibilities at the appropriate moment.

- **Time Management:** Professionals that oversee significant projects, tasks, or teams must have a strong grasp of time management. These people are excellent in organising the workday, estimating tasks, guiding meetings toward goals, meeting deadlines, and preventing schedule overruns. They are able to prioritise projects and restrict the amount of time they spend on each one. Great managers are also aware of the team's time management. These managers make modifications or recommendations to enhance procedures and increase the effectiveness of systems while ensuring that team members use their time productively.

- **Motivation:** Leaders must motivate employees to go above and above for their firms; in most cases, offering them a fair wage is insufficient motivation (although it is important too). There are several ways to inspire your team

members, like offering them additional duties to improve their investment in the business or boosting their self-esteem through praise and awards.

- **Flexibility:** Accidents and last-minute modifications are common at work. Leaders must be adaptable and willing to embrace any changes that may occur. The capacity to adapt to change and come up with original solutions will be valued by colleagues. Leaders similarly need to be receptive to advice and criticism. If a component of the workplace is making your staff unhappy, pay attention to their complaints and be willing to make the required adjustments. A leader's capacity to accept useful criticism will be valued by the workforce.

- **Integrity:** The definition of integrity is frequently limited to truthfulness or honesty, but it frequently also refers to having and upholding a set of core principles. Making moral decisions and supporting the organisation in maintaining a favourable reputation are frequently examples of having integrity in the workplace. All companies look for candidates that possess a strong sense of ethics. Being a leader with integrity not only promotes the most honest and just outcome, but it also sets a good example for the team.

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CHAPTER 4
DATA ANALYSIS AND INTERPRETATION

4.1. Introduction

Data analysis and data interpretation are two distinct processes that follow a set of steps in the data science life cycle. They are the most important stages in the research process. Data analysis is the process of putting order, structure, and importance to the information gathered. It aims to identify patterns or regularities by observing, examining, organising, modifying, and modelling the gathered data. It helps in the generation of key ideas, the formation of conclusions, and the facilitation of decision-making process. The next step is to interpret the data after it has been analysed. The process of imparting meaning to the processed and analysed data is known as data interpretation. It allows us to draw refined and meaningful conclusions, as well as assess the relevance of relationships.

Using primary data obtained through a structured questionnaire, this chapter investigates the skills and competencies of college library professionals in Mizoram, whose colleges and institutes are affiliated to Mizoram University.

4.2. Data Analysis and Interpretation

In order to meet the objectives of the study, the numerical variables were analysed using MS-Excel which was supported by tables and graphs. The chapter is broadly divided into five parts. The first part is Demographic data, which provides personal information about the respondents. The second part presents the status of ICT based infrastructure and services provided by the Colleges and Institutions under study. The third part contains questions about respondents' ICT skills; the fourth part analyses data on respondents' personality development and communication skills; and the fifth part contains data on respondents' managerial skills.

4.2.1. Questionnaire Distribution among Respondents

Table 3 shows the questionnaires distributed and received by the college library professionals of Mizoram in which the Colleges/Institutes are affiliated to Mizoram University. There are 36 Colleges/Institutes under study where there are a total of 54 working library professionals (See the list in Chapter 2). A structured questionnaire

was distributed among the library professionals, and 50 filled-in questionnaires were received back which gives the response rate of 92.6%.

Table 3: Questionnaire distribution

No. of questionnaire distributed	No. of questionnaire received	Received percentage
54	50	92.6%

### 4.2.2. Demographic Profile of Respondents

The demographic profile of respondents contains information about the respondents' personal features such as gender, designation, and professional qualifications, which are analysed and interpreted in Tables 4,5 and 6.

4.2.2.1. Gender of Respondents

Table 4 and Figure 10 presents the gender of respondents which shows that out of 50 respondents, 27 (54%) are female and 23 (46%) are male, with female respondents outnumbering male respondents by 8%.

Table 4: Gender of respondents

| Gender of Respondents	Frequency	Percentage
Male	23	46%
Female	27	54%
Total	**50**	**100%**
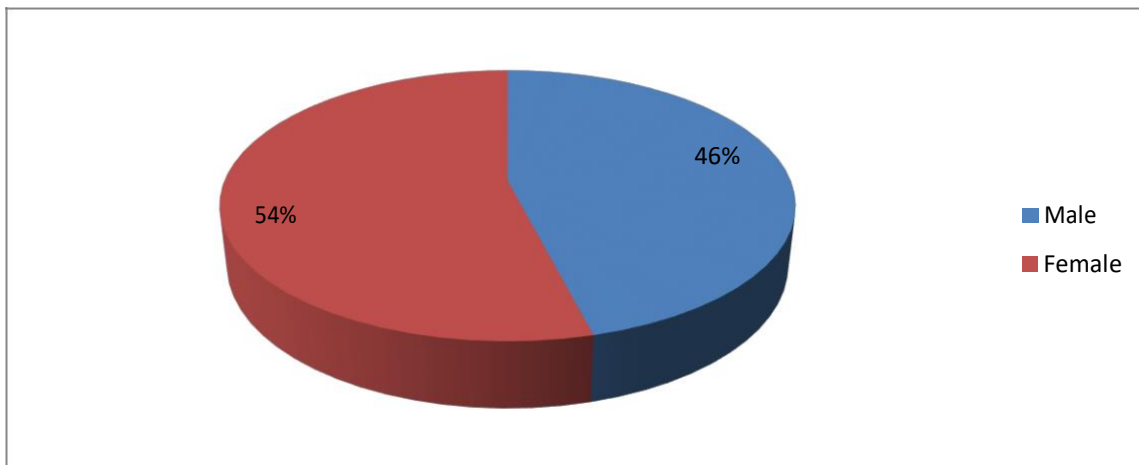
Figure 10:   Gender of respondents

4.2.2.2.   Designation of Respondents

The term designation refers to the type of work that a person does. The study includes only the library professionals of Mizoram colleges ranging from Librarian to Library Assistant. The designation of the respondents are categorised into seven groups which include Librarian, Deputy Librarian, Assistant Librarian, Library and Information Officer, Professional Assistant, Semi-Professional Assistant and Library Assistant. Table 5 and Figure 11 shows the respondents' designation which depicts that out of 50 respondents, there are 22 (44%) Librarians, 4 (8%) Deputy Librarians, 4 (8%) Assistant Librarians, 1 (2%) Library and Information Officer, 1 (2%) Professional Assistant, 1 (2%) Semi-Professional Assistant and 17 (34%), Library Assistants.

Table 5: Designation of respondents

Designation	Frequency	Percentage
Librarian	22	44%
Deputy Librarian	4	8%
Assistant Librarian	4	8%
Library and Information Officer	1	2%
Professional Assistant	1	2%
Semi-Professional Assistant	1	2%

|		
Library Assistant	17	34%
Total	**50**	**100%**
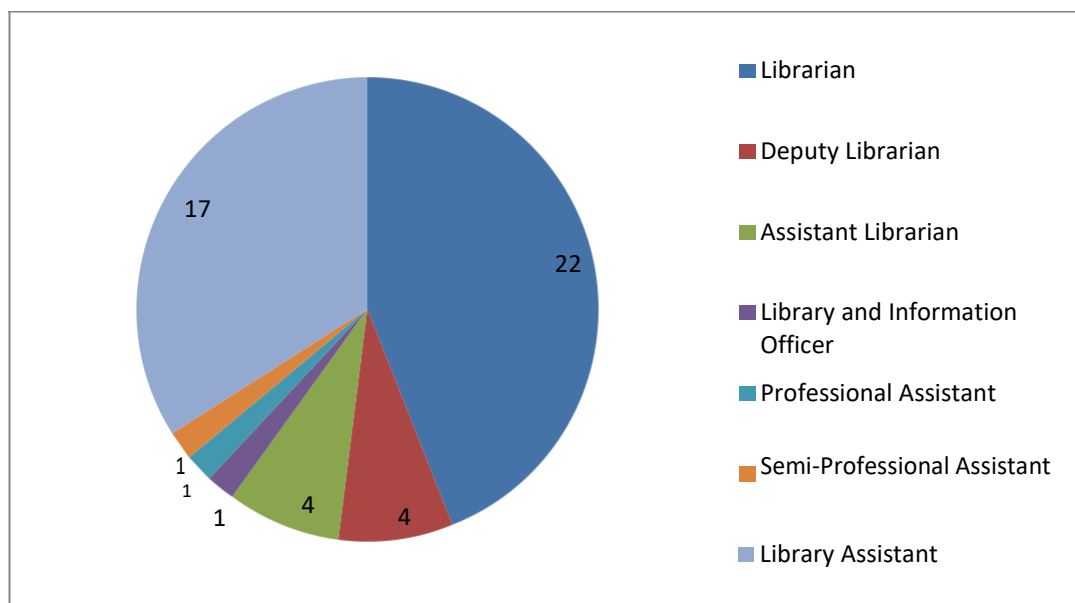
Figure 11: Designation of respondents

4.2.2.3. Professional Qualification of Respondents

The Certificate Course in Library and Information Science (CLISc), Bachelor of Library and Information Science (BLISc), Master of Library and Information Science (MLISc), M.Phil., and PhD in Library and Information Science are among the professional credentials needed for a work in this field. The basic qualification for entry cadre as a Library Assistant being degree with CLISc. Table 6 and Figure 12 indicate the professional qualifications of the respondents. A total of 10% of the respondents have a PhD and 24% have an MPhil. There are 46% MLISc. degree holders, 10% B.LISc. degree holders and 6% CLISc. Degree holders. 4% respondents fail to provide the professional qualifications they possessed.

Table 6: Professional qualification of respondents

Professional qualification	Frequency	Percentage
CLISc	3	6%
BLISc	5	10%
MLISc	23	46%
MPhil	12	24%
PhD	5	10%
No Response	2	4%
Total	**50**	**100%**
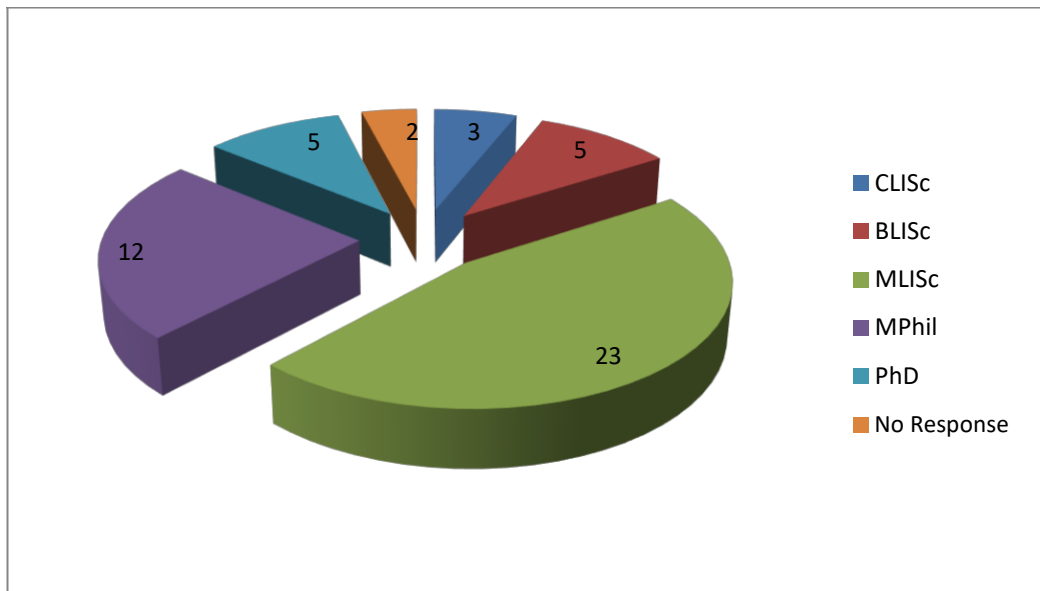
**Figure 12:**   **Professional qualification of respondents**

4.2.3. ICT Based Infrastructure and Services

4.2.3.1. Library Automation

The use of a computer to automate in-house library functions such as cataloguing, circulation, acquisition, serial control etc. is known as library automation. A library uses computers and other technologies to assist its systems and services during the automation process. Table 7and Figure 13highlight that out of 36 Institutions, 31 (86.1%) have automated their library while 2 (5.6%) Institutions have not. Data could not be retrieved from 3 (8.3%) colleges.

Table 7:   Library automation

| Library Automation	Frequency	Percentage
Yes	31	86.1
No	2	5.6
No Response	3	8.3
Total	**36**	**100**
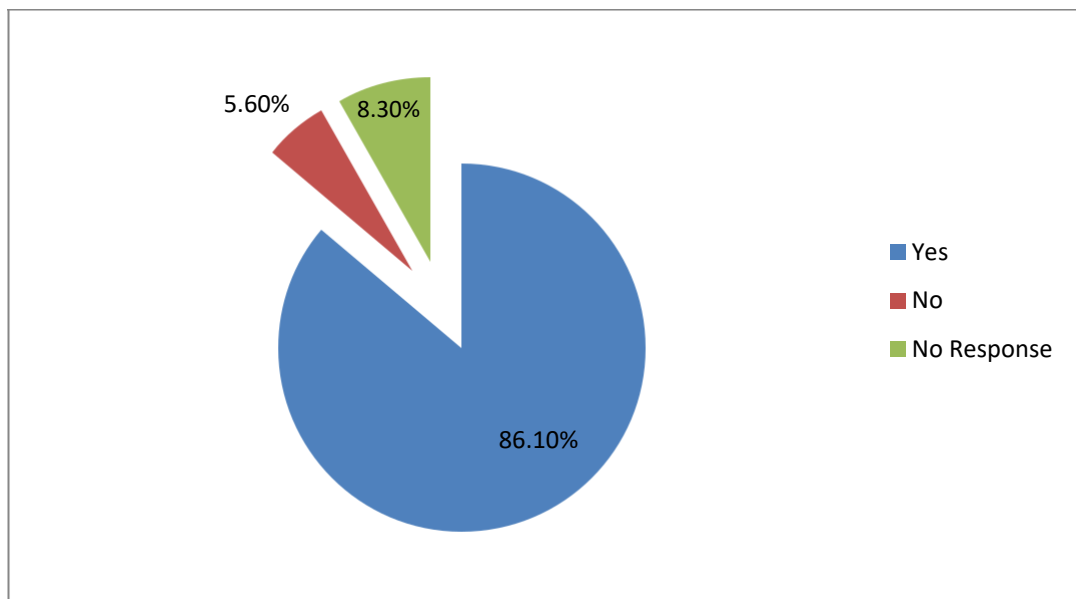
Figure 13:   Library automation

4.2.3.2.   Library Software used

There are numbers of highly integrated, user friendly and compatible library automation software that enables the library serve their users better and in a more efficient manner. Table 8and Figure 14 show that 2(5.6%) Institutions use LIBSYS library automation software, 26(72.2%) use SOUL software, 1(2.8%) uses TLSS software while 2(5.6%) use other library automation software which are not specifically mentioned. There are no responses from 3(18.3%) institutions regarding this question.

Table 8:   Library software used

Library Software	Frequency	Percentage
LIBSYS	2	5.6%
SOUL	26	72.2%
KOHA	-	-
TLSS	1	2.8%
Evergreen	-	-
NewGenLib	-	-
OpenBiblio	-	-
EPrints	-	-
Others	2	5.6%
No Response	3	8.3%
Total	**34***	**100**

***Two colleges who have not automated their library are excluded**
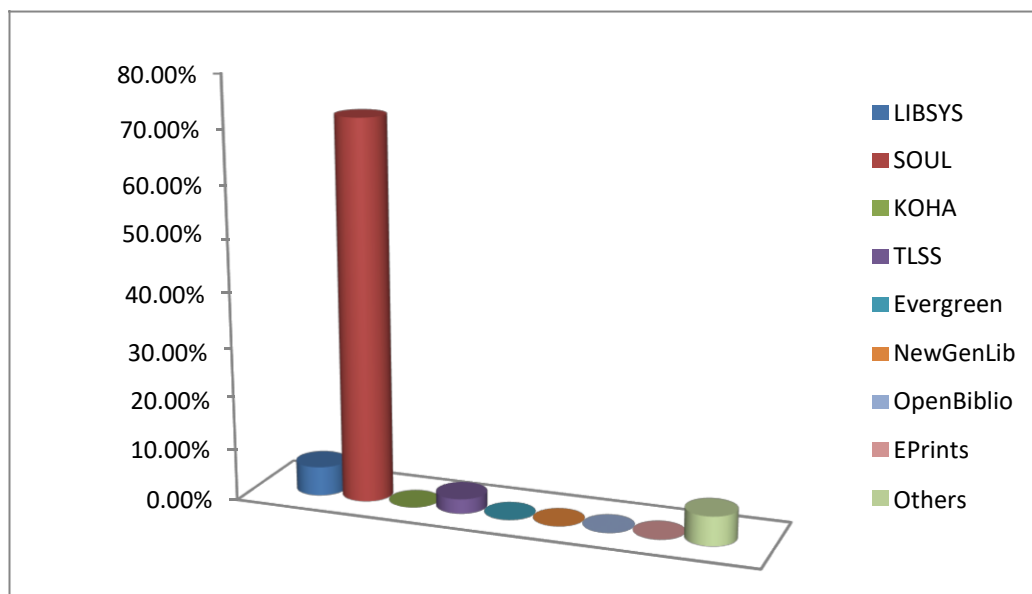
Figure 14:   Library software used

4.2.3.3.   Library Website

Libraries create websites to meet the needs of the users, motivated by the desire to provide massive amounts of information 24/7.It is a key access point for information and services. The library provides easy access to and usage of high-quality resources and information. Table 9 demonstrates that only 2 (5.6%) Institutions have a Library Website whereas 30 (83.3%) do not. Data could not be obtained from 4 (11.1%) institutions.

Table 9:   Library website

| Library Website	Frequency	Percentage
Yes	2	5.6
No	30	83.3
No Response	4	11.1
Total	**36**	**100**
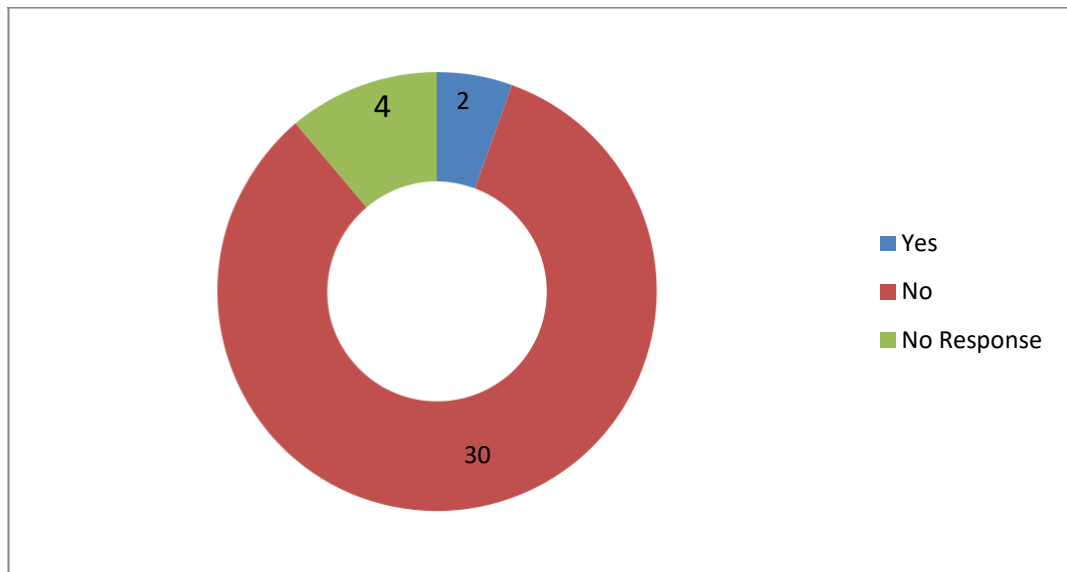
Figure 15: **Library website**

4.2.3.4. RFID in Library

Due to the advantages of RFID in libraries which improve the circulation management, inventory and security of library collections, libraries all over the world are adopting it to replace barcode technology, which does not provide library collection security, provides no benefit for collection management, and makes it difficult for libraries to meet the growing demands of their users.3 (8.3%) Institutions under study use RFID technology in their library while 31(86.1%) do not use It. 2 institutions (5.6%) have not responded (Table 10).

Table 10: **RFID in Library**

| RFID	Frequency	Percentage
Yes	3	8.3
No	31	86.1
No Response	2	5.6
Total	**36**	**100**
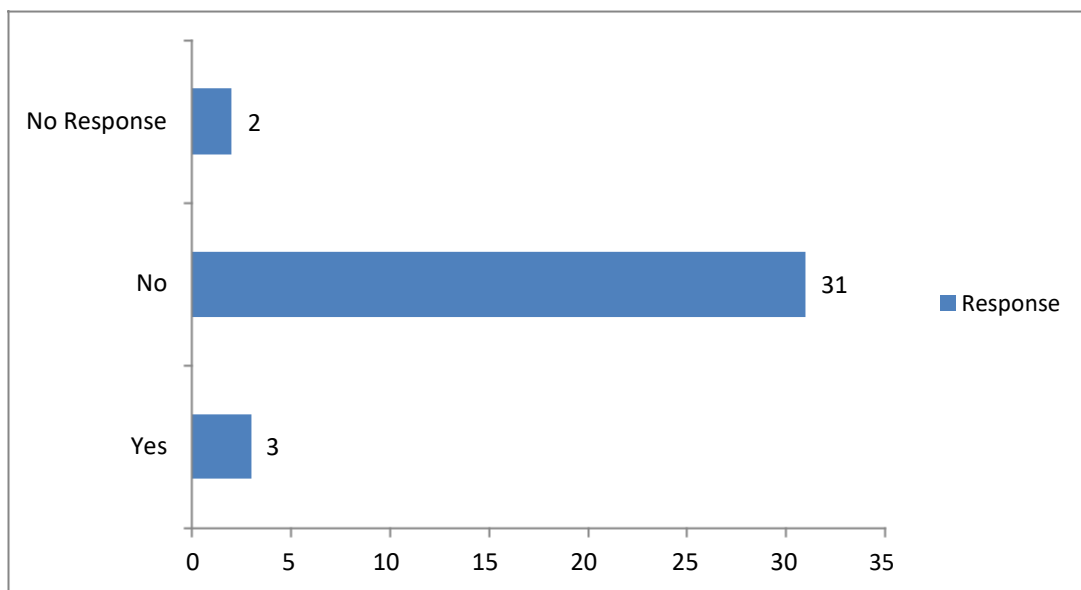
Figure 16:   RFID in Library

4.2.3.5.   Digital Collection

A digital collection is an online database of digital objects that can comprise text, still photographs, audio, video, digital documents, or other digital media formats (Wikipedia, 2022). 5(14%) claim that they have a digital collection while 24(67%) say they don't. (19%) do not respond to this question (Table 11).

Table 11:   Digital collection

| Digital Collection	Frequency	Percentage
Yes	5	14
No	24	67
No Response	7	19
Total	**36**	**100**
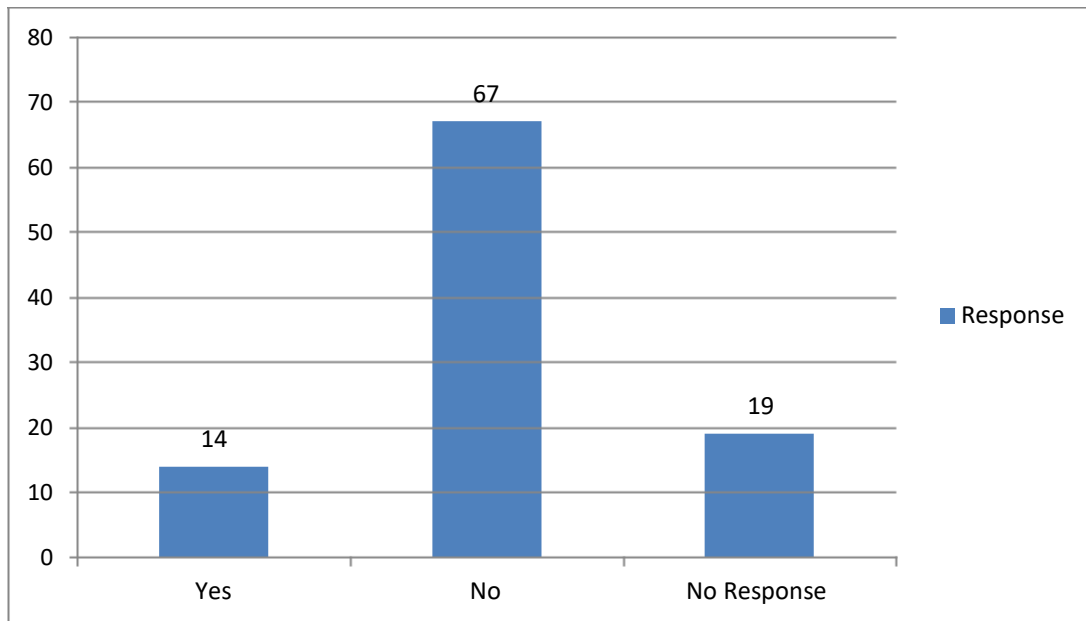
Figure 17:   Digital collection

4.2.3.6.   Institutional Repository

Many academic libraries are actively engaged in building repositories of the institutions. An institutional repository is an online archive that collects, preserves, and disseminates digital copies of an institution's intellectual work, especially research production. Majority of the respondents (28 i.e., 77.8%) do not have IR while there are only 2 (5.6%) who claim to have IR in their library (Table 12).

Table 12:   Institutional Repository

| Institutional Repository	Frequency	Percentage
Yes	2	5.6
No	28	77.8
No Response	6	16.6
Total	**36**	**100**
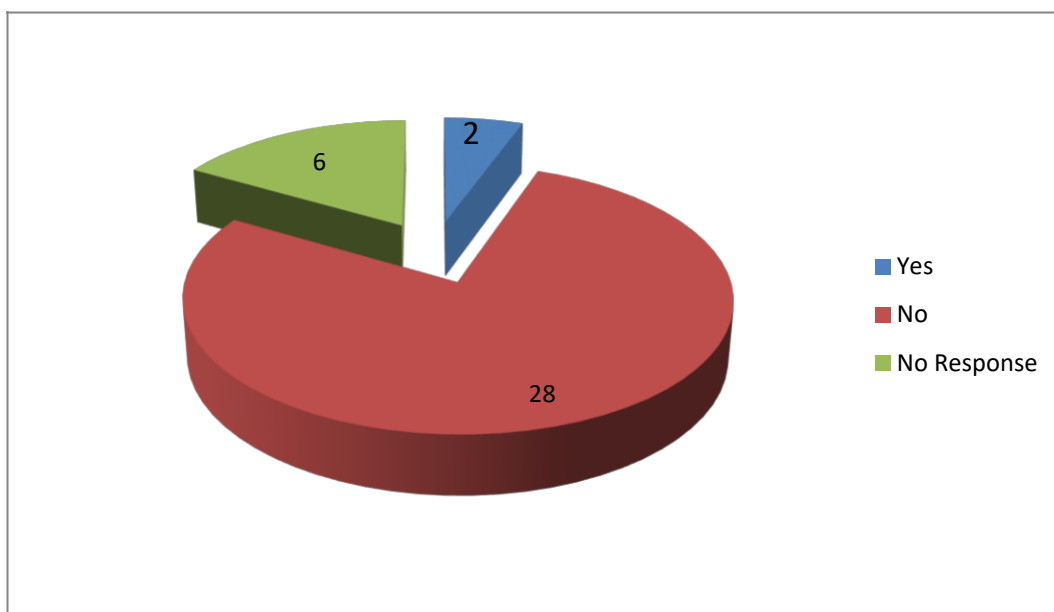
Figure 18:   Institutional Repository

4.2.3.7.   Collection of E-resources

Materials that require computer access, whether via a personal computer, mainframe, or handheld mobile device, are referred to as "electronic resources." They can be accessible locally or remotely through the Internet.Collection development of e-resource has become an integral part of library development, complementing print collection development.Table 13 shows that 13(36.1%) libraries have a collection of e-resources, while majority of them (55.6%) do not have them. No responses could be obtained from 3(8.3%) libraries.

Table 13:   Collection of e-resources

E-resources	Frequency	Percentage
Yes	13	36.1
No	20	55.6
No Response	3	8.3
Total	**36**	**100**

192
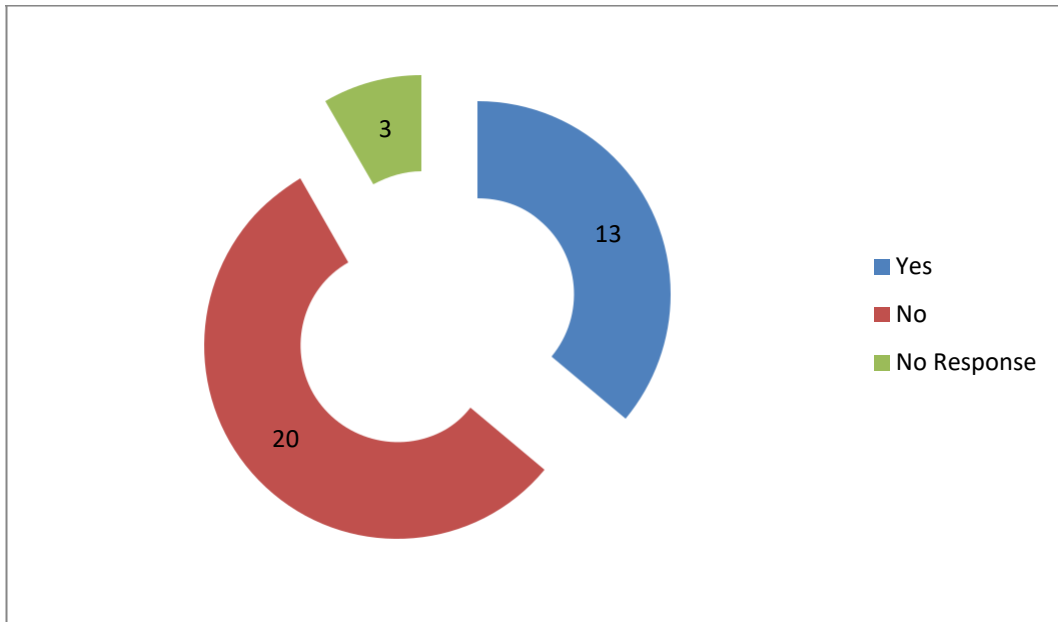
Figure 19: **Collection of e-resources**

4.2.3.8. Mobile Alert Service

Libraries can use SMS-based mobile alerts to efficiently market their services and provide value-added services. Table 14 reveals that majority of the libraries (88.9%) under study do not provide SMS-based mobile alert services. Only one (2.8%) provides these services to the users.

Table 14: **Mobile Alert Service**

Mobile Alert Service	Frequency	Percentage
Yes	1	2.8
No	32	88.9
No Response	3	8.3
Total	**36**	**100**
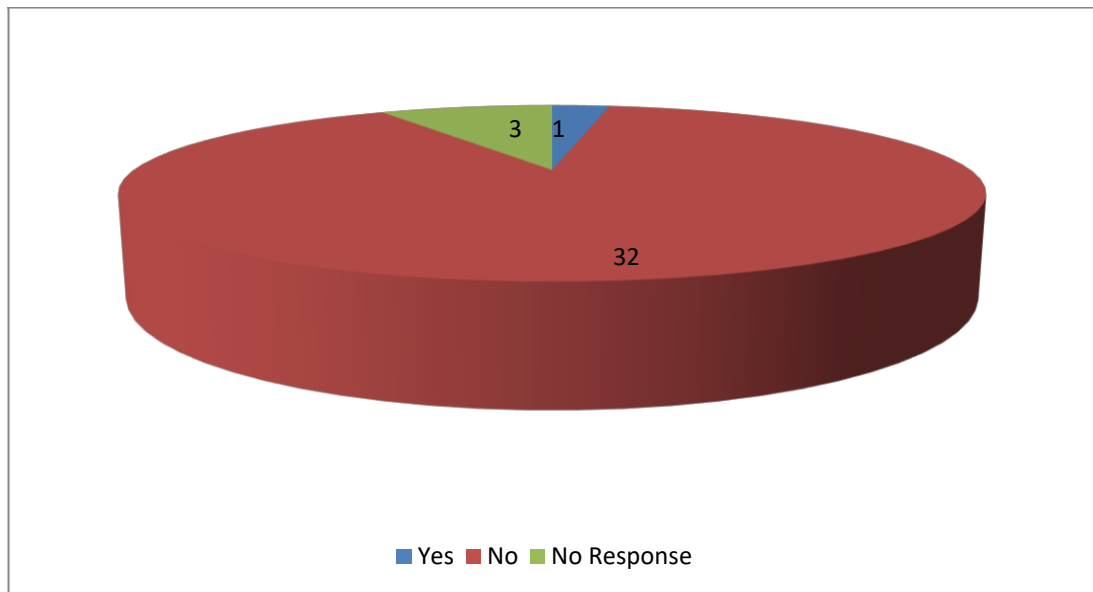
Figure 20: **Mobile Alert Service**

4.2.4. ICT Skills

The ICT skills and competencies of library professionals are presented in Tables and Figures. They are analysed and classified into seventeen (17) variables. Such variables include Computer degree possess (Table 15 and Figure 21); Methods of acquiring ICT skills (Table 16 and Figure 22); Proficiency level in handling Library automation software (Table 17 and Figure 23);Proficiency level in digital library software (Table 18 and Figure 24); Proficiency level in managing e-resources and services (Table 19 and Figure 25); Expertise in handling Library website (Table 20 and Figure 26); Expertise in developing digital collection (Table 21 and Figure 27); Expertise in creating and maintaining Institutional Repository (Table 22 and Figure 28); Expertise in uploading and maintaining e-resources (Table 23 and Figure 29); Practical knowledge in RFID (Table 24 and Figure 30); Knowledge in digital collection (Table 25 and Figure 31); Knowledge in Digital Library Software (Table 26 and Figure 32); Familiarity with various areas of Library automation software (Table 27 and Figure 38); Usefulness of social media tools in Libraries (Table 28 and Figure 39); Participation in Online platform (Table 29 and Figure 40); Problems faced in acquiring ICT skills (Table 30 and Figure 41); Attitude towards the impact of ICT in library services (Table 31 and Figure 42).
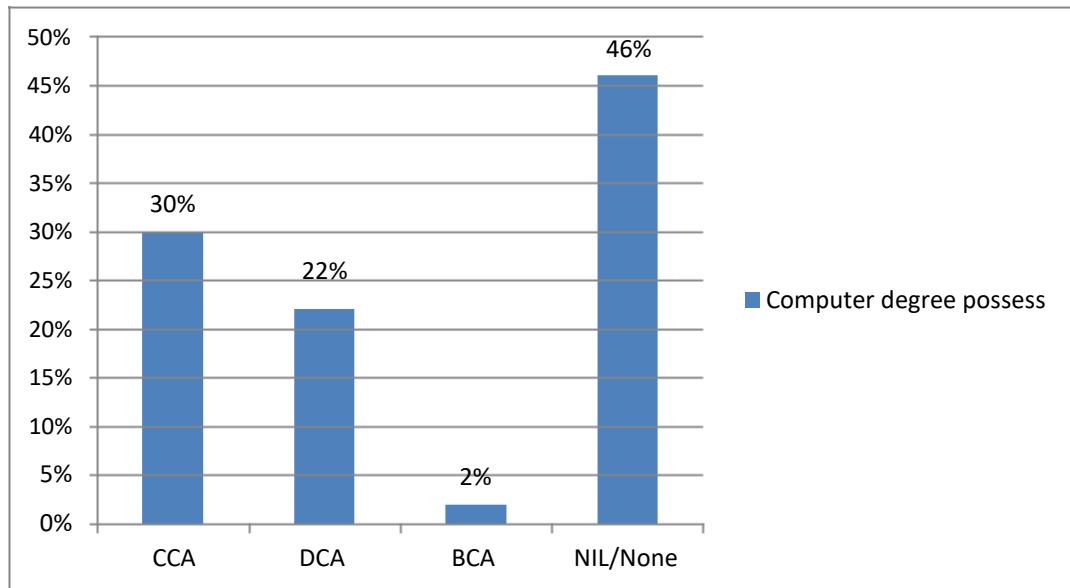
4.2.4.1.   Computer Degree Possess

Having additional degree and acquiring skills in Computer helps the library professionals in managing an information system and meet the requirements of library tasks. Some of the respondents had computer qualifications, as seen in Table 15 and Figure 21. According to the report, 30% of respondents have a Certificate in Computer Application (CCA), 22% have a Diploma in Computer Application (DCA), and 2% have a Bachelor in Computer Application (BCA). The table also shows that 46% of the respondents do not have a computer degree.

Table 15: Computer degree possess

| Computer Degree	Frequency	Percentage
CCA	15	30%
DCA	11	22%
BCA	1	2%
MCA	0	0%
PGDLAN	0	0%
PGDCA	0	0%
PGDCA	0	0%
NIL/None	23	46%
Total	**50**	**100%**

Figure 21: Computer degree possess

4.2.4.2.   Method of Acquiring ICT Skills

The 32% acquire ICT skills from the Library and 18% are self-interested and acquire it all by themselves. 10% acquire it from friends and colleagues while acquiring through informal education has been ranked least (8%). It is clear from Table 16 that acquiring ICT skills through formal education got an edge over others. A similar study conducted by Bajpai and Margam (2019) find out the method by which LIS professionals acquire ICT skills, and the results of their research shows that majority of the respondents acquire their skills through workshop/seminars, colleagues/friends, self-study, training by software suppliers, formal education and on the job training. Among various methods, the dependency on Refresher course was not considered appropriate method of acquiring ICT skills.

Table 16: Method of acquiring ICT skills

Methods	Frequency N=50	Percentage
Formal courses/education	24	48%
Informal education	4	8%
Friends/colleagues	5	10%
From the Library	16	32%
Self interest	9	18%
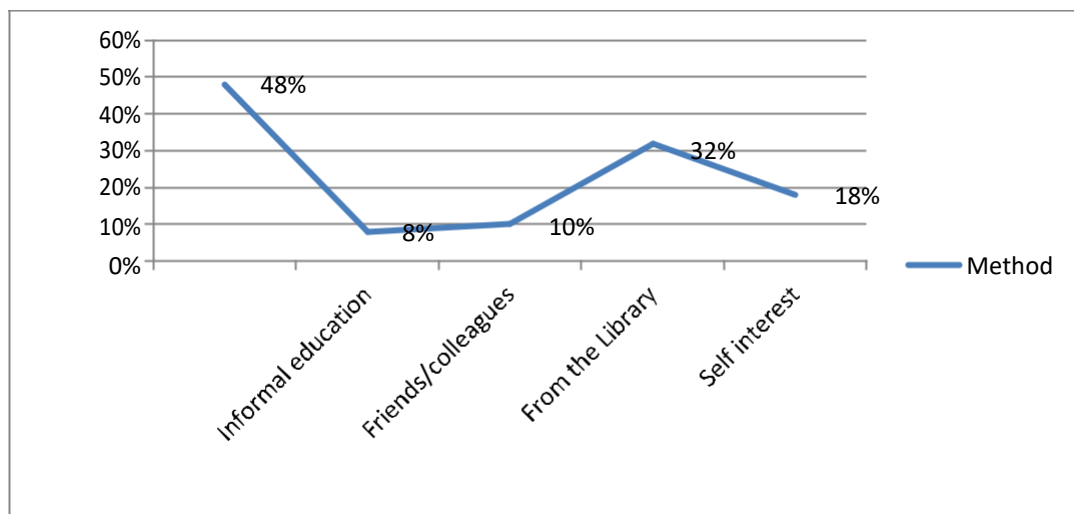
Figure 22: Method of acquiring ICT skills

4.2.4.3. Proficiency Level in Handling Library Automation Software

Table 17 and Figure 23 reveal the proficiency level of the respondents in handling Library automation software. The proficiency level is classified into five categories viz. 'Very High', 'High', 'Average', 'Poor' and 'Very Poor'. The data shows that out of 50 respondents, 2 (4%) respondents have very high proficiency level in handling Library automation software, 9 (18%) have high proficiency and majority of the

respondents i.e., 39 (78%) have an average level of competency in handling these software.

Table 17: Proficiency level in handling Library automation software

| Proficiency Level	Frequency	Percentage
Very high	2	4%
High	9	18%
Average	39	78%
Poor	0	0%
Very poor	0	0%
Total	**50**	**100%**
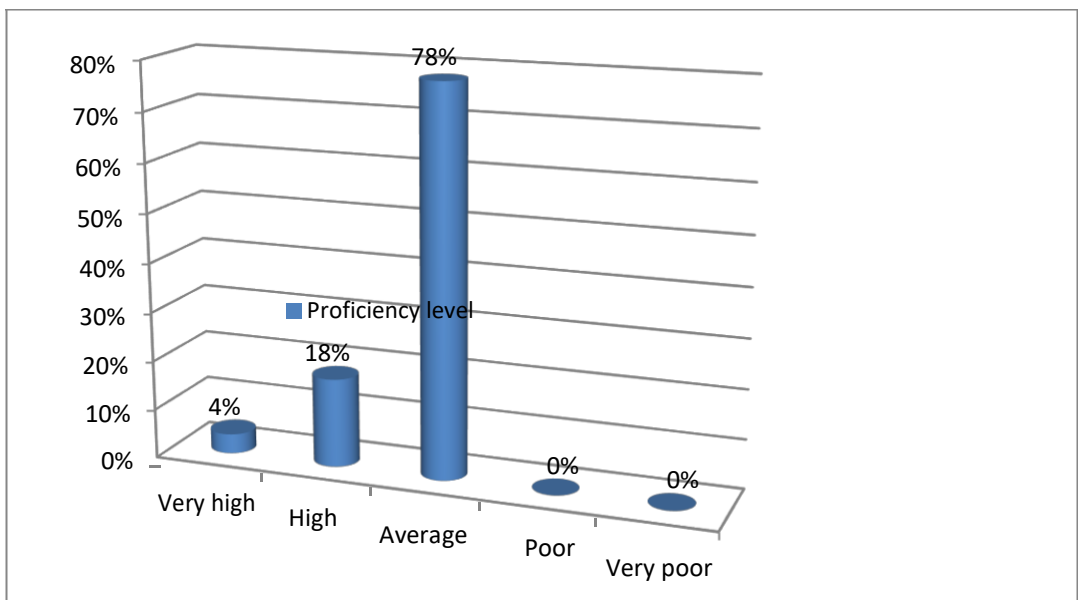
Figure 23: **Proficiency level in handling Library automation software**

4.2.4.4.   Proficiency   Level   in   Digital   Library   Software

In order to efficiently navigate through digital information, the use of digital instruments in libraries necessitates digital competencies. Table 18 reveals the proficiency level of the respondents in the area of digital library software. The data shows that only 2% of the respondents have very high proficiency level in DSpace digital library software. It also shows that the respondents have high proficiency in DSpace (8%), Greenstone (4%), e-print (2%), NewGenLib (2%) and other digital library software (2%). The respondents also have average proficiency in DSpace (24%), NewGenLib (8%), e-print (6%), Fedora (4%) and Greentstone (4%). There are 10% respondents who are poor in using Greenstone library software followed by Fedora (6%), e-print (6%), NewGenLib (6%), DSpace (4%) and other digital library software (2%) which is not specified in the Table. Only 2% each claim that they have a very poor proficiency in using Fedora, e-print, NewGenLib and other digital library software.

Table 18:   Proficiency level in Digital Library software

Digital Library Software	Frequency N=50 (%)				
	Very high (%)	**High (%)**	**Average (%)**	**Poor (%)**	**Very poor (%)**
Greenstone	0(0%)	2(4%)	2(4%)	5(10%)	0(0%)
D-SPACE	1(2%)	4(8%)	12(24%)	2(4%)	0(0%)
Fedora	0(0%)	0(0%)	2(4%)	3(6%)	1(2%)
e-print	0(0%)	1(2%)	3(6%)	3(6%)	1(2%)
NewGenLib	0(0%)	1(2%)	4(8%)	3(6%)	1(2%)
Any other	0(0%)	1(2%)	0(0%)	1(2%)	1(2%)
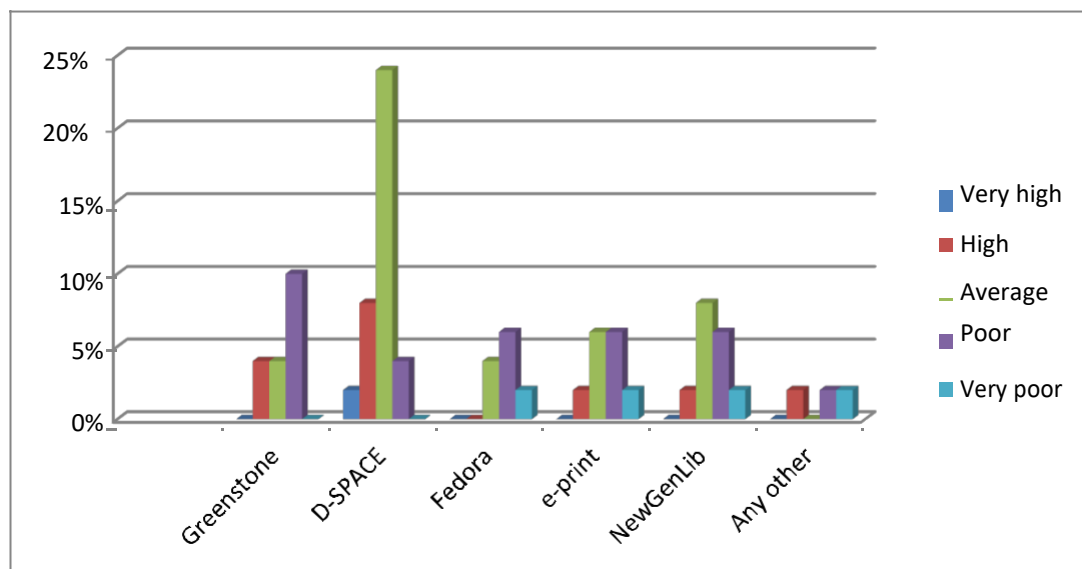
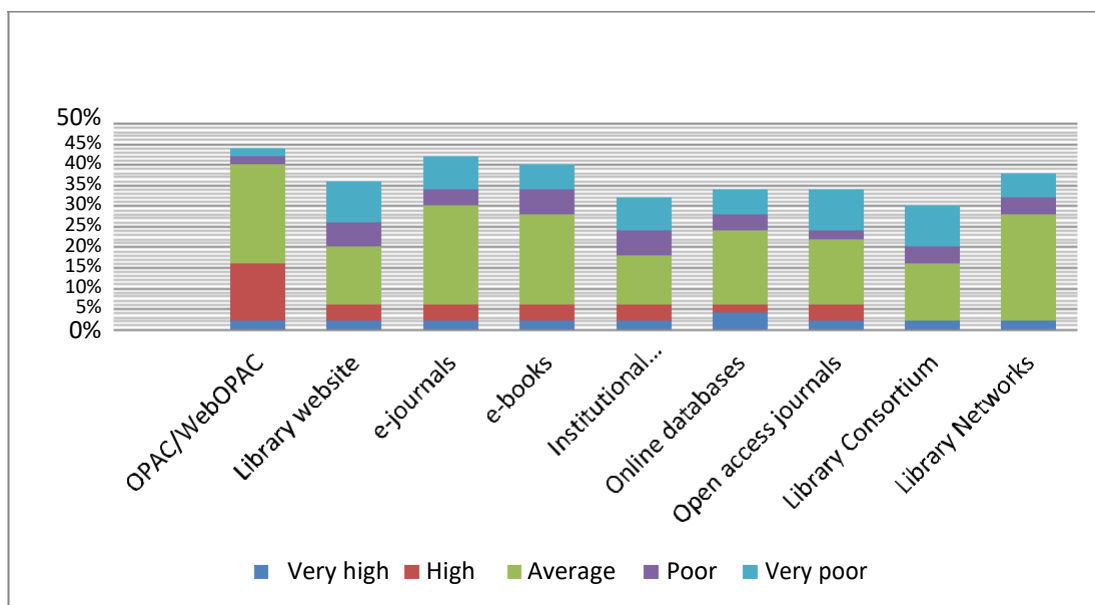**Figure 24:   Proficiency Level in Digital Library software**

4.2.4.5.   Proficiency Level in Managing e-resources and Services

Organizing and maintaining e-resources is one of the most significant and crucial tasks in a modern digital library information system for the efficient operation of library services. As a result, library professionals should have strong technical abilities in areas such as computing, database management, networking, and other ICT management skills. Only 2% of the library professionals under study have very high proficiency in e-resources, particularly in the areas of OPAC/WebOPAC, Library website, e-journals, e-books, Institutional Repository, Open access journals, Library consortium and Library Networks; and 4% in the area of Online databases, as shown in Table 19. Managing OPAC/WebOPAC is a strong suit for 14% of respondents, followed by library websites (4%), e-journals (4%), open access (4%), and online databases (4%). In the areas of Library Networks (26%), OPAC/WebOPAC (24%), e-journals (24%), e-books (22%), online databases (18%), Open access journals (16%), Library website (14%), Library consortium (14%), and Institutional Repository (14%), library professionals have an average proficiency level in managing e-resources and services (12%). Some library professionals also claim that they are poor in managing Library website (6%), e-books (6%), Institutional Repository (6%) which is followed by e-journals (4%), online databases (4%), Library consortium (4%), Library Networks (4%), OPAC/WebOPAC (2%)

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and Open access journals (2%). There are also some library professionals who have a low level of skill in administering, maintaining, and accessing Library websites (10%), Open access journals (10%), e-journals (8%), Institutional Repository (8%), e-books (6%), online databases (6%), Library Networks (6%), and OPAC/WebOPAC (6%).

Table 19:   Proficiency level in managing e-resources and services

e-resources	Frequency N=50 (%)				
	Very high (%)	High (%)	Average (%)	Poor (%)	Very poor (%)
OPAC/WebOPAC	1(2%)	7(14%)	12(24%)	1(2%)	1(2%)
Library website	1(2%)	2(4%)	7(14%)	3(6%)	5(10%)
e-journals	1(2%)	2(4%)	12(24%)	2(4%)	4(8%)
e-books	1(2%)	2(4%)	11(22%)	3(6%)	3(6%)
Institutional Repository	1(2%)	2(4%)	6(12%)	3(6%)	4(8%)
Online databases	2(4%)	1(2%)	9(18%)	2(4%)	3(6%)
Open access journals	1(2%)	2(4%)	8(16%)	1(2%)	5(10%)
Library Consortium	1(2%)	0(0%)	7(14%)	2(4%)	5(10%)
Library Networks	1(2%)	0(0%)	13(26%)	2(4%)	3(6%)

**Figure 25:** **Proficiency level in managing e-resources and services**

4.2.4.6. Expertise in Handling Library Website

Table 20 and Figure 26 show the level of library professionals' skill in managing the Library Website. According to the research, there are just a few library professionals who are knowledgeable about various aspects of the Library Website. 4 respondents know how to manage web content, 5 know how to maintain a website, 1 can create a website, and 10 can handle Library 2.0.

Table 20: Expertise in handling Library website

| Areas	Frequency N=50	Percentage
Content management	4	8%
Website Maintenance	5	10%
Web design	1	2%
Library 2.0	10	20%
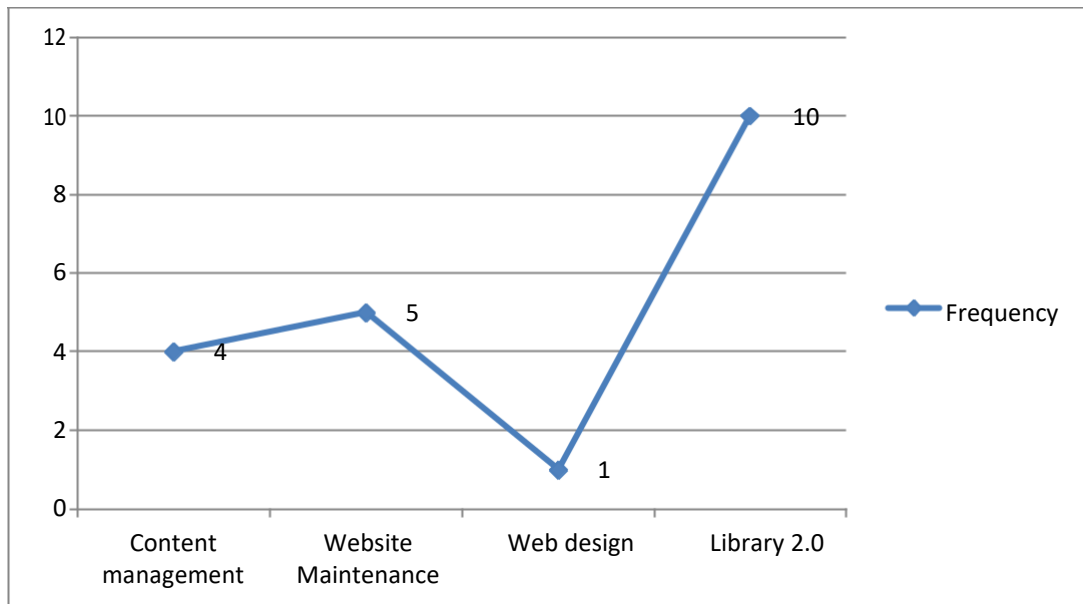
Figure 26: Expertise in handling Library website

4.2.4.7.   Areas of Expertise in Developing Digital Collection

Developing a digital collection is a systematic and continuing process of meeting users' information demands, which is carried out by library professionals and necessitates ICT knowledge and skills. 12% of the respondents are scanner experts, and 10% are familiar with digital library software. A similar proportion of respondents, 8%, is familiar with digital storage devices and knows how to back up digital files. Only 4% of people can create digital content databases (Table 21 and Figure 27).

Table 21: Areas of expertise in developing digital collection

Areas	Frequency N=50	Percentage
Handling scanner	6	12%
Having knowledge in digital library software	5	10%
Application of OCR	0	0%

|		
Developing a database of digital contents	2	4%
Having knowledge of digital storage device	4	8%
Backing-up of digital contents	4	8%
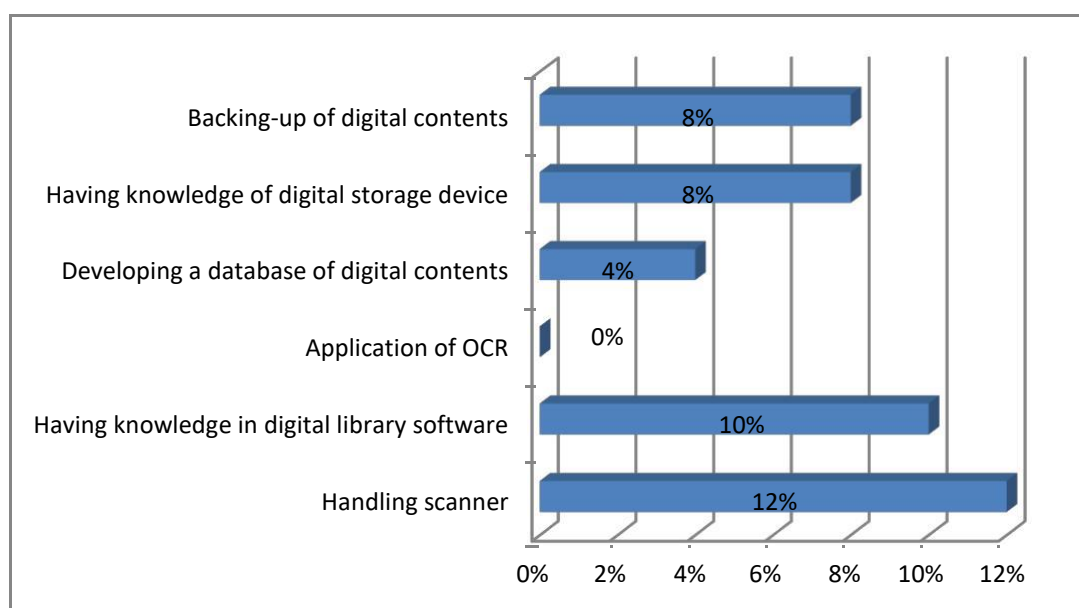
Figure 27: **Areas of expertise in developing digital collection**

4.2.4.8 **Expertise in Creating and Maintaining Institutional Repository**
Creation of digital content to archive and preserve the original documents of the institutions' intellectual outputs such as theses and dissertations, and to make them readily accessible is the role of library professionals which also requires digital competence, skills, knowledge and abilities. Table 22 highlights the respondents' skill in developing and maintaining Institutional Repositories. The data demonstrates that 5 (10%) of respondents can manage Institutional Repositories, 3 (6%) can use the software, and 1 (2%) can understand important metadata. An equal number of respondents i.e. 2(4%) are experts in storing or preserving data and managing digital content, while 3 (6%) are experts in developing and sustaining current awareness.

Table 22:   Expertise in creating and maintaining Institutional Repository

| Areas	Frequency N=50	Percentage
Ability to manage IR	5	10%
Familiarity with software	3	6%
Familiarity with relevant metadata	1	2%
Storage and preservation	2	4%
Content management/development	2	4%
Advocacy and Training	-	-
Current Awareness	3	6%
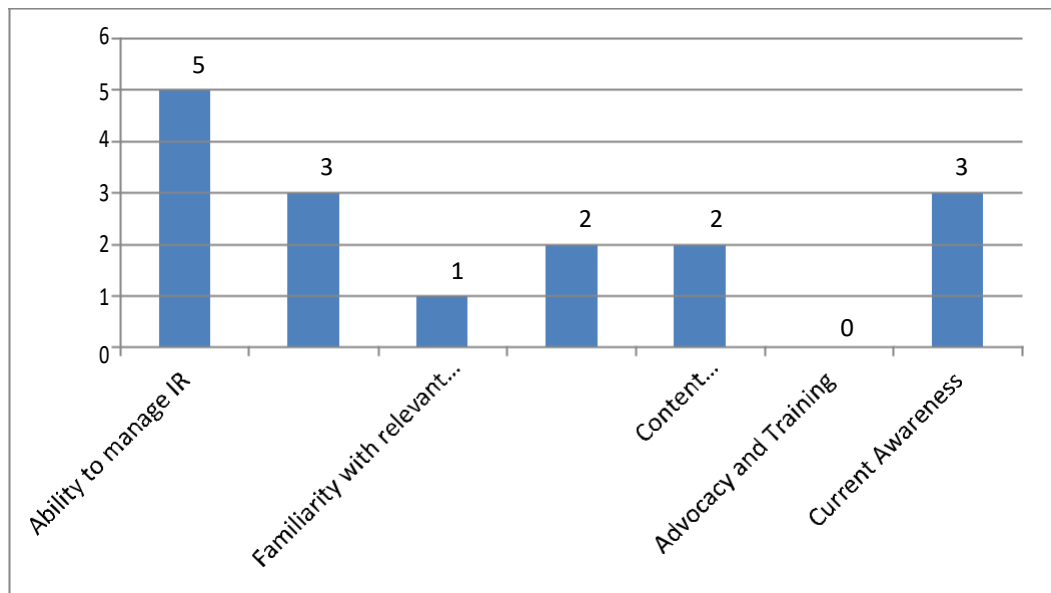
Figure 28:   Expertise in creating and maintaining Institutional Repository

4.2.4.9.   Expertise in Uploading and Maintaining e-resources

E-resources are digital resources that include e-books, e-journals, portfolios, databases, and other type of information. Full-text databases and bibliographic databases are two services that can be used to access them. As electronic resources have become part of library resources, managing them becomes the responsibilities of library professionals which necessitate the development of digital skills and competencies. Table 23 highlights the library professionals' expertise in the area of e-resources. An equal number of respondents (6% each) are able to setup the technical needs and able to open the URL link server. 10% can maintain Library Portal and 4% can manage A-to-Z list, while 2% can manage subject guide, 8% are able to upload e-resources and 16% can monitor access.

Table 23:   Expertise in uploading and maintaining e-resources

| Areas	Frequency N=50	Percentage
Technical setup	3	6%
Open URL link server	3	6%
Library portal	5	10%
A-to-Z list	2	4%
Subject guide	1	2%
Adding e-resources	4	8%
Monitoring access	8	16%
Trouble shooting	-	-
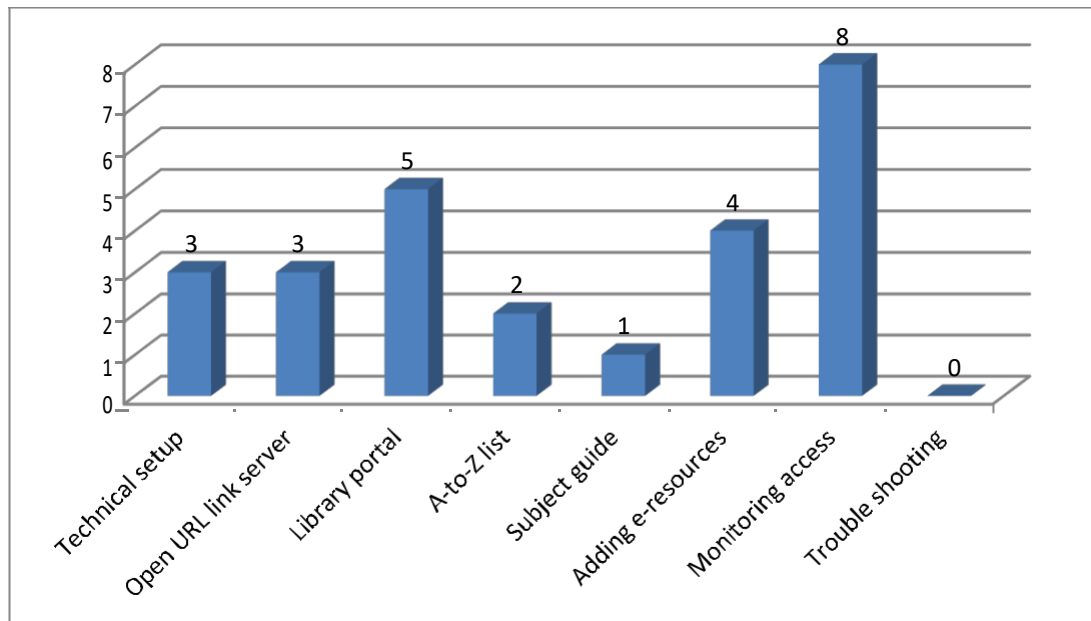
Figure 29:   Expertise in uploading and maintaining e-resources

4.2.4.10.   Practical Knowledge in RFID

The use of RFID in libraries enhances circulation management, inventory control, and security. It provides a solution to the primary limitations of barcode technology. When compared to a barcode-based solution, it has a lot of potential to speed up library services and improve time-consuming activities like check-in and check-out, sorting, stock management, and inventory as well as meets the growing demands of library users. Table 24 and Figure 30 show that only 24% of respondents had any practical knowledge of RFID, while 68% have no practical knowledge at all. This question is not answered by 8% of the respondents.

Table 24: Practical knowledge in RFID

Practical knowledge in RFID	Frequency	Percentage
Yes	12	24%
No	34	68%
No Response	4	8%
Total	**50**	**100%**
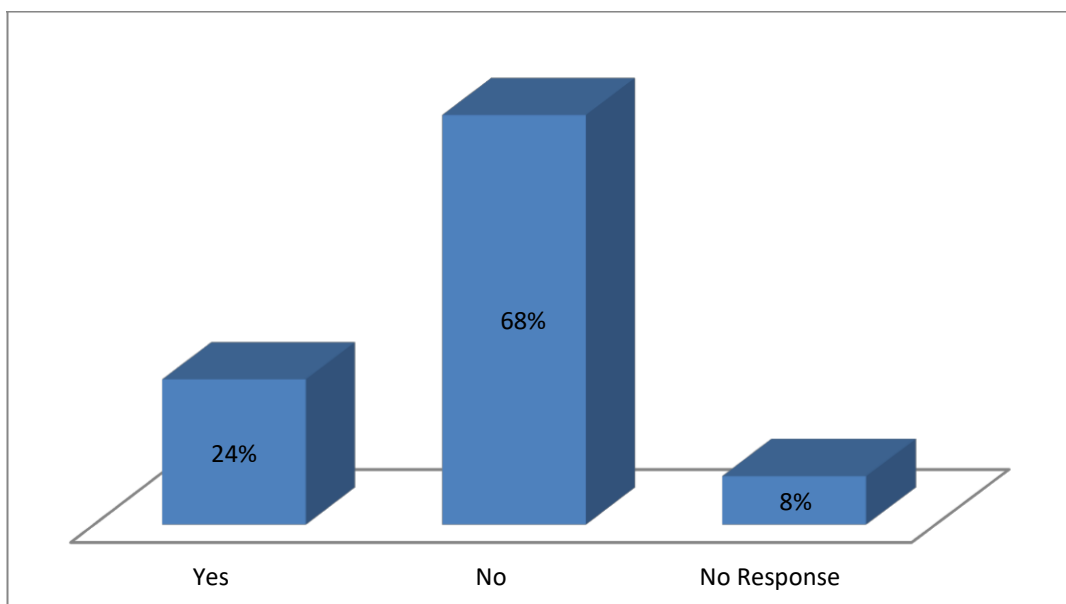
Figure 30: Practical knowledge in RFID

4.2.4.11. Knowledge in Digital Collection

Building digital collections is the basic requirements in creating a digital library. The digital collections of information include various resources such as electronic journals, books, full-text articles, CD-ROM databases, etc. The successes of digital library depend largely on the nature, content and quality of its collections as well as the skills and expertise of library professionals. The competence of library professionals in the areas of digital collection is highlighted in Table 25 and Figure

vii) 20% respondents claim to be knowledgeable in various aspects of digital collection, whereas 70% claim to be unaware of these topics. 10% library professionals have not responded.

Table 25: Knowledge in digital collection

Knowledge in digital collection	Frequency	Percentage
Yes	10	20%
No	35	70%
No Response	5	10%
Total	**50**	**100%**
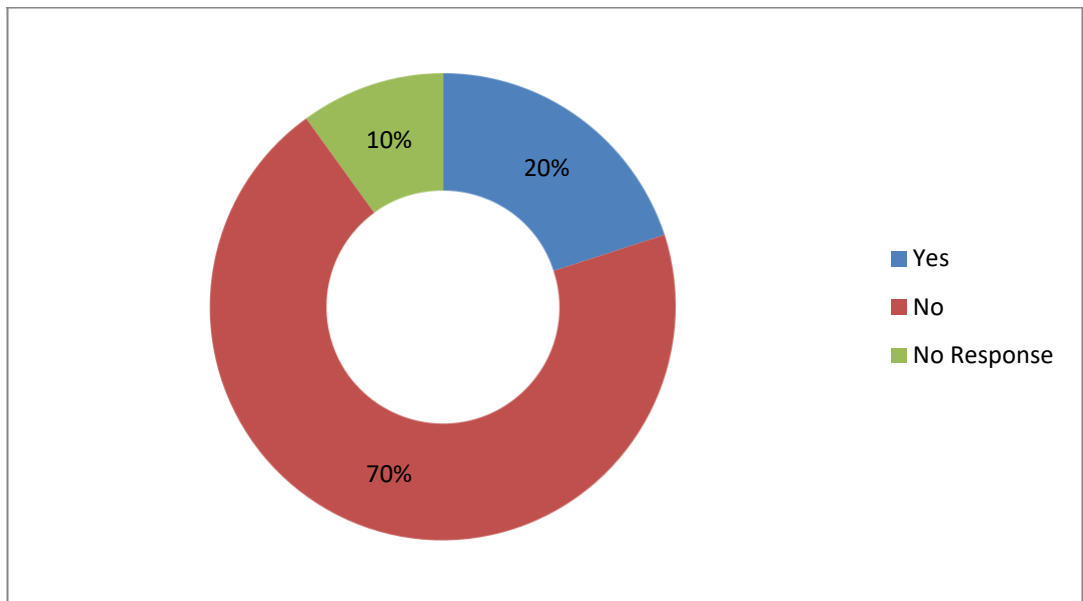
Figure 31: Knowledge in digital collection

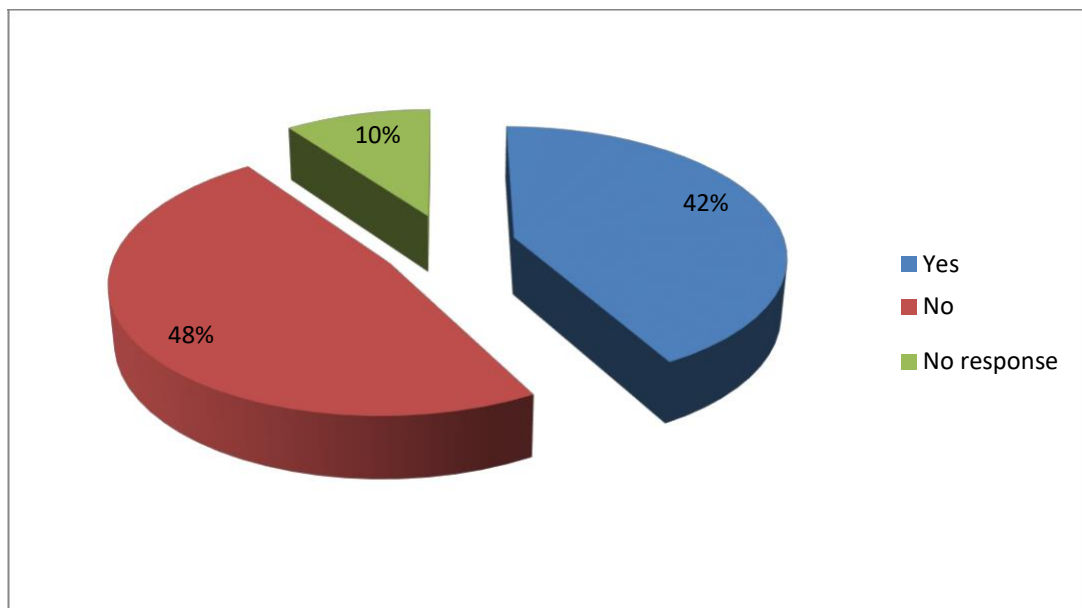### 4.2.4.12.   Knowledge in Digital Library Software

Digital Library Software helps in the digital organisation of library items such as books, journals, and catalogues, as well as providing users with convenient and affordable access to the library. Table 26and Figure 32 show the replies of library

professionals who were asked about their knowledge of Digital Library Software. In this area, 42% of respondents are knowledgeable, while 48% are not. 5 library professionals are unable to provide any information.

Table 26: Knowledge in Digital Library software

Knowledge in Digital Library Software	Frequency	Percentage
Yes	21	42%
No	24	48%
No response	5	10%
Total	**50**	**100%**

Figure 32: Knowledge in Digital Library software

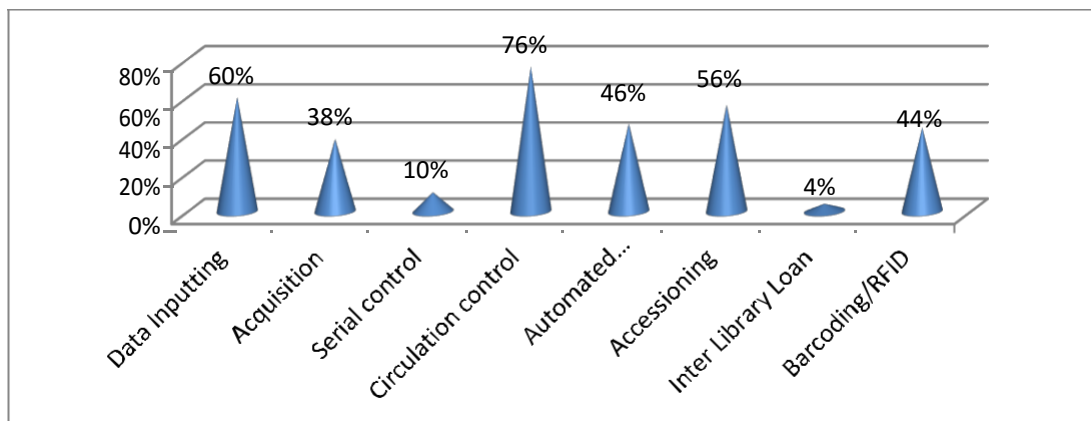### 4.2.4.13. Familiarity with Various Areas of Library Automation Software

Library professionals must be familiar with a wide range of software and systems. The data reveals that library professionals are proficient with library software and are knowledgeable in a variety of areas, as seen in Table 27 and Figure 33. The Table

shows that library professionals are most familiar with 'Circulation control' (76%), 'Data Inputting' (60%), and 'Accessioning' (56%). 'Automated catalogue' is familiar to 46%, followed by 'Bar-coding/RFID' (44%) and 'Acquisition' (38%). Only 10% of respondents are well-acquainted in "inter-library loan."

Table 27: Familiarity with various areas of Library automation software

Areas	Frequency N=50	Percentage
Data Inputting	30	60%
Acquisition	19	38%
Serial control	5	10%
Circulation control	38	76%
Automated catalogue	23	46%
Accessioning	28	56%
Inter Library Loan	2	4%
Barcoding/RFID	22	44%

**Figure 33:   Familiarity with various areas of Library automation software**

4.2.4.14. Usefulness of Social Media Tools in Libraries

Libraries are adapting their services to support and promote online communication tools. Information is more readily available through social media. Its goal is to give up-to-date and relevant information about the library's services, resources, events, and projects. It locates the library in close proximity to its users. The aim of the academic library using social media is to build a stronger community and more informed learning community. Social media platforms, according to the library professionals under study, are useful in libraries. Table 28 shows that 2% and 8% of respondents found Facebook and WhatsApp extremely useful, respectively, whereas 26% find WhatsApp really useful. YouTube (14%) is followed by Facebook (8%), Twitter (2%), and Pinterest (2%). In libraries, social media platforms including Facebook (6%), Instagram (10%), Orkut (2%), Twitter (4%), LinkedIn (2%), WhatsApp (10%), Skype (6%), and Flickr (2%) are thought to be moderately useful. However, a similar percentage of respondents (26%) believe Orkut, MySpace, Pinterest, and Flickr are not useful in libraries, followed by LinkedIn (24%), Skype (24%), Twitter (22%), Instagram (20%), YouTube (18%), Facebook (14%) and WhatsApp (8%) respectively.

Table 28:   Usefulness of social media tools in Libraries

Social media tools	Frequency N=50 (%)				
	Extremely useful (%)	Very useful (%)	Useful (%)	Partially useful (%)	Not useful at all (%)
Facebook	1(2%)	4(8%)	13(26%)	3(6%)	7(14%)
Instagram	-	-	8(16%)	5(10%)	10(20%)
Orkut	-	-	4(8%)	1(2%)	13(26%)
Twitter	-	1(2%)	6(12%)	2(4%)	11(22%)

MySpace	-	-	3(6%)	-	13(26%)
LinkedIn	-	-	4(8%)	1(2%)	12(24%)
WhatsApp	4(8%)	13(26%)	11(22%)	5(10%)	4(8%)
Pinterest	-	1(2%)	5(10%)	-	13(26%)
YouTube	-	7(14%)	9(18%)	-	9(18%)
Skype	-	-	3(6%)	3(6%)	12(24%)
Flickr	-	-	3(6%)	1(2%)	13(26%)
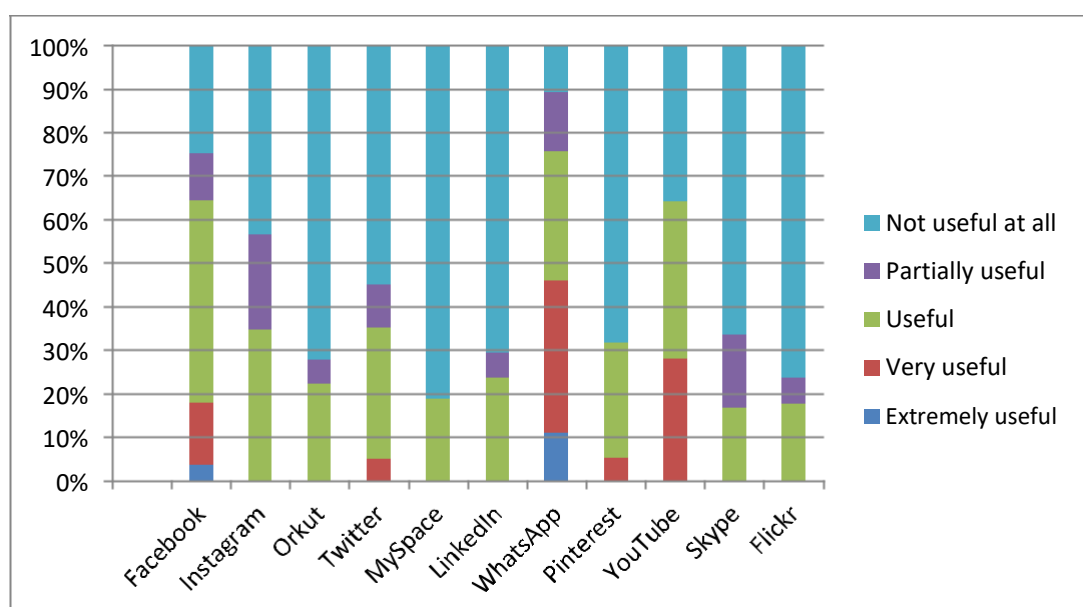
Figure 34:   Usefulness of social media tools in Libraries

4.2.4.15.   Participation in Online Platform

An online platform is a digital service that allows two or more distinct but interdependent sets of users (firms or individuals) to communicate over the Internet (OECD, 2019). The library professionals took part in a variety of online platforms, with the majority of respondents (62%) engaging in social networking and 22% participating in an online library professional forum. An equal percentage of

respondents, 8% use library blogs and video conferencing to access and participate (Table 29).

Table 29:   Participation in online platform

Online platform	Frequency N=50	Percentage
Social Networking	31	62%
Library blogs	4	8%
Online Library Professional Forum	11	22%
Video Conferencing	4	8%
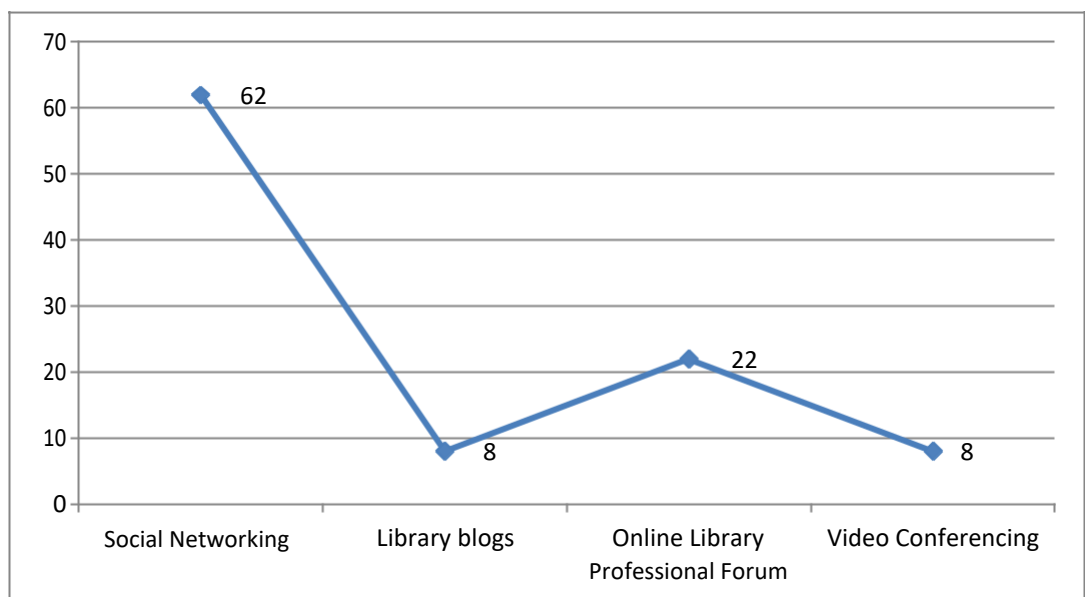
**Figure 35:   Participation in online platform**

4.2.4.16.   Problems Faced in Acquiring ICT skills

The role and responsibilities of library professionals have been completely transformed by new information technology tools. As a result, library professionals must be able to work with these technological tools, which necessitate the

development of digital skills and abilities. However, there are a number of issues that prevent library professionals from learning ICT skills. Table 30 reveals that 62% each library professionals are lacking infrastructural facilities and have limited budget to acquire ICT tools. 54% have poor service training provision in their institution while 32% are not well cooperated from the higher authority. 18% do not have interest to upgrade their ICT skills while 16% have tight work schedule. There are also 8% respondents who have personal problems that hinder them from acquiring ICT skills.

Table 30:   Problems faced in acquiring ICT skills

Problems	Frequency N=50	Percentage
Tight work schedule	8	16%
Lack of interest	9	18%
Lack of cooperation from the authority	16	32%
Lack of infrastructural facilities	31	62%
Poor service training provision in institution	27	54%
Limited budget in acquiring ICT tools	31	62%
Personal problems	4	8%
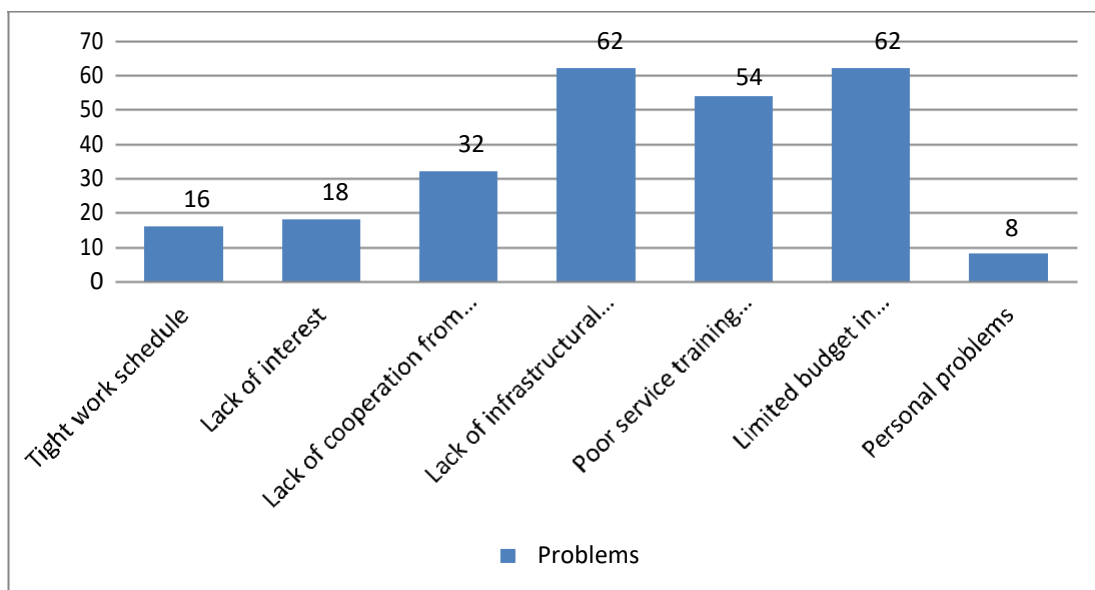
Figure 36:   **Problems faced in acquiring ICT skills**

4.2.4.17.   Attitude towards the Impact of ICT in Library Services

ICT has become increasingly important in many aspects of life; libraries are no longer immune to the impact of ICT, which is dependent on the attitude of the library professionals. Thus, the attitude of library professionals is extremely important in the context of ICT application in the library. Table 31 shows that 72% of respondents believe that ICT improves library services, increases library service quality (66%), saves time (58%), and improves professional abilities (50%). ICT has a positive impact on library services, and increase library usage (46%), update library user (44%), reduce workload (42%) and increase job satisfaction (42%).

Table 31:   **Attitude towards the impact of ICT in Library services**

Attitude	Frequency N=50	Percentage
Reduced workload	21	42%
Time saving	29	58%

Keep user update	22	44%
Improves library services	36	72%
Enhanced library service quality	33	66%
Increased job satisfaction	21	42%
Increased library usage	23	46%
Enhanced professional skills	25	50%
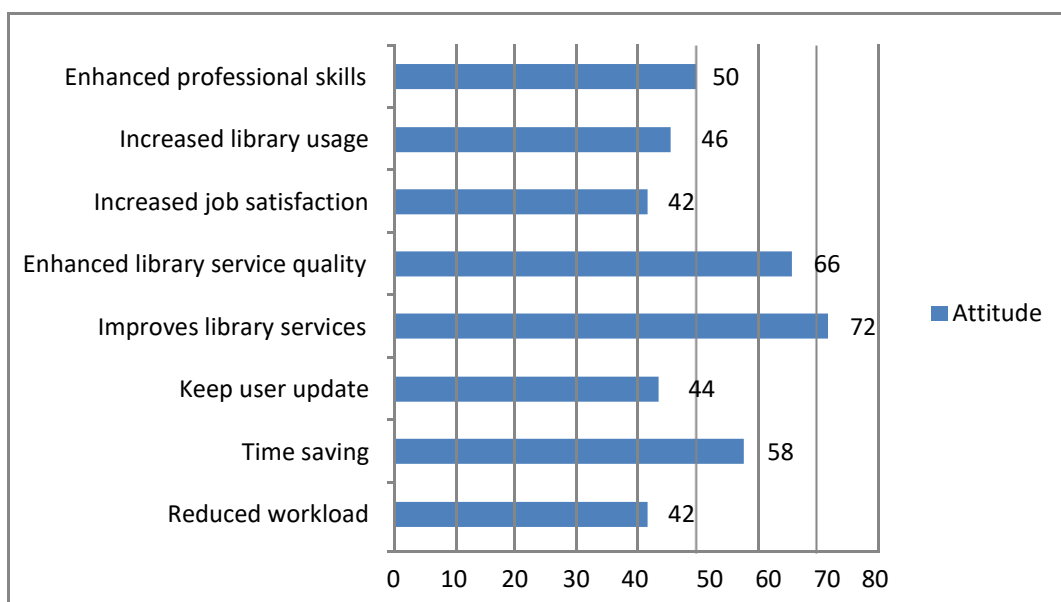
Figure 37:   Attitude towards the impact of ICT in Library services

4.2.5. Personality Development and Communication Skills (PDCS)

"Communication skills" is a significant element in organisational performance as it refers to the formation of relationships with others in an efficient and acceptable manner to achieve desired goals (Wood, 2010). In this situation, an organization's success is determined by all of its employees' communication skills, as their communication skills are related to their customers' attitudes and contentment. In other words, efficient communication encourages clients' enthusiasm and positive

attitude. Having communication skills in the workplace enhance the quality of relationship and the satisfaction of the users which ultimately lead to the increase in the productivity and marketing of services. A person with excellent communication skills has a more impressive and appealing personality.

4.2.5.1. Perception of Library Professionals on Different Areas of PDCS

The library professionals were asked about their perception on how much importance they have given on different areas of personality development of library staff. Table 32 reveals that Attitude (66%) is given highly importance by the library professionals which are followed by Self-confidence (62%), Behaviour (56%), and Command over English language (34%), Appearance (26%), Body language (24%), Physical appearance (24%), Dress code (22%) and Gesture/posture (22%). The respondents expressed their importance on Appearance (50%), Dress code (46%), Gesture/posture (42%), Physical appearance (42%). Command over English language (40%), Body language (38%), Attitude (26%), Behaviour (24%) and Self-confidence (16%). They also opined that Physical appearance (16%), Body language (12%), Dress code (12%), Gesture/posture (10%), Command over English language (8%), Appearance (6%), Self-confidence (4%) and Behaviour (2%) are considered less important for Personality Development and Communication Skills of the library staff.

Table 32: Importance given for PDCS of library staff

Areas	Frequency N=50 (%)		
	Very important (%)	**Important (%)**	**Less important (%)**
Attitude	33(66%)	13(26%)	0(0%)
Appearance	13(26%)	25(50%)	3(6%)

|			
Body Language	12(24%)	19(38%)	6(12%)
Behaviour	28(56%)	12(24%)	1(2%)
Dress code	11(22%)	23(46%)	6(12%)
Gesture/posture	11(22%)	21(42%)	5(10%)
Physical appearance	12(24%)	21(42%)	8(16%)
Command over English Language	17(34%)	20(40%)	4(8%)
Self-confidence	31(62%)	8(16%)	2(4%)
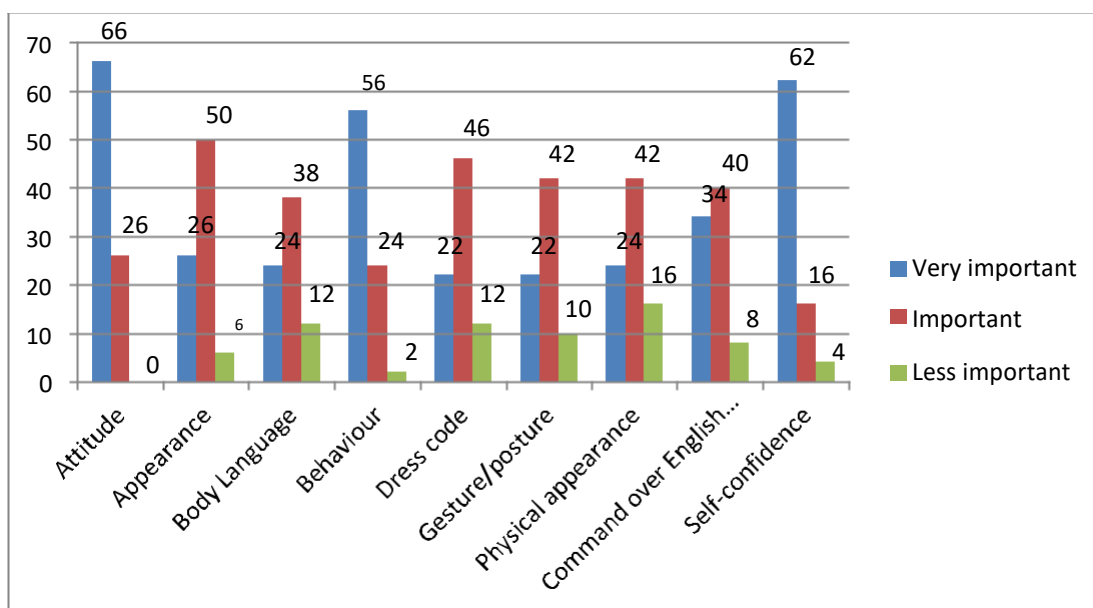
Figure 38:   Importance given for PDCS of library staff

4.2.5.2. Opinion on Personality Development of Library Staff Bring Good Image of the Library

Table 33 shows the library professionals' opinion revealing that majority of the respondents highly agree that personality development of library staff bring good image of the library. While 22% agree with this and 2% disagree.

Table 33:   Opinion regarding personality development of Library staff bring good image of the library

Opinion	Frequency N=50	Percentage
Highly agree	38	76%
Agree	11	22%
Disagree	1	2%
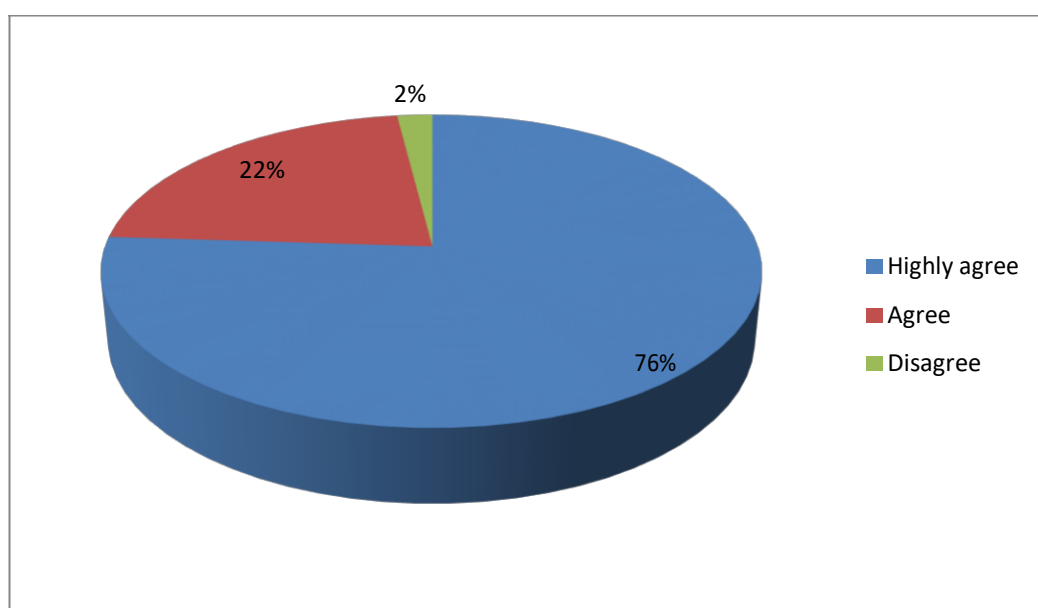
Figure 39:   Opinion regarding personality development of Library staff bring good image of the library

4.2.5.3.   Status of PDCS of Library Professionals

A good communication skill helps library professionals improve their work performance and meet the information needs of their users, which is a crucial aspect in developing a positive relationship with them. The respondents were asked to mention their status against different areas of communication skills that they possess.

According to the data (Table 34), 44 respondents mention that they have skills in verbal communication while 41 respondents have skills in Interpersonal communication. Another 41 acquire skills in Internet communication which is followed by written communication (40 respondents), presentation (39 respondents), ability to listen (38 respondents), ability to convince and motivate (37 respondents), and non-verbal communication (37 respondents).

Table 34:   Perception against different attributes of communication skills

Areas	Frequency N=50	Percentage
Verbal	44	88%
Non-verbal	31	62%
Written	40	80%
Internet communication	41	82%
Ability to listen	38	76%
Interpersonal communication	41	82%
Ability to convince and motivate	37	74%
Presentation	39	78%
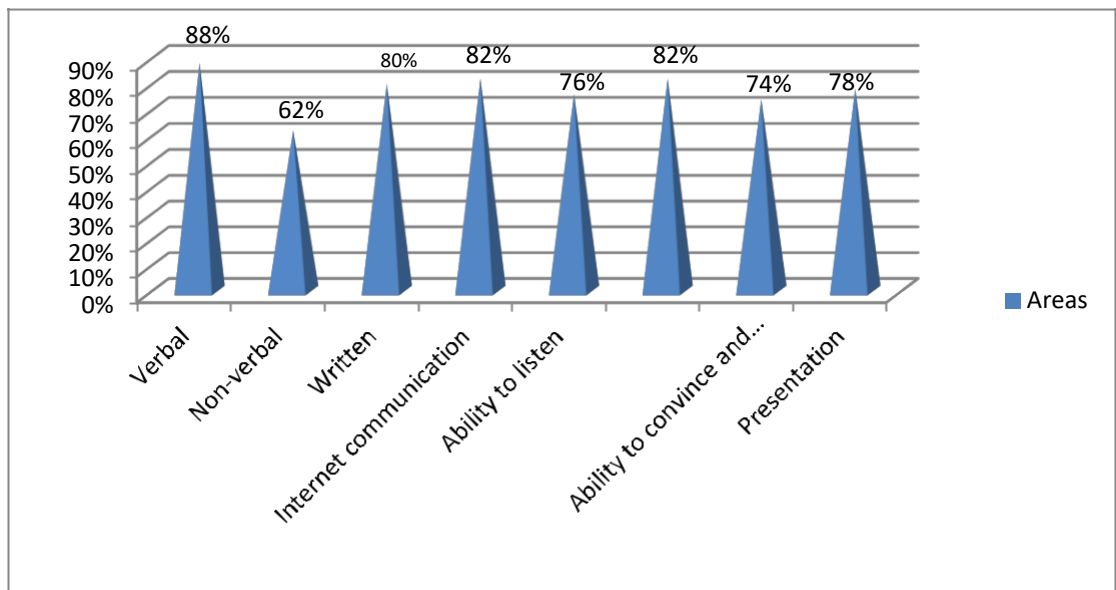
Figure 40: Perception against different attributes of communication skills

4.2.5.4.   Contribution and Participation in Writing

Table 35 shows the contribution and participation of library professionals in various academic and project writings, such as project proposal writing, annual report writing, meeting minutes writing, vision plan writing, articles for seminars and conferences writing, and other library development plans. According to the findings, the majority of library professionals participated in writing Meeting Minutes (52%) and annual reports (46%) followed by article writing (42%), vision planning (40%) and other library developmental plans (40%). Only 32% of the respondents took part in a project proposal writing that requires a specific skill.

Table 35:   Contribution and participation in writing

Areas	Frequency N=50	Percentage
Project proposal	16	32%
Annual Report	23	46%
Minutes of Meeting	26	52%
Vision Plan	20	40%
Articles for Seminars and Conferences	21	42%
Any other developmental plan of the Library	20	40%
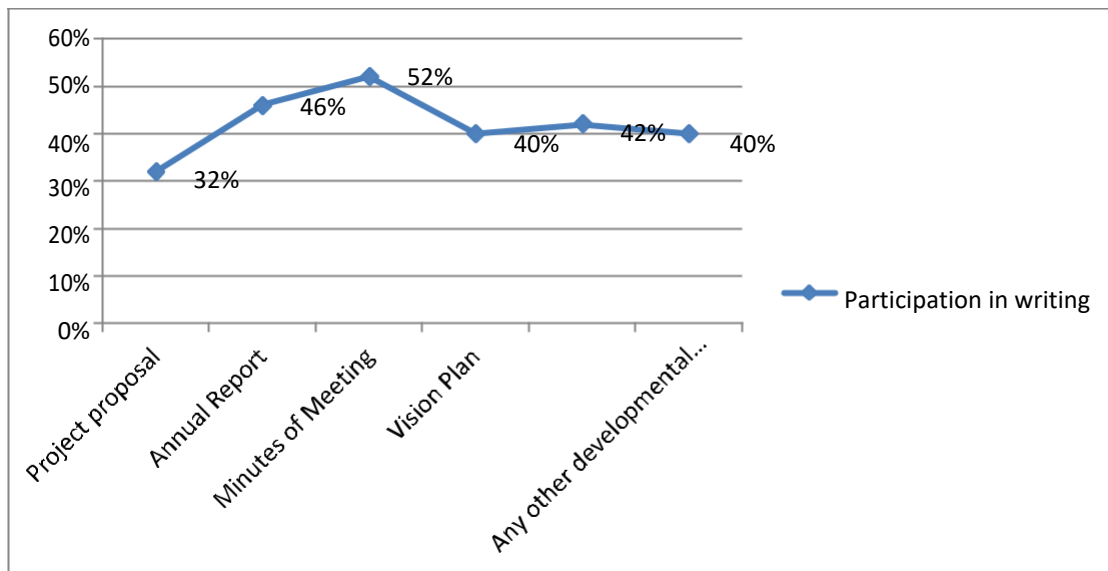
Figure 41:   Contribution and participation in writing

4.2.6. Managerial Skills

The library professionals should have some basic managerial skills for managing the different sections of the library which have to be applied in planning, decision-making, motivating etc. The concept of a library has completely transformed in the

information technology age. As a result, all library professionals must possess some basic managerial skills in order to fulfil their responsibilities (Angeline and Rani, 2019).

4.2.6.1.   Vision and Initiatives

Creating a future vision, a proper action plan, and taking initiatives and actions to attain goals are all the abilities that the library professionals must have. Table 36 reveals the library professionals' managerial ability towards their vision and initiatives taken of the library. The respondents express their view stating that 56% of them aim to provide long term library development while 34% take initiatives when need arise and consult others before taking actions. 4% of the respondents fully depend on others who took the initiatives and there are 2% who do not have vision and never take initiatives all by themselves (Figure 25).

Table 36:   View towards vision and initiatives

Vision and initiatives	I aim to provide long term library development		I take initiatives and consult others before taking them		I totally depend on the initiatives taken by others		I do not have vision and never take initiatives	
	(4)		**(3)**		**(2)**		**(1)**	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
	28	56%	17	34%	2	4%	1	2%

4-Excellent   3-Very Good   2-Satisfactory   1-Poor
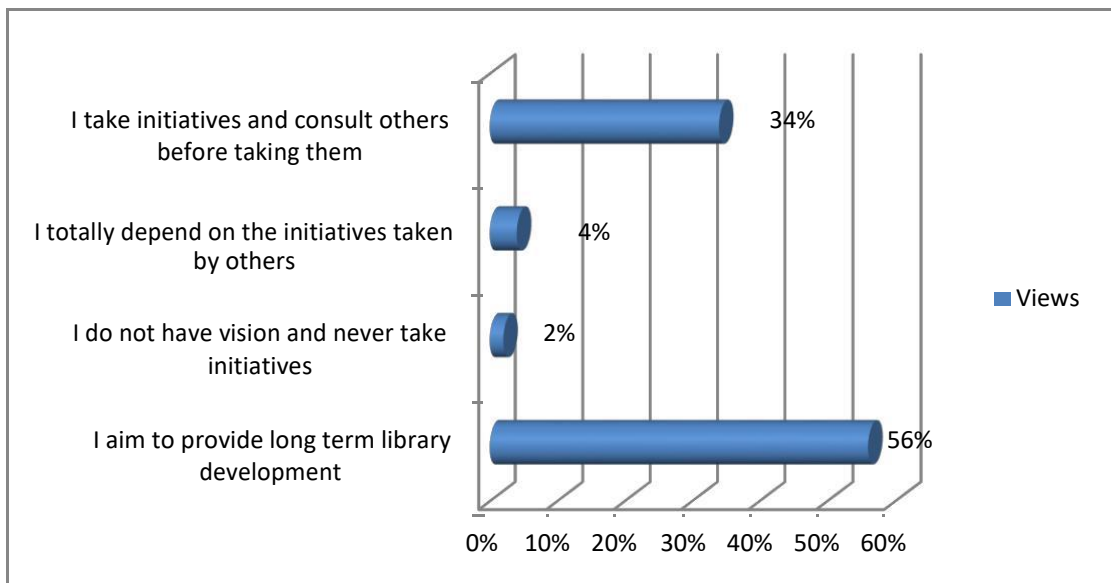
**Figure 42:** **View towards vision and initiatives**

4.2.6.2.   Decision-making

Making good decisions is at the heart of effective management. Library professionals require excellent decision-making skills. Taking a decision is not the same as making one. When we know that something needs to be done, we must make a decision. 40% of the respondents involve only selected few in making decisions while 36% let involve others in making one. 10% make decisions all by themselves and expect others to follow their decisions. Another 12% solely follows the decisions and instructions given from the authorities (Table 37).

Table 37:   **Opinion towards Decision-making**

Decision-making	Involve selected few in making decisions		Involving others in making decisions		Taking decisions all by myself and expect others to follow them		Solely goes by instruction from authorities	
	(4)		**(3)**		**(2)**		**(1)**	
	No. of	%	No. of	%	No. of	%	No. of	%

	Respon dents		Respon dents		Respon dents		Respon dents	
	20	40%	18	36%	5	10%	6	12%
	4-Excellent		**3- Very Good**		**2- Satisfactory**		**1- Poor**	
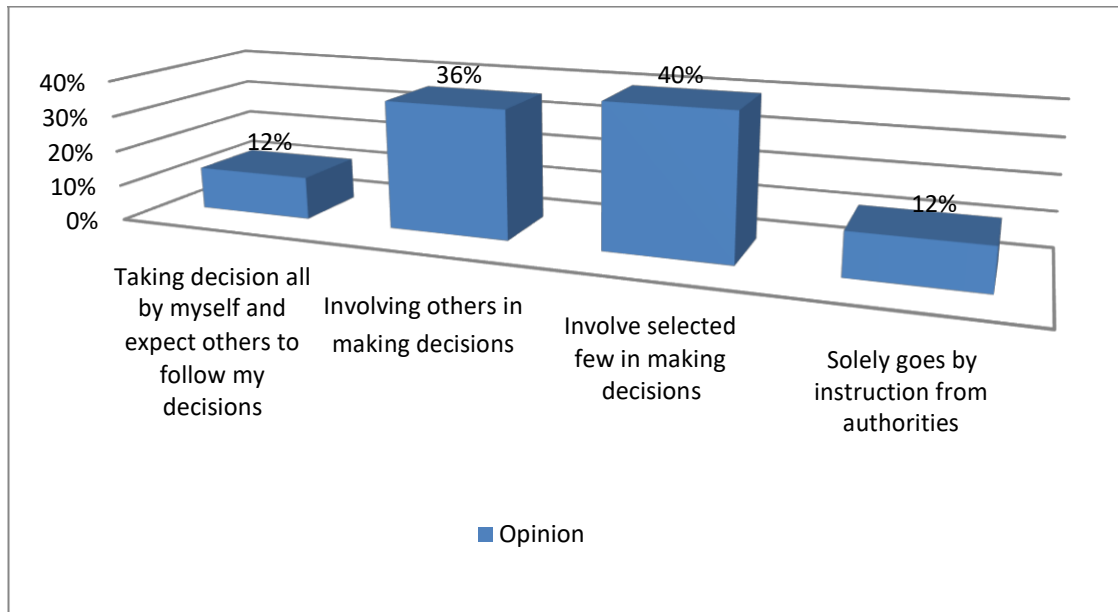
Figure 43:   Opinion towards decision - making

4.2.6.3.   Risk-taking

One of the most important components of library management is taking risks. It is the probability that a decision will lead to a loss or a negative outcome. Table 38 highlights that 44% of respondents usually take calculated risk, whereas 26% only do so if they are supported by others. 18% of respondents would rather not take risks, whereas 12% would take risks even if others were against them.

Table 38:   Risk-taking

Risk taking	I usually take calculated risks		I take risk even if I am not supported by others		I take risk if I am supported by others		I avoid taking risks	
	(4)		**(3)**		**(2)**		**(1)**	
	No. of Respon dents	%	No. of Respon dents	%	No. of Respon dents	%	No. of Respon dents	%
	22	44%	6	12%	13	26%	9	18%

4-Excellent   3- Very Good   2- Satisfactory 1- Poor
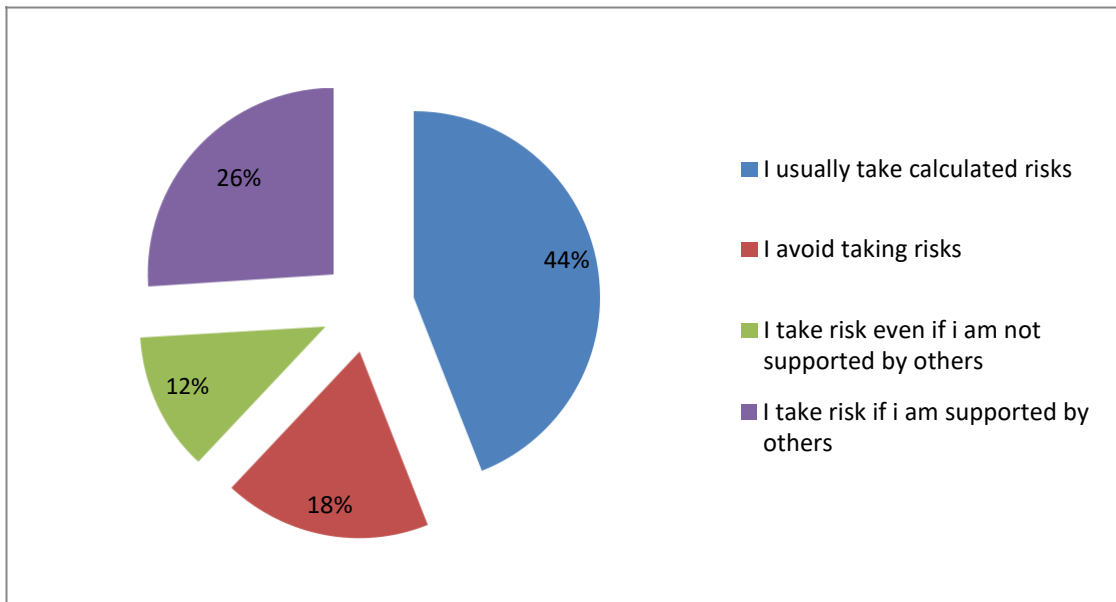

Figure 44:   Risk-taking

4.2.6.4.   Time Management

Time management is the process of planning and managing time between different activities. In the time of obstacles and tight schedule, good time management helps to complete a task within a particular time range. In libraries, the ability to manage time is essential in order to complete all of the many activities on time, and most importantly, to save the time of the users. Table 39 shows that 48% of respondents are excellent in managing their time, and 38% of them skip deadlines because they find it difficult to manage their time. 8% say they have trouble managing their time, while 2% don't give much importance in managing their time.

Table 39:   Time management

Time manage ment	I am very strong in time management		I sometime skip deadlines because it is hard to manage my time		I am weak in time management		I don't find it that important	
	(4)		**(3)**		**(2)**		**(1)**	
	No. of Respon dents	%	No. of Respon dents	%	No. of Respon dents	%	No. of Respon dents	%
	24	48%	19	38%	4	8%	1	2%

4-Excellent   3-Very Good   2-Satisfactory   1-Poor
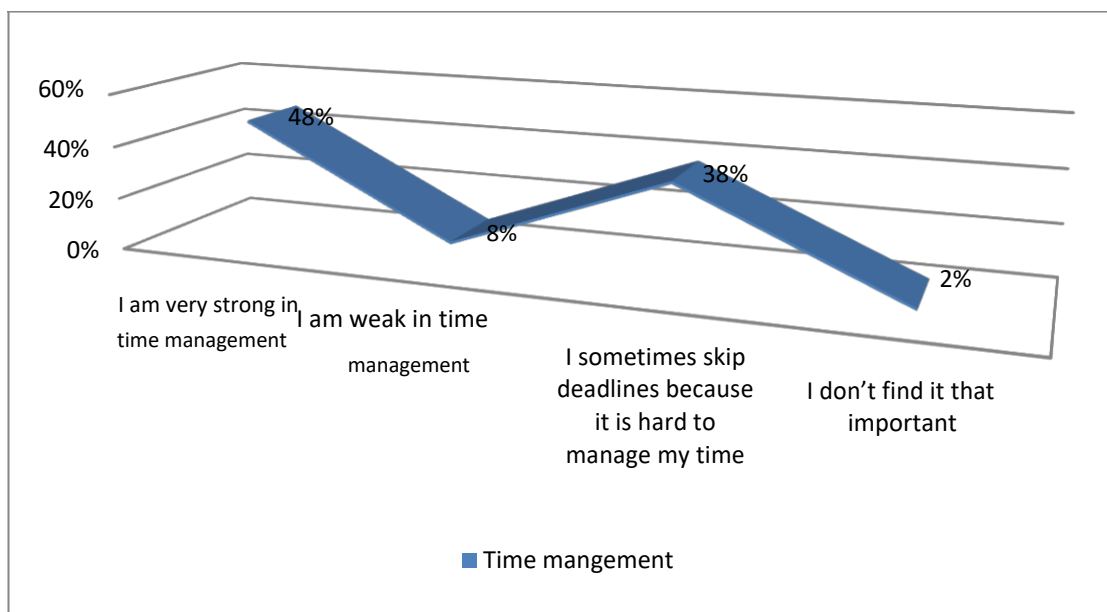
Figure 45: **Time management**

4.2.6.5. Adjustment to Change

As technology advances, the library's operations and the manner it serves its users change dramatically. As a result, library professionals must be able to accept and adapt to changes. Table 40 demonstrates that 42% of respondents are able to quickly adapt to changing circumstances. 32% believe they will be able to adjust if changes occur in libraries. Change is only acceptable to 16% of respondents while 8% find it difficult to accept changes in libraries.

Table 40: **Adjustment to change**

Adjust ment to change	I can easily adapt if the situation demands it		I think i will be able to adapt if changes occurs		I can accept change only up to a point		I find it difficult to accept change	
	(4)		(3)		(2)		(1)	
	No. of Respon	%	No. of Respon	%	No. of Respon	%	No. of Respon	%

	dents		dents		dents		dents	
	16	42%	21	32%	8	16%	4	8%

<div align="center">

4-Excellent   3-Very Good   2-Satisfactory   1-Poor

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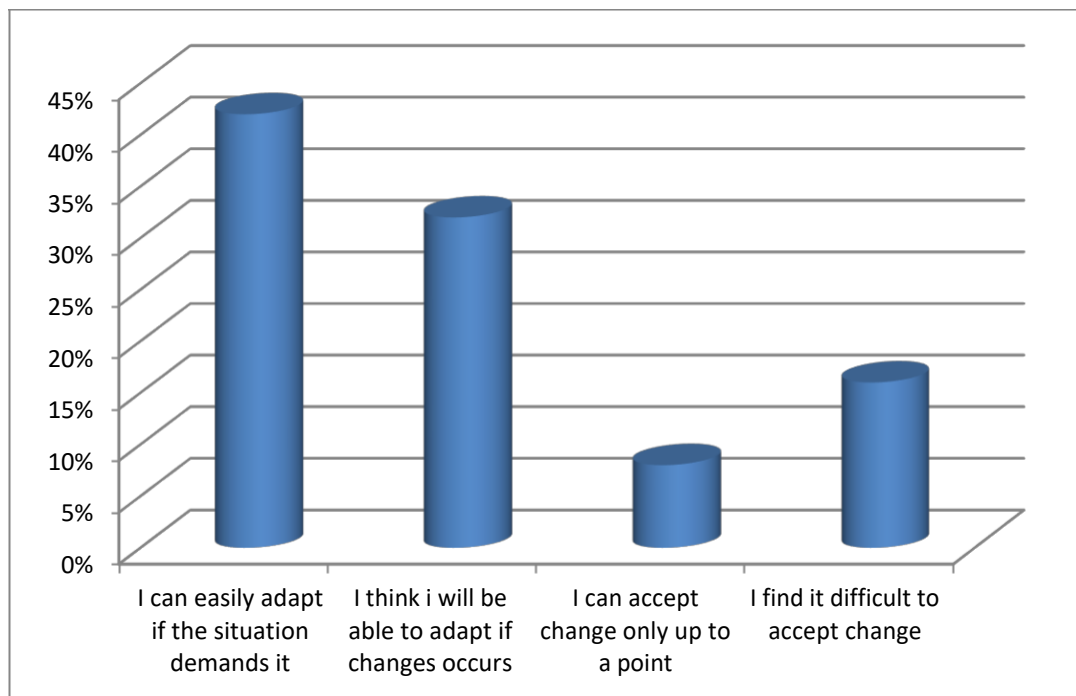
Figure 46:   Adjustment to change

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4.2.6.6.   Teamwork

Team building techniques is also applicable in libraries and it cannot thrive without team building activities. The library task necessitates teamwork. As a result, teamwork and cooperation within groups are required. The lack of teamwork at any level will limit organisational effectiveness and finally lead to its demise. Table 41 highlights that majority of the respondents (78%) are aware that library work is a team work and 26% enjoy working in groups and even encourage others to gather in team.

Table 41:   Teamwork

Team work	I love working in team and encourage others to gather in team		I am aware that Library work is a team work		I am not interested in working in team and sometimes inhibit others from working in team		Library task does not require a team work	
	(4)		(3)		(2)		(1)	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
	13	26%	39	78%	-	-	-	-

4-Excellent   3-Very Good   2-Satisfactory   1-Poor
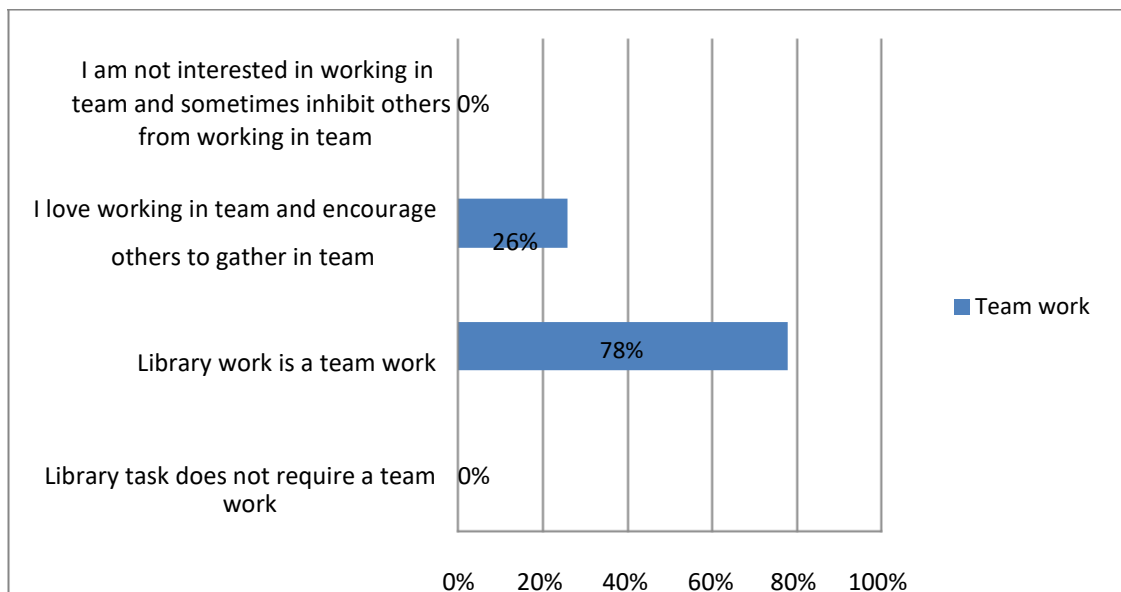

Figure 47:   Teamwork

4.2.6.7. Motivation to Others/Colleagues

Motivating others includes persuading them to do the desired action in order to finish the task. It means making them want to accomplish something. Influencing others to work is what leads to results.64% of respondents say they attempt to encourage and inspire others, while 24% say they aim to set an example for others to follow. 16% also claim that they try to determine others self-development (Table 42).

Table 42:   Motivation to others/colleagues

Motivation to other/colleagues	I try to encourage and motivate others		I try to determine their self-development		I try to set an example for others and expect them to follow me		I do not find it necessary to motivate others	
	(4)		**(3)**		**(2)**		**(1)**	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
	32	64%	8	16%	12	24%	-	-

4-Excellent   3-Very Good   2-Satisfactory   1-Poor
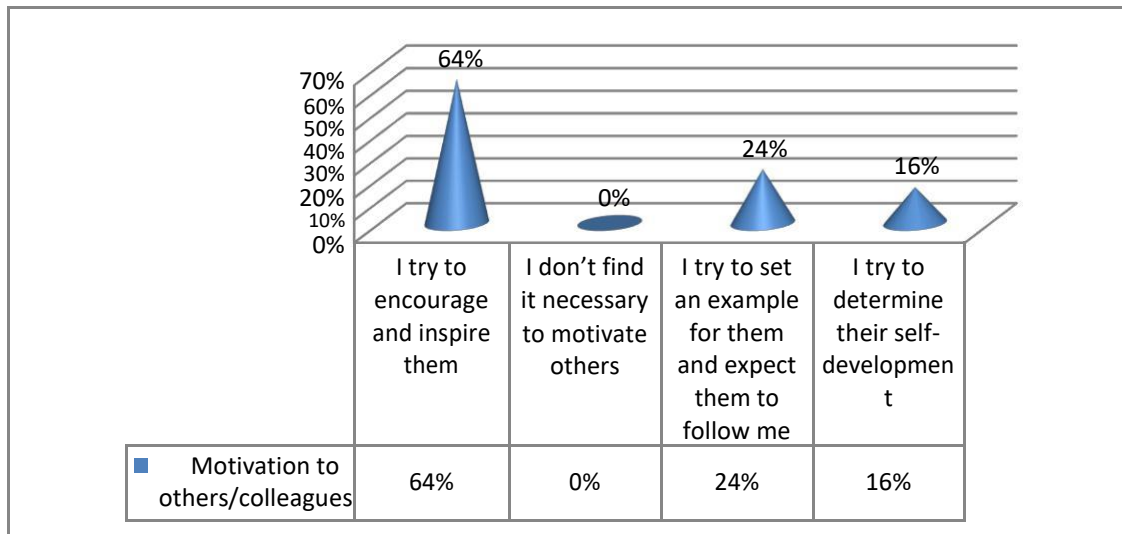
Figure 48: **Motivation to others/colleagues**

4.2.6.8. Reaction in Failure

Failure is defined as a lack of success or the inability to fulfil a goal. It is critical for the organization's success to have a positive attitude when failure occurs. Only 2% of respondents indicate they have a hard time accepting failure, while 58% accept it but attempt to learn from their mistakes. When failure strikes, 20% of people accept it and try to figure out why, while the other 20% try to make improvements (Table 43).

Table 43: **Reaction in failure**

Reaction in failure	I accept it but try to learn from experience		I accept it and try to find reasons for it		I accept it and try to make changes		I do not accept failure so easily	
	(4)		(3)		(2)		(1)	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
	29	58%	10	20%	10	20%	1	2%

4-Excellent   3-Very Good   2-Satisfactory   1-Poor

233
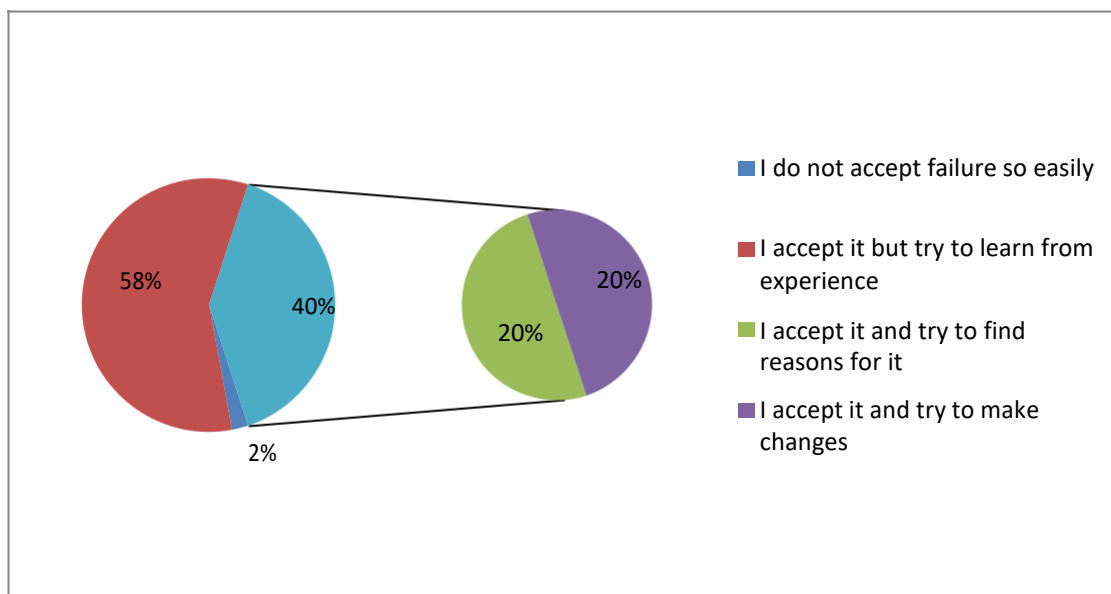
Figure 49: **Reaction in failure**
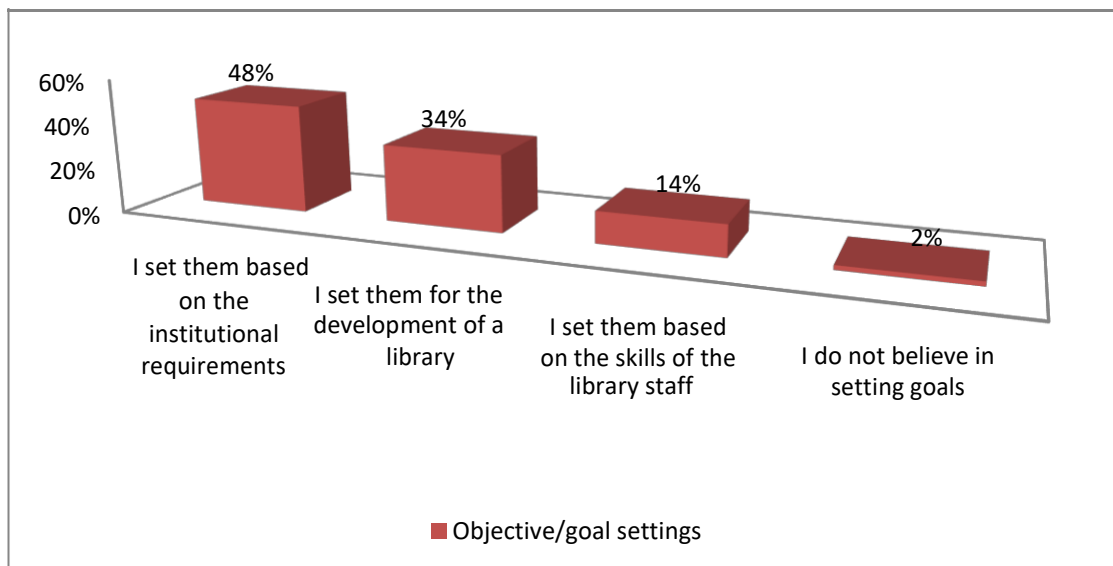
4.2.6.9. Objective/Goal-setting

Goals are an important component of organisations. As a result, the goal setting process focuses on improving an organization's efficacy in achieving desired outcomes in organisations, teams or individuals (Laton, 2006). Table 44 reveals that 48% of respondents set goals and objectives based on institutional needs, whereas 34% set them for library development. 14% create goals based on the abilities of library staff, while 2% say they don't believe in setting goals at all.

Table 44: **Objective/Goal-setting**

Goal setting	I set them based on the institutional requirements		I set them for the development of a library		I set them based on the skills of the library staff		I do not believe in setting goals	
	(4)		(3)		(2)		(1)	
	No. of Respon	%	No. of Respon	%	No. of Respon	%	No. of Respon	%

234

	dents		dents		dents		dents	
	24	48%	17	34%	7	14%	1	2%

4-Excellent   3-Very Good   2-Satisfactory   1- Poor

Figure 50:   Objective/Goal-settings
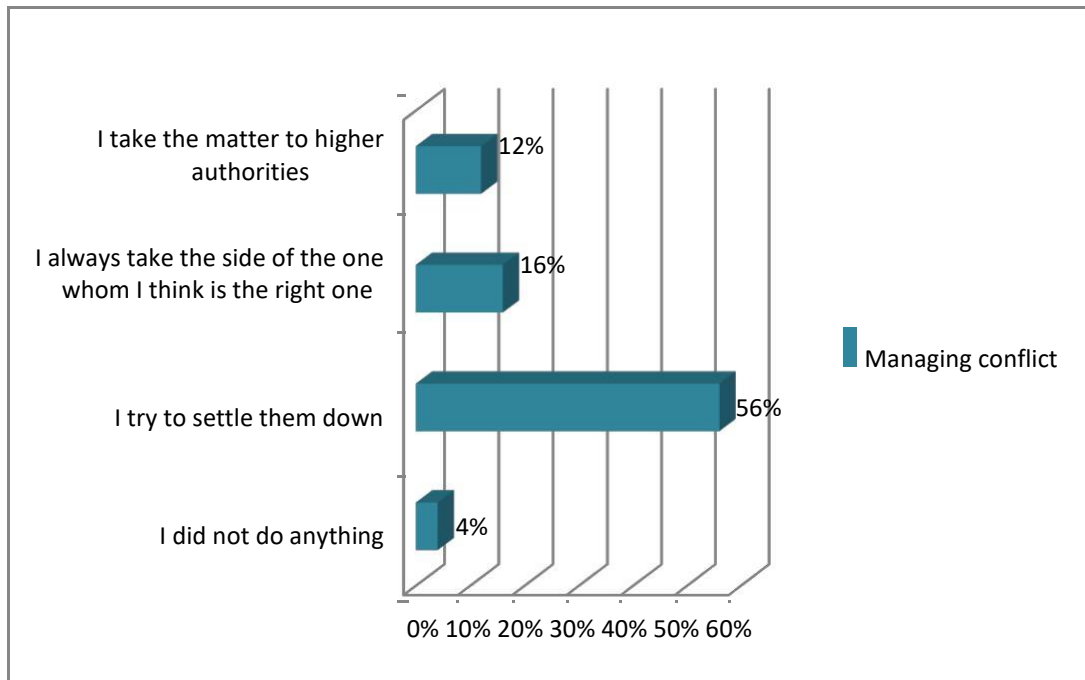
4.2.6.10.   Managing Conflict

Conflict management is defined as the ability to recognise and resolve problems in a rational, equitable, and timely manner. Conflict resolution is a skill that library professionals should learn and practise. In order to maintain peace in the workplace, conflict situations can be kept to the bare minimum. When there is a conflict in a library, 4% of respondents do nothing, while 56% strive to resolve it. 16% of respondents always take the side of the person they believe is right, while 12% report the issue to higher authorities (Table 45).

Table 45:   Managing conflict

Managing conflict	I try to settle them down	I take the matter to the higher	I always take the side of the one whom I think is the	I did not do anything

	authorities			right one			
(4)		**(3)**		**(2)**		**(1)**	
No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
28	56%	6	12%	8	16%	2	4%

4-Excellent   3-Very Good   2-Satisfactory   1-Poor

Figure 51: Managing conflict

4.2.6.11.   Managerial Traits Considered Important by the Respondents

Table 46 lists some managerial characteristics that respondents think important. In terms of managerial traits, an equal number of respondents (34%) consider leadership quality, tolerance, appreciation, and creating a pleasant and comfortable work environment to be important, while 28% consider visionary and ability to generate and mobilise resources to be important, followed by ability to transform (18%), collaboration and partnership (14%), problem solving (12%), and public relations and marketing (6%).

Table 46:   Managerial traits considered important by the respondents

Variable	Frequency N=50	Percentage
Visionary	14	28%
Leadership Quality	17	34%
Ability to transform	9	18%
Public relations and marketing	3	6%
Problem solving	6	12%
Ability to generate and mobilise resources	14	28%
Collaboration and partnership	7	14%
Tolerance, Appreciation and Creating cordial and comfortable work environment	17	34%

|	Vision ary	Leade rship Qualit y	Ability to transf orm	Public relatio ns and marke ting	Proble m solvin g	Ability to gener ate and mobili se reso...	Collab oratio n and partn ership	Tolera nce, Appre ciatio n and Creati ng cord...
■ Managerial traits	28%	34%	18%	6%	12%	28%	14%	34%
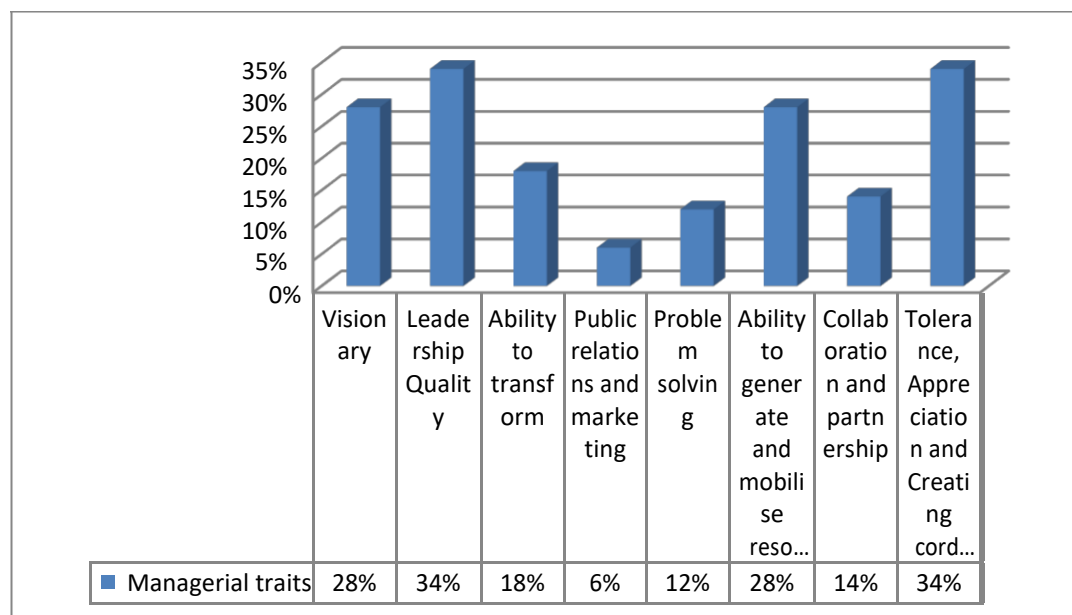
Figure 52:   Managerial traits considered important by the respondents

4.2.6.12. Required Special Training and Orientation

The ability to work and the sort of training received by employees are the most important factors in determining an organization's efficiency. To improve competences in providing essential business information services, formal training programmes might be developed. Well-trained, efficient, and dedicated staffs are required for the seamless operation of a library. Working library professionals must receive training in order to improve their work performance, refresh their expertise, and keep up with technological advancements in their field. To deliver a better and more efficient service, multiple levels of training are required. Table 47 shows the managerial traits that required further training and orientation for library professionals. The table demonstrates that the majority of responders (50%) require further train7ng on time management, while 24% require conflict management training. An equal percentage of respondents (10%) require stress management and disaster management training and orientation.

Table 47:   Required special training and orientation

Variable	Frequency N=50	Percentage
Conflict management	12	24%
Stress management	5	10%
Disaster management	5	10%
Time management	25	50%
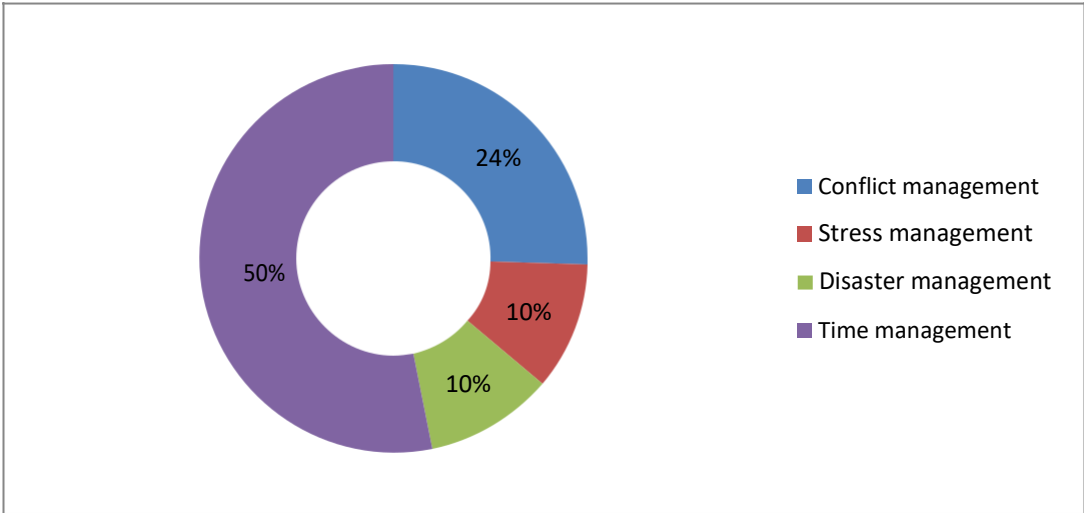
Figure 53: **Required special training and orientation**

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CHAPTER 5

FINDINGS, SUGGESTIONS AND CONCLUSION

5.1. Introduction

The present chapter deals with findings, suggestions and conclusion with regard to ICT skills and competencies, managerial skills and, personality development and communication skills of library professionals working in college libraries in Mizoram. The data for the study was gathered using a standardized questionnaire filled out by library professionals working in Mizoram colleges affiliated with Mizoram University. This chapter summarises the research's findings, suggestions and conclusion. The chapter is divided into four parts, such as (i) Findings based on data collected and analysed, (ii) Suggestions, (iii) Suggestions for further research, and (iv) Conclusions, which are presented below.

5.2. Findings according to the objectives of the study

Four objectives are drawn for this study and findings against each objective are discussed below:

Objective 1: To assess the existing ICT skills and competencies, managerial skills and personality development skills acquired by the LIS professionals working in college libraries of Mizoram.

viii)   Out of the total 50 respondents, 15 (30%) possess CCA computer degree, 11 (22%) possess DCA degree, 1 (2%) possesses a BCA degree and, a maximum number of 23 (46%) do not have a computer degree. Thus, it clearly indicates that almost half population of the respondents do not have computer degree (Table 13).

ix)   A maximum number of 24 (48%) respondents acquire ICT skills through formal education. 16 (32%) respondents acquire their ICT skills from the Library, 9 (18%) are self-interested and acquire it by themselves, 5 (10%) acquire them from friends and colleagues, and 4 (8%) acquire it through informal education (Table 14). Thus, library professionals acquire their ICT skills through various methods such as through formal education, informal

education, colleagues and friends, from the Library and some are self-interested.

vii)   The analysis of data reveals that majority of the respondents (i.e. 78%) have average proficiency level of handling Library software (Table 15), and managing and organizing e-resources and services (Table 17).

viii)   The analysis shows that the knowledge about Digital Library software is less among the respondents. There is only 1 (2%) respondent who have very high proficiency in using D-Space among other Digital Library software. 12 (24%) respondents have average proficiency level in using D-Space which takes the majority compared to other Digital Library software. Only few libraries have initiated digital library services and acquire digital collections (Table 9) which may be the reason for low responses which indicates the low level of awareness about this software among the library professionals (Table 16).

ix)   The analysis reveals that there are just a few library professionals who have practical skills about various aspects of Library website, developing digital collection, creating and maintaining Institutional Repository and e-resources (Table 18-21).

x)   It is found that only 24% of respondents have a practical knowledge of RFID. 20% respondents claim to be knowledgeable in various aspects of digital collection, and 42% of respondents are knowledgeable with Digital Library software (Table 22-24). It is evident that these ICT tools and collections are not properly used and acquired by the libraries.

xi)   The analysis of data reveals that library professionals are mostly proficient and knowledgeable with different areas of library automation software. Among various areas, the library professionals are most familiar with 'Circulation control' (76%). Since library automation is done in most of the libraries under study, the library professionals are well-aware and knowledgeable on what they are working with, on various areas of Library Automation software (Table 25).

❖ Among various areas of Personality development and communication skills, 'Attitude', 'Self-confidence' and 'Behaviour' are considered highly important by the library professionals (Table 30).

❖ The analysis shows that 88% of the respondents have skills in Verbal communication, 82% each in Internet communication and Interpersonal communication. 80% claim that they have skills in written communication while 78% have Listening skills, and 74% have the ability to convince and motivate other while 62% have skills in Non-verbal communication (Table 32). Thus, it is found that the library professionals have a good ability in different areas of communication skills.

❖ The library professionals are contributing and participating in writing various academic and project report writings such as writing Meeting Minutes (52%), Annual reports (46%), Articles for Seminars and Conferences (42%), Vision planning (40%), Library developmental plans (40%) and Project proposal and Report writing (32%). Except for writing Meeting Minutes, majority of the respondents are not contributing and participating enough which reveals their proficiency level in written communication (Table 33).

❖ The analysis reveals that majority of the respondents (56%) have a good vision and aim to provide long term library development. Thus, the study indicates that majority of the respondents have excellent skills towards vision and initiatives (Table 34).

❖ The analysis shows that the library professionals have poor decision-making skills in which only 40% involve few in making decisions, 10% take decisions all by themselves and expect others to follow them. There are only 12% respondents who solely go by the instructions and decisions made and given by the authorities (Table 35).

❖ The analysis reveals that a large number of respondents have excellent risk-taking skills where 44% respondents usually take calculated risk which indicates that it involves a fair amount of research that brings a higher chance of success (Table 36).

❖ The study shows that a good number of respondents (48%) have strong ability in time management (Table 37), and majority have a good ability to adapt themselves to changes if it occurs in the libraries (Table 38).

❖ The study found that the respondents are excellent in teamwork. A maximum number of respondents are aware of the fact that library work requires a team work and they love working in team and even encourage others to gather in team (Table 39).

❖ It is found out that majority of the respondents have excellent motivational skills which is very important to have positive results that can lead to growth for the library professionals and the library (Table 40).

❖ The analysis reveals that the library professionals have positive reaction when failure comes. They accept failure when it occurs; they try to learn from experience, try to find reasons for it and try to make changes out of it (Table 41).

❖ A maximum number of library professionals have excellent goal-setting skills in which they set them based on the institutional requirements that is an important activity of an organizational setting (Table 42).

❖ It is found out that majority of the library professionals have an excellent skill in managing conflict. The analysis reveals that when conflict occurs in libraries, majority of them try to resolve and settle them (Table 43).

Objective 2: Appraise the type of skills required in changing information scenario.

As revealed in the literature and from the feedback given by the respondents, it emerges that a variety of skills and competencies are required of the library professionals in changing information scenario. Generally, library and information professionals in new library environments need to acquire multiple skills. These skills and competencies could be broadly classified into three categories which are stated below:

❖ **ICT/Digital skills**

These ICT/Digital skills could be developed through a number of areas which include:

ICT based applications and services: Operating Systems, Programming languages, e-resources, Open Source & Open Access Initiatives, Mobile Alerting services, e-publishing, Word Processor, Spreadsheets, search engines, Open Educational Resources.

Web tools and services: Blogging, Webcasting, Discussion groups, Listservs, RSS feeds, Wikis, Social book marking, Social Networking, Content Management Systems

RFID technology, Barcode technology

Library Consortia

Institutional Repositories

Library Portals and Gateways: Design and delivery of digital content on Library Portal

Virtual Reference Desk

Library Networks

Library Website: Design and delivery of Web base services, Web maintenance.

Digital Library systems and services

Automatic Check-in and Check-out

Application of Library 2.0

Awareness of Multimedia tools

Knowledge of E-learning tools and technologies

Database Management software

Online searching

Social media

Library software: Software installation, software troubleshooting

Hardware troubleshooting

7) Managerial skill

To carry out the plans and policies of libraries and information centres in the 21st century, it is crucial that LIS professionals strengthen their managerial skills. The library professionals need to acquire managerial skills and competencies in various areas as stated below:

Vision

Leadership

Analytical skills

Decision-making

Mentoring

Delegation

Teamwork

Ability to withstand pressure

Ability to deal with changes

Emotional stability

Innovations and best practices

Public Relation and Marketing

Project Management

Presentation skills

Problem solving

Work-Life balance

Resource Generation and Mobilisation

Collaboration and Partnership

Appreciation and Tolerance

Planning and evaluation

Human Resource Management

General Management

Strategic Thinking

Stress Management skills

Time Management skills

Lateral Thinking

Cost and Investment Analysis

Financial Management

Crisis Management skills

Conflict Resolution skills

Collaboration

Advocacy/Politics

➢ **Personality Development and Communication skills**

Behaviour

Attitude

Body language

Posture

Gesture

Verbal communication

Written communication

Approachability

Self-motivation

Discipline

Adaptability or Flexibility

Listening skills

Interpersonal skills

Marketing skills

Negotiation skills
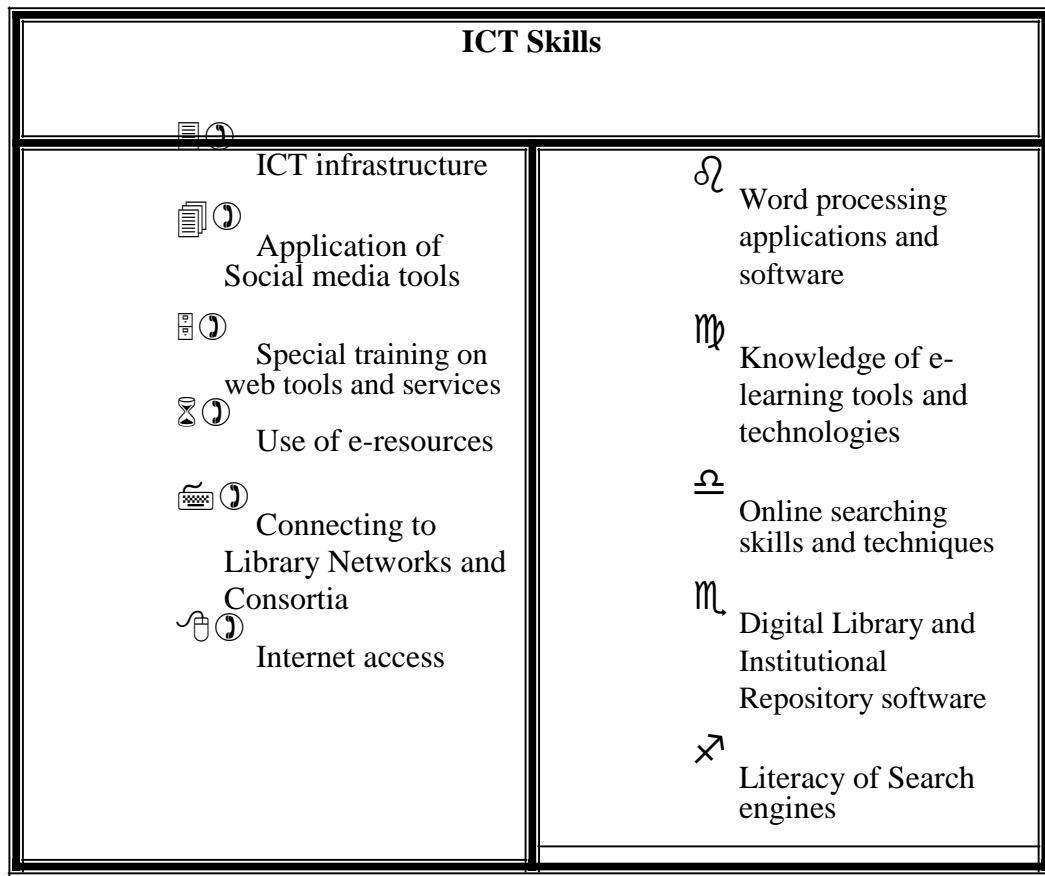
Interview skills

Speaking skills

Objective 3: Identify the problems faced by the LIS professionals in acquiring these skills.

From the analysis, it is clear that lack of infrastructural facilities (62%) and limited budget in acquiring ICT tools (62%) are the main problems faced by majority of the professionals in acquiring ICT skills (Table 28). Other problems that are identified from the analysis and from personal interaction that are encountered and viewed by the LIS professionals are listed below:

➢ Lack of orientation and proper policy by the institution.

➢ Lack of cooperation from the authority.

➢ Lack of interest and personal problems to acquire ICT skills.

➢ Insufficient manpower.

➢ Tight work schedule.

➢ Inadequate training.

➢ Lack of coordination among library staff.

➢ Inactive role and lack of initiatives from library associations.

➢ Lack of library service awareness and recognition among the public.

➢ Limited opportunities for training and workshops to enhance skills and competencies.

➢ Poor internet connectivity and erratic power supply.

➢ Writing skills, presentation skills, use of professional language and practices are the qualities that are lacked by the library professionals.

➢ Leadership quality, autonomy to college, special in-service training is required to develop managerial skills. There is no proper autonomy to develop managerial skills.

Objective 4: **Suggest different models and strategies to be adopted for acquiring these skills for better performance and wider impact on services.**

Model 1:   Development of ICT Skills

ICT Skills	
ICT infrastructure	Word processing applications and software
Application of Social media tools	Knowledge of e-learning tools and technologies
Special training on web tools and services	Online searching skills and techniques
Use of e-resources	Digital Library and Institutional Repository software
Connecting to Library Networks and Consortia	Literacy of Search engines
Internet access	

Strategies:

☐ Department of Higher Education, Government of Mizoram should have a strategic plan for development of Colleges and College Libraries.

☐ College authorities need to organise ICT skill development capacity building programme at regular interval.

☐ INFLIBNET Centre should organise more awareness programme relating to N-LIST for optimum use of e-resources among faculty members and students.

☐ College authorities should encourage Digital Library Initiative and IR for visibility of the Colleges which help a lot for NAAC and NIRF assessment.

- National Knowledge Network (NKN) connectivity should be extended to colleges in Mizoram for high speed Internet service.

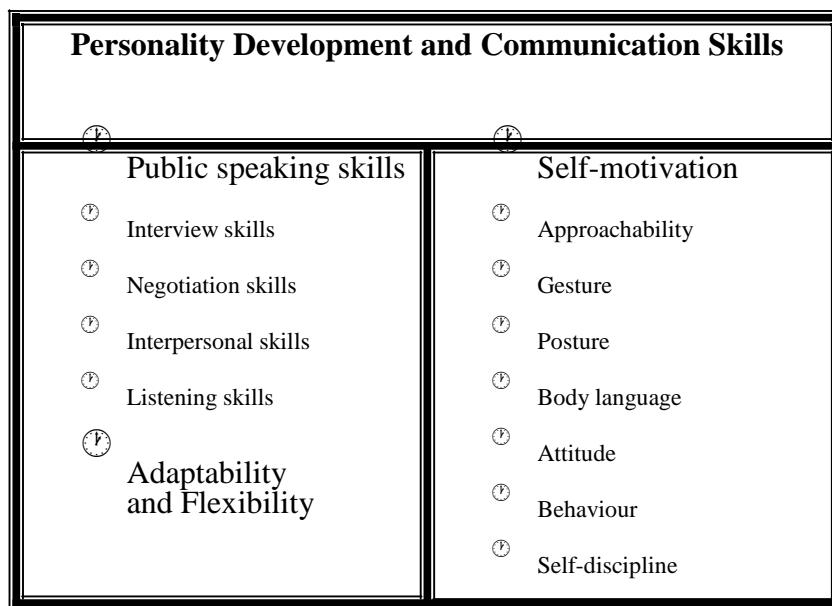**Model 2:   Development of Managerial Skills**

Managerial Skills	
❖ Verbal and written communication	❖ Ability to withstand pressure
❖ Time management	❖ Public Relations and Marketing
❖ Flexibility	❖ Project management
❖ Leadership	❖ Presentation skills
❖ Teamwork	❖ Problem-solving skills
❖ Vision and Initiatives	❖ Collaboration and partnership
❖ Analytical skills	❖ Human Resource Management
❖ Strategic thinking	❖ Stress management
❖ Decision-making	❖ Financial management
❖ Adaptability to changes	❖ Crisis management
❖ Conflict Resolution management	

Strategies:

- A library development policy for colleges in Mizoram should envisage effective management of college libraries with regular funding.
- Every college should have a college Library Committee for policy and decision making and smooth management of college libraries.
- College librarians need to be properly oriented to prepare annual plan, perspective plan, vision plan and looking at the present and future needs.

☐ Librarians should be encouraged to participate in various management related continuing education programme with regard to stress management, crisis management, conflict management, time management, disaster management etc.

Model 3:   Development of Personality Development and Communication Skills

Personality Development and Communication Skills

Public speaking skills	Self-motivation
⊙ Interview skills	⊙ Approachability
⊙ Negotiation skills	⊙ Gesture
⊙ Interpersonal skills	⊙ Posture
⊙ Listening skills	⊙ Body language
⊙ Adaptability and Flexibility	⊙ Attitude
	⊙ Behaviour
	⊙ Self-discipline

Strategies:

☐ Library professionals as a whole need to understand and recognise the importance of Personality Development and Communication Skills

☐ Special Training programmes need to be conducted either by colleges or related organisation on request on Personality Development of library staff.

☐ Librarians as a whole need to develop their personalities as self responsibility to deal with customers, subscription agencies, tackle with negotiations etc.

☐ Good communication skills satisfy library authorities, customers and overall development of libraries.

5.3. Testing of Hypotheses

A test of hypothesis (also known as hypothesis testing) is a method of determining the significance of a population's parameters using a sample taken from it. It is also called as 'Test of Significance'. The study comprises three hypotheses which were tested as discussed below:

H_1. Lack of ICT infrastructure creates barriers in the technological up-skilling of LIS professionals.

ICT infrastructure with regard to development of library is the backbone to up skill the library and information professionals attached to college libraries. Without automation, networking, digital infrastructure, college library professionals cannot develop their skills and communications which is applicable to college libraries which is very much visible among the college Librarians of Mizoram. Therefore, H_1 proves to be accepted.

H_2. Poor vision and managerial ability restrict the development of libraries.

The popular saying "Think outside the box", a pragmatic vision and roadmap are very essential managerial ability that every college librarian should possess. Absence of an efficient managerial ability restricts the developmental goals and action plan in the college libraries. The scholar having conducted this research problem could notice that such abilities and characteristics are lacking with college librarians of Mizoram. Therefore, H_2 is accepted.

H_3. Personality development and communication skills enhance user's satisfaction and quality of services.

Behaviour, attitude, mode of expression, posture, gesture, body language are some of the essential attributes under Personality Development and Communication Skills which attract users to visit and make use of library resources and services in regular intervals. The behaviour and attitude of college librarian need to be changed which

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has a direct impact on optimal use of resources and services. These qualities need to be developed by the college librarians, and therefore, H₃ proves to be accepted.

5.4.   Suggestions

The researcher has been able to offer some feasible suggestions for the enhancement of skills and competencies of library professionals which are listed below:

- ☐ Even though the majority of library professionals have some level of computer education, there are still some library professionals who need to pursue formal or informal computer education. These professionals are suggested to do so in order to keep up with the rate of information explosion in the ICT era.

- ☐ The library professionals under study need to actively participate in online platform and social media.

- ☐ The library professionals should take initiatives towards the creation and development of Library Website, RFID Technology, Digital Library and Institutional Repositories in the library.

- ☐ Sufficient funds should be provided by the authorities to develop the ICT infrastructural facilities of libraries so that the LIS professionals can use the most of it.

- ☐ The authority should encourage the library professionals and give them the opportunities to attend seminars, workshops, conferences, special training and orientation programmes in order to enhance their ICT, managerial and personality development and communication skills and competencies.

- ☐ The Library Association should focus more towards the academic library professionals and need to organize training programmes for the enhancement of their skills and competencies in the areas of ICT, managerial and personality development and communication.

- ☐ More emphasis should be given for the profession among the students who are the future professionals and among working professionals so as to enhance the morale and respect for it.

- The library professionals should attend more workshops, training and short courses on communication skills which seem to be one of the most neglected areas of personality development.
- Above all, the professionals themselves must take the initiatives to learn new things on their own and share their experiences with colleagues.

5.5. Suggestions for Further Research

The findings of this study suggest the need for further research on various skills and competencies of library professionals. The following are the areas on which further studies are suggested:

- The study may be exclusively conducted on ICT skills of library professionals.
- The study may be exclusively conducted on managerial skills of library professionals.
- The study may be exclusively conducted on personality development and communication skills of library professionals.
- The study can be extended to library professionals of public and special libraries.

5.6. Conclusion

The performance of the library and its services offered to users are significantly impacted by the quality of the library staff. The use of ICT in libraries has caused a transition from traditional to digital library operations and services, which has created numerous challenges for library professionals. In order to deal with difficulties and challenges and live in a world where knowledge is changing quickly, individuals must therefore acquire a variety of skills and abilities. Academic libraries in India have been greatly impacted by the quick technological advancement that has

shaped the current information era. These technological advancements also take place in Mizoram college libraries. The study reveals the knowledge and abilities of Mizoram college library professionals in the areas of ICT, management, personality development and communication. The ability of library professionals to use a variety of ICT tools and services has been determined to be average, although they still need to develop their ICT abilities. Moreover, it was discovered that the majority of the libraries under study lacked adequate ICT infrastructure. If there are no facilities available to them, it is difficult for library professionals to practise and improve their ICT skills and competencies.

Professional skill development goes hand in hand with library profession. Since they run libraries and offer services to users, librarians are managers in their own right. ICT applications in libraries have given birth to a number of problems, which has caused changes in management techniques. Therefore, to adapt and manage the changing conditions, library professionals need to have a variety of managerial skills and capabilities.

Only a small number of library professionals who have acquired the UGC-prescribed qualifications and who get the UGC pay scale have access to career development opportunities and involvement to pursue their professional development. However, some of the college libraries are managed by these professionals despite their lack of such credentials. As a result, the chances of library professionals to enhance their abilities and competencies are highly influenced by their own personal interests.

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Appendices

Details of Collections of College Libraries Affiliated to MZU (as on 2020)

Name of Library	Automation software used	No. of collections						
		Books	Reference books	Journals	Magazines	Newspapers	e-Books	e-Journals
Lunglei Govt. College	SOUL 2.0	16182	1850	25	220	3	-	-
Govt. Champhai College	SOUL 2.0	17946	690 533 General 1063 Competitive materials	8	4	3	-	-
Govt. Serchhip College	SOUL 2.0	-	3257	10	-	-	9700(N-LIST)	6000(N-LIST)
Govt. Aizawl College	SOUL 2.0	12868	2373 100 vols. Of Rare books	30	-	14	31+ lakhs titles (12 publishers)	6000+ titles (9 publishers)
IASE	SOUL 2.0	13078	2076 11002 Text book	8	3	9	N-LIST subscription journals	N-LIST subscription titles
Govt.	-	10000	1089	-	-	4	-	-

Saiha College		Text books						
Govt. Kolasib College	SOUL 2.0	Around 10000 vols.	-	-	-	-	-	-
Govt. Hnahthial College	SOUL 2.0	4867 Text books	323	-	-	-	-	-
Govt. Hrangbana College	SOUL 2.0	28419	-	18	12	11	71(Indian publishers) 300lakhs (N-LIST)	50(Subscribed) 16885(N-LIST)
Govt. Lawngtlai College	-	-	-	-	-	-	-	-
Govt. Zirtiri Res. Sc. College	SOUL 2.0	13110	-	12	-	3	-	-
Govt. Mamit College	SOUL 2.0	5856 Text books	182	15	-	-	20	-
Govt. J.Buana College	SOUL 2.0	7620+	74	12	-	-	-	-
Govt. Mizoram Law College	SOUL 2.0	14400	-	16	9	7	NIL	7
Govt. Saitual College	SOUL 2.0	8897 Text books	1193	6	-	-	N-LIST subscription	N-LIST subscription
Govt. Khawzawl	SOUL 2.0	5287 Text books	-	-	-	-	-	-

College								
Govt. Zawlnuam College	SOUL 2.0	4900 Text books	1104	4	-	-	-	-
Govt. Aizawl North College	SOUL 2.0	10934	-	19	-	-	N-LIST subscription	N-LIST subscription
Govt. Aizawl West College	SOUL 2.0	13569	-	4	3	5	-	-
Govt. T.Romana College	SOUL 2.0	10159	-	12	5	5	N-LIST subscriptions	N-LIST subscription
Govt. J.Thankima College	-	8544	-	11	8	5	-	N-LIST
Govt. Kamalanagar College	-	-	-	-	-	-	-	-
Govt. Johnson College	SOUL 2.0	10200	-	7	5	8	N-LIST	N-LIST
RIPANS	TLSS	34597	-	28	-	4	3000	14
NIELIT	Self-developed In-house design software	11403 vols.	-	17	20	7	IEEE Xplore Digital Library	IEEE Xplore Digital Library
MCON	SOUL 2.0	3012	-	10	-	1	N-LIST	N-LIST
HATIM	SOUL	7200	600	55	35	6	N-LIST	N-LIST

	2.0	Text books 1300-General 55-Bound vols.						
Aizawl City College	-	-	-	-	-	-	NA	NA
Divine Mercy College	-	-	-	-	-	-	NA	NA
St. Xavier College	SOUL 2.0	1341	-	2	-	2	NA	NA
Helen Lowry College	-	959	-	-	-	1	-	-
DIET, Aizawl	-	6833	400	5	-	-	-	-
DIET, Lunglei	Library Management Software	3821	-	8	5	2	-	-
SCERT	-	-		-	-	-	-	-
ZMC	Libsys 7	4016	-	49	-	6	-	-

(*Source: surveyed data*)

SKILLS AND COMPETENCIES OF COLLEGE LIBRARY PROFESSIONALS OF MIZORAM IN CHANGING INFORMATION SCENARIO: A STUDY

(QUESTIONNAIRE FOR LIBRARY PROFESSIONALS)

Sir/Madam,

I, B. Lalhlimpuii, a PhD scholar in the Department of Library and Information Science, Mizoram University is pursuing my research on *"Skills and Competencies of LIS Professionals of Mizoram in changing Information Scenario: A study"*. So, to collect primary data, a questionnaire has been designed relating to different areas to fulfil the objectives of the study. I am requesting your kind cooperation in filling-up this questionnaire.

Yours Sincerely,

(B. LALHLIMPUII)

SKILLS AND COMPETENCIES OF COLLEGE LIBRARY PROFESSIONALS OF MIZORAM IN CHANGING INFORMATION SCENARIO: A STUDY

Name: _____

Name of Institution: _____

Designation: _____

Gender: Male ☐   Female ☐   Other ☐

Professional Qualification:

    B.LISc   ☐

    M.LISc   ☐

    MPhil   ☐

    PhD   ☐

    Others (Please mention) _____

Information and Communication Technology Skills

x)   Please tick (✓) against the following computer courses if you have any.
Computer courses

    CCA   ☐

    DCA   ☐

    BCA   ☐

    MCA   ☐

    PGDLAN   ☐

    PGDCA   ☐

    Others (please mention)_____

xii)   Please mark (✓) against the methods of how you acquire Information and Communication (ICT) skills.

    Formal courses/education   ☐

    Colleagues/Friends   ☐

Informal education ☐

From the Library ☐

Self Interest ☐

❖ Have your Library undertaken automation?

Yes ☐

No ☐

❖ If yes, please tick (✓) the Library software used.
Library Software

LIBSYS ☐

SOUL ☐

KOHA ☐

TLSS ☐

Evergreen ☐

NewGenLib ☐

OpenBiblio ☐

EPrints ☐

Any other ☐

❖ Please rate your proficiency level in handling Library

software. Very high ☐

High ☐

Average ☐

Poor Very ☐

poor ☐

❖ What are the areas you are acquainted with in handling Library software?

Data Inputting ☐

Acquisition Serial ☐

control Circulation ☐

control ☐

Automated catalogue ☐

Accession ☐

Inter Library Loan ☐

Barcoding/RFID ☐

8) Do you have a Library Website/Portal?

Yes ☐

No ☐

➢ If yes, is it regularly updated?

Yes ☐

No ☐

➢ If yes, how often do you update your Library Website/Portal?

Frequency

Regularly ☐ Monthly ☐

☐ Bi-monthly ☐

Quarterly ☐

Annually ☐

Bi-annually ☐

Only when needed ☐

10. What is your expertise in handling Library Website?

Content management ☐ Maintenance ☐

Web design ☐

Library 2.0 tools ☐

9) Are you using RFID in your Library?

Yes ☐

No ☐

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g   Do you have practical knowledge in handling RFID?

Yes

No

h   Do you have a digital collection?

Yes

No

i   If yes, what is your expertise in developing a digital collection?

Handling scanner

Having knowledge in digital library software

Application of OCR

Developing a database of digital contents

Having knowledge of digital storage device

Backing-up of digital contents

☐   What digital library software do you use?

<u>Digital Library Software</u>

Greenstone

E-PRINT   D-SPACE

NewGenLib

Fedora

Others (please mention) _____

☐   Do you have knowledge in Digital Library software?

Yes

No

☐   If yes, please rate your proficiency level in knowledge of Digital Library software.

Digital Library Software	Very high	High	Average	Poor	Very poor
Greenstone	☐	☐	☐	☐	☐
D-SPACE	☐	☐	☐	☐	☐
Fedora	☐	☐	☐	☐	☐
E-Print	☐	☐	☐	☐	☐
NewGenLib	☐	☐	☐	☐	☐
Any other	☐	☐	☐	☐	☐

☐ Do you have an Institutional Repository?

Yes ☐ No

☐

☐ What expertise do you have in creating and maintaining this Institutional Repository (IR)?

Ability to manage IR	☐
Familiarity with software	☐
Familiarity with relevant metadata	☐
Storage and preservation	☐
Content management/development	☐
Advocacy and Training	☐
Current Awareness	☐

20. How do you make use of social media tools in libraries?

Social media tools	Extremely useful	Very useful	Useful	Partially useful	Not useful at all
Facebook	☐	☐	☐	☐	☐
Instagram	☐	☐	☐	☐	☐
Orkut	☐	☐	☐	☐	☐
Twitter	☐	☐	☐	☐	☐
My Space	☐	☐	☐	☐	☐
LinkedIn	☐	☐	☐	☐	☐

whatsApp ☐ ☐ ☐ ☐ ☐

Pinterest ☐ ☐ ☐ ☐ ☐

Youtube ☐ ☐ ☐ ☐ ☐

Skype ☐ ☐ ☐ ☐ ☐

Flickr ☐ ☐ ☐ ☐ ☐

☐ Do you have a collection of e-resources?

Yes ☐ No

☐

☐ What expertise do you have in uploading and maintaining these e-resources?

Technical setup ☐

Open URL link server ☐

Library portal ☐

A-to-Z list ☐

Subject guide ☐

Adding e-resources ☐

Monitoring access ☐

Trouble shooting ☐

23. Please rate your proficiency level in managing e-resources and services.

e-resources	Very high	High	Average	Very Poor
OPAC/WEBOPAC	☐	☐	☐	☐
Library Website	☐	☐	☐	☐
e-journals	☐	☐	☐	☐
e-books	☐	☐	☐	☐
Institutional Repositories	☐	☐	☐	☐
Online databases	☐	☐	☐	☐
Open access journals	☐	☐	☐	☐
Library consortium	☐	☐	☐	☐
Library Networks	☐	☐	☐	☐

☐   Does your library provide Mobile Alert service?

Yes   ☐

No   ☐

☐   Have you ever participate in any of the following social media sites?

Participation	**Yes**	**No**
Social Networking	☐	☐
Library blogs	☐	☐
On-line Library professional forum	☐	☐
Video conferencing	☐	☐

26.   Please mark (✓) against the following problems faced by you in acquiring ICT skills.

Problems	**Yes**	**No**
Tight work schedule	☐	☐
Lack of interest	☐	☐
Lack of cooperation from the authority	☐	☐
Lack of infrastructural facilities	☐	☐
Poor service training provision in institution	☐	☐
Limited budget in acquiring ICT tools	☐	☐
Personal problems	☐	☐

27.   Please tick (✓) your attitude towards the impact of ICT in Library services.

Attitude	
Reduced workload	☐
Time saving	☐
Keep user update	☐
Improves library services	☐
Enhanced library service quality	☐
Increased job satisfaction	☐
Increased library usage	☐

Enhanced professional skills ☐

Personality Development and Communication Skills

☐ How much importance you give for personality development of library staff?

	Very Important	Important	Less important
Attitude	☐	☐	☐
Appearance	☐	☐	☐
Body Language	☐	☐	☐
Behaviour	☐	☐	☐
Dress Code	☐	☐	☐
Gesture/Posture	☐	☐	☐
Physical Appearance	☐	☐	☐
Command over English Language	☐	☐	☐
Self-Confidence	☐	☐	☐

☐ Do you think according to your opinion personality development of Librarian/Library staff bring good image of the library and the institution you serve?

Very much agree ☐

Agree ☐

Disagree ☐

☐ Do you think library staff should acquire good communication skills in the areas like-

	Yes	No
Verbal	☐	☐
Non-verbal	☐	☐
Written	☐	☐
Internet communication	☐	☐
Ability to listen	☐	☐
Interpersonal communication	☐	☐
Ability to convince and motivate	☐	☐

Presentation   ☐   ☐

☐   Do you contribute or participate in writing:

	Yes	**No**
Project Proposal	☐	☐
Annual Report	☐	☐
Minutes of Meeting	☐	☐
Vision Plan	☐	☐
Articles for Seminars and Conferences	☐	☐
Any other developmental plan of the Library	☐	☐

☐   According to your opinion, what are the other areas in which the Personality
     Development and Communication Skills of the library staff can increase?

     _____

     _____

     _____

     _____

     _____

Managerial Skills

(4-Excellent, 3-Very Good, 2-Satisfactory, 1-Poor)

☐ What is your view towards vision and initiative?

      I do not have vision and initiative

      I totally depend on the initiatives taken by others

      I take initiative and consult others before taking initiatives

      I aim to provide long term library development

☐ What is your opinion towards decision-making?

      Solely goes by instruction form authorities

      Taking decision all by myself and expect others to follow my decisions

      Involving others in making decisions

      Involve selected few in making decisions

- What is your attitude towards taking risks?

  I avoid taking risks

  I take risk even if i am not supported by others

  I take risk only if i am supported by others

  I usually take calculated risks

- What is your attitude towards time management?

  I don't find it that important

  I am weak in time management

  I sometimes skip deadlines because it is hard to manage my time

  I am strong in time management

- How do you accommodate or adjust to 'change'?

  I find it difficult to accept change

  I can accept change only up to a point

  I think i will be able to adapt if changes occurs

  I can easily adapt if the situation demands it

- Do you consider library functioning requires a team work?

  Library task does not require a team work

  I am not interested in working in team and sometimes inhibit others from working in team]

  I am aware that library work is a team work

  I love working in team and encourage others to gather in team

- How do you motivate others/your colleagues?

  I don't find it necessary to motivate others

  I try to set an example for them and expect them to follow me

  I try to determine their self-development

  I try to encourage and motivate others

- How do you react when there is a failure in your work?

  I do not accept failure so easily

  I accept it and try to make changes

  I accept it and try to find reasons for it

  I accept it but try to learn from experience

☐ How do you set objectives/goals?

I do not believe in setting goals

I set them according to the skills of the library staff

I set them for the development of a library

I set them based on the institutional requirements

☐ What did you do when others are in conflict?

I did not do anything

I always take the side of the one whom i think is the right one

I take the matter to higher authorities

I try to settle them down

☐ Based on your experience in the library, what type of managerial skills and competencies do you think is the most important for library professionals to possess?

Visionary ☐

Leadership Quality ☐

Ability to Transform ☐

Public Relation and Marketing ☐

Problem Solving ☐

Ability to Generate and Mobilise Resources ☐

Collaboration and Partnership ☐

Tolerance, Appreciation and Creating Cordial ☐
and Comfortable Work Environment

i) Conflict management ☐

☐ Stress management ☐

iii) Disaster management ☐

Time management ☐

☐ Kindly add any other skills and competencies required for library professionals which are not included as above.

_____

_____

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1. DRC : 16.10.2018
2. BOS : 23.10.2018
3. SCHOOL BOARD : 26.10.2018

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Journal Publications:

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☐ Developing Managerial Skills for College Library Staff with Special Reference to Affiliated Colleges under Mizoram University. *Library Waves: A Biannual Peer Reviewed Journal of Library and Information Science, 8*(1), 66-77.

Conference/Seminar Paper:

☐ Attended and presented a paper entitled "**Perception of Usefulness of Social Media Tools in Libraries among College Library Professionals of Aizawl, Mizoram**" at National Seminar on "**Social Media and Librarianship: Connecting the Communities**" organized by Department of Library and Information Science, Mizoram University during 26th-28th February, 2020.

☐ Attended and presented a paper entitled "**Personality Development and Communication Skills of College Library Professionals of Mizoram: A Study**" at **XXXVII International Conference of the IATLIS, 2021** jointly organised by Jointly Organised by Department of Library and Information Science, University of Calcutta & Indian Association of Teachers of Library and Information Science (IATLIS) during 25th-27th November, 2021.

Book Chapter:

☐ Towards Library Automation. (2019). In Verma, M.K. et al. (Eds.). *Innovative Librarianship through ICT Tools and Technology*. (pp. 21-26). New Delhi: Shree Publishers and Distributors. ISBN: 978-81-8329-971-8

Seminar/Workshop/Webinar attended:

☐ Participated in Five days National Workshop on "Trends in LIS Research: Approaches and Methods" organised by Department of Library & Information Science, Mizoram University, Aizawl, Mizoram in Collaboration with Information and Library Network Centre (INFLIBNET Centre), Gandhinagar Gujarat sponsored by DRDO, Delhi and ICSSR-NER, Shillong from March 11-15, 2019.

- Participated in the live webinar on "Digital Marketing" organised by Department of Library & Information Science, Mizoram University, Aizawl on 15th May, 2020.
- Participated in the live webinar on "Research Data Management" organised by Department of Library & Information Science, Mizoram University, Aizawl on 20th May, 2020.
- Attended the 7th Webinar on "Access and Impact of Information and Research in Digital Context" organised by Indian Library Association (ILA) in association with Association of Indian Law Libraries (AILL) on 23rd May, 2020.
- Participated in Online Webinar on "Competencies for Information Professionals in Changing Times organised by Department of Library & Information Science, Mizoram University on 9th September.2020.

ABSTRACT

On

SKILLS AND COMPETENCIES OF COLLEGE LIBRARY PROFESSIONALS OF MIZORAM IN CHANGING INFORMATION SCENARIO: A STUDY

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ABSTRACT

SKILLS AND COMPETENCIES OF COLLEGE LIBRARY PROFESSIONALS OF MIZORAM IN CHANGING INFORMATION SCENARIO: A STUDY

BY

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Submitted

In Partial Fulfilment of the Requirement of the Degree of

Doctor of Philosophy in Library and Information Science of

Mizoram University, Aizawl

1. Introduction

The application of Information and Communication Technology (ICT) has greatly transformed the way of functioning of the libraries. Libraries have to perform their duties and responsibilities in different environment in storing, disseminating and organizing information which all required professional expertise. It is not only the size of the library, its environment, the facilities it has provided to the users and its content (both physical and digital resources) that matters; but what matters the most is the quality of the library professionals who will serve the library users. Consequently, in order to ensure the library's smooth operation and to offer its users the best possible services, the Library and Information Science (LIS) professionals require to develop their skills and competencies in various skills which include ICT skills, managerial skills and, personality development and communication skills. The revolutionary changes that has brought up by the rapid advancement in ICT in information processing, storage and dissemination, and to communicate more effectively in information demands the LIS professionals to develop their ICT skills in the changing information scenario. To meet current challenges, the LIS professionals require to possess managerial skills in carrying out the plans and policies, and to critically assess the relevance and value of modern management techniques. To add value to the services provided by Library and Information Centres and to enable the users to understand library services, the LIS professionals need to have effective and interactive communication skills and should develop their personality skills in certain areas which include professional communication skills, marketing skills, public relations, leadership and vision, conflict and crisis management, time and stress management etc.

Due to the recent trends of ICT in Library and Information Centres (LICs), the library professionals are facing a lot of difficulties and challenges. Therefore, different types of skills and competencies are required in order to tackle the problems and difficulties in handling information resources. They require ongoing revitalization by gaining new skills and core competencies in order to survive and never become obsolete in an era of rapid information change.

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn...."Alvin Toffler (Goodreads, n.d.).

2. Skills and Competencies of LIS Professionals

The job of library professionals need to be changed in this digital era, even if the resources and methods used to provide necessary information and turn it into knowledge are continuously changing. Due to the development of technology, when libraries are flooded with electronic information sources and a world where everyone has access to the Internet, one would believe that a librarian is no longer necessary. It would seem that in addition to a computer programme or database being able to provide some sort of condensed data, finding, selecting, checking, and making a vast amount of electronic information available efficiently while also understanding the needs of the users, requires an information specialist like library professionals (A. Patel, 2014).

The fast changing information technology, create both new challenges and opportunities in which the library professionals must overcome a variety of difficult obstacles, take of technology advancements, and adapt well to changing conditions. LIS professionals that possess the newest technology skills are in high demand. As long as they develop their technological and professional competencies and seize these opportunities, they have great opportunity and promising career prospects. If not, surviving in contemporary libraries becomes even more challenging. The professions most likely to survive, flourish, develop, and achieve in the future as opposed to decline and suffering are those that anticipate and accept change in a positive, creative, and intellectual manner. To have a successful future in the twenty-first century, LIS professionals must have a vision for contemporary professional skills and technological competencies. LIS professionals may effectively manage evolving technology by using a variety of channels and methods to build their professional competencies. The significant strategies for enhancing professional competencies include obtaining formal qualifications, pursuing a doctoral degree, distance and E-learning courses, reading professional literature, tours and visits to

well-managed libraries, membership in professional bodies, attending professional meetings, giving presentations at seminars and conferences, publishing articles in journals and books, participation in specialist groups and personal interactions with other experts, attending workplace training sessions, induction programmes, staff development seminars, and projects for research and development (Patel & Bhavsar, 2012).

Library and Information Science profession is more multi-faceted that deals with the entire universe of knowledge. The LIS professionals need to possess various types of skills and competencies to succeed with deliberate changes and to move forward and achieve new levels of success.

❖ **Technological Skills**

Nowadays, ICT is highly regarded as an important component of libraries. The application of technologies in libraries is reshaping and moulding the world of academic libraries, and moreover provides value-added services to libraries. To meet the educational goals and objectives, such technologies must be fully utilized in a strategic way. The requirement to work with these technologies has compelled the LIS professionals to acquire and develop their skills and competencies in this changing information environment. The changing library profession demands the LIS professionals to acquire various technological skills such as the ability to handle sophisticated technology including networking and Internet skill, library automation, e-resource management, content management, organization of information on Internet and Intranet, information management which includes the ability to collect, access, store, retrieve and disseminate information to the users, etc.

❖ **Managerial Skills**

It is highly essential for the library professionals to develop their managerial skills to properly carry out the plans, policies and decision-making of the libraries. The areas in which library professionals need to possess managerial skills in the changing information scenario includes vision, leadership, innovations, public relation and

marketing, project management, problem solving, resource generation and mobilization, collaboration and partnership, appreciation or tolerance, comfort and humour, ability to manage change and capacity to manage within the changing trends.

❖ **Personality Development and Communication Skills (PDCS)**

The LIS professionals need to possess certain personal qualities in order for the library to operate efficiently and provide value-added services. The term 'personality' describes a person's traits, behaviours, actions, mind-set, attitude, and particular perspective on the world. One's personality is greatly influenced by genetics, family history, different cultural origins, environment, and current circumstances. One's personality can be seen in how they interact with other people. Anyone who has a likeable personality will be respected and valued. The development of one's personality is significantly assisted by effective communication abilities. People can express themselves more persuasively when they communicate. The best way to convey ideas, emotions, and expertise is through good communication, which is made possible by these talents. These traits will aid them in carrying out various strategies and policies of the library in an efficient manner (Juneja, n.d.).

3. Scope and Significance of the Study

The scope of the study is confined to the area of Technological skills, Managerial skills and, Personality Development and Communication Skills of professionally qualified LIS professionals who are working in college libraries in Mizoram. The scope of the present study and its coverage is limited to 36 college libraries (presented in the enclosed Appendix-I) which are affiliated to Mizoram University who have their own library. These colleges are the backbone of higher education in Mizoram in which libraries play an important role to supplement higher education. Therefore, it is highly felt that LIS professionals working in college libraries should develop their skills in order to cater the requirements of the users and for the development of the libraries.

4. Statement of the Problem

The advances in ICT have occurred revolutionary changes in library environment. These changes demand the LIS professionals to acquire new skills and competencies for an effective functioning of the libraries and to provide better services to the users. Lack of technological skills of LIS professionals of Mizoram hamper in providing qualitative services to the users. Generally, the lower level staffs in libraries do not possess the skills and competencies that should be acquired by LIS professionals. So, this deficiency greatly leads to poor services of the libraries. To achieve this LIS needs to develop professional skills comprising of – ICT Skills, Personality Development and Communication Skills and Management Skills, it is required to take up a research in this particular area so as to enhance the professional skills of LIS professionals of Mizoram and to provide quality in library and information services.

5. Objectives of the Study

The objectives of the present study are to:

1) Assess the existing ICT skills and competencies, Managerial skills and Personality Development and Communication skills acquired by the LIS professionals working in college libraries of Mizoram.
2) Appraise the type of skills required in changing information scenario.
3) Identify the problems faced by the LIS professionals in acquiring these skills.
4) Suggest different models and strategies to be adopted for acquiring these skills for better performance and wider impact on services.

6. Hypotheses

A test of hypothesis (also known as hypothesis testing) is a method of determining the significance of a population's parameters using a sample taken from it. It is also called as 'Test of Significance'. The study comprises three hypotheses which were tested as discussed below:

H₁.   Lack of ICT infrastructure creates barriers in the technological up-skilling of LIS professionals.

ICT infrastructure with regard to development of library is the backbone to up skill the library and information professionals attached to college libraries. Without automation, networking, digital infrastructure, college library professionals cannot develop their skills and communications which is applicable to college libraries which is very much visible among the college Librarians of Mizoram. Therefore, the findings of the study support H_1.

H₂.   Poor vision and managerial ability restrict the development of libraries.

The popular saying "Think outside the box", a pragmatic vision and roadmap are very essential managerial ability that every college librarian should possess. Absence of an efficient managerial ability restricts the developmental goals and action plan in the college libraries. The scholar having conducted this research problem could notice that such abilities and characteristics are lacking with college librarians of Mizoram. Therefore, H_2 is accepted.

H₃.   Personality development and communication skills enhance user's satisfaction and quality of services.

Behaviour, attitude, mode of expression, posture, gesture, body language are some of the essential attributes under Personality Development and Communication Skills which attract users to visit and make use of library resources and services in regular intervals. The behaviour and attitude of college librarian need to be changed which has a direct impact on optimal use of resources and services. These qualities need to be developed by the college librarians, and therefore, H_3 proves to be accepted.

7. Research Design

The study included a census of Library professionals ranging from 'College Librarian' to 'Library Assistant'. The questionnaire was sent to the sample of 54 Library professionals and a total 50 responses were received from 22 Librarians, 4 Deputy Librarians, 4 Assistant Librarians, 1 Library and Information Officer, 1 Professional Assistant, 1 Semi-Professional Assistant and 17 Library Assistants which give the total response rate of 92.6%.

> ### Data collection Techniques

The study applies a qualitative method which is descriptive in nature to assess the skills and competencies of College Library professionals who are working in Institutes/Colleges affiliated to Mizoram University. A structured questionnaire tool was adopted to collect primary data from the practicing LIS professionals. Various questions relating to the services of the libraries, experiences, different skills and competencies possessed by the LIS professionals of Mizoram and other questions which are relevant for the study are formulated in the questionnaire. The questionnaire was designed based on the literature review and broad areas of skills and competencies that include ICT skills, managerial skills and, Personality Development and Communication Skills were identified from various sources. Questions were asked to self-assess the skills and competencies of library professionals.

> ### Analysis and Interpretation

Analysis and interpretation of data is the most important part of a research as it leads to the findings of a research work. The data obtained from the questionnaire were analysed using MS-Excel for appropriate statistical analysis and description which are presented in the form of tables and graphs.

8. Research Gap

The study conducts a literature review, focusing primarily on the ICT skills, managerial skills and, personality development and communication skills of library professionals. The survey and literature review revealed that there have been several

studies on these topics, including recent studies on information literacy skill and competency, library automation skill, library professionals' communication, and human resource development. However, none have been done on the skills and competencies of College library professionals of Mizoram. As a result, this study aims to fill up the research gap.

9.   Findings According to the Objectives of the Study

Four objectives are drawn for this study and findings against each objective are discussed below:

9.1.   Objective 1: To assess the existing ICT skills and competencies, managerial skills and personality development skills acquired by the LIS professionals working in college libraries of Mizoram.

i)   Out of the total 50 respondents, 15 (30%) possess CCA computer degree, 11 (22%) possess DCA degree, 1 (2%) possesses a BCA degree and, a maximum number of 23 (46%) do not have a computer degree. Thus, it clearly indicates that almost half population of the respondents do not have computer degree (Table 13).

ii)   A maximum number of 24 (48%) respondents acquire ICT skills through formal education. 16 (32%) respondents acquire their ICT skills from the Library, 9 (18%) are self-interested and acquire it by themselves, 5 (10%) acquire them from friends and colleagues, and 4 (8%) acquire it through informal education (Table 14). Thus, library professionals acquire their ICT skills through various methods such as through formal education, informal education, colleagues and friends, from the Library and some are self-interested.

iii) The analysis of data reveals that majority of the respondents (i.e. 78%) have average proficiency level of handling Library software (Table 15), and managing and organizing e-resources and services (Table 17).

iv) The analysis shows that the knowledge about Digital Library software is less among the respondents. There is only 1 (2%) respondent who have very high proficiency in using D-Space among other Digital Library software. 12 (24%) respondents have average proficiency level in using D-Space which takes the majority compared to other Digital Library software. Only few libraries have initiated digital library services and acquire digital collections (Table 9) which may be the reason for low responses which indicates the low level of awareness about this software among the library professionals (Table 16).

v) The analysis reveals that there are just a few library professionals who have practical skills about various aspects of Library website, developing digital collection, creating and maintaining Institutional Repository and e-resources (Table 18-21).

vi) It is found that only 24% of respondents have a practical knowledge of RFID. 20% respondents claim to be knowledgeable in various aspects of digital collection, and 42% of respondents are knowledgeable with Digital Library software (Table 22-24). It is evident that these ICT tools and collections are not properly used and acquired by the libraries.

vii) The analysis of data reveals that library professionals are mostly proficient and knowledgeable with different areas of library automation software. Among various areas, the library professionals are most familiar with 'Circulation control' (76%). Since library automation is done in most of the libraries under study, the library professionals are well-aware and knowledgeable on what they are working with, on various areas of Library Automation software (Table 25).

viii) Among various areas of Personality development and communication skills, 'Attitude', 'Self-confidence' and 'Behaviour' are considered highly important by the library professionals (Table 30).

ix)   The analysis shows that 88% of the respondents have skills in Verbal communication, 82% each in Internet communication and Interpersonal communication. 80% claim that they have skills in written communication while 78% have Listening skills, and 74% have the ability to convince and motivate other while 62% have skills in Non-verbal communication (Table 32). Thus, it is found that the library professionals have a good ability in different areas of communication skills.

x)   The library professionals are contributing and participating in writing various academic and project report writings such as writing Meeting Minutes (52%), Annual reports (46%), Articles for Seminars and Conferences (42%), Vision planning (40%), Library developmental plans (40%) and Project proposal and Report writing (32%). Except for writing Meeting Minutes, majority of the respondents are not contributing and participating enough which reveals their proficiency level in written communication (Table 33).

xi)   The analysis reveals that majority of the respondents (56%) have a good vision and aim to provide long term library development. Thus, the study indicates that majority of the respondents have excellent skills towards vision and initiatives (Table 34).

xii)   The analysis shows that the library professionals have poor decision-making skills in which only 40% involve few in making decisions, 10% take decisions all by themselves and expect others to follow them. There are only 12% respondents who solely go by the instructions and decisions made and given by the authorities (Table 35).

xiii)   The analysis reveals that a large number of respondents have excellent risk-taking skills where 44% respondents usually take calculated risk which indicates that it involves a fair amount of research that brings a higher chance of success (Table 36).

xiv) The study shows that a good number of respondents (48%) have strong ability in time management (Table 37), and majority have a good ability to adapt themselves to changes if it occurs in the libraries (Table 38).

xv) The study found that the respondents are excellent in teamwork. A maximum number of respondents are aware of the fact that library work requires a team work and they love working in team and even encourage others to gather in team (Table 39).

xvi) It is found out that majority of the respondents have excellent motivational skills which is very important to have positive results that can lead to growth for the library professionals and the library (Table 40).

xvii) The analysis reveals that the library professionals have positive reaction when failure comes. They accept failure when it occurs; they try to learn from experience, try to find reasons for it and try to make changes out of it (Table 41).

xviii) A maximum number of library professionals have excellent goal-setting skills in which they set them based on the institutional requirements that is an important activity of an organizational setting (Table 42).

xix) It is found out that majority of the library professionals have an excellent skill in managing conflict. The analysis reveals that when conflict occurs in libraries, majority of them try to resolve and settle them (Table 43).

9.2. Objective 2: Appraise the type of skills required in changing information scenario.

As revealed in the literature and from the feedback given by the respondents, it emerges that a variety of skills and competencies are required of the library

professionals in changing information scenario. Generally, library and information professionals in new library environments need to acquire multiple skills. These skills and competencies could be broadly classified into three categories which are stated below:

1) **ICT/Digital skills**

These ICT/Digital skills could be developed through a number of areas which include:

- ICT based applications and services: Operating Systems, Programming languages, e-resources, Open Source & Open Access Initiatives, Mobile Alerting services, e-publishing, Word Processor, Spreadsheets, search engines, Open Educational Resources.
- Web tools and services: Blogging, Webcasting, Discussion groups, Listservs, RSS feeds, Wikis, Social book marking, Social Networking, Content Management Systems
- RFID technology, Barcode technology
- Library Consortia
- Institutional Repositories
- Library Portals and Gateways: Design and delivery of digital content on Library Portal
- Virtual Reference Desk
- Library Networks
- Library Website: Design and delivery of Web base services, Web maintenance.
- Digital Library systems and services
- Automatic Check-in and Check-out
- Application of Library 2.0
- Awareness of Multimedia tools
- Knowledge of E-learning tools and technologies
- Database Management software
- Online searching

- Social media
- Library software: Software installation, software troubleshooting
- Hardware troubleshooting

2) **Managerial skill**

To carry out the plans and policies of libraries and information centres in the 21st century, it is crucial that LIS professionals strengthen their managerial skills. The library professionals need to acquire managerial skills and competencies in various areas as stated below:

- Vision
- Leadership
- Analytical skills
- Decision-making
- Mentoring
- Delegation
- Teamwork
- Ability to withstand pressure
- Ability to deal with changes
- Emotional stability
- Innovations and best practices
- Public Relation and Marketing
- Project Management
- Presentation skills
- Problem solving
- Work-Life balance
- Resource Generation and Mobilisation
- Collaboration and Partnership
- Appreciation and Tolerance
- Planning and evaluation
- Human Resource Management
- General Management
- Strategic Thinking

- Stress Management skills

- Time Management skills

- Lateral Thinking

- Cost and Investment Analysis

- Financial Management

- Crisis Management skills

- Conflict Resolution skills

- Collaboration

- Advocacy/Politics

3)   **Personality Development and Communication skills**

- Behaviour

- Attitude

- Body language

- Posture

- Gesture

- Verbal communication

- Written communication

- Approachability

- Self-motivation

- Discipline

- Adaptability or Flexibility

- Listening skills

- Interpersonal skills

- Marketing skills

- Negotiation skills

- Interview skills

- Speaking skills

9.3. Objective 3: Identify the problems faced by the LIS professionals in acquiring these skills.

From the analysis, it is clear that lack of infrastructural facilities (62%) and limited budget in acquiring ICT tools (62%) are the main problems faced by majority of the professionals in acquiring ICT skills (Table 28). Other problems that are identified from the analysis and from personal interaction that are encountered and viewed by the LIS professionals are listed below:

i)   Lack of orientation and proper policy by the institution.

ii)   Lack of cooperation from the authority.

iii)   Lack of interest and personal problems to acquire ICT skills.

iv)   Insufficient manpower.

v)   Tight work schedule.

vi)   Inadequate training.

vii)   Lack of coordination among library staff.

viii)   Inactive role and lack of initiatives from library associations.

ix)   Lack of library service awareness and recognition among the public.

x)   Limited opportunities for training and workshops to enhance skills and competencies.

xi)   Poor internet connectivity and erraticpower supply.

xii)   Writing skills, presentation skills, use of professional language and practices are the qualities that are lacked by the library professionals.

xiii)   Leadership quality, autonomy to college, special in-service training is required to develop managerial skills. There is no proper autonomy to develop managerial skills.

9.4. Objective 4: Suggest different models and strategies to be adopted for acquiring these skills for better performance and wider impact on services.

Model 1: Development of ICT Skills

ICT Skills	
❖ ICT infrastructure ❖ Application of Social media tools ❖ Special training on web tools and services ❖ Use of e-resources ❖ Connecting to Library Networks and Consortia ❖ Internet access	❖ Word processing applications and software ❖ Knowledge of e-learning tools and technologies ❖ Online searching skills and techniques ❖ Digital Library and Institutional Repository software ❖ Literacy of Search engines

Strategies:

1) Department of Higher Education, Government of Mizoram should have a strategic plan for development of Colleges and College Libraries.

2) College authorities need to organise ICT skill development capacity building programme at regular interval.

3) INFLIBNET Centre should organise more awareness programme relating to N-LIST for optimum use of e-resources among faculty members and students.

4) College authorities should encourage Digital Library Initiative and IR for visibility of the Colleges which help a lot for NAAC and NIRF assessment.

5) National Knowledge Network (NKN) connectivity should be extended to colleges in Mizoram for high speed Internet service.

Model 2:   Development of Managerial Skills

Managerial Skills	
❖ Verbal and written communication ❖ Time management ❖ Flexibility ❖ Leadership ❖ Teamwork ❖ Vision and Initiatives ❖ Analytical skills ❖ Strategic thinking ❖ Decision-making ❖ Adaptability to changes ❖ Conflict Resolution management	❖ Ability to withstand pressure ❖ Public Relations and Marketing ❖ Project management ❖ Presentation skills ❖ Problem-solving skills ❖ Collaboration and partnership ❖ Human Resource Management ❖ Stress management ❖ Financial management ❖ Crisis management

Strategies:

1) A library development policy for colleges in Mizoram should envisage effective management of college libraries with regular funding.

2) Every college should have a college Library Committee for policy and decision making and smooth management of college libraries.

3) College librarians need to be properly oriented to prepare annual plan, perspective plan, vision plan and looking at the present and future needs.

4) Librarians should be encouraged to participate in various management related continuing education programme with regard to stress management, crisis management, conflict management, time management, disaster management etc.

Model 3: Development of Personality Development and Communication Skills

Personality Development and Communication Skills	
❖ Public speaking skills ❖ Interview skills ❖ Negotiation skills ❖ Interpersonal skills ❖ Listening skills ❖ Adaptability and Flexibility	❖ Self-motivation ❖ Approachability ❖ Gesture ❖ Posture ❖ Body language ❖ Attitude ❖ Behaviour ❖ Self-discipline

Strategies:

1) Library professionals as a whole need to understand and recognise the importance of Personality Development and Communication Skills

2) Special Training programmes need to be conducted either by colleges or related organisation on request on Personality Development of library staff.

3) Librarians as a whole need to develop their personalities as self responsibility to deal with customers, subscription agencies, tackle with negotiations etc.

4) Good communication skills satisfy library authorities, customers and overall development of libraries.

10. Chapterization

The present study is divided into five chapters:

Chapter 1:   Introduction

The first chapter introduces the concept and definition of skills and competencies, and presented the changing role of academic libraries and library professionals in the changing information scenario. It also describes the various skills and competencies that should be possessed by the LIS professionals which include ICT skills, Managerial skill, and Personality Development and Communication Skills. It further provides a brief description of the study's purpose, significance, problem statement, and goals, hypotheses, research gap, research methodology, review of literature and organization of the chapters.

Chapter 2:   College Libraries in Mizoram: An overview

Chapter 2 highlights the general information of formal education in Mizoram and presents a brief information of the Colleges/Institutes and its libraries that are affiliated to Mizoram University.

Chapter 3:   Skills and Competencies of LIS Professionals

Chapter 3 discusses various concepts and areas of skills and competencies that should be possessed by the LIS professionals. These skills include ICT skills, Managerial skills and Personality Development and Communication Skills.

Chapter 4:   Data Analysis and Interpretation

Chapter 4 deals with the analyses and interpretation of collected data. The data obtained from the questionnaire were analysed using MS-Excel and presented in the form of tables and graphs. It also highlights the testing of hypotheses of the study.

Chapter 5:   Findings, Suggestions and Conclusions

Chapter 5 provides the findings based on the objectives of the study, suggestions for the enhancement of skills and competencies of LIS professionals, suggestions for further research and conclusion of the study.

Appendices and Bibliography have been provided at the end of the thesis. Bibliography is presented as per rules provided by the APA (American Psychological Association) 7th edition standard and References are generated using Scribbr APA Citation Generator.