



JIMMA UNIVERSITY
COLLEGE OF NATURAL SCIENCE
DEPARTMENT OF INFORMATION SCIENCE

**TRANSFORMING REFERENCE SERVICE THROUGH INFORMATION
AND LEARNING COMMONS: DEFINING MANAGERS, LIBRARIANS
AND USERS PERSPECTIVE – THE CASE OF JIMMA UNIVERSITY**

**A Research Thesis Submitted to Department of Information Science, College
of Natural Science, Jimma University in Partial Fulfillment of the
Requirement for the Degree of Masters of Science in Information Science
Specialty in Electronics and Digital Resource Management**

BY:
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October, 2013
Jimma, Ethiopia

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Declaration

I, the undersigned, MSc Electronics and Digital Resources Management student declare that, this thesis is my original work in partial fulfillment of the requirement for the degree of Master Science in Electronics and Digital Resources Management. Where other peoples work has been used, it has been carefully acknowledged and referenced in accordance with the requirements.

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This thesis work has been submitted to Jimma University, College of Natural Science, Department of Information Science with our approval as Advisors on the MSc in Electronics and Digital Resources management **Advisors**

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List of Abbreviations

ALA	American Library Association
ARL	Association of Research Libraries
ASU	Arizona State University
CD-ROM	compact Disk Read Only Memory
DRS	Digital Reference Services
EDRM	Electronic and Digital Resource Management
GIS	Geographic Information System
ICT	Information and Communication Technology
IC	Information Commons
ILC	Information and Learning Commons
JU	Jimma University
JULS	Jimma University Library System
NCSU	North Carolina State University
OCLC	Online Computer and Library Center
OPAC	Online Public Access Catalogue
PG	postgraduate Student
SPSS	Software Package for Social Science
UG	Undergraduate Student

Abstract

Traditional reference service model does not reflect the great diversity of users, their information needs, and their information seeking behavior nor does it reflect changes in information sources and in the management and organization of libraries. This reality is very well felt by the developed world libraries and in those countries library reference and information services have seen revolutionary changes to meet the new challenges of information age. Indeed, the information and learning commons has become a focal point and solutions for those challenges and user satisfaction. To examine existing reference service desk Utilization in Jimma university library system and identify Information and learning commons model concepts for adopting Information and Learning Common model. A cross-sectional Study design was employed to look for defining the perspective of managers, librarians and users on the Transformation of the reference service through Information and Learning Commons in Jimma University The questionnaire was distributed to a sample of 478 users from five respondents' statuses. Descriptive and inferential statistics were used in the analysis of data using SPSS version 16.0. A parametric test using the one-way analysis of variance (ANOVA) was used to compare the mean satisfaction scores among the respondents from the five respondents' statuses. To determine satisfaction by current reference service and perceived services of Information and learning commons as compared by using paired T-test. The results of the study revealed that on the average, the respondents were neutral with the current usage satisfaction of reference service, and they are satisfied by perceived benefit /usefulness of transformed service, perceived need to transform to ILC, perceived services of ILC. The respondents were relatively most satisfied with perceived benefit /usefulness of transformed service and need to transform ($M= 4.123$), followed by perceived services of ILC ($M= 4.030$), and neutral by current reference service usage satisfaction ($M= 2.87$) in that order. The result shows that on average, the overall mean score difference on perception of current reference service utilization and ILC services are significantly different at the 5% level ($p\text{-value} < 0.05$) with overall mean difference 1.25262. comparison of satisfaction on current reference service among the five respondents statuses are significantly different at the 5% level ($p\text{-value} = 0.025$) also comparison of satisfaction on perceived services of ILC among the five respondents statuses are significantly different at the 5% level ($p\text{-value} = 0.012$). The qualitative analysis of interview result shows also a strong support from the management side to transform to new service model. The current reference service should have transformed in new service model and the study motivates further research on the topic in other institutions of Ethiopia.

CHAPTER ONE

INTRODUCTION

1.1. Background

While all units and functions in libraries are experiencing the consequences of technology in one way or another, information commons is the area where users most directly see the effects of technology. The essence of information commons rests on the interaction process between librarians and users. Library managers support this interaction by creating a climate in which librarians can fulfill reference services. Taking these points into account, it is important to discuss issues and trends related to Information and Learning Commons Model that have drawn users by offering environments that address their needs, bringing together technology, content, and services in a physical space that results in an environment different from that of a typical library. Rettig(1993) has pointed out that the distinguishing features of reference include a staff designated to provide the service; a collection of reference works accessible to the public in an area set aside for the provision of the service; adequate guides to the library's resources; and a high degree of interaction between the staff and the clientele.

Although in today's world the term reference service encompasses more activities than mentioned by (Retting, 1993). In this context Mitchell(2008) said that today's reference librarians are actively engaged with the many emerging new processes by which learning occurs. Further, reference librarians in academic and research libraries are actively engaged with the many emerging new processes not only by which learning occurs, but also by which research is done. To be successful, today's reference librarians need to not only understand but also embrace current and emerging technologies affecting reference functions and the information needs of library users. Indeed, wherever or however we provide reference service, we are all cognizant of the major changes in libraries – changes that stem from countless cultural, economic, legal and social developments that have impacted, and continue to impact, our work. Similarly, King (2005) and Hiller(2001) mentioned that the information needs and expectations are continuously changing in the rapidly changing information scenario. So Libraries need to re-orient their collections, services, staff, and facilities to keep pace with these advancements.

Recently, several researchers and practitioners have suggested “new” reference service models, as “alternative” models of the traditional reference desk. In general, the approach taken in previous writings is very practice-oriented. On one hand, there has been little effort to evaluate the effectiveness of new reference service models, with a few exceptions (Woodard, 1989). On the other hand, no attempt has been made to discuss effects, consequences, and problems in terms of 1) management issues such as merging and supervising staff from two or more distinct institutional units, lines of communication, and assessment; 2) personnel issues such as cross-training, pay scales, turnover, and scheduling; 3) service issues such as hours of operation, staffing, physical arrangement, tiered-service vs. traditional, and keeping up with changes in e-resources; 4) public relations issues such as promotion and user interaction; 5) budgeting issues such as replacement costs for equipment, database and full-text license fees, upgrading software, hardware maintenance, and whether or not to charge for printing; and 6) technical issues such as system security, administrative privileges, image refreshing, maintenance of equipment, etc at a conceptual level beyond listing advantages and disadvantages of “alternative” model of the reference service that gives service at multiple layers of service point(Seal, 2005).

The provision of reference services has been, and still is, at the heart of all libraries in every sector be it academic, public or special. Until the internet changed forever the way we access information, it was the exclusive preserve of the “Reference librarian” to provide information directly to the client (Weddell, 2008). Evaluation of library reference services began in earnest in the late 1960s and early 1970s when budgetary situations required justification of the existence of all services in the library. A close examination of a reference service provides library administration and involved librarians with a clear understanding of how well the service is meeting its intended goals, objectives, and outcomes, how well the service is helping users fulfill their information needs, and whether the expended resources are producing the desired results(Pomerantz, Luo, & McClure, 2006).

Considerable attention has not been paid in Jimma University Library System (JULS) to the impact of technology on reference service with respect to the kinds of newly-available information resources and the means for accessing information electronically. As (Ferguson & Bunge, 1997) have noted, academic libraries, to date, have done a remarkable job of

incorporating online searching, online catalogs, CD-ROMs, full-text resources, and, recently, the Internet into their service delivery routine. However, relatively little attention has been paid to investigating how technology influences the nature of reference service. Rather, the concern has been primarily with changes in the daily activities of librarians. For instance, it is often pointed out that professional librarians spend much of their time rebooting the computer or clearing up jammed paper in the printer. Currently JULS and its staff members are not playing a significant role in producing qualified and effective learner that is expected from the academic library this personal experience led the researcher it is now time to develop a research project regarding the changing reference service environment that leads to have better service environment and usage in more theoretical and conceptual ways.

Although Jimma University Library System have made few advances and changes in library service, however, the reference services were not fully utilized and the services provided are not being used effectively despite the advances brought by technology and JULS is in the more privileged position to provide better and more services, but the structure and organization of reference service in JULS have changed little since its inception.

1.2 Statement of the problem

Reference librarians are variously referred to as '*mediators between the user and the information*', and '*navigators of information superhighway*' (Huling, 2002). The defining characteristic of traditional reference service is answering questions posed by users. Other activities carried on in the reference department or service are supportive of (or distractions from, depending on one's point of view) this central function. This model symbolizes the value that reference librarians place on personal service and on tailoring service to the needs of individual users at the time they are experiencing difficulties in finding and using information. However, many librarians argue that this model for reference service does not reflect adequately the great diversity of users (and potential users), their information needs, and their information seeking behavior nor does it reflect changes in information sources and in the management and organization of libraries.

The role of the reference librarian has changed greatly over the last two decades with the emergence of information technology and the huge impact in the librarianship and information

provision. The role grew from that of a collector and preserver of information resources to a professional involved in very complex issues of organization, dissemination and access to information. Increased knowledge of library users and their needs, and an ever-widening variety of service alternatives to serve them, have impelled librarians to analyze their operations in order to get a more systematic view of services and activities so that effective staffing patterns can be developed.

On a daily basis we face the complex challenge of anticipating, pacing and meeting the diverse information needs of our users. We believe that fundamental to our success, and to our users' satisfaction, is our knowledge of not only the information seeking behavior of our users, but also our knowledge of an ever increasing array of information sources, in an ever increasing variety of formats.

Academic reference librarians should play an important role in assisting undergraduates, postgraduates, and faculty in teaching, learning and research process by offering better reference services. The roles of librarians are not static but are constantly evolving. Based on the literature(Connor, 2006; Raghavan, 2000; Tedd, 2003) the role of reference librarians today need to be more teaching centered rather than stereotyped service centered. This can be seen in academic libraries where teaching and guiding students is the primary responsibility of reference librarians. The librarians would not be able to perform their duties well if they do not have sufficient knowledge and training on appropriate and up to date methods of library instruction and practices. Lack of ability to effectively design and deliver new service such as electronic reference service (live chat, e-mail or web-based service) affect / forces all types of learners to come to the library physically.

Usually users come to library reference section to read, study and get help as they always have but today they also come to check e-mail, relax, surf the web, play games, have a cup of coffee, write papers, and listen to their MP3 players, often simultaneously And they also come the library reference section to be with other people, their friends, classmates, and professors, to interact and exchange ideas. But lack of these services spaces and facilities in the current reference section of JULS makes the users not to visit the section regularly but also being not

satisfied by the service they receive from the reference section of the library. The libraries reference section should have always been community places, formerly spaces for quiet contemplation, but now much noisier: "The enduring value of the library as a cultural meeting place is taking on a more extroverted character as libraries realize how potent that social element can be in fostering learning. Indeed, the information commons has become a focal point for that social interaction and resultant learning but the existing traditional reference desk in JULS didn't support this all service and should have to include all this services and needs to be transformed.

The current closed access to information policy which is followed by JULS, the symbolic existence of reference desk, the community attitude of library environment should have been keep quite hinders the users not utilize the library resources effectively and efficiently. However the current advancement in technology and users advanced information seeking behavior changed the library service environment through freedom of access to any information resources of the library.

Since 1974, enrollment at the tertiary education level in Ethiopia has tripled, and 10 institutions of higher learning have been established (Pankhurst, 1988). Some of these institutions may have libraries or reading rooms, but complete information is not available. Well-established institutions such as the Alemaya University of Agriculture, the Polytechnic Institute, and the Jimma Junior College of Agriculture all have modest book and periodical collections; library service is minimal with "no reference services and user education ... limited to an initial library tour" (Pankhurst, 1988). This research deals with improving the efficient and effective accession of needed information that helps greatly in achieving the national policy of Growth and Transformation in the education sector as well as in the overall socio-economic development endeavor of the country. Currently in Ethiopia, academic libraries have been in a more privileged position to provide better and more services to users compared to other types of libraries such as school libraries, special and public libraries based on the following factors:

- a. Academic libraries hold relatively larger collections as well as they are better staffed and funded.
- b. University libraries are relatively well endowed with financial allocations for collections.

However, traditional reference service model in Ethiopia with particular reference to Jimma University Library System (JULS); does not reflect the great diversity of users, their information needs, and their information seeking behavior nor does it reflect changes in information sources and in the management and organization of libraries. This reality is very well felt by the developed world libraries and in those countries reference and information services have seen revolutionary changes to meet the new challenges of information age. Indeed, the information and learning commons has become a focal point and solutions for those challenges and user satisfaction. It is on this background that the researcher found it necessary to examine the existing reference service desk utilization in JULS and identify information and learning commons model concepts for adopting the information and Learning Common model.

Hence, this study mainly focuses on the transformation of the reference service environment of JULS through Information and Learning Commons model. The study was based on data and literature that can be broken down into three categories: (1) that which focuses on concerns related to managers, (2) that which takes stock of professional concerns of librarians themselves, and (3) that which takes an explicitly user-centered focus.

1.3 Research Questions

In order to achieve the objectives, the following research questions were used to guide the study:

- ✚ Does the current reference service desk satisfied user's information need?
- ✚ What should managers do to support reference service in changing environments?
- ✚ How do librarians deal with changes in their professions and working environments?
- ✚ Can new information / learning commons models improve users' information search process?

1.4 Hypothesis

- ✚ There is no significant difference in level of satisfaction between traditional reference service model and perceived information and learning commons service model among under graduate, postgraduate, academic staff, managers and librarians.
- ✚ Adapting the information and learning commons can orbit academic libraries to provide wider ranging and more cohesive services to their users;

- ✚ Information/learning commons transform academic libraries from silent temple to a high level learning interactive space

1.5 Objectives:

1.5.1 General objective:

The general objective of this study is to examine existing reference service desk utilization in JULS and identify transforming possibilities to a new Information and learning commons model concepts.

1.5.2 Specific Objectives

- ✓ To examine the current status of reference services in JULS and to identify issues and problems faced by librarians, managers and users in their provision and use of reference services.
- ✓ To examine the evolution of reference service models with respect to physical service points, comparing the existing reference desk utilization with Information and learning common model.
- ✓ To investigate the effects and benefits / values of evolving information /learning commons model from the perspectives of Managers, Librarians, Under graduate, postgraduate and academic staffs.

1.6 Scope and limitation of the study

The present investigation was conducted during Sep – October 2012/13 and the main intent of the study was to examine the existing reference service desk Utilization in JULS and transforming the reference service through Information and Learning Commons model.

It was limited to the study on the transformation that was measured through users' satisfaction, users' perception, managers' perspective and Library performance. Various key factors which were either enhanced or hindered the effectiveness of reference service in Jimma University Library System were also identified and used to determine the transformation of reference service under the umbrella of information and Learning Commons.

The limitation of the study were also time, and resources to include other higher learning institutions of Ethiopia; although other limitation also included lack of local literature, local peer-reviewed articles and local databases in the profession.

1.7 Significance of the Study

The principal significance of this research is to create new knowledge and to find solutions to problems pertaining to the provision of reference services in the academic libraries. The findings of this study serve as an addition to the existing body of knowledge on reference services. This study provides insights on transforming the reference service through information and learning commons: defining Managers, Librarians and Users perspective. It contributes to the understanding of the awareness, usage, effectiveness, challenges and perceived needs of managers, librarians and users towards improving reference services in JULS.

The findings of this study can also serve as advice to academic libraries in Ethiopia to exploit the latest information and communication technology to improve library operations and to satisfy users advanced information need and to transform their service philosophy away from the collection-centered library toward the user-centered library with the information / learning commons at the heart of this movement. The focus of this study were on computing, comfort, and collaboration, and on fostering information and computer literacy, i.e. teaching students self-sufficiency in library research and the use of technology. One possible solution which is in line with the Transformation of reference service in JULS is to transform the existing reference desk through Information and Learning Commons reference service philosophy by providing digital reference service (DRS), advanced user instruction service, research and guidance service via professional staff for improving library services, as well as to support teaching and learning in institutions of higher learning.

In the information and communication technology (ICT) era, reference work can be conducted online, and communication is made easier and time is no longer a barrier. The study can create greater awareness of digital reference service (DRS) and Internet as a valuable scholarly tool. This will prompt librarians, students and academic staff to work together to exploit its resources for effective academic work, as stated by Badu and Markwei (2005) in their study on Internet awareness and use in the university. This study will also be necessary to encourage librarian-

student communication because librarians would be the best people other than their lecturers who will understand their information needs and providing them assistance and services.

The study highlights the formats and tools that can assist librarians plan, implement and assess how reference services are delivered in their library environment. In addition, this study stressed that reference service can only succeed when it is properly delivered by well trained staff through well-organized user education programmes, effective marketing and promotion, as well as structured reference collection either digital or printed. Besides, this study can contribute to the setting the agenda for the future of Reference services in JULS. So to the best of the researcher's knowledge, there has been no study conducted so far on transforming reference service through information and learning commons and it will provide as a bench mark to the JULS reference service department.

The research questions pertaining to benefit / Value of new reference service model to users are vital in examining whether the users are aware of the services or not and at the same time can be used for improvement of library reference services. For library administrators, it would be meaningless and a waste of time and energy if the users are not aware of the services provided.

The study on Transforming reference service is essential as it give an opportunity for users, librarians and managers to evaluate the performance of the existing reference service which leads to bring a paradigm shift in library service role in research, teaching and learning, and in creating better service provision space. In fact, the library also can find out the user and managers preferences of the services besides their level of satisfaction, as well as giving their perception toward the services.

Finally, as a Jimma University staff member specializing in the field of Electronics and Digital Resources Management (EDRM), this study were increased the researcher's own knowledge of the subject matter that could be utilized and disseminated to the students as well as to the academic communities.

1.8 Assumptions

This study was based on the following assumption.

The data collection instrumentations are valid and reliable based up on their previous use.

1.9 Operational definitions

- **Reference Librarian:** A librarian employed in a reference department who is responsible for providing helpful information in response to questions posed by users of the library.
- **Information and Learning Commons:** a model for information Service delivery, offering students integrated access to electronic information resources, multimedia, print resources, and services. The information / learning commons creates an interdisciplinary location for several student services inside the library such as a Writing Center, Math Resource Center, Career Center, Testing Center, Information Technologies Help Desk, Faculty Development, etc. The information / learning commons provides students the opportunity to conduct research and write their papers at a single workstation.
- **Academic Libraries:** An **academic library** is a library that is attached to an academic institution above the secondary level, serving the teaching and research needs of students and staff.
- **Users:** a user may be defined as, “a person who uses one or more library’s services at least once in a year”.
- **Librarian:** are permanently hired in the library with a minimum academic rank of first degree and above in any discipline.
- **Reference desk:** The **reference desk** or **information desk** of a library is a public service counter where professional or paraprofessional librarians provide library users with direction to library materials, advice on library collections and services, and expertise on multiple kinds of information from multiple sources.
- **Traditional reference service model:** is a reference service model where direct librarian-user interaction takes places in physical service point, typically called the reference desk with any queries ranging from simple directional questions to complex instructional inquiries.

CHAPTER TWO

LITERATURE REVIEW

2.1 Evolution of reference service and meaning

Reference service, as a distinct function of the library, began in the late nineteenth century, largely in response to the growing prevalence of publicly funded libraries (both public and academic) seeking to serve relatively inexperienced and unskilled readers and scholars. There was only one problem – they did not know how to use the library. Thus reference service was developed to solve that problem (Das, Gurey, & Saha, 2009).

The beginning of reference service is generally attributed to *Samuel Swett Green*, who in 1876 published the first article on helping patrons use the library. While it is doubtful that Green actually invented the idea of reference service for library users, he was the first to speak publicly about the concept and was the first to discuss it in writing. In both his speech to the first meeting of the American Library Association and his *Library Journal* article, Green discussed the need for librarians actively to assist members of their communities in using library resources. While the term reference did not evolve until several decades later, the publication of Green's article helped to popularize the new concept of reference service (Sharma, Kumar, & Singh, 2004). That patrons appreciated such service is evident from the fact that virtually all-modern libraries still offer some version of 'personal relations between librarians and readers.

2.1.1 Traditional reference service model

The term "reference service" has a dual meaning. Reference service refers to a variety of activities associated with personal assistance to library users including selection, liaison activities, bibliographic instruction, and the implementation of electronic products. It also indicates direct librarian-user interaction, which takes place in some physical service points, typically the reference desk (Rieh, 1998). Constance and James noted that the ideas and assumptions underlying reference service had changed very little since the 1876 publication of Samuel Green's article in which reference practice for readers was emphasized, despite the radical changes in reference service in terms of the amount of information available, and of storage and retrieval mechanisms. It seems that the interaction environment anchored around physical service points has changed little as well; that is, there is usually a single reference desk

in the library, where library users approach reference librarians any time with any queries ranging from simple directional questions to complex instructional inquiries. (Ferguson & Bunge, 1997)noted that this model “symbolizes values such as ease of access, equity, and high-quality service.

According to the American library association (*ALA Glossary of Library and Information Science*) Reference Service is that phase of library work which is directly concerned with assistance to readers in securing information and in using resources of the library in study and research(Young, 1983).

Ranganathan defines Reference Service as ‘Personal Service to each reader in helping him to find the documents answering his interest at the moment pin-pointedly, exhaustively and expeditiously.

Both definitions convey that reference service means ‘process of establishing contact between a reader and his documents in a personal way’. His ‘documents’ refer to those who will serve his requirements precisely. With the technological advancements, users’ information seeking behavior has undergone a lot of change.

The most obvious, and commonly recognized, weakness of the traditional model is that it works best for directional questions while complex and in-depth questions are handled often briefly and superficially. This is because, as (FREIDES, 1983) has pointed out, discussion aimed at clarifying the user’s question is discouraged by other users waiting in line or hovering around the desk. Durrance, (1995) noted another disadvantage: the traditional reference desk model makes it impossible for users to continue the consultation as the search progresses because of the pattern of staff rotation at the desk. Whitson summarized the disadvantages of the traditional model as follows: high cost, lack of control, inflexibility in use of staff, lack of accountability, reinforcement of unrealistic client expectations, duplication of effort, and reinforcement of the image of librarian as clerk despite this (Rehman, Shafique, & Mahmood, 2011)reported in his study that respondents were agree that they were satisfied with the overall quality of reference services (mean= 3.6).

So traditionally, reference service model have been offered face-to-face or in person at a reference desk within the library building, over the telephone and through correspondence. The reference librarian handles all types of queries, from directional questions, ready reference questions, and specific-search questions to research questions. The role of the reference librarian is primarily to answer patron questions and secondly to provide readers advisory services.

An important part of a reference process according to Chowdhury & Chowdhury, (2003) is the reference interview, which involves a personal discussion between a user and reference librarian. Through the reference interview, the reference librarian tries to understand the specific information need(s) of the user as well as collects background information about him or her particularly on the individual's subject knowledge and the reason for searching for the information. Through the reference interview, the reference librarian is able to filter the retrieved information in order to select the most suitable source(s) for the user. Librarians facilitate interaction in online environments through an evolution of the traditional practice of the reference interview.

2.1.2 Theory of Reference Services

Wyer (1930) outlined three levels of reference service: such as:

1. *Conservative Theory*: Conservative Theory persists on education and guidance instead of boundless help. This theory states that reference work is limited to use the ready reference sources to help the users.
2. *Liberal Theory*: Liberal Theory focuses on the maximum help. According to this theory Reference Librarians must apply any approaches to retrieve the information that users need.
3. *Moderate Theory*: The average of Conservative Theory and Liberal Theory is Moderate Theory which most of Reference Librarians prefer (Tajer, 2009).

Direct Reference Service is a face-to-face process in which reference librarian answers the user's question directly. And Indirect Reference Services include reference sources selection, provision and publishing the bibliographies, union catalogs, guidelines, newsletters, and reference sources evaluation (Tajer, 2009).

2.1.3 Components and Functions of Reference Service

Essentially a reference service incorporates the following three basic elements:

- Information or knowledge base
- User or client-now likely to be a member of the new cyber-community in which the library operates
- Information professional or librarian, who plays the role of intermediary assisting and advising the user in their information seeking (Sharma et al., 2004).

Samuel Swett Green better known as the father of Reference Services laid down four functions for Reference Librarian, as: (Accanoor, 2005).

- Instructs patrons how to use the library
- Answers patron queries
- Aids the patron in selecting resources, and
- Promotes the library within the community
- Even today these four functions remain the core of reference service.

One may mention Dr. S. R. Ranganathan's five laws that still stand the test of changing times and changing media. Also Kuhlthian who identifies five levels of services (Accanoor, 2005).

Level 1 – Librarian / library is the organizer of the material

Level 2 – Librarian is the locator or ready reference

Level 3 – Librarian is the identifier, helps user identify tools for the information need

Level 4 – Librarian is the advisor

Level 5 – Librarian is the counselor

These five levels of service remain valid, even as users have less contact with traditional library support.

2.2 Alternative or Tiered Service Model

Recently numerous practitioners and researchers have proposed or reported “alternative” models of reference service. The alternative models, often called *tiered service*, divide the reference desk into two or more service points, differentiating complex or in-depth service from simple questioning-answering. Technology, though not the only reason, is certainly a driving force behind for the emergence of alternative models(Rieh, 1998, p. 5).

Central to the traditional model for reference service is the reference desk. This is a highly visible service point, staffed by professional librarians, that invites queries ranging from simple requests for directions to complex questions requiring extended assistance. This model symbolizes values such as ease of access, equity, and high-quality service. However, as the increase in volume and complexity of client needs collided with budget and staffing constraints, librarians began to see that the reference desk could actually act more as an impediment than a facilitator to high-quality assistance (Massey-Burzio, 1992, p. 277). (Ferguson, 1995; Whitson, 1995) summarize the arguments that have been raised for seeking alternatives to the reference desk as the focal point for reference service.

One such alternative with a long history is that of dividing the reference desk into two or more service points for progressively more complex or in-depth service. Now commonly called tiered service, this model usually involves the establishment of an information desk at which directional (and perhaps simple reference and catalog use) questions are answered. The reference desk (or desks) is thereby enabled to deal with questions that require more lengthy and complex interaction between librarians and users. A 1991 survey by (Association of Research Libraries [ARL], 1991) provides information on this phenomenon in academic libraries, as do (Cox, 1991; Ferguson, 1995) in their literature reviews.

In the Tired model, there is an “information desk” which is typically staffed by paraprofessionals or student assistants to filter out “simple directional questions,” and refer “reference questions” to professional librarians. A survey by the (Association of Research Libraries [ARL], 1991) found that, out of the 87 institutions, 39 (45%) identified themselves as having an information desk and 19 (22%) libraries used a variety of desks or divided the information function between the reference and circulation desks.

Another alternative model, called the “research consultation model,” takes the information desk model one step further by eliminating the reference desk entirely and establishing an “information desk” and a “research consultation service office.” Brandeis University Libraries implemented this model in 1990. The Information Desk, staffed by Brandeis graduate students, provides “quick information and directions and refers library users to librarians when

appropriate,” while the Research Consultation Service Office, staffed by librarians, provides “answers to longer, more complex questions(Massey-Burzio, 1992). In this model, requests for assistance that are not directional in nature or that cannot be satisfied from ready-reference sources within a few minutes are answered in an office environment that is conducive to librarian/ client interaction, rather than at a hectic reference desk. The William H. Welch Medical Library in Johns Hopkins University adopted the same model as Brandeis except that it used paraprofessionals instead of graduate students at the Information Desk. The professional librarians’ desks are located in an open area of the library, in a room adjacent to the information desk. Three full-time professionals sit at their desks and wait “just in case” someone has a question.

Hammond (1992) reported a similar, but not identical, model carried out at Arizona State University (ASU) West, in which both “paraprofessional information providers” and “research support service librarians” provided reference service. In the ASU West model, “paraprofessionals” work as “information providers” in managing electronic tools to clarify the role of librarians. Hammond claimed that “paraprofessionals serve a role similar to that of the laboratory assistant, with the library as the laboratory,” while the librarians’ expertise is used for “teaching, consultation and referral.

2.3 The Birth of the Information/Learning Commons

Beagle, (1999) of the University of North Carolina at Charlotte, coined the term Information commons to describe a new library model. According to Beagle, the Information Commons would incorporate the functions of traditional library services combined with computing services and assistance available in one physical location. This “one-stop shopping” approach would include librarians, computer technicians, and public service staff. Academic librarians questioning the role of their libraries felt that it was time to rethink the library experience. What they came to understand was that to better serve the community they needed a space that would improve and promote interactions between the staff and the ‘user’ by eliminating physical barriers, bring together different services (research and technology) under one roof, and provide separate help desks for these different service needs. In 1993 the idea of ‘library as place’ became the trend which shifted the traditional library away from the quiet and somber place to find information and do research to a more vibrant destination. Oldenburg, (1999) would call this

“the third place”. A place where people feel a sense of community with their neighbors--a public place that isn't work nor is it home. It's the third place, like a coffee shop or bar where you go to hang out in public and among friends.

From this point forward, academic libraries continued to support learning through access to information and research, but also became a community place for collaborative group work, social interactions, coffee shops, wireless technologies and extended hours. These new additions to the library represent a strong nod to creating a space that better meets the needs of the academic community and modern society.

There are a growing number of colleges and universities across the United States, Canada, and around the world that have or are adopting the information commons model. To name just a few besides Brandeis University are: Brigham Young University (UT), Indiana University (IN), Westminster College (UT), University of Guelph (Ontario, Canada), University of California (CA), University of Massachusetts – Dartmouth and Amherst, University of North Carolina – Asheville, Charlotte and Wilmington, Illinois Wesleyan (IL), University of Texas (TX) and the University of Auckland (New Zealand).

With the concept of the Information Commons firmly established as the current model of the academic library, many colleges and universities are adopting a Learning Commons model. Like the Information Commons, this model uses the ‘one-stop shopping’ approach with combined library and technology products and services in one place. However, the Learning Commons model goes beyond the Information Commons in that it also addresses changes in pedagogy that are happening in classrooms around the country. Learning Commons provide an environment that complements the collaborative nature of classroom instruction. Unlike the past when working independently was the mark of a student's knowledge, students are now expected to fully incorporate technology into their workflow, develop the skills necessary to work on their own and develop skills necessary to work collaboratively with others.

Much of the current published literature centers on four main areas: the definition of an information commons, the components or features, assessment of the efficacy of the information commons, and the next wave of changes to academic libraries.

The evolution of the academic library is not complete. Those institutions that are moving with the tide are now finding it necessary to assess their programs and to make adjustments where necessary. This evolution has left behind the traditional library model and yet has not fully realized the future. Regardless of what this ‘new’ space is called or how its components are organized, the one constant is that the information/learning commons must continue to meet the changing needs of the academic communities that they serve.

2.4 “Revolutionary” Change in Reference Service and Information commons

Some researchers believe that there should be a more “revolutionary” change in reference service, beyond the tiered service. For instance, Ewing & Hauptman, (1995) took the position that the traditional academic reference service “does not need to be rethought and reconfigured, it needs to be eliminated. They claimed that high school graduates, with a little training, could do anything reference librarians did because “it does not require any special educational preparation to direct a student or faculty member to a particular library department, a photocopier, a lavatory, or a general almanac. Although some of the issues raised by Ewing and Hauptman are correct, their arguments are very troublesome. The examples that they used to demonstrate the tasks that reference librarians perform are only part of the picture of what reference librarians do. More importantly, they fail to present a proper rationale for eliminating reference service.

The Internet introduced new possibilities and interactive technologies such as e-mail, chat, and instant messaging to the reference desk (Penka, 2003). According to (Kasowitz, 2001), many libraries and organizations have responded to an increased need for formal methods of remote communication between information seekers and information professionals by providing reference service via the Internet, or digital reference service, to their users. Wasik (2003) the origins of digital reference services to the library field, where libraries sought to expand traditional services by providing reference assistance in an electronic environment. Lankes, Collins, & Kasowitz, (2000) give five reasons for moving to electronic reference services:

- A. increasing access to resources beyond the library

- B. lack of geographic constraints for users
- C. the need to differentiate services to different populations of users in the face of shrinking budget
- D. increases in complexity of information resources and the need for specialized knowledge
- E. New options for answering reference questions (p. 187).

Despite some evidence of declining on-site library use Carlson(2001) in general academic libraries are booming. True, the number of reference questions has diminished almost universally in recent years and many libraries have seen a drop in circulation, but gate counts are up dramatically on many campuses. Why do students now fill academic libraries most days of the year, not only during final exams as in the past? To read, study, relax, and get help as they always have. But today they also come to check e-mail, surf the Web, play games, have a cup of coffee, write papers, and listen to their MP3 players, often simultaneously. And they also come the library to be with other people, their friends, classmates, and professors, to interact and exchange ideas. Fister(2004) noted that libraries have always been community places, formerly spaces for quiet contemplation, but now much noisier: "The enduring value of the library as a cultural meeting place is taking on a more extroverted character as libraries realize how potent that social element can be in fostering learning" (p. 1). Indeed, the information commons has become a focal point for that social interaction and resultant learning. Carole Wedge, an architect observed "there's a longing for spaces in which to come together and be inspired ... something you don't get from a laptop in Starbucks"(Morris, 2002, p. 27). This need for contact with people is one of the reasons for the success of the information commons, a vibrant community within the academic library.

Changes in learning styles and pedagogy in recent years have resulted in more group projects and team activities, requiring academic libraries to create spaces for collaborative study and learning (Fister, 2004, p. 3). Such spaces are central to the information commons which attempts to accommodate different research and learning styles. Group study rooms and tables, individual and group carrels, multi-person computer workstations, and flexible furniture arrangements are just a few of the options available to respond to this growing need. University libraries also provide classroom space for bibliographic instruction and office space for individual consultation by librarians or other information support staff.

Fister(2004) identified a number of student trends contributing to changes in academic libraries including the fact that even though most students own computers, they prefer to work and study on campus instead of their dorms and, despite many electronic options, they prefer face-to-face contact with a reference librarian when seeking information (p. 2). These are just two reasons why the information commons has been so successful.

For decades, many university libraries focused on acquiring materials with little effort toward finding out what patrons really wanted in terms of service. Now, there is a trend away from the collection-centered library toward the user-centered library with the information commons at the heart of this movement. The focus today is on computing, comfort, and collaboration, and on fostering information and computer literacy, i.e. teaching students self-sufficiency in library research and the use of technology. Academic librarians are also paying close attention to three major trends among information consumers, especially undergraduates. As identified in The 2003 OCLC Environmental Scan, these are self-service, satisfaction, and seamlessness. The IC movement supports all of these trends by encouraging and supporting user-initiated information seeking behaviors; integrating digital resources; and providing a wide variety of services in a convenient location.

2.5 Effect of new reference service model

Just as few, if any, libraries have implemented the traditional model of reference service in its pure form, there is no one new model, or even a small number of them, that can be seen in pure form in libraries today. Most knowledgeable observers, however, would agree with Simmons-Welburn(1993) when she says, I see our new reality for reference as an organizational network of services. . . .A network of reference and information services can accommodate consultation, on-demand assistance, and instruction as different, yet highly compatible nodes that are themselves distinctive yet responsive to one another. In this network of services, the value placed on convenient and equitable service to users is acted upon by taking services out to the users, wherever they are at the time of their need. The value librarians give to individually tailored service is acted upon through continuing study of users' needs and the development of multidimensional services to address those needs. The value placed on high-quality service is reflected in increased attention to evaluation and the effective use of a variety of staff specialties

and levels of expertise. And the value placed on personal service, that hallmark of reference, is honored by offering users the opportunity to consult with reference librarians in environments that are conducive to fruitful interaction.

The issues in the literature tend to focus on how many desks to maintain. It appears that some authors believe that a new reference model or a new name for reference librarians will be a satisfactory solution for the types of changes that the reference service is experiencing. However, the changing reference service environment in the technological era is a complex phenomenon. Taking into account that reference service involves users and managers as well as librarians, changes in the reference service environment, in general, and the evolution of reference models, in particular, should be investigated.

2.5.1 Perspectives of Managers

Many practitioners see reference as the exclusive preserve of professionally qualified librarians, regarding it as the ‘most complex and “professional” work in the library’ (Bopp & Bunge, 2001). Some librarians therefore oppose the involvement of others in reference, but most accept or indeed welcome the widespread use of paraprofessionals, student assistants, and other specialists as a pragmatic response to the technological advances and financial constraints of the present environment. As of 1990, 88% of the sampled ARL libraries and 66% of sampled smaller colleges and universities regularly scheduled paraprofessionals at their reference or information desks.

The comparative study of nonprofessionals and professionals conducted by Murfin & Bunge, (1998) showed that, out of 20 libraries, paraprofessional staff achieved a success rating of 60 percent or above in 4 libraries while professional librarians achieved 60 percent or above in 10 libraries. In their study, a larger percentage of users who received assistance from paraprofessionals responded that they did not locate what they asked about at the reference desk (6.9%) than those who were helped by professionals (3.4%). The difference was significant at $p < .01$ level. Patrons of paraprofessionals reported not being satisfied or being only partly satisfied with information (29.6%) in significantly more cases ($p < .01$) than did patrons of professionals (22.8%).

What roles should the different players have? Jennerich & Jennerich, (1997)) report that paraprofessionals ‘are often in charge of reference areas’, but Lessick (2000) describes the paraprofessional role as simply providing basic information services and making referrals to individual subject specialists or a research consultation service. Hinchliffe & Woodard, (2001) note that many categories of staff may be involved in producing handouts or delivering sessions. The primary concern regarding the use of paraprofessionals has been related to their performance effectiveness. For instance, Beth study in the University of Illinois Library demonstrated that the nonprofessional staff at the information desk answered 62.2% of the questions correctly, and correctly referred another 8.5%, for a total of 70.7%.

Training has been a major need brought to libraries to provide better service for users. Training needs were one of the key issues to emerge in the Library of Congress Institute on Reference Service in a Digital Age in 1998. As organizers Kresch and Arretcomment: Some of the roles and responsibilities of reference librarians have changed. Many librarians have said that they are doing more training, but very compartmentalized training, on specific digital title. Others have expressed concern that they are merely providing technical support, that they are only providing gateway access to outside resources and services, that our researchers are creating new works based solely on Internet available works and that there is not enough time or support for staff training (Kresch & Arret, 1998). The lack of adequate and appropriate training, they consider, contributes to anxiety and uncertainty in the profession, and to “the loss of librarian researcher collaboration, the loss of the instructional aspect of this interaction, and the trends towards deprofessionalization of librarianship” (Kresch & Arret, 1998).

With regard to job satisfaction, Patricia & Annegret(1990) reported the results of a comparative study among librarians and paraprofessionals in the University of California libraries. Eighty-two percent of the librarians, but only 52% of the library assistants, checked the two highest satisfaction ratings when asked to rate their satisfaction with the nature of the work they performed. Regarding how effectively the library used their expertise and abilities, 73% of the librarians answered in the highest two satisfaction categories compared to 30% of the library assistants.

Given these issues, it is important for managers to understand that there are relationships among organizational climate, job motivation, satisfaction, and performance. Reference service requires the full commitment of library staff, because it is an “interaction process” and a “communication act. Therefore, the working conditions as well as the attitudes of managers towards reference librarians are crucial for the success of reference service. One strategy, as Goulding (1996) has suggested, is that library managers should acknowledge and respect the two categories of staff and credit staff for the more sophisticated level of work which they perform. Another strategy that managers should consider is the development of systematic training, staff development, and continuing education opportunities for paraprofessionals as well as professional librarians.

2.5.2 Perspectives of Librarians

The evolution of new model for reference services and its applications in the largely academic library sketched out above are best viewed as parts of a continuing process of change that seems to be occurring with alarming speed and high information overload. There are two extremely different reactions from reference librarians about the changing work environment. On one hand, librarians are satisfied with their present work situations, believing that the availability of electronic databases has “enhanced the role of the librarians” and “makes reference work more fun and easier. On the other hand, librarian’s experience “burnout, overload, and feeling out of control,” “techno stress,” due to “performance anxiety, information overload, and role conflict. In Rice-Lively & Racine, (1997) study, one librarian said, “I used to have a role; now I have anxieties. This comment seems to explain the effect of new technologies precisely.

The library and librarianship have evolved to provide services that bring together users and the information they need in current information overload. Within libraries, reference service provides the personal touch, and it has developed to help individual users and potential users overcome the barriers they confront in their pursuit of information and ideas. In considering the impact of technology on librarians' work, Tenopir & Neufan(1992) report on ARL librarians’ perceptions of how their jobs have changed. Regarding their working environments, these librarians said that: (1) the reference area had become busier because users demanded more assistance with electronic databases than with print products; (2) librarians spent more time learning a variety of software products; and (3) more time was spent on manual tasks such as

paper changing and hardware trouble-shooting. The authors concluded that electronic resources revitalized reference work, leading librarians to a renewed enthusiasm for their jobs.

As the library evolves into a digital library, reference librarians have been considering how to adjust reference services to the new environment and new information needs. Recent studies on information and learning commons in both large and small academic libraries emphasize the importance of communication, collaboration and flexibility with regard to the design and delivery of services. According to D. Russell Bailey and Barbara Gunter Tierney, “The commons as teaching and learning laboratory embodies and facilitates effective evolution in services, resources and staff development”(Bailey & Tierney, 2008). A 2007 environmental scan, conducted to determine how librarians view reference services within the new setting of an information or learning commons, concludes that not only must we “continue to provide excellent reference service at our physical service points, we must also take our skills into the social environment of our campuses” (Daniels & Barratt, 2008).

Librarians today must know how and develop new skills to monitor trends and technologies in their respective industries and for the future to provide better service and promote their profession in the community. Nielsen(1982) claimed that “core professional tasks” were those tasks shared by large numbers of the membership of a particular occupation and that served to make the members distinctive as a group to the public. The core task is the symbolic power which provides “a ready identification for the profession as a whole that conveys status, the performance of special and esoteric skills, and a sense of the critical role that the professional members play. According to Nielsen, the performance of reference work is a “core professional task” for librarianship as a whole. Reference involves a “professional-client” relationship in which the contact with library users is often direct. Because there is direct user contact, reference is the “public face” of the occupation. Nielsen’s arguments indicate that it might not be easy for many professional librarians to surrender their responsibilities for interaction with users to paraprofessionals, though the benefits of “new models” for librarians are obvious.

However, there is a more fundamental reason for role conflict, ambiguity, and the blurring of the roles of professional librarians with paraprofessionals. It is that reference librarians and

paraprofessionals working in the reference area rarely have articulated their goals and the scope of their work beyond a general intention to assist library users with whatever they need.

2.5.3 Perspectives of Users

To understand the new reference service environment from the user's perspective, it is appropriate to review the major literature on users' information-seeking behaviors in libraries as the first step. Different search techniques are undertaken by library users to search and locate relevant information. To understand how users of libraries search and locate relevant documents we need to understand the search techniques and what resources and sources of information they Generally use. There are many ways of looking at the information seeking process. Of the research viewed, each one had its own ideals and factors that shed new light on the activities conducted. Ford(1973) offers a conceptual model for researching information needs and uses on the basis of information communication. The model has six components — sources or originators, methods or activities, messages, channels or media, recipients, and information. It is Presented as:

(SOURCE) (METHOD) (MESSAGES)

“The source / writes or speaks / ideas, research results, etc. / which are transmitted by

(CHANNEL) (RECIPIENT) (METHOD)

/ Journal, meeting, etc., / to the recipient, who reads or hears / the message and is thus informed.

at this point the message is converted into INFORMATION” (Ford 1973).

This view of information flow can aid in researching information seeking and retrieval practices by providing a basis to analyze interactions between users and reference librarian.

In contrast, Kuhlthau(1993) offers an uncertainty principle as a framework for understanding how individuals conduct information seeking. The article looks at the feelings, thoughts and actions associated with information seeking as a person “move[s] from ambiguity to specificity, or ... uncertainty to understanding ”Kuhlthau, (1993), and argues that information seeking cannot be based on certainty and order as these are variables which fluctuate and need to be considered. The information seeking tasks identified by Kuhlthau(1993) are: initiation, an awareness of an information need; selection, the identification or selection of an approach or subject to explore; exploration, the investigation of information to gain understanding; formulation, where the person gains a perspective or point of view on the problem; collection, the gathering of the relevant information; and presentation, to fulfill the information need and conclude the search.

Through these stages of information seeking, the individual is subject to feelings of uncertainty, optimism, confusion, frustration, doubt, clarity, sense of direction, confidence, and satisfaction or disappointment. Actions move from exploration to the documentation stage; thoughts move from being vague in the earlier stages to being focused as interest increases (Kuhlthau, 1993). So Kuhlthau's theory is unique in terms of applying a conceptual understanding of the users' information process to a practical system of library and information service (e.g., levels of mediation, levels of education, and process-oriented service).

Often research on information seeking practices of user is characterized by an individual's task or problem (Mick,1980; Belkin,1982; Ingwersen 1992 found in Bystrom & Jarvelin, (1995). These studies investigate the relationship between a person's task (for example, in sciences, social sciences, humanities) and their information seeking behavior. Bystrom and Jarvelin (1995) acknowledges that people's information seeking depends on their task and it looks at how task complexity can be used to model information needs, seeking, channels and sources. However, other research shows that task alone may not be specific enough to analyze the behavior of information seekers and users. They argue that other factors other than tasks may contribute to information seeking behaviors (Kuhlthau 1993). The major concept of this theory is labeled as "personal task problems:" the *personal task* refers to differ in individual's information needs in their respective profession and the *problem* is operationalized as gap or questions presented to reference librarians. This theory suggests that reference librarians should consider "how they can intervene usefully in individual task sense-making process, rather than how librarians can be ready and waiting for each user.

Taken all together, interaction in the reference encounter is not a matter of whether the users' inquiries are "simple directional" or "complex instructional." Rather, it is a matter of how efficiently and how well librarians (or paraprofessionals) can understand the users' needs with respect to their intentions and goals. The alternative reference models, often called research consultation models, have disadvantages and advantages from the users' perspective. The disadvantages are associated with the doubts of how paraprofessionals or student assistants at the information desk can recognize the user's unexpressed need, if they try to differentiate complex instructional inquiries from simple directional ones. A more fundamental weakness of the

information and learning commons service models is that the distinction between directional and instructional inquiries is too arbitrary, and is highly questionable when taking into account that information need is difficult for users to express.

Yet, alternative models, especially “research consultation models,” certainly have a number of advantages for users. For instance, users may be willing to take the time to explain what they are looking for, in detail, to librarians, and users may return to the same librarian at another time so that users and librarians interact on a continuing basis. In a recent study, Massey-Burzio found that although users found librarians in the Research Consultation Office to be helpful, competent, and knowledgeable, many of the users who participated in this study did not realize that another level of service in Research Consultation Office was available (Massey-Burzio, 1998). These results indicate that, in order to implement the information and learning commons model effectively, it is important to make sure that library users clearly understand that there are two or more layers of service, and that they know who is responsible for providing each layer of service.

Assessment of user studies on performance of information/learning commons in different university libraries indicates that commons have satisfied users’ information need and their positive impact on other library services. Trinity University reported in 2004 after opening its new information commons, print circulation increase 2% (following five years of steady decline) and reference queries saw a 5.8% increase, use of building overall increase 40.56%. The most dramatic increase comes in “searches in electronic resources” which rose remarkable 56.21.

Fuller(2009) in his study Learning Commons @ UConn Assessment Report Use and Satisfaction of the Learning Commons reported that...

- ❖ Most are visiting several times a week (45.7%) or daily (12.9%)
- ❖ 84.3% of undergraduates feel the Learning Commons has helped them successfully complete academic assignments
- ❖ Users are both very aware and happy with IT facilities (printing, copying, scanning, laptop facilities)
- ❖ Tutoring services (Q & Writing) were not highly used by survey respondents, but rated very highly by those who did

- ❖ Research assistance is not a highly ranked reason for visiting the Commons (20.5%), but of the respondents who visited the space, 40.5% have used the service, finding it very helpful
- ❖ Learning Commons staff are viewed favorably - they are approachable, accurate in answers, and appear available to help
- ❖ Undergraduates are successfully using the Learning Commons as a mixed-use space (Fuller, 2009)

Sherman(2008) in his study also reported that he asked 150 students to assess the impact of the Learning Commons on their use of the library in general. The acquired results shows that By far, the main result of implementation of the Learning Commons as perceived by students was increased use of the library (57 responses). The second-highest number listed no change in their use (17), followed by those with a more relaxed or enjoyable experience (13), individuals reporting that the Learning Commons (as opposed to other parts of the library) was now their primary destination for research or computing (12), respondents reporting improved study skills (6), and those stating decreased use of the library due to effects of the Learning Commons implementation (5). Eight miscellaneous responses could not be attributed to any of these categories and were therefore grouped under 'other'.

2.6 The changing role of reference librarian in changing environment

There is no doubt that the reference service environment is experiencing dramatic changes in terms of the increased availability of and the improved access to information technology. According to (Thomsen, 1999) as we move into the 21st century, librarianship is being transformed in response to greater changes in society as well as to our own evolving sense of direction for the profession. Reference librarians, always on the front lines of the profession, connecting library patrons and library services, are especially sensitive to these changes and to the confusion and stress that change can bring.

Traditionally, the librarian's function was to assist in the collection development and acquisition, cataloguing and classification, circulation, provision of reference services, and preservation, conservation and archiving. As the library evolves into a digital library, reference librarians have been considering how to adjust reference services to the new environment and new information

needs. According to some statistics, users' enquiries at the reference desk are declining (Palmer, 1999 and Lessick, 2000). To a great extent, with the digital library and plenty of self-help information, users feel able to access resources and services themselves. Despite this, however most researchers and practitioners agree that reference service and user education are still essential in the digital library (Chowdhury, 2002; Lankes, 2000; Lipow, 1999). Training sessions are needed to improve the users' information literacy skills. Today the reference librarian's responsibilities have increased by societal expectations for information access through enhanced electronic capabilities. Reference librarians like other librarians working in the other divisions are the key to the continued success of libraries.

Raghavan(2000) outlined new roles and challenges for the librarian in the digital era
Such as:

- a. educators, trainers and facilitators to emphasis competency in information handling and lifelong learning, distance learning and virtual learning,
- b. leadership or managerial role,
- c. manager and advisor of web and electronic sources such as Internet, CD-ROM
Indexes and full-text databases
- d. collaborator by forming partnerships with other organizations to satisfy the needs of the users
- e. as a human resource manager, link with human resources to the mission and goals of the organization
- f. as a marketing manager, helping the organization to develop an appropriate competitive edge to stay ahead in the market as well as reduce professional malpractice by developing core competencies such as interplay of knowledge, understanding, skills, and attitudes required to do a job effectively.

In discussing the future role of reference librarian in the changing library environment, Burke (2003) highlights the following points:

- a. to provide intellectual access to information in any format
- b. to evaluate available sources of information
- c. to organize and structure information
- d. to ensure the preservation of information

- e. to provide specialized staff to offer instruction and assistance in interpreting resources and access to resources.

Tedd(2003) noted that no job responsibilities had changed as much as the information profession had in the last five years with the development of the range of Internet-based technologies. Information specialists now have added responsibilities as workers in the '*knowledge economy*', these include being:

- a. Information gurus and guardians of information quality and ensuring that users have access to information from the most trusted sources
- b. Business managers and knowing how to deliver appropriate information services(either from in-house or by outsourcing) to meet the needs of the users
- c. Teachers/trainers to ensure that the users (and colleagues) know how to access relevant sources of information
- d. Information advocates serving as the information '*champion*' for the organization to influence management and ensuring that everyone in the organization remains competitive by having the information and tools they need to make decisions faster
- e. System designers to develop and design appropriate systems for the delivery of information to their users in an appropriate manner (Tedd, 2003).

From the views highlighted, it is no doubt that the digital revolution has brought changes and affected the librarian and other information professional. This scenario is also changing the roles of the reference librarian into teaching, consultancy and researching besides providing access to information. The reference librarian must guide users in information gathering, information skills and tools, organizing information resources, search strategies and basic reference works. It has become necessary for the reference librarian to be involved in research by facilitating access to information, such as finding, delivering and summarizing information. It is believed that librarians will increasingly become members of research and development teams and play more roles in the information creation process (Adida, Lisdar, & Rafidah, 2003).

In concluding this section, it can be said that academic librarians in Ethiopia should have knowledge of principles, methods and practices of library administration and library science

besides the ability to communicate effectively with all levels of staff and students. They also have to keep abreast of changing trends and technology, plan and develop new systems. They must have ability to review and evaluate service levels, needs and interests of the academic community. Academic librarians are responsible for the overall management and operations of the library to ensure that there are adequate resources, facilities and services to meet the needs of university curriculum, students and staff.

2.7 Conceptual frame work

The researcher develops this conceptual framework that is used as a base for asses and analyzes the current reference service in JULS where the theoretical aspects are studied through literature review.

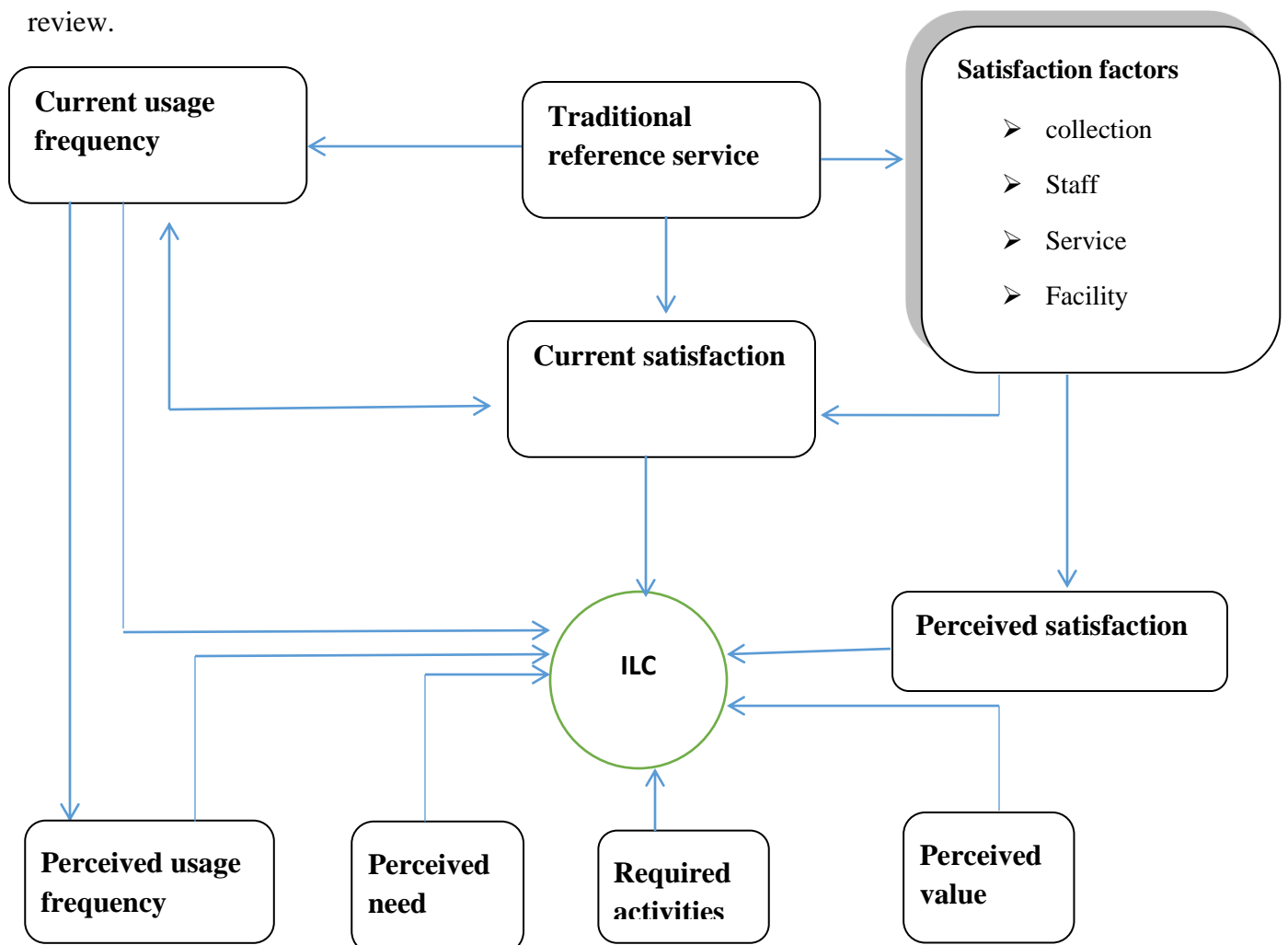


Fig 1: Conceptual framework for factors affecting reference service (Source: developed by principal investigator & advisors based on literature review)

CHAPTER THREE

Methodology

3.1 Study Design

A cross-sectional Study design was employed to look for defining the perspective of managers, librarians and users on the Transformation of the reference service through Information and Learning Commons in JU. It was a cross-sectional survey because the data were collected from the subjects at one point in time.

3.2 Study Area

The study was conducted on JU which is one of higher institution in Ethiopia found in South West of Ethiopia, Oromia region 345km away from AddisAbaba located in Jimma town.

3.3 Study Population

The populations of the study were Undergraduate (UG), Postgraduate (PG) students, academic staff, Librarians and managers of JU.

3.3.1 Inclusion and Exclusion criteria

Inclusion criteria

- ✚ The users that were considered as the population of this research are only above second year undergraduate regular students, all regular postgraduate students and all academic staffs. Because these users are actual users those who actually using the information service regardless of whether they derived advantage from it or not.

Exclusion criteria

- ✚ Population does not include first year undergraduate regular students and administrative staff of JU. Because these users are potential users those who need information which can be provided by the reference service.

3.4 Sample Size determination and sampling techniques

3.4.1 Sampling Techniques

Among the users of Jimma University Library System that are considered as the population of this study, a representative sample were taken using a stratified random sampling for users and

purposive sampling techniques for managers and librarians were employed to select the sample size. The reason in using stratified random sampling was by assuming that there was almost similar exposure to library service within each user and there was different experience and approach to utilize the library service among users of Jimma University library system based on their experience and level of status.

The study was divided in to three stratum named as stratum 1 for Undergraduate students, Stratum2 for Postgraduate students and Stratum3 for academic staff. After selecting a total sample size, then units were selected randomly from Undergraduate students, Postgraduate students, and Academic staffs of each users of Jimma University Library System using stratification based on proportional allocation to size in a way that help us to select large sample from larger number of population stratum and small sample were selected from smaller number of population stratum.

3.4.2 Sample size determination

The total sample were selected from the total population of 16132 using stratified random sampling, where n is the total sample size, N the total population, Z is the probability value for standard normal distribution, P is the proportion of users who actual use the reference service to those of users who do not use the service, and d were margin of error. The value of $Z_{\alpha/2}$ were 1.96 using 95% level of confidence, since no literature on the proportion of users who actual use the reference service to those of users who do not use the service were 0.5, and the absolute margin of error d we used to have sufficient sample were 0.045. Then the total sample size n was obtained using;

$$n = \frac{n_0}{(1-1/N)+\frac{n_0}{N}} \quad ; \quad \text{Where } n_0 = \frac{Z_{\alpha/2}^2 * P * Q}{d^2} \quad \dots\dots\dots (*)$$

based on the above formula (*),the total sample size were 461.Next we have to calculate the sample size in each stratum by taking undergraduate as stratum 1, postgraduate as stratum 2 and academic staff as stratum 3, based on proportional allocation to size in a way that help us large

sample were selected from larger number of population stratum and small sample were selected from smaller number of population stratum.

Strata (h)	population(N _h)	sample size(n _h)
Stratum 1(Undergraduate student)	14103	403
Stratum 2 (Postgraduate Student)	1229	35
Stratum 3 (Academic Staff)	800	23
Total	16132	461

The number of sample size in each stratum was 403 for undergraduate student, 35 for postgraduate student and 23 for academic staffs which is calculated using (**) stratification with proportional allocation to size where n_h is,

$$n_h = \frac{n}{N} * N_h \quad \text{if } h=1,2,3 \quad \dots\dots\dots(**)$$

3.5 Instrumentations

The instruments used for data collection for this study were self-administered questionnaire, interview, and observation. The validity and reliability of the instruments used for data collection was determined by the researchers before they are administered.

3.6 Data Collection Method

For this study data were collected from the selected sample of units using primary method of data collection. According to the nature & objective of the study self-administered questionnaire were prepared & distributed to the selected sample of individuals. To get enough information on the problem closed and open ended questions were included in the questionnaire. Since the study focuses mainly on perspectives of manager’s librarian and users on transforming the reference service environment self-administered questionnaire were appropriate to get deep information about their perspectives and deep interviews were also used to get advanced information from

librarians and managers respectively. And also to see the different reference services that the reference desk gives “observation” method of data collection was determined by the investigator.

3.7 Method of Data Analysis

In order to arrive at the final conclusion the collected data were edited first if there are some unfinished answers from the questionnaire and coded on SPSS (V17.0), then the data was classified according to their resemblance (similarities). Mean ranking, mode, median and standard deviation were performed to analyze the descriptive part of the analysis. For the inferential statistics, the one-way analysis of variance (ANOVA) tests were used. To compare the overall satisfaction on Perceptions of current reference service utilization and ILC services among respondents a paired sample t test was carried out.

3.8 Data clearing and Quality Control Methods

To ensure quality, the collected data were checked out for the completeness, accuracy and clarity by the principal investigator and supervisors. This quality checking was done daily during, before and after data collection and amendments were made before the next data collection measure. Data clean up and cross-checking was done before analysis. Training were given to data collector on how to approach study subjects, on how to use the questionnaire and the guidelines used to gather the data.

3.9 Ethical considerations

Ethical clearance was obtained from postgraduate & research office of Jimma University. All the study population was requested for oral informed consent prior to enrolment to the study. The purpose of the study was clearly described to the study participants including the benefits and risks of the study. Any information concerning the study participant was kept confidential and the data collected from the study participants were only analyzed for the intended purposes.

CHAPTER FOUR

DATA ANALYSIS RESULTS AND DISCUSSION

4.1 Data Analysis

The data collected for the survey were presented and analysed to reflect the objectives of the survey. The university library users were required to indicate their level of satisfaction by current reference service in their libraries and their perceived need to transform in to new service delivery model since this is considered an important factor in transforming the reference service through information and learning commons.

4.1.1 Background of the Respondents

The acquired respondents reveal that in total 478 i.e., 414(87%) male and 64(13%) female and most of the respondents were between the age category 18 – 30(461, 97%). Of the 478 respondents 403(84%) were undergraduate students, 35(7%) postgraduate students, 23(5%) academic staff, 7(2%) managers and 10(2%) librarians. Most of the respondents were from the college of Public health and medical science 115(24%) and 100(21%) Institute of Technology and the list were 2(1%) from Institute of education and professional development studies.

Table 1: Respondents profile

Variable	Category	Frequency	Percent
Gender	Male	414	87%
	Female	64	13%
	Total	478	100%
Age	18 – 30	461	97%
	31-41	11	2%
	above 42	6	1%
	Total	478	100%
Respondent status	undergraduate student	403	84%
	postgraduate student	35	7%
	academic staff	23	5%
	Manager	7	2%
	Librarian	10	2%
	Total	478	100%
College	JUCAVM	60	12%
	BECO	39	8%
	CNS	74	15%
	CPHMS	115	24%
	CSS	71	15%
	IEPDS	2	1%
	IT	100	21%
	Other	17	4%
	Total	478	100%

Note: other category in the above table was those librarians and managers who do not belong to the mentioned college lists.

4.1.2 Current usage frequency and perception of respondents

Table 2 shows the frequency with which the respondent believed library have reference service and their usage weekly. Regarding the library reference section usage and frequency of visit most of them agree with library have reference service 400(100%) but they use about once a week 165(41%) and Two/three times a week 130(33%). On the other hand the result shows that 69(100%) were responded library have no reference service and most of them not use at all 38(55%) and about once a week 17(25%). This result indicates that the reference service of the library gives very poor service and it is difficult to say library have reference service but they directly or indirectly use the services that are provided by the library reference section. Among those who didn't use the reference service at all and who use once/twice a week are asked their reasons of why use infrequently. Most of the respondents responded that because of lack of resources 216 (72%) which includes lack of adequate resources, luck of competent and supportive reference staff, lack of appropriate facilities like computer support, internet. Etc. 58(20%) of respondents responded that lack of suitable service environment which includes lack of proactive reference service, poor setup and environmental conditions like noise level, heating/cooling, lights, furniture, cleanliness and 24(8%) responded that all above mentioned options as their basic problems that hinders them to use the reference service.

Table 2: Current usage frequency weeklywith missing 9

		Library have reference service		
		Yes	No	Total
Usage frequency of reference service weekly	Not at all	79(20%)	38(55%)	117(25%)
	About once a week	165(41%)	17(25%)	182(39%)
	Two/three times a week	130(33%)	13(19%)	143(30%)
	Four times a week	9(4%)	0(0%)	9(2%)
	Every day of the week	17(2%)	1(1%)	18(4%)
	Total	400(100%)	69(100%)	469(100%)

4.1.3 Transformation of reference service

This study reports transformation of reference service through four dimensions. (a) Current usage satisfaction (b) users perception or belief of the library need to transform (c) perceived users satisfaction by transformed services (d) Perceived benefit /usefulness of transformed services. The level of satisfaction for each of the four dimensions is gauged using individual score and a group of statements on a five-point Likert scale of 1 (Very dissatisfied/ strongly disagree), 2 (Dissatisfied/disagree), 3 (neutral), 4 (Satisfied/agree) to 5 (Very satisfied/ Strongly agree).The number of statements under the four dimensions varies from 13 for current usage satisfaction, 5 for perceived satisfaction on need to transform, 6 for perceived satisfaction by transformed services, 4 for perceived benefit/usefulness of transformed services. It also reports issues related to required activities to transform to new service model, learning environment spaces and perceived usage frequency.

Before the analysis proper, reliability tests were performed on each dimension to determine their internal consistency, hence their reliability. The results in Table 1 show that the values of the Cronbach's alphas are all in excess of 0.8 (a value in the range of 0.70 is reliable),Kassim, (2009) indicating that all dimensions are reliable and can be used for further analysis.

Table 3: Tests of reliability on transformation of reference service

Level of satisfaction for	Number of Items	Cronbach's Alpha
Current user satisfaction on reference service	13	0.859
Satisfaction on need to transform reference Service to ILC model	5	0.821737
Satisfaction on services of ILC	6	0.837975756
Benefit or usefulness of ILC	4	0.828369

The following sections present the summary and individual statistics of each item in each of the fivedimensions of satisfaction and required activities to transform. These summary and

individual statistics are presented to determine the overall satisfaction level and variations of the responses to the individual items in each dimension respectively.

4.1.4 Current Usage satisfaction on reference services

Table 4 presents a five-point Likert scale, the median, the mean, mode, and the standard deviation and summarized mean of the scores of the individual statements to measure the satisfaction of respondents on current reference service. Based on the overall mean of 2.87 and median, mode of the scores of the individual on each statement it can be concluded that the respondents are divided in their opinion on the current usage satisfaction by users of library reference service. The overall mean (2.87) indicates that the overall level of satisfaction towards the current library's reference service is just neutral; so it seems that the reference section is not actively giving service which is not satisfactory to users. The individual measures indicate that the respondents are slightly satisfied with only five aspects of the reference services offered by the library reference section which is based on their mode value=4. Specifically they are to some extent satisfied with organization of reference material, reference staff, time of reference staff response to their question, current awareness services. And it seems majority of users are satisfied by the opening and closing hours because the median and mode value is =4. On the other hand they are neutral on the adequacy of reference collection which is generally perceived not well. This conclusion is based on the mode value of 3 that is most respondents' response rate to this question.

Respondents were asked their reasons if their response is neutral or not satisfied on the adequacy of reference material/collection to meet their need. They were asked to select different option against their reasons. Some statements were asked repetitively from different angles in order to get the clear feedback. To interpret the results of the study the researchers considered found nothing, not enough material, not relevant enough, could not find information in sources as No enough and updated information material, need more simple, need more in depth, too much as need more accurate and appropriate material and want different view point and not sure information given me is correct as need more alternative and those select many options from each category are categorized as all. These statements are categorized and ranked for the purpose of data analysis. The categories and acquired responses are as follows: of which in total 340 (71%) of total respondents' falls in this category. Among 340 respondents 253 (74%) responded

because of no enough and updated information materials, 78(23%) responded need more accurate and appropriate material, 4(1%) responded need more alternative, 5(2%) responded all the mention statements as the reason.

The respondents are list satisfied with seven aspects of the reference service where their mode value is 2for each statement. Specifically they are not satisfied with the bibliographic instructions, training on use of reference services and resources, reference sections’ environment conduciveness, internet facility, adequacy of computers, library web pages informativeness, helpfulness, and on overall quality of current reference service. The results also show that the opinions of the respondents are quite consistent across all the 13 items as indicated by the small variation in the values of the standard deviations which range from 0.96 (adequacy of reference material) to 1.158 (time of reference librarian respond to users question).

Table 4: Descriptive Statistics of Respondents Satisfaction with the current Reference Section and its Services

S/N	Current satisfaction of users by reference service		ENS	NS	N	S	VS	Mean	median	Mode	SD
1	adequacy of reference materials	#	29	151	160	123	15	2.88	3.00	3	0.958
		%	6%	32%	33%	26%	3%				
2	organization/arrangement of reference collection	#	27	133	102	182	34	3.13	3.00	4	1.07
		%	6%	28%	21%	38%	7%				
3	reference staff are helpful	#	51	137	100	168	22	2.94	3.00	4	1.12
		%	11%	29%	21%	35%	4%				
4	time of reference librarian respond users question	#	51	145	92	156	34	2.95	3.00	4	1.157
		%	11%	30%	19%	33%	7%				
5	Current awareness service	#	60	118	130	144	26	2.91	3.00	4	1.12
		%	13%	25%	27%	30%	5%				
6	reference section	#	46	163	102	137	30	2.88	3.00	2	1.12

	bibliographic instruction	%	10%	34%	21%	29%	6%				
7	library training on use of reference service	#	55	135	128	128	32	2.89	3.00	2	1.13
		%	11%	28%	27%	27%	7%				
8	reference section environment conduciveness	#	61	168	111	134	4	2.69	3.00	2	1.04
		%	13%	35%	23%	28%	1%				
9	opening & closing hours of reference section	#	27	89	87	185	90	3.46	4.00	4	1.16
		%	6%	18%	18%	39%	19%				
10	reference section internet facility	#	47	208	108	90	25	2.66	2.00	2	1.06
		%	10%	43%	23%	19%	5%				
11	adequacy of available computers	#	58	247	95	59	19	2.44	2.00	2	0.99
		%	12%	52%	20%	12%	4%				
12	library web page informativeness, helpfulness	#	41	201	118	104	14	2.68	2.00	2	1.00
		%	8%	42%	25%	22%	3%				
13	overall quality of current reference service	#	52	166	111	135	14	2.78	3.00	2	1.07
		%	11%	35%	23%	28%	3%				

Key

ENS (1) = Extremely not Satisfied

NS (2) = Not Satisfied

N (3) = Neutral

S (4) = Satisfied

VS (5) = Very Satisfied

4.1.5 Users perception on the need to the transformation to ILC

Table 5 presents the mean, median, and mode scores of the 5 statements which collectively and individually manifest the respondents' perception on the need to transform. The overall mean

(4.123) indicates that the overall level of satisfaction towards the need to transform to new service model is highly demanding and they are satisfied if the current reference service system is transformed. From this result we can conclude that these respondents are not satisfied by current reference service usage discussed earlier (overall mean= 2.87) and demanding the transformation badly.

Based on the mode score of 4 and above, we can conclude that on the individual level the respondents are satisfied with all five statements of the perceived need to transform to new service model aspects (to new model of service delivery). But specifically most of the respondents respond strongly agree with reference service must supported by professional staff mode score = 5. The responses across the 5 items are also consistent as indicated by small variation in the values of the standard deviation. The values range from 0.80 (reference service must supported by professional staff) to 0.91 (managers must support the reference service delivery).

Table 5: users' perception on the need to transformation

S/N	Items		SD	D	N	A	SA	Mean	median	mode	SD
1	Transformation on current reference service delivery	#	4	36	55	247	136	3.99	4.00	4	0.88
		%	1%	7%	11%	52%	29				
2	managers must support the reference service delivery	#	4	37	52	225	160	4.05	4.00	4	0.91
		%	1%	8%	11%	47%	33%				
3	reference service must supported by professional staff	#	3	12	53	203	207	4.25	4.00	5	0.80
		%	1%	3%	11%	42%	43%				
4	reference section must give service at multi-level service point	#	2	27	46	205	198	4.19	4.00	4	0.86
		%	1%	5%	10%	43%	41%				
5	the transformation of reference service must be priority of juls	#	0	19	80	200	179	4.13	4.00	4	0.83
		%	0	4%	17%	42%	37%				

Key

SD (1) = Strongly Disagree

D (2) = Disagree

N (3) = Neutral

A (4) = Agree

SA (5) = Strongly Agree

4.1.6 Perceived satisfaction by transformed services

Table 6 presents the mean, median, and mode scores of the 6 statements which collectively and individually depict the respondents' perceived satisfaction on the services of transformed ILC. The overall mean (4.030) indicates that the overall level of satisfaction towards perceived

services of transformed ILC is satisfactory. Compared with current reference services usage satisfaction (overall mean score = 2.87 in table 4), we can conclude that the perceived ILC services are better to satisfy users information need and usage. Based on the mode scores of 4 the majority of the respondents are satisfied with all dimensions of statements on perceived satisfaction by ILC services.

Table 6: perceived user satisfaction on services of ILC

S/N	Item	SD	D	N	A	SA	Mean	median	mode	SD	
1	service provided by ILC	#	3	19	54	243	159	4.12	4.00	4	0.80
		%	1%	4%	11%	51%	33%				
2	library will satisfy and meet my learning, teaching & research need	#	6	28	70	222	152	4.02	4.00	4	0.90
		%	1%	6%	15%	46%	32%				
3	ILC provide service through appropriate collection	#	8	37	65	212	156	3.99	4.00	4	0.96
		%	2%	8%	14%	44%	32%				
4	ILC will provide virtual reference service	#	11	30	91	196	150	3.93	4.00	4	0.98
		%	2%	6%	19%	41%	32%				
5	i will be satisfied if ILC has common space	#	4	33	85	251	105	3.88	4.00	4	0.86
		%	1%	7%	18%	51%	22%				
6	i will satisfied if ILC provide service through professional staff	#	4	4	53	226	191	4.25	4.00	4	0.75
		%	1%	1%	11%	47%	40%				

Key

SD (1) = Strongly Disagree

D (2) = Disagree

N (3) = Neutral

A (4) = Agree

SD (5) = Strongly Agree

4.1.7 Perceived usage frequency after transformation

Table 5 shows the frequency which users will use the future web based services of the information and learning commons of the library being at remote. The result shows that there will be a good trend of the future usage of the web based services of ILCs of the library because most of them will use quite frequently 211 (44%) and extreme frequently 118 (25%).

Table 7: Perceived use frequency of ILC remotely

ILC use frequency	Frequency	Percent
extreme infrequently	24	5%
quite infrequently	35	7%
neither frequently nor infrequently	90	19%
quite frequently	211	44%
extreme frequently	118	25%

4.1.8 Perceived benefit / usefulness of transformed services

Table 8 presents the mean, median, and mode scores of the 4 statements which collectively and individually manifest the respondents' satisfaction on the perceived value /usefulness of ILC services. The overall mean (4.123) indicates that the overall level of satisfaction towards perceived satisfaction on usefulness / benefit of ILC services is satisfactory which means it is likely useful and beneficiary to users. Based on the individual mode score 4 for all aspects of statements majority of the respondents are satisfied with all dimensions of statements on perceived benefit/usefulness of the transformed ILC services.

Table 8: Perceived Benefit/usefulness

S/N	Item		VU	U	N	L	VL	mean	median	mode	SD
1	the ILC service delivery will enable me do job quickly	#	4	27	73	202	172	4.07	4.00	4	0.90
		%	1%	6%	15%	42%	36%				
2	the ILC service will make my job easier and enjoyable	#	2	15	73	228	160	4.11	4.00	4	0.80
		%	1%	3%	15%	47%	34%				
3	the ILC service system will enable users enhance teaching, learning	#	2	15	64	209	188	4.18	4.00	4	0.81
		%	1%	3%	13%	44%	39%				
4	the ILC service will enable my job to be of quality	#	4	16	71	208	179	4.13	4.00	4	0.85
		%	1%	3%	15%	44%	37%				

Key

VU (1) = Very Unlikely

U (2) = Unlikely

N (3) = Neutral

L (4) = Likely

VL (5) = Very Likely

4.1.9 Required activities to transform

Table 9 presents required activities from librarians to transform the traditional reference service in to Information and learning commons. Out of 10 librarians responded to this question most of them choose having high technology skill 10(100%) and teaching library instruction/information literacy 7(87%). Only 1 person (13%) chooses staff an academic library ILC by only non – professional staff options.

Table 9: required activities from librarians

Required activities	frequency	percent
Staff an academic library ILC centers by only professional staff	4	40
Staff an academic library ILC centers by both professional and non-professional staff	3	30
Staff an academic library ILC centers by only non- professional staff	1	10
Teaching library instruction/information literacy	7	70
Doing job responsibly and effectively	6	60
Having advanced knowledge of online resources	5	50
Having high technology skill	10	100
Having knowledge of specific discipline	5	50

Table 10 presents what managers should do support the library/ reference desk to successful the transformation in to the information and learning commons model. Out of total 7 respondents that responded to this question seven of them selected the provided 7 options that will require transforming the current reference service to ILC successfully.

Table 10: required activities from managers

Required activities	Frequency	Percent
Support the library to staff their ILC by appropriate staff	7	100
Provide appropriate training for ILC staffs	7	100
Support the ILC to acquire updated databases	7	100
Support the ILC to acquire updated print materials	7	100

Support the ILC through resources	7	100
Support the ILC to have a common learning space	7	100
Support the ILC by providing appropriate internet facility	7	100

4.1.10 Users' satisfaction by learning environment of the library

Table 11 shows the individual median and mode score of 4 statements to measure perceived satisfaction of respondents on ILC space. Most respondents are not satisfied by the suitability of current Information or learning environment of the library where their median and mode score is 2. Based on their mode score of 4 for all remaining aspects majority of the respondents are satisfied with all dimensions of statements on perceived satisfaction by ILC spaces except they are strongly satisfied by services of information /learning support desk with mode score of 5.

Table 11: Satisfaction on learning environment of the library

S/N	Items		SD	D	N	A	SA	median	mode
1	Current learning environment of the library is suitable	#	57	201	89	98	33	2	2
		%	12%	42%	19%	20%	7%		
2	Library can create real IL environment	#	7	42	74	222	133	4.00	4
		%	2%	9%	15%	46%	28%		
3	Users will be satisfied if they get services assisted by ILC	#	2	14	78	202	182	4.00	4
		%	1%	3%	16%	42%	38%		
4	Users will be satisfied if they get services by the IL support desk	#	4	19	55	191	209	4.00	5
		%	1%	4%	11%	40%	44%		

Key

SD (1) = Strongly Disagree

D (2) = Disagree

N (3) = Neutral

A (4) = Agree

SA (5) = Strongly Agree

4.1.11 hypothesis tested

The hypotheses tested were:

- ✚ Ho = There is no significant difference in level of satisfaction between traditional reference service model and perceived information and learning commons service model among under graduate, postgraduate, academic staff, managers and librarians.
- ✚ H1 = Adapting the information and learning commons can orbit academic libraries to provide wider ranging and more cohesive services to their users;
- ✚ H2 = Information/learning commons transform academic libraries from silent temple to a high level learning interactive space

In order to test the Ho (null) hypothesis among respondents one-way analysis of variance (ANOVA) and Tukey HSD Multiple comparison Test (to determine among which groups the true differences lie) was carried and the result shows that there is a significant difference in the level of satisfaction between current reference service model and perceived information and learning commons services model among undergraduate students, postgraduate students, academic staffs, managers and librarians so the null hypothesis is rejected .

4.1.12 Differences in Perceptions among respondent status

Analysis on the differences in the level of satisfaction on current reference services, on need of transformation of reference Service to ILC model and services of ILC among respondents statuses is carried out using one-way analysis of variance (ANOVA) and Tukey HSD Multiple comparison Test (to determine among which groups the true differences lie) based on the fact that the respective variables are normally distributed. The results are presented and discussed in the succeeding sections.

4.1.13 Comparison of Satisfaction on current reference Service usage among respondent status

Table 12 presents the results of the comparison of Satisfaction on current reference Services means between respondent statuses. The result shows that on the average, the levels of mean score satisfaction on the current reference services between the respondents from the five statuses of respondents are significantly different at the 5% level (p -value = 0.025). The Tukey HSD Multiple comparison Test confirms that, only undergraduate and postgraduate students have different mean scores while academic staff, librarian and managers have the same mean. On average, the level of mean score satisfaction of respondent statuses from postgraduate, librarian, academic staff, undergraduate and managers are 2.5473, 2.6923, 2.8328, 2.9004 and 3.1099 respectively. The result shows that satisfaction of the respondents about the current reference service usage in respondents' status is different. From this result we can conclude that on average, users from all respondents are neutral with their satisfaction level by current reference service but relatively users of the postgraduate students and librarians are less satisfied with the services provided by libraries reference section ($M=2.5473$) and (2.6923) respectively and their level of satisfaction is the lowest compared with that of respondents from the other three categories.

Table 12: Comparison of Satisfaction on current reference Services among respondent status

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Overall means for reference service	Between Groups	4.768	4	1.192	2.806	.025
	Within Groups	200.890	473	.425		
	Total	205.658	477			

Post Hoc Tests

Overall means for current reference services

Tukey HSD

Multiple Comparisons					
Tukey HSD					

respondents status	respondents status	Mean Difference	Std. Error	P-value.	mean
undergraduate student	postgraduate student	0.353	0.115	0.019	2.9004
	academic staff	0.068	0.14	0.989	
	Manager	-0.21	0.248	0.917	
	Librarian	0.208	0.209	0.857	
postgraduate student	undergraduate student	-0.353	0.115	0.019	2.5473
	academic staff	-0.286	0.175	0.477	
	Manager	-0.563	0.27	0.228	
	Librarian	-0.145	0.234	0.972	
academic staff	undergraduate student	-0.068	0.14	0.989	2.8328
	postgraduate student	0.286	0.175	0.477	
	Manager	-0.277	0.281	0.862	
	Librarian	0.14	0.247	0.979	
Manager	undergraduate student	0.21	0.248	0.917	3.1099
	postgraduate student	0.563	0.27	0.228	
	academic staff	0.277	0.281	0.862	
	Librarian	0.418	0.321	0.691	
Librarian	undergraduate student	-0.208	0.209	0.857	2.6923
	postgraduate student	0.145	0.234	0.972	
	academic staff	-0.14	0.247	0.979	
	Manager	-0.418	0.321	0.691	
*. The mean difference is significant at the 0.05 level.					

1.1.14 Comparison of perceived user Satisfaction on need of transformation of reference Service to ILC model among respondent status

Table 13 presents the results of the comparison of perceived user Satisfaction on need of transformation of reference Service to ILC model means between respondent statuses. The result shows that on average, the levels of perceived user mean score satisfaction on need of transformation of current reference Service to ILC model between the five statuses of respondents are significantly different at the 5% level (p -value = 0.007). The Tukey HSD Multiple comparison Test confirms that, managers have the same mean score with librarians while they have different mean scores with academic staff, undergraduate and postgraduate students. While academic staff, undergraduate and postgraduate students have the same mean on average. On average, the level of mean score satisfaction of respondents statuses from undergraduate,

academic staff, postgraduate, librarian, and managers are 4.1022, 4.1043, 4.1314, 4.3400 and 5.0000 respectively. As from the above result particularly respondents from the managers who are found to have been relatively the most satisfied by highly demanding the transformation of current reference service in to new service provision philosophy (M=5.00) compared with others even though all are in agree category.

Table 13: Comparison of perceived Satisfaction on need of transformation among respondent status

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Overall means for transforming reference service to ILC	Between Groups	6.039	4	1.510	3.602	.007
	Within Groups	198.257	473	.419		
	Total	204.296	477			

Post Hoc Tests

Overall means for transforming reference service to ILC

Tukey HSD

Multiple Comparisons					
Tukey HSD	respondents status	Mean Difference	Std. Error	P-value.	mean
undergraduate student	postgraduate student	-0.03	0.11	0.999	4.10 22
	academic staff	-0.0021	0.146	1	
	Manager	-0.9	0.25	0.003	
	Librarian	-0.24	0.21	0.781	
postgraduate student	undergraduate student	0.029	0.11	0.999	4.13 14
	academic staff	0.027	0.17	1	
	Manager	-0.87	0.27	0.011	
	Librarian	-0.21	0.23	0.897	
academic staff	undergraduate student	0.002	0.14	1	4.10 43
	postgraduate student	-0.03	0.17	1	
	Manager	-0.9	0.28	0.013	
	Librarian	-0.24	0.25	0.872	
Manager	undergraduate student	0.898	0.25	0.003	5.00
	postgraduate student	0.869	0.27	0.011	

	academic staff	0.896	0.28	0.013	00
	Librarian	0.66	0.32	0.236	
Librarian	undergraduate student	0.238	0.21	0.781	4.34 00
	postgraduate student	0.209	0.23	0.897	
	academic staff	0.236	0.25	0.872	
	Manager	-0.66	0.32	0.236	
*. The mean difference is significant at the 0.05 level.					

1.1.15 Comparison of perceived user satisfaction on services of ILC among respondent status

Table 14 presents the results of the comparison of perceived user Satisfaction on services of ILC means between respondent statuses. The result shows that on average, the levels of perceived user mean score satisfaction on perceived services of ILC between the five statuses of respondents are significantly different at the 5% level (p -value = 0.012). The Tukey HSD Multiple comparison Test confirms that, only managers have different mean scores from academic staff, librarian, undergraduate and postgraduate students. While academic staff, librarian, undergraduate and postgraduate students have the same mean score on average. On average, the level of mean score satisfaction of respondent statuses from academic staff, librarian, postgraduate, undergraduate, and managers are 3.8478, 3.9000, 4.0143, 4.0306 and 4.8333 respectively.

Based on the mean score for each respondent statuses, it is concluded that respondents from managers, ($M= 4.8333$), are the most strongly agree while compared with other four respondents statuses even which falls under the agree category. The above conclusion also coincides with the second comparison discussed above.

Table 14: Comparison of perceived Satisfaction on Services of ILC among respondent status

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Overall means for services of ILC	Between Groups	5.458	4	1.365	3.255	.012
	Within Groups	198.316	473	.419		

	Total	203.775	477			
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Post Hoc Tests
Overall means for services

Tukey HSD

Multiple Comparisons					
Tukey HSD					
respondents status	respondents status	Mean Difference	Std. Error	P-value.	mean
undergraduate student	postgraduate student	0.02	0.11	1	4.0306
	academic staff	0.18	0.14	0.681	
	Manager	-0.8	0.25	0.011	
	Librarian	0.13	0.21	0.97	
postgraduate student	undergraduate student	-0.02	0.11	1	4.0143
	academic staff	0.17	0.17	0.874	
	Manager	-0.82	0.27	0.02	
	Librarian	0.11	0.23	0.988	
academic staff	undergraduate student	-0.18	0.14	0.681	3.8478
	postgraduate student	-0.17	0.17	0.874	
	Manager	-0.99	0.28	0.004	
	Librarian	-0.05	0.25	1	
Manager	undergraduate student	0.8	0.25	0.011	4.8333
	postgraduate student	0.82	0.27	0.02	
	academic staff	0.99	0.28	0.004	
	Librarian	0.93	0.32	0.03	
Librarian	undergraduate student	-0.13	0.21	0.97	3.9000
	postgraduate student	-0.11	0.23	0.988	
	academic staff	0.05	0.25	1	
	Manager	-0.93	0.32	0.03	
*. The mean difference is significant at the 0.05 level.					

4.1.16 Differences in Perceptions of current reference service utilization and ILC services among respondents

To compare the overall satisfaction on Perceptions of current reference service utilization and ILC services among respondents a paired sample t test was carried out. The result shows that on

average, the overall mean score difference on perception of current reference service utilization and ILC services are significantly different at the 5% level (p -value < 0.05) with overall mean difference 1.15967.

Table 15: Comparison of current reference service and perceived ILC services

Satisfaction level	Mean	N	Std. Deviation	Std. Error Mean
Perceived service	4.0296	478	.65361	.02990
Current service	2.8700	478	.65662	.03003
Difference	1.15967			
t-Value(p-value)	26.946(<0.001)			

4.1.17 Differences in Perceived Benefit/usefulness of ILC among respondents' statuses

Table 16 presents the results of the comparison of Perceived Benefit/usefulness of ILC between respondent statuses using one way analysis of variance (ANOVA). The result shows that on average, the levels of mean score satisfaction on Perceived Benefit/usefulness of ILC between the five statuses of respondents are not significant(i.e. the five statuses of respondents such as undergraduate, postgraduate, academic staff, librarian and managers have the same mean score) at the 5% level (p -value < 0.05). This generally concluded that they are beneficiary if they are supported and provided by the new service model.

Table 16: difference in perceived benefit/usefulness among respondents status ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Overall means for Perceived Benefit/usefulness of ILC	Between Groups	3.551	4	.888	1.927	.105
	Within Groups	217.916	473	.461		
	Total	221.468	477			

4.1.18 Suggestions provided by the respondents

The analysis of the free-text comments also provides more qualitative information from the users' perspective. Of the 478 respondents, 152 (32%) provided their suggestions on the overall effect and benefit of the new information and learning commons model. Most of them recommended it enable users to utilize library resources easily with in short period of time

(n=49), Makes every think simple and enhance the teaching learning process (n= 42) and provision of all services as mentioned in the questionnaire. Other important suggestions were that it enables users to access recent and updated adequate reference materials; it enables to provide wide range of services and facilities to users. They recommended it Enable the library to provide effective and efficient service that satisfy users and Create virtual learning environment for users as well (See table 17).

Table 17: Frequency Distribution of Suggestions Provided by the Respondents

Rank	Suggestions	Frequency
1	Enable users to utilize library resources easily in short period of time	49
2	Makes every think simple and enhance the teaching learning process	42
3	Enables users to access recent and updated adequate reference materials	19
4	Provide wide range of services and facilities to users	19
5	Enable the library to provide effective and efficient service	17
6	Create virtual learning environment for users	17
7	Increase users awareness towards library services and make the library friendly with users	11
8	Enable to provide service by the right person	8
9	Creates better learning environment outside of class room and Solves users space problem	4

4.1.19 Interview responses

The analysis of the interview questions also provides more qualitative information from the library director and academic and research Vice president of Jimma University. Both support and encourage the idea of transforming the current reference service in to new service provision philosophy because they believe it will increase the whole library service delivery that enables the library to satisfy the current high users' information need. They state that Jimma University management must support in every aspect of the activities and requirements that need to adopt

information and learning commons model. Since the university activities and goals are achieved due support of the university management they have key and significant role in transforming the current service provision system in to new one. They believe that when the library comes with new initiatives, ideas the management should do support in every aspect to build and enhance the capacity of the library like equipment support, budget allocation and personal development. They believe that this transforming the current service philosophy in to new one needs cooperation between the university library system officials, the managers, academic staffs and administrative body of the university. the university academic vice president states seriously it needs not only the willingness of the university management to transform new and this best service provision model but it needs the whole university community cooperation and commitment apart from the managements role.

The library director complained the current university budget allocation system to library because the library total budget is usually administered centrally that hinders the library in full control of its total budget. But both confirm that there should be fair allocation of budget that will enable the library to transform. The main objective of the university is producing qualified candidates by providing appropriate library service so university should allocate appropriate budget for the library and its service operations. In order to make library budget and financial supports given to library appropriate and sufficient for the library to transform to new information and leaning commons service model which enable library to provide better support and service to its users first the library should have come up with tangible, feasible pilot project activities that can convinces the university management. When the necessity of new service is accepted by university management the management should have communicate with appropriate stakeholders in order to enable the library to have appropriate budget and financial resources allocation. The university management should have also do on library professional development like other academic staffs development programs by either training the existing staffs, hiring new qualified staff to build their capacity that can apply current technology and can work as change agents. Both confirm that without appropriate trained professional it is impossible always to provide best service to users.

Concerning convinces of existing building and the demand of new building or renovating the existing one the library director responded that of course all buildings are not convenient but

there are appropriate and convenient libraries that enables the library to provide service based on information and learning commons like kito furdisa library and social science library. By using these libraries we can implement and proceed as a model library. Lack of information and learning commons services makes library users lack of freedom in gaining appropriate library service so the management should do more and more on this issue. The academic vice president also confirms that in order to fill the gap between incremental students' number and lack of service provision space management should give serious attention and support the library in every aspect of need to renovate the existing buildings and build new one if it is necessary and appropriate. Library space and service problems are currently common in our university library so the university management should and must have to give serious attention to the betterment of library space problem and service improvement.

Both accepts the library role first apart from class room teaching and learning, library service have a significant and key role in producing qualified candidates that can compete nationally to shoulder professional responsibilities. The university management should focus and give serious attention during planning the university strategic plan to university library services prior attentions which enables the library to provide appropriate service through adopting appropriate services and technology. In order to alleviate the current problems in library service the university management should communicate and collaborate with different stakeholders give prior attention during planning short and long term university plan.

The management of the university should work based on the university and library plan regarding the crucial relationships the library have and should have for the library to transform to provide better support. Based on project proposal that the library submit to university the management must work more and more in the future. The library should create service standards, job descriptions, work plans and so on. The management should have encourage libraries relationship with government and government organizations, private organizations and NGOs, various communities that range from local to international, foreign universities and institutions in every aspect as long as this relationship will enable the library to provide better service. generally the library should come up with appropriate project proposal that will support in achieving producing qualified candidate in education and Jimma University library must be a model library nationally that enable other higher institution libraries should share this experience

and improve their library service. Despite its advantage JU management must support the library in every aspect to adopt information and learning commons and share, upgrade their service to whole community locally and nationally.

4.2 Discussion

The overall satisfaction level of users in Table 1 by current reference service as studied in this research was (mean = 2.87) which is under neutral level of satisfaction which generally indicates low level of satisfaction and can be perceived as most of users are not know different services that library reference section provide. Other studies also shows the most obvious, and commonly recognized, weakness of the traditional reference service model which is that it works best for directional questions while complex and in-depth questions are handled often not briefly and superficially. As Freides (1983) has pointed out, discussion aimed at clarifying the user's question is discouraged by other users waiting in line or hovering around the desk. But in other studies the overall level of satisfaction by the existing reference service varies from this result which is 3.6 (Rehman, 2011) which is satisfactory. This variation may be because of difference in available staff, collection, services and facilities in reference section with compare to our university library reference section. Joan (1995) noted another disadvantage: the traditional reference desk model makes it impossible for users to continue the consultation as the search progresses because of the pattern of staff rotation at the desk.

Based on the result of the study it is presumed that this results referring to the lack of cohesive and proactive reference service that satisfy users current information need and can be concluded as librarians should have do more research in other services of the library in order to know users perception and level of satisfaction that helps them to improve their service delivery.

The need to acquire value-added library services in Academic Libraries is all the more to get help in Academic and Research pursuits. The user expectations have increased with the proliferation of electronic sources. And this has made them increasingly important in acquiring appropriate library service. Adapting to the current changing digital environment has required the Library to be innovative, flexible and imaginative in their internal organization and in their relationship with users.

This reality was well understood by jimma university library users because this study result significantly show high demand to transform to ILC by users with overall mean (4.123) score. This indicates that the overall level of satisfaction towards the need to transform to new service model is highly demanding and they are satisfied if the current reference service system is transformed in to new service provision model.

Other studies also support this transformation; some researchers believe that there should be a more “revolutionary” change in reference service. For instance, Ewing & Hauptman, (1995) took the position that the traditional academic reference service “it does not need to be rethought and reconfigured, it needs to be eliminated. Other studies also encourage the transformation of library reference service in to new and supportive service philosophy. Wasik (2003a) sought to expand traditional services by providing reference assistance in an electronic environment.

This high demand of transforming in to new reference service model may be due to current changes in learning styles and pedagogy in recent years have resulted in more group projects and team activities, requiring academic libraries to create spaces for collaborative study and learning. Group study rooms and tables, individual and group carrels, multi-person computer workstations, and flexible furniture arrangements are just a few of the options available to respond to this growing need. In his study Fister(2004)confirm that University libraries also provide classroom space for bibliographic instruction and office space for individual/group consultation by librarians or other information support staff.

The overall mean (4.030) indicates that the level of perceived satisfaction by the services of transformed ILC is satisfactory. Trinity University reported in 2004 after opening its new information commons, print circulation increase 2% (following five years of steady decline) and reference queries saw a 5.8% increase, use of building overall increase 40.56%. The most dramatic increase comes in “searches in electronic resources” which rose remarkable 56.21. From this result we can conclude that this perceived satisfaction by services of Information/Learning commons services not only entails use of commons at JULS but also may include its impact on other services of library.

This result confirms high perceived usage and satisfaction by users of information and learning commons services. In his study Sherman commented by far the main result of implementation of learning commons as perceived by students was increased use of library. Fuller's 2009 study of UConn learning commons reached similar conclusion. Her most striking findings are that 84.3% of undergraduate feel the learning commons has helped them successfully complete academic assignments and most are visiting several times a week (45.7%) or daily (12.9%). Relatively low level satisfaction accorded to current reference service utilization is yet another indicator of how commons has distanced itself from the traditional one. Also the perceived benefits /usefulness of transformed service were also studied and the result confirms that there will be a significant benefit with overall mean score of 4.123. The benefit / usefulness of transformed services to the library users is also significantly discussed in other studies indicate that the benefit/usefulness of ILC services which makes increased use and access to ILC service, including "individuals reporting that the learning commons (as opposed to other parts of the library) was now their primary destination for research," and "respondents reporting improved study skills. NCSU students reporting that the information and learning commons caused them to increase their use of the library (57) outnumbered the students reporting that it caused decreased use (5) due to factors in physical environment like noise or distraction by factory of 10 to 1.

Comparative study on perceived user satisfaction on need of transformation and services of information and learning commons by respondents' status showed that out of five respondents' statuses managers as a user of library achieved in both overall mean score of 5.00 and 4.8333 respectively while others achieved overall mean score of in between 4.1022 – 4.3400, Even though others respondents are also demanding the transformation highly. This result implies managers as users of library are demanding cohesive and proactive reference services which support and satisfy their teaching & learning process through professional staff support, getting service at multi – level service point with inclusion of ICT support. Because in other studies the result shows that users professionally supported and receive service at multi - level of service point are highly satisfied than those of users got service by paraprofessional staff and at one desk service points. The comparative study of nonprofessionals and professionals conducted by Murfin & Bunge, (1998) showed that, out of 20 libraries, paraprofessional staff achieved a success rating of 60 percent or above in 4 libraries while professional librarians achieved 60 percent or above in 10 libraries. In their study, a larger percentage of users who received

assistance from paraprofessionals responded that they did not locate what they asked about at the reference desk (6.9%) than those who were helped by professionals (3.4%). The difference was significant at $p < .01$ level. Patrons of paraprofessionals reported not being satisfied or being only partly satisfied with information (29.6%) in significantly more cases ($p < .01$) than did patrons of professionals (22.8%). As discussed Kuhlthau, (1993), information search process theory individuals seek “meaning” rather than “answers,” therefore a traditional bibliographic paradigm which focuses on locating sources and information is not adequate to address the process of learning from information.

Comparative study to identify is there a difference in perception of current reference services utilization and perceived information and learning commons services among respondents' statuses was done using a paired sample t test which show that on average, the overall mean score difference on perception of current reference service utilization and ILC services are significantly different at the 5% level (p -value < 0.05) with overall mean difference 1.15967. The comparison of Satisfaction on current reference Services means between respondent statuses were done and the result shows that on the average, the levels of mean score satisfaction on the current reference services between the respondents from the five statuses of respondents are significantly different at the 5% level (p -value = 0.025) also the comparison of perceived user Satisfaction on services of ILC means between respondent statuses were done and the result shows that on average, the levels of perceived user mean score satisfaction on perceived services of ILC between the five statuses of respondents are significantly different at the 5% level (p -value = 0.012). This result generally shows that there is difference in satisfaction level between the current reference service utilization and perceived services of ILC by users. From this result we can conclude that as more universities libraries in foreign countries have adopted the model libraries in Ethiopia should have also begin use the commons to reposition themselves as change agents, for cooperative instructional support with writing centers, academic skills or tutorial centers, and faculty development centers.

The finding of the study shows a need to bring a paradigm shift by transformation to new information and learning commons model, so the researcher developed a frame work/model to be used as baseline in order to adapt ILC. In designing the physical layout of the future information and learning commons, the researcher mapped the information commons functions that should occur within ILC to the activities associated with those functions, and placing activities in to four zones (Figure1). Service points and specialist usage spaces such as group discussion/presentation rooms and multimedia display areas are located in the relevant learning zones. Some functions may overlap in different learning zones.

The future JULS information and learning commons is a learning– centered space that will facilitates teaching and learning outside the classroom settings. This model is designed to accommodate the library’s services; like ICT support services; GIS skill support; learning skills advisory; information literacy skill instructions; course topic tutoring; learning aid support; research skill support; writing centers; math resource centers; career center and demonstration center.

The first zone of this model is a social zone, which provides social interaction space for users. The very essence of this zone is to make and enable users’ physical manifestation of a single point of contact to different services that includes: front service desk; online public access catalogue (OPAC) terminals; lounge; self-charge terminals; open reserve room; computer lounge. This zone serves as a socialization area of ILC which is located at the front of the building where users start navigating different information that will allow them to utilize the different zones of the entire ILC. This is the area where users navigate the general and specific information about where they get appropriate service for their need. Since there is high social interaction at this zone the level of noise will be very high compared to other proceeding zones. Study zone is the second zone of the ILC where users retrieve/access different library services, library collections and resources based on their demand to satisfy their need. Due to high focus more on group study, group assignment and collaboration among users on this zone there are freely/openly accessible library collections that can used as a reference materials. The presence of this zone will change the present closed library system in to an open learning environment where by resources are self-mediated rather than library intermediaries. Moreover, the study

zone constitutes a large space of study area that suites both individual and group interest. The zone is more of occupied with modern technological equipment to facilitate learning space for individual/group/collaborative. Computer lounge; digital library; printing copying facility; service offices; toilet & OPAC terminals can be from the list. In view of the fact that there is high group discussion at this zone and the level of noise is also high even if it is slowing down compared to the previous social zone. This study zone also gives an opportunity to individuals/group to study, do their assignments, and retrieve different ILC services. Interactive learning zone of ILC is a learning space where individual/group interactive learning occurs through provision of video conference services; group study rooms; assistive technology; multimedia viewing; research support service; training area; meeting rooms and etc. Even if this zone approaches to secluded learning zone there is also high level of noise but at a decreasing rate compared to former two zones. The interactive learning zone is also an individual's area where they can do their own job with in high group interactions. The last component of the ILC model is secluded learning zone, which is an individualize area where individuals can read their materials, do their assignments and projects in secured environment. Unlike the previous three components, this zone is quite different on its individualized spirit with almost no noise.

The design of the physical spaces and furnishings designate the use of the area: from noisy, social learning spaces through group study areas to individual quiet spaces. The learning environment steps down from the front of foyer where the social, collaborative and interactive spaces are located, to the rear, facilitating noise control and a stronger sense of privacy in the quiet, individual learning spaces. This model is designed to create different sorts of learning spaces. The social zone is at the front of the building, and activities move through study zones and interactive learning zone to secluded learning zone - individual study - at the back. Users' movement starts from the social zone and proceeds through entire zones and lastly reaches at the secluded learning zone and they can move back from last zone to first social zone through accessing the services of entire zones.

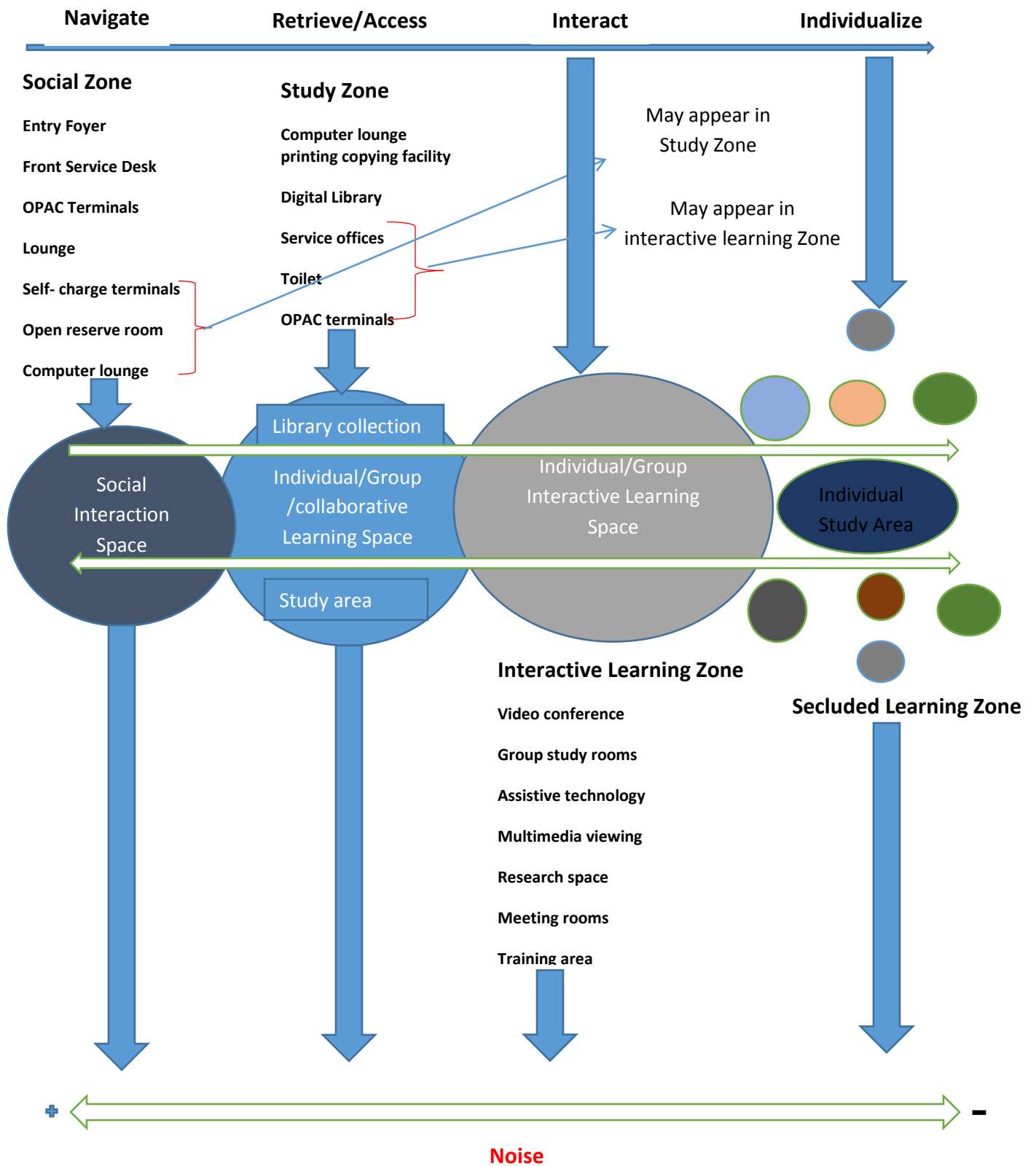


Fig 2: Information/learning commons recommended model

CHAPTER FIVE

5.1 Summary of Findings, Conclusions, and Recommendations

5.1.1 The major finding of the study based on the major issues assessed

This study has presented information on transformation of current reference service through information and learning commons. The study found that on the average, the library users are only quite neutral with the current reference service usage ($M=2.87$). All respondents are most satisfied with the need to transform to new service model & perceived benefit/usefulness of transformed service (4.123), followed by perceived satisfaction by transformed services ILC ($M= 4.030$), in that order. The results of the comparison of means test using ANOVA show that the levels of satisfaction on the current reference service usage, perceived user satisfaction on need of transformation, and perceived user satisfaction on services of ILC among the respondents from the five respondents statuses are statistically significant and all the mean scores are significantly different from one another with (p -value = 0.025) and mean score 2.5473, 2.6923, 2.8328, 2.9004 and 3.1099 for postgraduate, librarian, academic staff, undergraduate and managers Table 4.12, (p -value = 0.007) and mean score 4.1022, 4.1043, 4.1314, 4.3400 and 5.0000 from undergraduate, academic staff, postgraduate, librarian, and managers Table 4.13, and (p -value = 0.012) and mean score 3.8478, 3.9000, 4.0143, 4.0306 and 4.8333 from academic staff, librarian, postgraduate, undergraduate, and managers Table 4.14, respectively.

The differences in satisfaction between respondents statuses shows that on the satisfaction to transform in to new service model, perceived satisfaction by services of ILC, on the average, users of managers are relatively more satisfied than users of undergraduate students, academic staffs, postgraduate students and user of librarian which is 4.1022, 4.1043, 4.1314, 4.3400 and 5.0000 Table 4.13 and 3.8478, 3.9000, 4.0143, 4.0306 and 4.8333 from academic staff, librarian, postgraduate, undergraduate, and managers respectively Table 4.14. Therefore, only in two aspects of reference service transformation, users of managers are more likely to be most satisfied than those from others. The comparative study on difference in Perceptions of satisfaction by current reference service utilization and ILC services among respondents is conducted and the overall mean score difference on perception of current reference service utilization and ILC services are significantly different at the 5% level (p -value < 0.05) with overall mean difference 1.15967.

5.1.2 Conclusions

We are living in the information age, where information explosion and customer care are one of the major challenges. In this context, it is inevitable for a library to provide richer information diets to their customers for fulfilling their information needs. This reality is very well felt by the developed world and in those countries reference and information services have seen revolutionary changes to meet the new challenges of information age. This study investigated the overall user's perception and satisfaction with current reference services usage and transformation of it through information and learning commons in Jimma university library which is one of the largest academic libraries in Ethiopia. Based on the finding of the result the current reference services are criticized due to lack of customer focus and input. This study result suggests that concerned authorities should pay attention for the improvement of present level of user satisfaction through adopting ILC. Findings show the need for new perspectives that would enhance institutional values. Jimma University should be determined and motivated to bring a paradigm shift of integrating library space planning and various learning needs weighed along with operational considerations of space and technology. This multi-method learning and studying platform is well imagined change maker on how librarians, faculty and management will plan and implement new generation academic libraries.

This study has presented information basically on the users' satisfaction towards the current reference service, perceived need to transform in to new service model, perceived satisfaction by transformed services, Perceived benefit /value of ILC. It is hoped that the information produced through this study will be of use to the improvement of library services and betterment of the library profession, and serve as a contribution to the body of knowledge in the area of user satisfaction on libraries' reference section contribution and their services to users. Apart from this advantage the researcher faces challenges on define the magnitude of the respondents on their current usage frequency so it needs further exploration.

5.1.3 Recommendation

From the results and finding of the study, the following implications are presented. These implications can be recommendations for the management of the Jima university libraries and concerned authorities to improve their current libraries' reference services, through transforming in to the new information and learning commons model. The practical implication of the study is

that the libraries need to give serious attention in giving the best service ever. The findings suggest that libraries should transform their current reference service in to new service provision philosophy, so as to serve users' learning and research needs. The findings also suggest the availability of adequate and appropriate collections, staff, facilities and services in library information and learning commons. So that librarians can and must be promoting the library service to users and the whole community in order to play significant role in teaching and learning process.

- Encourage a positive learning environment in the library- The management should encourage the librarians and staff to participate in a range of educational activities apart from their routine tasks, facilitate learning and encourage staff to share and give ideas as these attempts will help the libraries attain the best out of their staff. Most importantly, to merit the trademark of a quality library, more effort on the part of the management is required in granting encouraging incentives for staff who take the initiative to enhance their skills. Staff has to be involved in research activities so that they understand the needs of the library users when doing research. The role of the library as a place of learning and of access to information is as valid as ever.
- Librarians should conduct research on customer service and their satisfaction. A university renowned for its research works is normally supported by the extensive and quality library services and activities. In order to understand research works, the librarians and staff must involve on research actively. For example, library statistics are traditionally collected. The data can be turned something valuable that can improve library service. Research would enrich library facilities, infrastructure, collections, staff, activities and services. The findings of the study can be an important input to the management of the library as decisions can be made based on research. The statistical information and analysis can be used to plan for improvement of current library service or for policy planning and development.
- The implementation of the new model helps to create a customer service focused library and includes mechanisms for improving customer satisfaction, such as through providing

wider ranging and cohesive service to users. Library staff has to be involved in the process of renovating libraries services into new service provision philosophy with the focus on users as customers, and programs and services that meet or exceed customer satisfaction /expectations. The elements that determine satisfaction are identified; the reasons for gaps between customer satisfaction/expectations and service performance are explored, and strategies for narrowing these gaps be made. So Services and activities provided by university libraries must be oriented to become better customer supporter and address their problem solving needs, which needs university management's support.

- Development of future academic library with information and learning commons at the core will play a significant role in integrating teaching learning, research and service along with better library service and constantly evolving information resource with knowledgeable and skilled staff that provides fast, flexible access to digital and print information resources, fosters scholarly research in a comfortable and supportive environment, and promotes cooperative learning in library environment.
- The information commons, a dynamic service model which creates a synergy among library staff, faculty, computer specialists, and users of all types that will help the library in creating a mechanism to structure and strength academic role of the library in teaching learning and research. So its creation requires careful planning, involvement by stakeholders, and thinking in non-traditional ways. The information commons underscores that the future of the academic library lies in how well it meshes with a whole range of related services in library. Many of which are not traditional library offerings. The information commons adds value to traditional services and embraces the idea that cooperation and innovation are our future in academic libraries.
- This is first effort to investigate the user's satisfaction with current reference services utilization and transformation to information and learning commons in JULS. The researchers hope that this study will further motivate the future research on the topic effect of new ICT based reference service on users' information retrieval.

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Annexes

Annex. 1: Survey Questionnaire for respondents

Jimma University
College of Natural Science
Department of Information Science

Dear respondent

This questionnaire is a survey instrument of a thesis written on “Transforming Reference Service through Information and Learning Commons: Defining Managers, Librarians, and Users, Perspective” in partial fulfilment of the requirement for Degree of masters in Electronics and Digital Resource Management at Jimma University. Please remember that your answers are very important. And I would like to thank you for your collaboration.

Your anonymity is guaranteed!!!

Your reply will remain confidential. Your answers will be combined with those of others and will not be identified as yours. Moreover, your participation in this survey would be of voluntary.

If you have any question regarding the questions you can contact the researcher through the following address: haimanot.birhanu@ju.edu.et.

A brief explanation of reference service

Reference services, is the personal assistance provided to library users seeking information through reference librarian, and a reference librarian is a librarian works in a reference desk that is responsible for providing helpful information in response to any type of questions posed by users of the library.

Traditional reference service model isa reference service where direct librarian-user interaction takes places in physical service point, typically called the reference desk with any type of user

question. **Information and Learning Commons model** is a physical space ...that incorporates many workstations equipped with software supporting a variety of uses, offers workspace for individuals and groups, provides comfortable furniture, and has staff that can support activities related to access to information and use of technology to develop new products.

Thank you, Haimanot Birhanu, Msc graduating student

I. Socio-demographic data

1. Sex

Male

Female

2. Age

18 – 30

31 – 40

Above 43

3. Respondents status

Undergraduate student

Postgraduate student

Academic staff

Manager

Librarian

4. Your College / Faculty:

College of Agriculture & Veterinary Medicine

College of Business & Economics

College of Natural Science

College of Public Health & Medicine

College of Social Science & Law

Institute of education and professional development studies

Institute of Technology

other _____

II. Current usage Frequency of library reference section visit

5. Do you believe the library have reference service?

Yes No

6. How many times do you believe you use the reference sections service?

- Not at all
- About once a week
- Two or three times a week
- Four times a week
- Every day of the week

7. How frequently do you believe you use the reference sections service?

- Extremely infrequently
- Quite infrequently
- Neither infrequently nor frequently
- Quite frequently
- Extremely frequently

8. If you don't use the reference service extremely frequently or quite frequently, why (select all that apply)?

- Luck of adequate reference collection
- Luck of competent and supportive Reference staff
- Luck of proactive Reference service
- Luck of appropriate facilities like computer support, internet etc.
- Poor setup and environmental condition like noise level, heating / cooling, lights, furniture, cleanliness.

If any other _____

III. Current usage satisfaction by the reference desk services

How much do you satisfied on the following statements regarding the current reference service desk? Choose 1, 2, 3, 4 or 5 depending on your agreement. 1=extremely not satisfied, 2= not satisfied, 3=neutral, 4= satisfied and 5= very satisfied.

<i>S/N</i>	<i>Questions</i>	<i>Response Rate</i>	<i>Rank</i>
9	<i>Reference collection (like books, electronic databases, etc):</i>	<i>very satisfied</i>	<i>5</i>
		<i>satisfied</i>	<i>4</i>

	How satisfied are you with the adequacy of reference materials/reference collection of the reference section to meet your needs?	<i>neutral</i>	3
		<i>not satisfied</i>	2
		<i>Extremely not satisfied</i>	1
10	If your response is neutral or not satisfied for above question, why?(select that all apply)	<i>Found nothing</i>	1
		<i>Not enough material</i>	2
		<i>Need more simple</i>	3
		<i>Too much</i>	4
		<i>Need more in-depth</i>	5
		<i>Not relevant enough</i>	6
		<i>Want different view point</i>	7
		<i>Couldn't found information in source</i>	8
		<i>Not sure if information given me is correct</i>	9
11	<i>Are you satisfied by the organization/arrangement/structure and easy of finding the reference collection?</i>	<i>very satisfied</i>	5
		<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2
		<i>extremly not satisfied</i>	1
12	Reference Staff: Are you satisfied by the reference staff i.e with their communication, competence and helpfulness?	<i>very satisfied</i>	5
		<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2

		<i>extremely not satisfied</i>	1
13	Are you satisfied with the time the reference librarian responds your questions?	<i>very satisfied</i>	5
		<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2
		<i>extremely not satisfied</i>	1
14	Reference Services: Are you satisfied by Current Awareness Service (CAS) and helpfulness?	<i>very satisfied</i>	5
		<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2
		<i>extremely not satisfied</i>	1
15	Are you satisfied by reference section bibliographic instruction like how to use the catalog, OPAC and where to get the right material for your question?	<i>very satisfied</i>	5
		<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2
		<i>extremely not satisfied</i>	1
16	Are you satisfied by library training on the use of reference services and resources?	<i>very satisfied</i>	5
		<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2
		<i>extremely not satisfied</i>	1
17	Facilities:	<i>very satisfied</i>	5

	Are you satisfied by Reference section's environment conduciveness to study (noise level, heating / cooling, lights, furniture, cleanliness, etc.)?	<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2
		<i>extremly not satisfied</i>	1
18	Are you satisfied by Opening/closing hours of reference section?	<i>very satisfied</i>	5
		<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2
		<i>extremly not satisfied</i>	1
19	Are you satisfied by Reference section Internet facility for searching online reference sources?	<i>very satisfied</i>	5
		<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2
		<i>extremly not satisfied</i>	1
20	Are you satisfied by Adequacy of available computers for use of electronic reference sources?	<i>very satisfied</i>	5
		<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2
		<i>extremly not satisfied</i>	1
21	Are you satisfied by Library Web pages informativeness, helpfulness, and easy-to-use and a good source for e-reference collection?	<i>very satisfied</i>	5
		<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2

		<i>extremely not satisfied</i>	1
22	Overall Satisfaction: Are you satisfied with the overall quality of current reference services that the library provide?	<i>very satisfied</i>	5
		<i>satisfied</i>	4
		<i>neutral</i>	3
		<i>not satisfied</i>	2
		<i>extremely not satisfied</i>	1

IV. Perceived user satisfaction, use frequency and usefulness/importance regarding transforming reference service to information and learning commons Model

Information / Learning commons is generally defined as a model for information Service delivery, offering students integrated access to electronic information resources, multimedia, print resources, and services. The information / learning commons creates an interdisciplinary location for several student services inside the library such as a Writing Center, Math Resource Center, Career Center, Testing Center, Information Technologies Help Desk, Faculty Development, etc. The information / learning commons provides students the opportunity to conduct research and write their papers at a single workstation.

On the transformation of the reference service to the Information and Learning Commons

How much do you agree on the following statements regarding the transformation of the reference service to the new way of service delivery which is the information and learning commons? Choose 1, 2, 3, 4 or 5 depending on your agreement. 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5= strongly agree.

S/N	Questions	Response Rate	Rank
23	The current reference service delivery must be transformed to the new reference service delivery which is the information and learning commons reference service.	<i>Strongly agree</i>	5
		<i>Agree</i>	4
		<i>Neutral</i>	3
		<i>Disagree</i>	2
		<i>Strongly disagree</i>	1
24	Managers must support the reference service delivery and its	<i>Strongly agree</i>	5

	transformation in to the new service delivery	<i>Agree</i>	4
		<i>Neutral</i>	3
		<i>Disagree</i>	2
		<i>Strongly disagree</i>	1
25	The reference service delivery must be supported by professional library staff	<i>Strongly agree</i>	5
		<i>Agree</i>	4
		<i>Neutral</i>	3
		<i>Disagree</i>	2
		<i>Strongly disagree</i>	1
26	The reference section must give service at multi – level service points with the inclusion of ICT supported service delivery	<i>Strongly agree</i>	5
		<i>Agree</i>	4
		<i>Neutral</i>	3
		<i>Disagree</i>	2
		<i>Strongly disagree</i>	1
27	The transformation of the reference section into the new way of reference service delivery must be one of the current priorities of JULS.	<i>Strongly agree</i>	5
		<i>Agree</i>	4
		<i>Neutral</i>	3
		<i>Disagree</i>	2
		<i>Strongly disagree</i>	1

Perceived User satisfaction

On the transformation of the reference service to the Information and Learning Commons

How much do you agree on the following statements regarding if you get reference service based on the new way of service provision which is information and learning common? Choose 1, 2, 3, 4 or 5 depending on your satisfaction. 1= strongly disagree, 2= disagree, 3=neutral, 4= agree and 5= strongly agree.

S/N	Questions	Response Rate	Rank
28	Users will be satisfied by the information and learning commons services if	<i>Strongly agree</i>	5

	the library implements it.	<i>Agree</i>	4
		<i>Neutral</i>	3
		<i>Disagree</i>	2
		<i>Strongly disagree</i>	1
29	The library will satisfy and meet users learning, teaching and research needs if it provides adequate information through instruction, better learning environment, digital composition, appropriate technology, and common learning space.	<i>Strongly agree</i>	5
		<i>Agree</i>	4
		<i>Neutral</i>	3
		<i>Disagree</i>	2
		<i>Strongly disagree</i>	1
30	The information and learning commons will provide services through appropriate collections and facilities if the library implements it. Note: <ul style="list-style-type: none"> • Reference collections include print and electronic reference collections. • Facilities include computer, internet, Writing Center, Math Resource Center, Career Center, Testing Center, Information Technologies Help Desk, Faculty Development, etc. 	<i>Strongly agree</i>	5
		<i>Agree</i>	4
		<i>Neutral</i>	3
		<i>Disagree</i>	2
		<i>Strongly disagree</i>	1
31	The information and learning commons center will provide virtual / electronic reference service for distance users (no need to come library physically) if the library implements it.	<i>Strongly agree</i>	5
		<i>Agree</i>	4
		<i>Neutral</i>	3
		<i>Disagree</i>	2
		<i>Strongly disagree</i>	1
32	Information and learning commons has a common learning space that users and professional librarians deal on their complex and instructional questions will satisfy users.	<i>Strongly agree</i>	5
		<i>Agree</i>	4
		<i>Neutral</i>	3
		<i>Disagree</i>	2
		<i>Strongly disagree</i>	1

33	Will you be satisfied if the information and learning commons provides services that are supported by professional and competent staff?	<i>Strongly agree</i>	5
		<i>Agree</i>	4
		<i>Neutral</i>	3
		<i>Disagree</i>	2
		<i>Strongly disagree</i>	1

Perceived Use Frequency

How much do you frequently visit the information and learning commons center if the transformation will be successful? Please choose your frequency on the following statement, 1 = extremely infrequent, = 2 quite infrequent, 3= neither frequently nor infrequently, 4 = quite frequent, 5 = extremely frequent.

S/N	Questions	Response Rate	Rank
34	How frequently will you use the future information and learning commons of the library without the need to come to the library physically being at your office, home, laboratory, dormitory?	<i>Extreme frequently</i>	5
		<i>Quite frequently</i>	4
		<i>Neither frequently nor infrequently</i>	3
		<i>Quite infrequently</i>	2
		<i>Extreme infrequently</i>	1

Perceived Benefit/Usefulness

How much do you be beneficiary if you were supported and provided by new service delivery model which is information and learning commons model? Please choose your response 1= very unlikely, 2 = unlikely, 3 = neutral, 4 = likely, 5 = very likely on the following statements.

S/N	Questions	Response Rate	Rank
35	The information and learning commons service delivery system will enable users to perform their job quickly	<i>Very Likely</i>	5
		<i>Likely</i>	4
		<i>Neutral</i>	3
		<i>Unlikely</i>	2

		<i>Very Unlikely</i>	1
36	The information and learning commons service delivery system will make user job easier and enjoyable	<i>Very Likely</i>	5
		<i>Likely</i>	4
		<i>Neutral</i>	3
		<i>Unlikely</i>	2
		<i>Very Unlikely</i>	1
37	The information and learning commons service system will enable users enhance teaching, learning, research and service.	<i>Very Likely</i>	5
		<i>Likely</i>	4
		<i>Neutral</i>	3
		<i>Unlikely</i>	2
		<i>Very Unlikely</i>	1
38	The information and learning commons service system will enable users job to be of quality	<i>Very Likely</i>	5
		<i>Likely</i>	4
		<i>Neutral</i>	3
		<i>Unlikely</i>	2
		<i>Very Unlikely</i>	1

39. What will be the overall effects and benefits of the new information and learning commons model?

V. required activities to transform the traditional reference service to Information and Learning commons

S/N	Question	Options	Response
40	What will librarians should do to successful the transformation of reference service to Information and	<ul style="list-style-type: none"> Staff an academic library information and learning commons centers by only professional staff 	1

Learning Commons Model? (check all that apply) (only for Librarians) write additional element on space provided...	<ul style="list-style-type: none"> Staff an academic library information and learning commons centers by both professional and non-professional staff 	2
	<ul style="list-style-type: none"> Staff an academic library information and learning commons centers desk by only non-professional staff 	3
	<ul style="list-style-type: none"> Teach library instruction / information literacy on your campus regularly 	4
	<ul style="list-style-type: none"> Do their job responsibly and effectively in order to meet users need 	5
	<ul style="list-style-type: none"> Through having advanced knowledge of online resources 	6
	<ul style="list-style-type: none"> Having high technology skill 	7
	<ul style="list-style-type: none"> Having knowledge of specific discipline like specific subject domain 	8

Any options including others on what librarians should do or on what is expected from librarians?-----

S/N	Question	Options	Response
41	What will managers should do support the library / reference desk to successful the transformation in to the Information and Learning Commons model? (check all that apply) (by managers only)	<ul style="list-style-type: none"> Support the library to staff their information and learning commons centers by appropriate staff 	1
		<ul style="list-style-type: none"> Provide appropriate training for library information and learning commons center staff s to increase their knowledge 	2

		<ul style="list-style-type: none"> Support the library information and learning common centers to acquire updated electronic resources / on line data bases 	3
		<ul style="list-style-type: none"> Support the library information and learning common centers to acquire updated print materials 	4
		<ul style="list-style-type: none"> Support the library information and learning common centers through resources like hardware's & software's 	5
		<ul style="list-style-type: none"> Support the library information and learning common center to have a common learning space with good environmental condition 	6
		<ul style="list-style-type: none"> Support the library information and learning common centers by providing appropriate internet service / facility 	7

Options including others on what managers should do or on what is expected from managers?-----

S/N	Questions	Response Rate	Rank
42	Are the current information / learning environment of library suitable?	Strongly agree	5
		Agree	4
		Neutral	3
		Disagree	2
		Strongly disagree	1
43	Do you believe that library can create the real information / learning environment?	Strongly agree	5
		Agree	4

		Neutral	3
		Disagree	2
		Strongly disagree	1
44	Do you believe you will be satisfied if you will get services like assisted by the Information / learning commons (integrated access to electronic information resources, multimedia, print resources, and services, referrals to other service desks and staff, Group Study Rooms and social space)?	Strongly agree	5
		Agree	4
		Neutral	3
		Disagree	2
		Strongly disagree	1
45	Do you think you will be satisfied if you get services by the information / learning Support Desk (assistance with productivity software, Writing Center, Math Resource Center and multimedia labs, scanning, geographic information system, 24/7 work area, etc.)?	Strongly agree	5
		Agree	4
		Neutral	3
		Disagree	2
		Strongly disagree	1

Annex 2. Interview Questions

1. You have the Experience of visiting foreign country libraries, so what you feel if our University Library System comes with the idea of transforming the reference service in to Information and Learning Commons Service delivery system? both
2. What will the university management do if the JULS come up with the question of the need to transform the reference service in to new service delivery system which is Information and learning commons? librarian
3. Do you think the management will play active role in the transforming the service? librarian
4. What do you think the management should do to build and enhance the capacity of the library, so that the library will transform to the new service delivery and provide better service? both
5. What do you think the budget allocation and financial support that is given to the library by the university should be, so that the library will transform to provide better service? both
6. What do you think the management of the university should do so that the budget allocation and the financial support given to the library will be appropriate and sufficient for the library to transform to provide better support? both
7. What do you think the management of the university should do concerning the professional development of the library staff for the library to transform to provide better support? both
8. Currently the library buildings are not convenient to deliver services based on the new model. Transforming to the new way of service delivery requires renovating the existing buildings or may demand new building. What do you think the management of the university should do regarding the renovation of the library buildings to transform the library to provide better support? both
9. What do you think the management of the university should do so that the transformation and continues sustenance and improvement of the library and its services are emphasized and given prior place in the strategic plan and works of the university? both

10. What do you think the management of the university should do regarding the crucial relationships the library have and should have for the library to transform to provide better support? both

- a. The libraries relationship with the management of JU.
- b. The libraries relationship with the government and government organizations.
- c. The libraries relationship with private organizations and NGOs
- d. The libraries relationship with the various communities that range from local to international.
- e. The libraries relationship with foreign universities and institutions.