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User perceptions of the quality of service at Iringa University College Library, Tumaini University, Tanzania

By

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DECLARATION

The author hereby declares that the contents of this dissertation, unless specifically indicated to the contrary, are his own work, and that the dissertation has not been submitted simultaneously or, at any other time, for another degree.

Rev. Cornelius Asyikiliwe Simba

DEDICATION

I dedicate this work to my beloved parents Asyikiliwe Telaka Kyando and Ang'iliwe Zebedayo Kyando, my wife Bertha Kerioth Luvanda and my children Samuel, Ester, Elijah and Rose.

ABSTRACT

The study is based on the premise that the culture of library assessment from the users' perspective is of vital importance to determine what users' needs are and whether these needs are being met. Consequently, identifying the strengths and weaknesses of the existing library services and using the assessment results can improve service delivery. The study examined the quality of service at Iringa University College Library (IUCo) from the users' perceptions. The users' expectations and perceptions of service quality were investigated to determine the gap that existed between the two; and to determine the extent to which the library met users' expectations or not.

A sample of 294 undergraduate students, all 31 postgraduate students, and 50 academic staff were surveyed. The adapted LibQUAL+^{TM} questionnaire was self-administered for data gathering from these respondents. A total of 213 (72.4%) undergraduate students, 20 (64.5%) postgraduate students, and 31 (68%) academic staff responded. The results were analysed using SPSS to determine the frequency of responses. The results are displayed in the form of charts and tables.

The insights gained from this study indicate that there is a gap between user's expectations and perceptions of service quality at IUCo Library. The magnitude of the gap varies depending on individual services. The results show that the most problematic services for users are: electronic journals, photocopying, interlibrary loan, electronic databases, a quiet library environment, and the library webpage. The results show also that there are variations within difference groups of users regarding the expectations and perceptions of service quality. The academic staff have higher expectations and lower perceptions compared to the postgraduate and undergraduate students. Recommendations to improve service quality at the IUCo Library and the introduction of new services pertinent to current needs of users are given.

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ABBREVIATIONS

ARL	American Research Libraries
B.Ed	Bachelor of Education
BAC	Bachelor of Art in Counselling
BAJ	Bachelor of Art in Journalism
BBA	Bachelor of Business Administration
BCAT	Bachelor of Cultural Anthropology and Tourism
BD	Bachelor of Divinity
BSC	Balanced Scorecard
COTUL	Consortium of Tanzania University Libraries
CR	Class Representative
D.Th	Diploma in Theology
EFQM	European Foundation for Quality Management
ELCA	Evangelical Lutheran Church of America
ELCT	Evangelical Lutheran Church of Tanzania
FABEC	Faculty of Business and Economics
FASS	Faculty of Arts and Social Sciences
FELM	Finnish Evangelical Lutheran Mission
HEAC	Higher Education Accreditation Council of Tanzania
HSLIC	Health Science Library and Informatics Center
ICTs	Information Communication Technologies
ILL	Interlibrary Loan
ISO	International Organization for Standards
IUCo	Iringa University College
LISIM	Library and Information Sector Improvement Model
LLB	Bachelor of Law
MARC	Machine Readable Catalogue
MBA	Master of Business Administration
OPAC	Online Public Access Catalogue

PGDM	Postgraduate Diploma in Management
PERI	Programme for Enhancement of Research Information
SLADS	School for Library and Archival Development Studies
TLA	Tanzania Library Association
TQM	Total Quality Management
TU	Tumaini University
UBL	University of Botswana Library
UK	United Kingdom
USA	United States of America

Chapter 1

INTRODUCTION

The importance of academic libraries cannot be underestimated. An academic library is not an independent institution, but belongs to a parent organization and therefore has an important role to play in the educational process of that organization. Libraries are central to the educational purpose of universities in supporting the missions of effective teaching, research and learning. Consequently, academic libraries add value to the educational process (Lakos 1998).

For academic libraries to be able to add value to the educational process they have to be both efficient and effective. They have to be organized and managed well. This implies better decision making, the capability and willingness to prioritise scarce resources, both human and material, and to be accountable for the use of those resources (Lakos 1998). For academic libraries to succeed in the new educational and information environment, they have to become more user focused in delivering their services. In order to do that, libraries have to take the responsibility of incorporating into their work environment a culture of ongoing assessment, and a willingness to make decisions based on facts and sound analysis. Ultimately, the culture of ongoing assessment will help academic libraries base their services on the expressed needs and requirements of their clientele and therefore ensure the delivery of a high quality service (Lakos 1998). Of equal importance is the assessment of that quality in relation to users' expectations of the service and in determining whether or not the users' expectations have been met.

Assessing the quality of library services has been the practice in academic libraries in order to gauge the quality of service offered (Lakos 1998). Since users are an important constituent in the existence of academic libraries, it follows that attention should be given to users' expectations and perceptions. Users' views and expectations need to be recorded

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and used for the benefit of both the users and the library. To meet users' changing needs in the context of rapidly changing technology, adapting to a variety of assessment tools and finding new tools is vital to academic libraries. This will help to continuously improve the current services and encourage the introduction of new services to strategically meet parent institutions' objectives and users' expectations of library service quality.

In recognizing the importance of quality service to users in an academic library, this study assesses users' expectations and perceptions of service quality at Iringa University College (IUCo) Library.

1.1 The research problem

The mission of IUCo Library is "to provide high quality library and information services to users to measurably strengthen the University College's performance of its objectives" (IUCo Library 2003). The library, as the nerve centre of the university, is expected to implement this mission to enable the university to meet its operational and strategic plans of training, research and service to its community. Therefore, the library needs to justify its existence and give evidence of its contribution to the overall objectives of the university. This means that the library needs to demonstrate how well it is doing and the extent to which users benefit from the library services (de Jager 2002). The means by which the library can justify its contribution is, according to Quinn (1997), delivering excellent user services.

The library can gauge the quality of service offered by adopting different approaches to assessment. The traditional approach to library assessment based on quantifiable aspects (Griffiths 2003:508) which the IUCo Library uses, is not the only way to measure service quality. Other measures such as assessing users' perceptions of the quality of service through user based surveys are also needed. Surveys provide the library with an understanding of users' expectations of the quality of service and evidence of the need to

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improve the quality of service in order, as Kavulya (2004) notes, "to justify their support to parent organisations by demonstrating that they contribute to meeting the institutional goals of teaching and research". .

Numerous and extensive studies on user perceptions of the quality of service in academic libraries have been done internationally. There is no indication that studies on user perceptions of the quality of service in the academic library have been conducted in Tanzania. It could be postulated that either there is reluctance to involve users in assessing the quality of library service or other measurement approaches have been used.

It is against this background of the importance of service quality assessment from the user's perspective and in the absence of such research in the Tanzanian context and IUCo in particular, that the research needs to be seen. Thus, the problem which the study sought to investigate centres on determining the quality of library services at IUCo Library from the users' perspective. In other words, the problem was essentially the topic to be investigated.

1.2   Purpose, objectives and research questions

This section deals with the description of the purpose, objectives and the research questions of the study.

1.2.1 The purpose of the study

According to Powell (1985:22) the research problem is what the research is about, the purpose of the research is thus the reason why the research is undertaken. The purpose of this study was to determine the users' perceptions of the quality of library service received at IUCo Library and to find out how far IUCo Library had succeeded in delivering such service. In other words, the purpose of the study was to determine what the users' needs were from their perspectives, and whether those needs were met, thereby

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identifying the strengths and weaknesses of the existing library services at the IUCo Library.

1.2.2 The objectives of the study

The objectives are what the researcher wants to accomplish. Based on the above stated purpose of the study, the specific objectives of the study are:

1) To determine users' expectations of the quality of library service.
2) To determine users' perceptions of the quality of library service.
3) To determine whether the library is meeting the service quality expectations of the users.
4) To make recommendations to the library based on the findings of this study.

1.2.3 The key research questions

Given the above problem, the purpose and objectives of the study, the following are the key research questions that were used as a guide to conduct this study:

1) What expectations of the quality of IUCo Library service do users have?
2) What are the perceptions of users about the quality of IUCo Library service?
3) Are the expectations of users about the quality of library service being met by IUCo Library?
4) What recommendations can be delineated based on the findings of the study?

1.3   Rationale of the study

Since its inception IUCo Library has not assessed the quality of service it offers to its users, based on a users' perspective. The library has adopted the traditional approach of

measuring performance based on quantitative indicators, such as collection size, number of staff, number of users entering the library, resources loaned, and the number of users using computers, as evidence of good service (Hernon and Altman 1998:2; Quinn 1997). However, this statistical approach, although it addresses the expectations of librarians, does not necessarily reflect the concerns of users. In contrast, the current study assesses the quality of service in terms of elements that are considered to be important to users (Hernon and Altman 1998:9).

Providing a quality service, as Quinn (1997) writes, "means being able to view services from the customer's [user's] point of view, and then meeting the customer's expectations for service, because it is customers that define value". The hypothesis on which the study was based is that there is a gap between users' expectations of the quality of library service and the actual services offered at IUCo Library.

The rationale and need for the study primarily lies in the fact that previous studies of the quality of IUCo Library service are quantitative. In other words, the studies measure service quality of the library based on measurable indicators such as the number of users, the collection size and so on.

Since user based surveys of quality service have not been implemented in this library before, it is anticipated that this study should provide baseline data and a framework for future surveys on users' perceptions of the quality of library service.

The purpose of carrying out such an assessment is to help improve the library and its services. The process of assessment demonstrates what is being done well and should be continued, as well as what needs to be changed and any additional activities that could be introduced. It also helps monitor progress towards reaching intended goals and improving user satisfaction with the services delivered (Matthews 2004:6). Poor results of the assessment are as important as good ones, as they can point to ways for the improvement of library services. It was anticipated that the study would reveal the performance level of the library in terms of service delivery. It would show both the weaknesses of the library

where improvements are required and the strengths in delivering quality service to its users which should be continued (HSLIC 2003).

The assessment results should be used to identify new objectives, and develop new action plans. They may result in changes to how the library is run, what it collects and what services it provides. They may identify the performance level of staff and help them improve the way they perform their work. They may also identify staff training needs, to enable staff to carry out their work efficiently and provide the services required. The results of the study should also be used as a tool to influence the university management to develop policies and mechanisms that will encourage the library to improve the quality of service to users.

1.4   Scope and limitations

The study is confined to IUCo Library, Tumaini University, Tanzania. IUCo is a constituent college of Tumaini University. Other constituent colleges include: Makumira University College, Kilimanjaro Christian Medical College and Dar es Salaam University College. The ideal would be to include in this study all the libraries of these colleges for they belong to the same university. However, this would be too broad for the requirements of the level of research for a Coursework Masters.

The study assesses only a sample of undergraduate students; it also assesses all postgraduate students and academic staff. Other library users such as administrative staff, library staff, and other potential IUCo Library users are excluded. This is due to time limitations and the fact that academic staff and students are arguably the major users of the library (see the discussion relating to perspectives under 3.1.2 in Chapter 3).

1.5 Definitions of key terms

In this section a brief definition of each key term used in this study is provided. The key terms include: LibQUAL+™, perceptions, quality, service, SERVQUAL and users.

1.5.1 LibQUAL+™

LibQUAL+™ is a Web-based survey instrument developed by the Texas A&M University research team in collaboration with the American Research Libraries (ARL) to assess library performance based on actual users' perspectives. It is a design adapted from the SERVQUAL model that provides a library focus (Lincoln 2002; Crawford 2006:73; Brophy 2005:191). LibQUAL+™ aims to understand how users think about and evaluate libraries. It uses the framework of users' perceptions and expectations to improve libraries. This current study adapted this instrument for data collection to gauge user perceptions of service quality at IUCo Library (See Chapter 3, section 3.2.4 for further details).

1.5.2 Perception

The Oxford Advanced Learner's Dictionary (Wehmeier 2000) defines perception as "noticing things, especially with the senses; the ability to understand the true nature of something; and an idea, a belief or an image you have as a result of how someone sees or understands something". In this study perception is used to denote the views of users' of library services as they interact with these services. These views or opinions are considered to be the result of how the users understand the library services based on their experience in using them.

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1.5.3 Quality

Quality means a degree of excellence or a degree of conformance to a standard, as of a product or workmanship (Merriam-Webster 2000). According to Derfert-Wolf, Górski and Marcinek (2005) ISO (International Organization for Standards)[1] 11620 defines quality in relation to the library context as a "totality of features and characteristics of a product or service that bear on the library's ability to satisfy stated or implied needs". For this study, quality means the degree to which the service provided by the library meets the stated or implied needs and expectations of its users.

1.5.4 Service

Service can be defined as an "action or use that furthers some end or purpose; conduct or performance that assists or benefits someone or something; or deeds useful or instrumental toward some object" (Merriam-Webster 2000). Hernon and Altman (1998: 50) define service as representing the sum of functions and their related processes. However, they advocate the larger context of understanding service in a library environment as adopted from the view of Evans and Heft (in Hernon and Altman 1998), as "bibliographic, physical and intellectual access to library materials". This study adopts the latter definition of service.

1.5.5 SERVQUAL

SERVQUAL is a survey instrument adopted from Zeithaml, Parasuraman, and Berry (in Fedoroff 2006) that can be used for performing a "gap analysis" (See Chapter 3, section 3.2.3 for further discussion) of an organization's service quality performance against users' service quality needs. In this study the LibQUAL protocol, the modified SERVQUAL instrument, as noted under 1.5.1 above, was adapted.

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[1] ISO is a non-governmental organization established for the preparation of international standards for materials, products and codes of practice (Crystal 2004).

1.5.6 Users

In the library context the term users refers to the recipients of library services (Hernon and Altman 1998:3). The primary recipients of library service in the academic library are academic staff and students. The support staff and other potential recipients are secondary. Other terms that are used in the library context synonymously are customers, clients, and patrons. Hernon and Altman (1998:3) note critiques of the use of such terms in the library and seem to adhere to the term customers. However, this current study employs the term users as the recipients of the library service regardless of the criticism that it is not specific (Hernon and Altman 1998:3). Users, according to this study, are both undergraduate and postgraduate students and academic staff of IUCo Library.

1.6   Structure of the study

Having outlined the research problem, the purpose and limitations of the study, the next chapter will provide the background of the study examining, among other things a brief history of Iringa University College and IUCo Library; the mission statement of IUCo Library, services, staff, sources of income and cooperation with libraries, library organizations and consortia. The literature pertaining to user perceptions and expectations is reviewed in Chapter 3, the research methods used by this study are explained in Chapter 4 and the results of the study described in Chapter 5. The discussion of the results will be in Chapter 6 and the final chapter deals with conclusions and recommendations. The appendices follow after the list of works cited.

1.7 Summary

In this introductory chapter, the research problem has been elucidated and the purpose and objectives of the study, including, rationale, scope and limitations described. The definitions of key terms used in this study have been provided and the structure of the study briefly outlined.

Chapter 2

BACKGROUND OF THE STUDY

In this chapter important aspects of the environment in which the study is situated are examined in order to provide the context for the study. The chapter discusses the following aspects: a brief history of IUCo and IUCo Library, the mission statement of the library, services, staffing, sources of income, cooperation with library organizations and consortia, and security issues. The sources of information for this chapter are the IUCo Prospectus 2005/6, the webpage of IUCo, and the IUCo Library history, policy and procedures manual of the library.

2.1 Brief history of Iringa University College

IUCo is situated on the northern edge of Iringa Municipality. The Iringa Municipality is in the southern highlands of Tanzania, 500 km from the industrial city of Dar es salaam. Iringa is an agricultural region, and it borders Singida and Dodoma in the north, Morogoro in the east, Ruvuma in the south and Mbeya in west (See Appendix 4 for a map of Tanzania regions). Iringa's scenery in the southern highlands provides an amiably cool climate.

The history of IUCo goes back to the year 1993 when it was founded as the Lutheran College at Iringa, a Lutheran Seminary, organized under the jurisdiction of the Iringa Diocese of the Evangelical Lutheran Church of Tanzania (ELCT). The seminary, with the motto "Training for future leaders", was developed into a college in 1994 to accommodate more programmes. A Bachelor of Business Administration degree began in 1995, followed by a Bachelor of Arts (Journalism) in 1997, Bachelor of Law in 1998, and Bachelor of Education (Mathematics) in 2001. IUCo was the first private institution in

Tanzania to offer a Bachelors Degree in 1995. At present, IUCo has the status of full accreditation by the Higher Education Accreditation Council of Tanzania (HEAC) (IUCo 2006).

IUCo is an autonomous constituent college of Tumaini University (TU), a University organized as a higher educational institution of the ELCT. As noted, Tumaini University has three other autonomous constituent colleges which are: Makumira University College (located in Arusha region, northern part of Tanzania), Kilimanjaro Christian Medical College (located in Kilimanjaro region, northern Tanzania), and Dar es Salaam University College (located in Dar es Salaam, eastern Tanzania) (IUCo 2005).

IUCo has the goal of providing teaching, research and community service. It provides a combination of liberal arts, education, specific technical training and practical experience. It has established four faculties and one institute: Faculty of Theology, Faculty of Arts and Social Sciences (FASS), Faculty of Law, Faculty of Business and Economics (FABEC) and the Research Institute. IUCo offers the following programmes: Bachelor of Divinity (BD), Bachelor of Law (LLB), Bachelor of Education (Mathematics) (B.Ed), Bachelor of Arts in Journalism (BAJ), Bachelor of Business Administration (BBA), Bachelor of Cultural Anthropology and Tourism (BCAT), Bachelor of Counselling (BAC), Diploma in Theology (D.Th), Postgraduate Diploma in Management (PGDM) and Master of Business Administration (MBA) (IUCo 2006).

More than 1339 students were enrolled for the academic year 2005/2006. The students come from every region of Tanzania and from the countries of Kenya, Malawi, Burundi, Botswana, Zimbabwe, Zambia and Uganda. Approximately 40% of the student population is female. IUCo has 50 full-time faculty staff and several part-time lecturers from sister universities in the country and visiting lecturers/professors from cooperating institutions abroad (IUCo 2006).

IUCo maintains cooperative links with a number of institutions outside the country. Currently they include the universities of the Evangelical Lutheran Church of America

(ELCA), the University of Joensuu in Finland, the Maastricht School of Management and the University of Amsterdam in the Netherlands (IUCo 2006).

2.2 Brief history of the IUCo Library

The history of the IUCo Library goes back to January 1994. At that time one of the classrooms in the north wing of the classroom building, near the Multipurpose Hall, was dedicated as a library, housing relatively few books with two library staff. However, the facility was appropriate to the number of users, namely theology and academic staff, present at the time. Most of the library books were donations from many sources: Readers Services in Stoney Point (New York), the International Theological Library Project sponsored by the Union Theological Seminary (Richmond, Virginia), Books for Africa, West Publishing, and the Lutheran International Library Association. The text books that came from faculty members of Northern Michigan University and the University of Minnesota formed the basis for the Business and Economics programme collections (Horst 2003).

In the following years, the new faculties and programmes were launched and as a result the number of students and academic staff grew. This phenomenon prompted the need for a new library that would serve the increasing number of users. With the challenge of creating sufficient space to house the library's resources, space for users and staff offices, IUCo completed its new library in 1999. The library has the capacity to house approximately 100,000 volumes, and has space for about 150 users, offices, computers, and other library operations (Horst 2003).

The library has a committee composed of members of the faculty, administration, the Library Director, and student representatives. The management of the library is overseen by the Library Committee which meets on a regular basis. The Deputy Provost for Academic Affairs is the chairperson of this committee. The committee reviews all policy matters at the regularly scheduled meetings. The Library Director implements the

committee decisions and oversees, manages, and coordinates all library operations (Horst 2003).

2.3 The mission statement of IUCo Library

The IUCo Library mission statements (IUCo Library 2003) states: "It is the mission of Iringa University College library to provide a high quality library and information service for all its actual and potential users, to measurably strengthen the college's performance of its objectives by:

1) Acquiring informational and instructional materials that support the programmes, teaching and research undertaken by members of IUCo community.

2) Providing added value to information resources by cataloguing, organizing and providing instruction to the community on how to locate and utilize these resources.

3) Creating independent learners by educating users in evaluating the biases, accuracy and relevancy of information sources".

2.4 Library services

This section deals with services the library provides to users. These services include: lending, reference, electronic journals, catalogues, computers and printing.

2.4.1 Lending services

The library maintains lending services to its users. Users in good standing with the University are allowed to borrow books from the general circulating collection. The

normal loan period for books is two weeks. Materials may be renewed once, provided no one else has requested them. Fines are charged for failing to return the book within the allotted time period of two weeks for students and a semester for academic staff. All books are returned to the library at the end of each semester; no books are signed out over the holidays, although users are allowed to use the library's resources within the facility during school breaks. Students who fail to return books for any reason are billed for their replacement cost (Horst 2003). According to Sanga (2006), the current statistics show that 500 to 600 users borrow books every day at the circulation desk. For the short loan, about 4000 transactions are done every day.

2.4.2 Special reserve collection (Short loan) services

The library maintains a Special Reserve Collection as a service to the faculty and students. The short loan collection is located behind the circulation desk. High demand material, including faculty members' personal resources, are kept in this separate room and are available for in-library use only. This material is available for a prescribed time frame and a valid IUCo student identity card is required for all transactions. Fines are charged for failing to observe the time regulations (Horst 2003).

2.4.3 Reference services

The reference collection is maintained by the library for the use of all users. These books do not leave the facility and are available for use at all times. Examples of reference books include encyclopaedias, almanacs, dictionaries, directories, Bible commentaries, and atlases. The print journals are also considered by the library as part of the reference collection, so they are also not circulated (Horst 2003).

2.4.4 Library webpage and electronic full-text journal databases

The library has a webpage within the IUCo website. It also maintains electronic full-text journals, reviews and other resources for users. Participation in the Programme for the

Enhancement of Research Information (PERI) has enabled the library and its users access to the following databases: Annual Reviews, Blackwell Publishing-Synergy, Cochrane Library, EBSCO Host, Emerald Publishing Group Limited, Gale (Thomson Learning)-Academic ASAP, Mary Ann Liebert, Inc., publishers, Multilingual Matters, Oxford University Press - Oxford Journals, Palgrave Macmillan Journals, and Wiley Interscience-John Wiley and Sons to mention a few. The library also subscribes to the *East Africa Law Society Review* (Horst 2003).

2.4.5 Catalogue

The library uses the traditional paper card catalogue for bibliographic control of the items in the library. The bibliographic control is accomplished by processing and cataloguing of the items. The circulating items have cards and pockets and spine labels for the call numbers. An accession number, a unique number that helps the library identify its holdings, is stamped into the item, onto the circulation card, and the pocket to help with identification. The reference items are not given circulation cards and pockets (Horst 2003).

Cataloguing is done using a computer aided database called Librarians' Helper. The Librarians' Helper database provides Machine Readable Catalogue (MARC) fields where the bibliographic information is typed. The database allows 300 items to be catalogued and printed at a time. Once catalogued items are commanded to be printed, the database automatically prints cards with different entry points, that is cards that the users see in the card cabinets such as author, title and subject and an additional card for the shelflist which carries all the bibliographical data for the items as well as the accession number. The shelflist cards are for the use of library staff only (Horst 2003).

The library has a plan to retrospectively convert the collection into a computer catalogue, incorporating an Online Public Access Catalogue (OPAC). It has purchased and installed dedicated computer servers for the automation of the library operations. The open-source software (Koha) has been identified, modified and installed for this purpose. All the

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computers on campus have been connected to the library database servers for future access to the library holdings (Sanga 2006).

2.4.6 Opening hours

The library opening hours during the academic semester are 8 am − 12 pm (midnight) Monday to Saturday and from 4 pm − 12 pm on Sundays and on holidays. During school breaks the library is open from 8 am − 4:30 pm (Sanga 2006).

2.4.7 Computer, printing, binding and photocopying services

Computer facilities have become an integral part of library services in the 21st century. The library received its first computer for administrative uses in 1994, but because of various difficulties with the technology, continued to employ typists to produce catalogue cards until 2000. The library started with one computer lab with 16 computers for word processing. There are now three computer labs with a total of more than 65 networked and Internet capable computers. The library users use these facilities for Internet access, online databases, communication, processing their work, and for Intranet communication within the university. Six computers are for administrative use in the library. These computers are also networked and connected to the Internet using cable or wireless connections (Sanga 2006).

Printing and photocopying services are available through a centre located in the library; binding services are planned for the future. The printing centre is managed by one Information Communication Technology (ICT) staff member. Each and every student is provided with a certain number of pages to print for each semester. The students who are in the final year are given more pages to print for their research work. Once a student exhausts the allowed number of pages, the system automatically disables any further printing for that student. Payments for the printing services are included in the university tuition fees (Sanga 2006).

2.5 Size of the library stock

According to Sanga (2006), the library holds 52,000 titles of books. It holds 50 print journal titles and 20 full-text online journals. The library plans to subscribe to more print and online journals for users in the near future.

2.6 Library staff

The library has a total of 18 staff. Two of these are professional librarians. Seven library staff are not professional librarians, but have been trained in library and information science at various levels. These levels of training include diplomas, certificates and elementary certificates. Those library staff members who have no library and information science training are the secretary, security guards and attendants. The current Acting Director of the library has a theological background with a PhD in theology. Three library staff are on scholarships: one for a Master of Information Studies, the others for a Bachelor of Library and Information Science, and a Diploma in Library and Archival Development Studies. Since the library's work has been supported by a succession of volunteers, at the time when the research was conducted, two professional library staff were from the USA. This is because of the cooperation that the IUCo maintains with the ELCA and universities in the United States of America (USA) (See 2.1 above). The university has two ICT professionals and two non professionals. These ICT staff also work within the library (Sanga 2006).

2.7 Library organizational structure

The library has no elaborate organizational structure. This has been caused by the staffing problems the library experiences. As said in section 2.2 above, the management of the library is overseen by the Library Committee. The Library Director works closely with the library staff to achieve the library objectives, as stated in 2.3 above. The library staff

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work as a team in most operations of the library with the experienced staff directing those with limited experiences. Processing and cataloguing of library resources, for example, is done by a cataloguer with the help of other library staff. The circulation, special reserve collection, and reference transactions are done by all trained library staff scheduled for that work on a weekly basis. This means that users with queries see any staff on duty for help. Referrals to professional librarians are done where the users need more information on the queries (Sanga 2006).

2.8   Sources of income

The major source of income for the library is the library fund built into the operating budget for the university. The university has no specific budget allocated for the library. The budget of the library will depend on the available funds for that particular year (Sanga 2006). Another source of income for the library is the Finnish Evangelical Lutheran Mission (FELM) through the Library Facilities Improvement Project. The first phase of the project, which lasted for two years from 2001 to 2002, was initiated in 2001. The second phase which is estimated to last for three years from 2004 to 2006, will consist of two parts namely, a fund of 10,000 Euro per year over the period 2004 to 2006 to purchase books; and a continuing education plan for the Library personnel. The education plan is estimated to cost 21,905.00 Euro (Nyagava, Ndenda and Simba 2004). This project is renewable. Apart from this project, FELM has also been supporting the library with computers. The library also receives significant donations of books, computers and other resources from generous donors within and outside the country (Horst 2003).

2.9 Cooperation with libraries, library organizations and consortia

The library has established and promotes relationships and cooperation between libraries, consortia, librarians and organizations in the country and worldwide. This allows the library to make contacts that will directly benefit it and be informed concerning initiatives that other institutions have started and share resources that they have. It has also attracted volunteers (librarians) from overseas to come and work with the library for periods of one or more years (Horst 2003).

IUCo Library is one of the founding members of the Consortium of Tanzania University Libraries (COTUL). The library is also a member of the Tanzania Library Association. Membership in these organizations allows the library to access their communication network, resources and expertise through workshops, seminars, courses and conferences (COTUL 2004).

The library is a participant in the PERI. Through PERI, the library is able to access a number of scholarly full-text journal databases and other valuable resources that could not normally have been obtained. The number and variety of databases have been increasing over time, benefiting library users.

With the understanding of the importance of integrating with the larger community of libraries, library schools and librarians, the library has established cooperation with other libraries and librarians in Tanzania and beyond. Through this initiative the library serves as a field placement for the School for Library and Archival Development Studies (SLADS) (Horst 2003).

2.10 Summary

The important aspects of the environment in which the study is situated have been examined and a brief history of IUCo and IUCo Library, the mission statement of the library, services, staff, sources of income and cooperation with library organizations and consortia described.

Chapter 3

LITERATURE REVIEW

A review of the literature provides a classification and evaluation of what accredited scholars and researchers have written on a topic, organized according to a guiding concept such as a research objective or the problem a researcher wishes to address (Taylor 2006). It is a critical summary of related studies on a research under study, generally surveyed to put the study in context and provides an integrated overview of the field of research.

In this chapter the concept of service quality is discussed in more detail. The most important and relevant models commonly used in service quality assessment, the related studies on service quality in the library context and methodologies and findings of these studies are identified and discussed.

3.1 Conceptual definition, perspectives, justification for, and historical perspective of service quality assessment in academic libraries

This section discusses the conceptual definition of service quality, perspectives of service quality assessment, and the justification for service quality assessment. Historical perspectives of service quality assessment and the assessment of service quality in the academic library are presented.

3.1.1 Conceptual definition of service quality

The fundamental question which needs to be asked in this regard is what connotes library service quality? The literature shows that there has been development in defining the concept "service quality" in the academic library. This development has been the result of the changing emphasis of assessment from input and output to outcome and impact of the libraries (Matthews 2004:1-3). Nitecki (1996) points out that the traditional definition of library quality (based on input) which has become obsolete, has been associated with its collection and assessed in terms of size and breadth of subject coverage. Ho and Crowley (2003) agree that the concept of service quality in a library setting has been defined in different ways one of which is the strength of a library's collection and physical resources. Ho and Crowley (2003) write that a more recent definition of service quality is how well a library meets its users' expectations through the service (outcome) it provides. This definition marks the shift from the traditional concept of library quality to a new concept of service quality. However, there are those who argue that the two concepts of service quality are dependant. In this regard Pindlowa (2002) contends that the definition of the quality of the academic library should incorporate services and products as well as staff, facilities and space.

According to Derfert-Wolf, Górski and Marcinek (2005), the ISO defines the quality of a library as "the totality of features and characteristics of a product or service that bear on the library's ability to satisfy the stated or implied needs". Because libraries are service organizations, the quality in the context of a library is treated as the quality of service.

Service quality refers to the degree to which the services provided by a library or library system meet the expectations of its users, usually assessed statistically and on the basis of qualitative and quantitative feedback (user surveys, interviews, focus groups, suggestion boxes and so on). It is interesting to note that a common factor of the various definitions of the concept focus on user expectations and needs, Hernon and Nitecki (2001:690) emphasize that despite the various standpoints of defining service quality such as excellence, value and conforming to specifications, meeting or exceeding user

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expectations is all-encompassing and applies across service industries. As noted in Chapter 1, sections 1.5.3 and 1.5.4, the definition of service quality on which the current study focuses is based on user expectations and needs.

3.1.2 Academic library service quality assessment perspectives

The assessment of academic library service quality can be done from various perspectives. These perspectives may include that of the librarians' or library staff, the users' of the services provided by the library, the parent institution's, and the funders of the library. (Griffiths 2003:504). The first two assessment perspectives are the most common in academic libraries. There is no consensus as to which perspective is the most appropriate for the academic library in assessing service quality. The literature shows that there are those who argue that the users' perspective is appropriate for service quality assessment; while others adhere to trained professionals' (librarians') perspective of service quality assessment (Walters 2003, Quinn 1997, and Cook and Heath 2001). This may be due to differing objectives which each perspective seeks to achieve in assessing the quality of library service. As Jones (1970) points out, assessment must be based on a clear concept of the objectives which the services are aiming at.

A corpus of literature, specifically service marketing, favours the user perspective in assessing library services. Studies that support this approach assert that users are the best judge of service quality for it is them that the services are aimed at (Kavulya 2004). Arguably the users know whether what is provided to them is good, bad or indifferent. No one could say on their behalf that the service is good or bad. As Cook and Heath (2001) state, "service marketing has identified the customer or user as the most critical voice in assessing service quality".

Some critics doubt about the efficacy of service quality assessment from the viewpoint of users. For them the best judge of quality service is the trained professional (that is, the librarian) (Quinn 1997). The librarian has assumed the responsibility of anticipating what the students needs will be, which frequently call for the development of certain

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competencies in library research. These determinations are usually made in the context of some larger academic mission (Quinn 1997). It is the library professionals who are capable of integrating the mission, goals and objectives of the university and users expectations of service quality by providing services that take into account all considerations. As Snoi and Petermanec (2001) write:

> Users have problems in the conceptualization of library services and, therefore, also in their assessment. Usually they assess the value and the quality of services on the basis of those attributes upon which they feel they have the capability for assessment, and they need tangible clues to do this. Consequently, the attributes of physical evidence, library image, the impression made by contact employees, and the soft attributes of library service (knowledge, courtesy, friendliness, politeness, empathy, promptness, accuracy, individualized attention, ability to convey trust and confidence) turn out to be strategically important components of efficient and effective management of library services.

Phipps (2001:637–638) acknowledges both trained professional and users' perspectives of service quality assessment as they contribute to determining the future libraries that future users will need. However, he stresses the need for cultural transformation within libraries that takes into account the following four aspects:

1. Listening to the voices of customers by developing cooperative partnerships with them. LibQUAL+™ is one way of listening to the voices of library users;
2. Listening to the voices of staff by creating systems that support staff performance;
3. Listening to the voice of process by learning continuous improvement of methodologies to identify whether work processes are effective and efficient;
4. Listening to the voice of the organization by turning libraries into organizations focussed on creating the desired future and maximizing the capacity to achieve it.

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To sum up, all perspectives of library assessment are valid provided the aim is to enhance service quality. Whatever perspective that may be used to assess the library quality of service, the users of the library service do need to be taken into consideration. Their expectations of quality service should be reflected in the assessment process and ultimately meet their service quality expectations. However, amalgamation of all perspectives to assess the quality of library service is critical to improve library service and meet user expectations and thereby bridge the gap between their expectations and perceptions of service quality (Derfert-Wolf, Górski and Marcinek 2005).

As noted, the perspective used in the present study is that of the users, which in this instance, comprises academic staff and students.

3.1.3 Justification for academic library service quality assessment

Academic libraries are faced with challenges caused by the global digital environment and an increasingly competitive environment (Nimsomboon and Nagata 2003) which have necessitated the improvement of their quality of service in order to survive (Cullen 2000). As noted, traditional measurements of academic library service quality which focus on collection size and various counts of collection use are considered inadequate for assessing quality of service (Nitecki 1996:181). Furthermore, the traditional measures of quality of library service do not indicate whether the service is good, indifferent or bad (Hernon and Altman 1998:9). The need to understand what the academic library users expect with respect to quality of service has resulted in a new culture of assessment of service quality in academic libraries (Kyrillidou and Heath 2000).

Griffiths (2003:504) gives a brief but cogent summary of the justification of library assessment regardless of library type as "to support planning, communication of services performed and improvements achieved, decision making, monitoring of progress and resource allocation". Evans, Ward and Rugaas (2000:242), Wood (1998), and Wallace and Van Fleet (2000:xx) reason that accountability to the funders, parent institution and

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other bodies necessitate that academic libraries make an assessment of service quality to produce information that will indicate their performance to justify their existence.

Assessment of libraries leads to enhanced efficiency and helps libraries to avoid possible errors (Wallace and Van Fleet 2000). Wallace and Van Fleet give examples of errors that have been the result of failure to assess the libraries or improper or infrequent assessment of libraries. These errors include inappropriate policies, processes, tools and techniques that are promulgated for protracted periods of time. One may extend the list of errors to include individual services that were not assessed and have become useless or unavailable for users; understaffing the library that may increase the workload of library staff and deprive the users of the efficiency and effectiveness of delivery of required services to them. Assessment does not only help avoid errors but also identifies possible sources of errors or failures and inefficiency (Wood 1998).

Assessment is a management activity (Crawford 2000 and Wallace and Van Fleet 2000: xxi) which makes planning successful. Bakewell (1996:217) provides a useful summary in this regard:

> The evaluation of library and information services is an essential management activity. In a rapidly changing environment it is necessary to look closely at both systems and services in order to determine levels of use and the degree to which the services are meeting users' needs. In a user-centred environment it is necessary to use predefined measures in a systematic way to analyse the impact and quality of a service, as perceived by its users, and to be able to translate the result into action options which will ensure that services are meeting users' needs consistently.

Crawford (2000:14) states that assessment, as a management activity, involves users in management. He notes that regular assessment of library services allows the users to rediscover a voice in library management and air their opinions about service priorities.

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Calvert (2001:732) also acknowledges that "the need to understand what library customers expect in terms of service quality is now necessary for good management".

Jankowska, Hartel and Young (2006) provide fundamental reasons for assessing service quality in academic libraries which some studies overlook. According to the authors, assessment is the only way that academic libraries will better understand user expectations or needs of library service quality and so keep up with user expectations. It is through assessment that libraries will be able to effectively exploit user feedback and act upon it for effective service delivery (Crawford 2000:13). Library assessment helps shape and influence user expectations. All these reasons point to the need for user based assessment. It is through this type of assessment that one gets user feedback, expectations and perceptions.

Assessment can be precipitated by formal or informal complaints from the recipients of the library services. In the private university libraries in Tanzania, for example, where users of the library are paying into the university coffers from their own pockets or via loans for their education, which of course includes library services, users are increasingly vocal in commenting on library services and criticising them. The presence of formal mechanisms for comments and complaints in universities has facilitated this trend. In order for the libraries to contain this situation, assessment of the library quality of service in order to identify areas of failure and improve the situation has become necessary (Crawford 2000:7-8).

To recap, reasons for academic library service quality assessment have been much discussed in the literature. Academic library assessment has become a necessity which cannot be avoided if academic libraries want to provide the best possible service. For the academic library to improve, grow, and provide essentially better services and products to its actual and potential users, assessment on a continual basis is a prerequisite.

It should be noted that academic libraries exist because of the parent institution's existence. This means that the parent institution's objectives which may include the

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provision of training, learning and research cannot be realized without having in place a library facility which is furnished with sufficient qualified personnel to operate and maintain it. Furthermore, the objectives cannot be realized without adequate equipment (mechanical and electronic devices), quality, current and adequate collections, policies and procedures that enhance better services, adequate opening hours per day, sufficient space for group and individual study, and more importantly, an adequate annual budget to take care of library needs and implement these objectives (Opaleke 2002:102). The library which offers a quality service is necessary for the parent institution to excel in performing its operational and strategic goals and objectives of training and research.

3.1.4 Academic library service quality assessment in historical perspective

Morse's work on library effectiveness in 1968 is considered to be the pioneering work of library assessment in which both the input and output are considered (Griffiths 2003:504). Following this work many other attempts were made to determine the effectiveness of libraries in the consecutive years. The concern for assessment of academic libraries in terms of output came into force in the 1970s. Since then, according to Griffiths (2003:505-308), a movement began to study library users and use in the academic library environment. As he points out, "only since 1980 has there been a concerted effort on the part of the librarians and library organizations to formalize the process of performance evaluation".

The beginning of library service assessment can be traced to the sporadic collection of statistics, such as daily circulation counts, reference questions answered, books ordered and catalogued by day, month, or year. Three features characterize this assessment approach: first, it is a perception of the service provider (for example, the librarians or library staff); second, it is a description of phenomena; and third, it is a one-way application that ends at statistics collection (Shi and Levy 2005).

Another form of library assessment that does not involve users directly is that which is based on processes, or systems and not the users. For example, assessing the time spent on cataloguing a book or circulation transactions. The aim of this type of assessment was, and is, to improve library procedures and make the library more efficient. This form of library assessment is still important for efficiency and effectiveness of the library. However, this form of assessment alone is not sufficient (Nicholson 2004) and needs to be combined with other forms of assessment.

A change from traditional forms of assessment which emphasized input measures, that is income and expenditure, collection size and additions, staff numbers, study places and user space, to output measures, such as loans and in-house use, reference transactions, ILL and document delivery, user training lessons and attendances at events (Poll 2003), occurred in the mid- to late 1970s.

Griffiths (2003:508) asserts that a similar change from output to outcome (user-centred) assessments occurred in the early 1990s. It is at this juncture that both academics and practitioners in the field of library and information science have increasingly recognized the significance of assessing library services (Shi and Levy 2005).

According to Shi and Levy (2005:267), "in the past ten years, the library has experienced an evolution of service assessment in its daily operation". This development has been due to the advancement of ICTs in managing library systems. The development has enabled universities, library managers and librarians to understand the importance of assessment in improving the quality of library services, meeting users' expectations and needs and supporting the universities' objectives. The authors point out that the development of ICTs at a rapid and unpredictable speed necessitate that libraries constantly assess their services and make changes to service orientation and delivery accordingly (Shi and Levy 2005).

Shi and Levy (2005) note that, "sporadic statistics alone do not provide any meaningful guide for systematic service improvement". The development of library services in

tandem with emerging ICTs made researchers and librarians recognize that irregular service statistics alone are insufficient for assessing library operations. The authors point out that to obtain valid results, library users were to be involved in the assessment process, and, to this end, a systematic approach to data collection began to be researched and new methodologies emerged (Shi and Levy 2005). Questionnaire based surveys, focus group interviews, interview schedules and users' complaints systems are now used to collect data for library assessment. As Shi and Levy (2005) further assert:

> In recent years, questionnaires with different purposes have been created and used as an instrument and the results have been reported. These questionnaires have been distributed to students, faculty and other library users. After data are collected, they are often aggregated and presented in more interpretable formats, such as descriptive statistical tables and charts. This method represents considerable progress ... from earlier, non-systematic statistics collection in the following three ways:
> 1. It shifted from just the service provider's point of view to include the user's perspective.
> 2. It indicates early planning and designing of assessment activities.
> 3. It incorporates user involvement as part of assessment.

The authors point out that now it is widely recognized that user perceptions of service quality, user expectations, and user satisfaction are essential elements of any service assessment activity.

New measures are needed in academic libraries to assess not only the input, output and outcome, but also the impact of libraries on the users (de Jager 2002 and Poll 2003). According to Poll (2003) such measures should incorporate the libraries' impact on academic or professional success of library users; libraries' impact on information literacy and information retrieval to users; the economic values the users gained by using the libraries; and the social benefits achieved by users of the libraries. However, the current study will not be looking at the impact of the library on users.

3.2 Theories of library service quality assessment and their challenges

Service quality assessment models that the library and information sector has been implementing include the EFQM Excellence Model, the Balanced Scorecard Model (BSC), the SERVQUAL Model, the SERVPERF Model, The Library and Information Sector Improvement Model (LISIM), the Rodski Behavioural Research Group framework and the LibQUAL+^{TM}, based on the SERVQUAL Model. The implementation of these models is aimed at assessing service quality for improvement, accountability, to focus resources and for survival reasons (Retief 2005:23-64; Arveson 1998; Marnane 2004). In this section some of the models that have been extensively used in assessing library services are discussed. The fact that BSC, EFQM Excellence Model, SERVQUAL and LibQUAL are widely used in assessing academic library service quality and the availability of literature dealing with these models are the reasons for the choice of these models for detailed discussion.

3.2.1 Balanced Scorecard Model

According to Wikipedia (2006) and Arveson (1998) the first BSC Model was created in 1987 and introduced in 1989 through the work of Arthur M. Schneiderman. The current version of the model was developed by Drs. Robert S. Kaplan (Harvard Business School) and David Norton in 1992 (Brophy 2005:193). Originally the model was introduced as a tool intended for commercial organizations.

The BSC is a management system that enables the organization to clarify and translate its mission and strategy into action for achieving its purpose (Arveson 1998 and Broady-Preston and Preston 1999). The aim of BSC is to recognise, strategically, what underpins success, and in so doing bringing together information which has never been brought together in one place before (Broady-Preston and Preston 1999). The model measures

organisational performance across four balanced perspectives: financial, customers, internal business processes, and learning and growth as the figure below indicates:

FIGURE 1: BALANCED SCORECARD MODEL
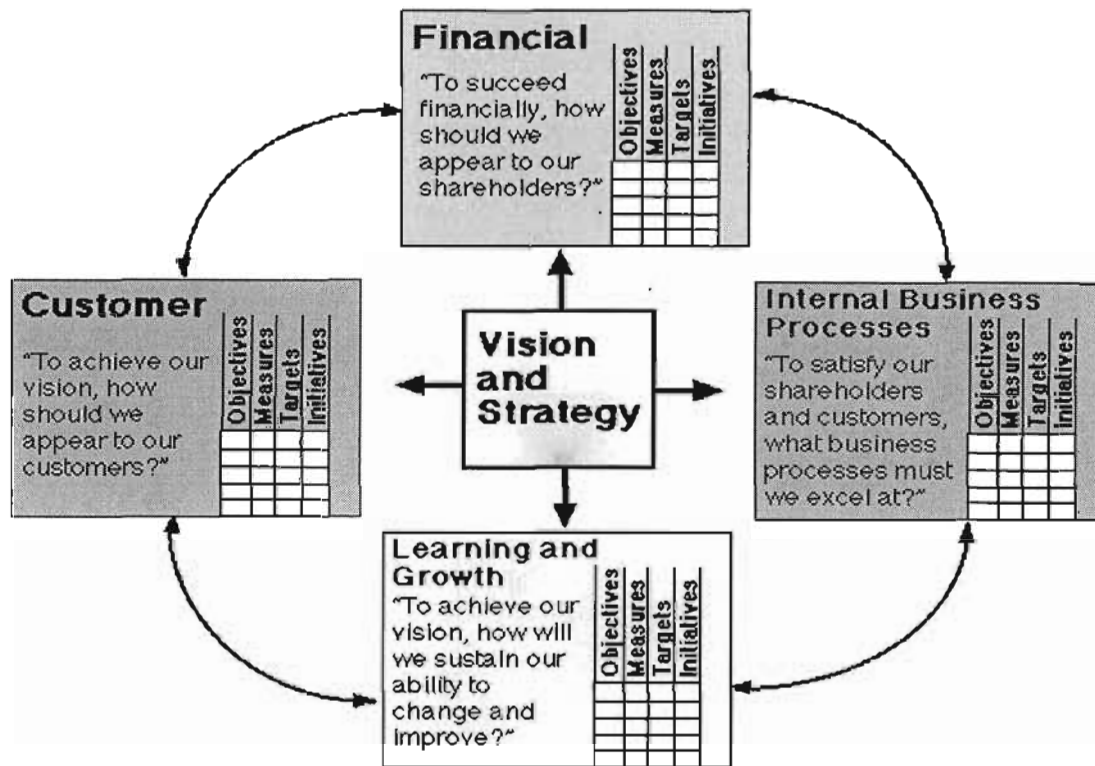
Source: (Arveson 1998)

Using these four perspectives, the manager has to identify objectives, measures, targets and initiatives. The model thus provides a framework to communicate the mission and strategy of the organisation; it uses measurement to keep staff informed as to the drivers of current and future success; hence, it acts as a motivating force to staff. By articulating the desired outcomes of the organisation the management channels the energies, abilities and the knowledge of staff throughout the organisation towards achieving its long-term goals (Broady-Preston and Preston 1999).

Kaplan and Norton (In Broady-Preston and Preston 1999:22) found that by using the BSC, companies are able to clarify and update strategy, communicate strategy throughout the company, align unit and individual goals with strategy, link strategic objectives to long term targets and annual budgets, identify and align strategic initiatives and conduct periodic performance reviews to learn about and improve strategy.

Broady-Preston and Preston (1999) assert:

> Used properly, correctly constructed scorecards demonstrate a unity of purpose, as all the measures are directed towards achieving an integrated strategy. Their crucial use lies in their role as learning systems for any organisation, as they test, gain feedback on, and update the organisation's strategy. Thus, scorecards enable the organisation to be responsive to change and, importantly, to have a strategy that is demonstrably customer-centred, thereby enabling quality of service delivery to be apparent to all.

The BSC, developed by Kaplan and Norton is widely adopted. It has found considerable support and is widely used in the public sector. It is particularly popular as a public sector performance management tool in the United States of America (USA), United Kingdom (UK), Australia and Scandinavia (Wikipedia 2006).

In their study Broady-Preston and Preston (1999) observed that there would appear to be no examples of the BSC employment in academic libraries and that a major problem is how to assess customer satisfaction. The challenge that one notes with the model is its applicability in the academic library context, particularly to assess library users' expectations of service quality and thereby meet their needs. However, Retief (2005:61) points out that the BSC has been implemented in academic libraries in Germany, USA and other countries. Retief's study reveals that the model is useful in the support of the university's strategic plans, improving statistical data collection, clarifying organizational values and ensuring the focus remains on library assessment.

Poll (2001:712-714) states that the BSC model that has been implemented in academic libraries in Germany deviates from the original model. The adapted BSC model for academic libraries, places more emphasis on users' perspectives than on finances. The indicators for assessment in this adapted model include: market penetration, user satisfaction rate, opening hours compared to demand, cases of use per member of the population and immediate availability. This adapted model seems to stress input and output measures which Poll (2003) in her later work suggests are not viable in assessing service quality in the academic library. For this reason other measures that incorporate outcome and impact to assess service quality are needed (Poll 2003).

3.2.2 EFQM Excellence Model

The European Foundation for Quality Management (EFQM) Excellence Model has been in use for more than 12 years. Initially, it was mainly implemented by private organisations, particularly industry. In recent years, there has been a surge of interest in the model from a variety of public sector organisations resulting in the EFQM developing a version of the model for the public sector (Hides, Davies and Jackson 2004).

The history of EFQM Excellence Model goes back to the success of the Baldrige Model (USA) and the Deming prize (Japan) which encouraged the formation of the EFQM in 1988. The 14 founders of EFQM were all presidents of world-class organisations representing a number of different markets and were endorsed by the European Commission (Hides, Davies and Jackson 2004).

The EFQM Excellence Model, originally called the European Model for Business Excellence, was introduced in 1991. From its inception, the adoption of total quality management (TQM) principles has been at the heart of the EFQM vision (Hides, Davies and Jackson 2004).

The Model is based on the premise that: "Excellent results with respect to Performance, Customers, People and Society are achieved through Leadership driving Policy and

Strategy, that is delivered through People, Partnerships and Resources, and Processes"
(EFQM 2006).

The EFQM Excellence Model is a practical tool that can be used in a number of different ways. It can be used as a tool for self-assessment, as a way to benchmark with other organisations, as a guide to identify areas for improvement, as the basis for a common vocabulary and a way of thinking, and as a structure for the organisation's management system (EFQM 2006).

As a tool for self-assessment it allows a comprehensive, systematic and regular review of an organisation's activities and results referenced against the EFQM Excellence Model. The self-assessment process allows the organisation to discern clearly its strengths and areas in which improvements can be made and culminates in planned improvement actions which are then monitored for progress (Hides, Davies and Jackson 2004).

The EFQM Excellence Model is based on nine criteria. Five of these are Enablers and four are Results. The Enabler criteria cover what an organisation does. The Results criteria cover what an organisation achieves. Results are caused by Enablers and Enablers are improved using feedback from Results (EFQM 2006) as Figure 2 below illustrates. In the figure below, the arrows emphasise the dynamic nature of the Model. They show innovation and learning helping to improve enablers that in turn lead to improved results (EFQM 2006).

The literature has shown that the EFQM Excellence Model has been deployed in academic libraries to assess service quality. The academic libraries in Andalusia, in Spain used this model for library service quality assessment and have had good results. The archival and academic libraries in Portugal have also employed this model in library service quality assessment also yielding promising results (Retief 2005:54 -55).

FIGURE 2: THE EFQM EXCELLENCE MODEL
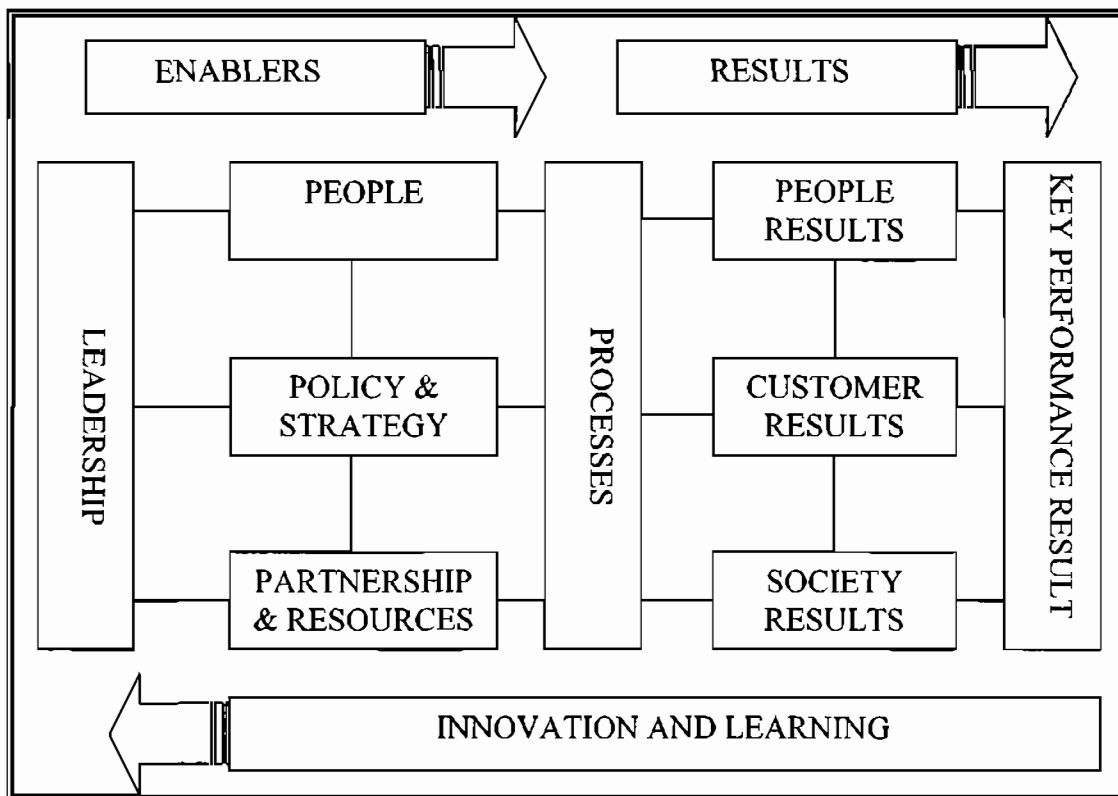
Source: (EFQM 2006)

3.2.3 SERVQUAL Model

The need to assess service quality arose from the marketing discipline in the early 1980s. Recognizing the importance of customer perceptions of service quality, academicians sought to devise methods to assess customers' views of service quality empirically. The groundbreaking research of A. Parasuraman, Leonard Berry, and Valerie Zeithalm developed the SERVQUAL instrument. The SERVQUAL model was developed by these researchers in 1988 as an instrument for assessing customer perceptions of service quality in service and retailing organizations (Parasuraman, Zeithaml and Berry 1988). The

impetus of this development was to ensure excellence in service delivery to customers. According to Zeithaml and Bitner (2003), the SERVQUAL model is a

> ...sound measure of service quality that can identify the aspects of service needing performance improvement, assessing the extent to which each aspect of service needs improvement and evaluating the impact of improvement efforts.

These researchers concluded that quality could be viewed as the gap between perceived service and expected service. Their work finally resulted in the Gap Theory of service quality (Cook and Thompson 2000). The SERVQUAL model, based on the idea of user-centred assessment, identifies five potential gaps between expectations and perceptions, both internal and external, of service delivery. The gaps summarised by Nitecki (1996:182) are:

- o Gap 1. The discrepancy between customers' expectations and managements' perceptions of these expectations;
- o Gap 2: The discrepancy between managements' perceptions of customers' expectations and service quality specifications;
- o Gap 3: The discrepancy between service quality specifications and actual service delivery;
- o Gap 4: The discrepancy between actual service delivery and what is communicated to customers about it; and
- o Gap 5: The discrepancy between customers' expected services and perceived service delivered.

Gap five is the most user-focused, customer-oriented definition of service quality, and the conceptual basis for the SERVQUAL instrument (Nitecki 1996:182). It is on this gap that the current study focuses.

According to Fedoroff (2006) the SERVQUAL model was originally based around five key dimensions of service:

1) Tangibles – these include the appearance of physical facilities, equipment, personnel, and communication materials.

2) Reliability – this includes the ability of employees to perform the promised service dependably and accurately.

3) Responsiveness – this encompasses the willingness of employees to help customers and provide prompt service.

4) Assurance – this has to do with the knowledge and courtesy of employees and their ability to convey trust and confidence.

5) Empathy – is concerned with the firm providing care and individualized attention to its customers.

Fedoroff (2006) and Nagata *et al* (2004) point out that these dimensions had been adopted later to cover the following:

1) Tangibles.

2) Reliability.

3) Responsiveness.

4) Competence – possession of required skill and knowledge to perform service.

5) Courtesy – politeness, respect, consideration and friendliness of contact personnel.

6) Credibility – trustworthiness, believability, honesty of the service provider.

7) Security – freedom from danger, risk, or doubt.

8) Access – employees who are approachable and easy to contact.

9) Communication – listening to customers and acknowledging their comments; keeping customers informed; and using a language they can understand.

10) Understanding the customer – making the effort to know customers and their needs.

The SERVQUAL questionnaire integrates all these dimensions to measure user expectations and perceptions of service delivered. The evaluation of service quality is done by measuring the gaps between expectation and perception scores. The comparison

between the expectations and the perceptions determines whether the service is good or problematic. The service is considered to be good if the perceptions meet or exceed the expectations and problematic if perceptions fall below expectations.

Although developed in a marketing environment, SERVQUAL has been extensively used by both profit and non-profit organizations. The SERVQUAL model has had a wide acceptance in academic and research library contexts. Nitecki (1996:185) suggests using this model to measure customer attitudes toward the quality of services that a library renders. Quinn (1997) states that, the SERVQUAL model is a comprehensive measure because it measures both customer expectations and perceptions and that it has been extensively tested across a wide variety of service settings.

3.2.4 LibQUAL+^{TM} instrument

The LibQUAL+^{TM} survey evolved from a conceptual model based on the SERVQUAL instrument, a popular tool for assessing service quality in the private sector (Brophy 2005:191). The Texas A&M University Libraries and other libraries used SERVQUAL instruments for several years. The application of SERVQUAL revealed some limitations and the need for a new tool that would serve the particular requirements of assessing libraries.

The Texas A&M University research team launched a pilot project that had its origins in the gap theory of service quality to develop a new measure to assess service quality in research libraries. The American Research Libraries (ARL) considered and endorsed this pilot project. The research team through qualitative study re-examined the SERVQUAL instrument and come up with the LibQUAL+^{TM} instrument (ARL 2000). The instrument was developed, tested and refined by Texas A&M University in partnership with ARL (ARL 2004). According to Lincoln (2002) the adaptation of the SERVQUAL instrument to LibQUAL+^{TM}, a Web-based instrument grounded in actual users' perspectives extracted from qualitative data, did not occur until the year 2000.

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The LibQUAL+™ instrument adopted some of the SERVQUAL model dimensions of service which are: accountability, assurance, reliability, responsiveness, and tangibles. In addition to these SERVQUAL dimensions, two dimensions with the focus on the library context such as access to collections and the library as place are used in the questionnaire to assess library service quality (Hiller 2001). Other literature (HSLIC 2003; Jankowska, Hartel and Young 2006) indicates a slightly different version of the dimensions. They include four dimensions, namely access to information, affect of service, library as a place and personal control. Despite this variation, the questions asked in the questionnaires are basically the same.

One of the critical issues that LibQUAL+™ addresses is the need for a balance between a global understanding of users' needs and a local understanding related to specific services, locations, or user groups. LibQUAL+™ is a protocol that is scalable and useful for local planning and decision making (Kyrillidou and Hipps 2000).

The Health Science Library and Informatics Center (HSLIC) (2003; see also Crawford 2006:74) considers LibQUAL+™ as a suite of services that libraries use to solicit, track, understand, and act upon users' opinions of service quality. The goals of LibQUAL+™ are:

- o Foster the culture of excellence in providing library service;
- o Helps libraries better understand user perceptions of library service quality;
- o Collect and interpret library user feedback systematically over time;
- o Provide libraries with comparable assessment information from peer institutions;
- o Identify best practices in library service; and
- o Enhance library staff members' analytical skills for interpreting and acting on data (Crawford 2006:74; HSLIC 2003).

LibQUAL+™ has expanded internationally, with participating institutions in Canada, the UK and Europe. In 2003 the LibQUAL+™ had more that 400 participants from a wide range of libraries and consortia. Studies indicate that the use of the instrument has been

instrumental in helping libraries better serve their main user groups and to improve library services (McNeil and Giesecke 2002).

3.2.5 Some concerns about SERVQUAL and LibQUAL+™

Some researchers have raised concerns about the SERVQUAL and LibQUAL+™ instruments. Quinn (1997) sees some limitations in the SERVQUAL model (See below) and suggests various possibilities for overcoming the limitations for academic libraries. Many of the limitations stem from the fact that the SERVQUAL model was originally developed for use in a commercial environment. Thus while incorporating SERVQUAL concepts into the academic library setting is perfectly feasible and potentially valuable, some adaptation is necessary.

Quinn (1997) points out that pure service quality tenets that insist that the customer is the sole judge of service or that satisfying customer wants is the key to quality service do not seem to fit readily with the academic library environment. The goals and methods of academe, and the relation of staff to customers, are more complex than in the business and manufacturing settings from which SERVQUAL concepts developed. However, he argues that the SERVQUAL model could be adapted to various areas within the academic library which are access services, reference services, and collection development (Quinn 1997).

Walters (2003) recognizes the significance of LibQUAL+™ and its progenitor SERVQUAL in assessing the perceptions of the library users to determine service quality. However, like Quinn, he is not fully convinced with the central concept of the two models that "Only customers judge the quality; all other judgments are essentially irrelevant". Referring to the academic library context where students are users of the library services, Walters states:

> The assessment of library service quality requires both expertise and objectivity. Undergraduate students are neither expert nor objective, and assessment methods

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that rely heavily on students' perceptions are likely to be inadequate in several respects. Students' needs are not necessarily consistent with their preferences, for example, and the limited experiences of most undergraduates give them only a partial understanding of library collections and services. Although user surveys provide valuable information about patrons' perceptions, that information is no substitute for objective standards based on professional knowledge.

Academic libraries exist to address users' needs and expectations. However, their needs and expectations do change over time. Furthermore their needs and expectations are not the same across-the-board. Determining their needs and expectations pose great challenges to academic libraries.

The current study is constructed on the modified SERVQUAL model and the theory behind it. This is because LibQUAL+^{TM}, the modified SERVQUAL model, provides a more reliable survey in terms of measuring the gap between user expectations and perceptions (Marnane 2004) is more flexible and allows for local understanding of user needs. The expectations and the perceptions are compared to determine whether the service is good or problematic (See Appendix 1, Chapter 5 and Chapter 6).

3.3 Service quality assessments which have been done in academic libraries and their methodological approaches

Numerous studies are devoted to users' perception of service quality in academic libraries. For the purpose of this study seven studies are considered. The reasons for choosing these studies were to explore the methodology used in assessing service quality, benchmark their findings, and to use as a guide in interpreting the results of the current study. The studies were chosen on the basis of their relevance to the current study, geographical location and the economic development of the countries where they were conducted. Three of these studies were done in developing countries. The assumption was that the libraries in developed countries are far better in delivering quality services to

users than those in the developing countries. The basis for this assumption is the technological advancement and financial capability of the developed countries. Thus, the gap between users' expectations and perceptions of service quality would be less in developed countries and wider in developing countries.

Hiller's (2001) study on "assessing user needs, satisfaction, and library performance at the University of Washington Libraries" used a web-based LibQUAL+™ survey. The survey covered the following LibQUAL+™ dimensions of service: accountability, assurance, reliability, responsiveness, and tangibles, access to collections and the library as place. Other areas included behavioural questions, frequency of library use, and an overall service quality question and demographic data (see 3.2.3 and 3.2.4 above for more details). The study was directed to a random sample of faculty, graduate students and undergraduate students. The results of the study point out significant variations within and between groups concerning library satisfaction, use, priorities and importance. Despite the variations in expectations and perceptions, there was an overall satisfaction with the services provided. The results showed a shift toward remote use of library resources and increased importance of electronic resources. The areas of concern that showed negative results were quiet study areas and full-text electronic databases. The study shows that the LibQUAL+™ instrument is relevant in assessing service quality in the academic library.

Opaleke's (2002) assessment of the quality of library service in the academic libraries in Nigeria examined four institutions of higher education in Kwara State. The institutions included: Kwara State College of Education, Oro, Kwara State College of Education, Ilorin, Kwara State Polytechnic, Ilorin, and Federal Polytechnic, Offa. The study used surveys and interviews. Open-ended questionnaires and follow up interviews were used as data collection techniques. The respondents were the heads of the libraries and the users of the libraries, that is, academic staff and students. The specific areas which Opaleke covered in his work were buildings, staffing, collection development, funding, users' services, organization and administration. The results of the study demonstrate a high level of dissatisfaction of users with the libraries' services. Poor services in this

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study were a result of "inadequate" professional librarians and collection, insufficient space for individual and group study and opening hours that did not meet user needs. Other problems that contributed to poor services thereby ensuring that the library was unable to meet users' expectations included: absence of photocopying, binding and typewriting services, and financial constraints. Opaleke (2002) concluded that these institutions do not measure up to standards and, of course, to users' expectations.

Jankowska, Hartel and Young's (2006) study on improving library service quality to graduate students at the University of Idaho in the USA used the LibQUAL+™ instrument. Graduate students were surveyed. The results of the study helped the library define the strengths and weaknesses and prioritize service and collection improvements. The study increased institutional awareness of which library services the users need most. It is worth noting useful comments given by these researchers:

- o Academic libraries can keep up with users' growing expectations only by continued assessment of their services quality. The LibQUAL+™ survey and other assessment tools could become part of a library's ongoing planning process in order to evaluate the impact of implemented changes.

- o Users' feedback can be effectively utilized to improve the quality of academic library services by recognizing specific user-group needs, their satisfaction with and expectation of the library network-based resources, collections, and services.

- o Academic libraries can shape and influence user expectations toward library service by educating users, marketing their collections and services, and discovering information needs of specific groups.

A study by Thapisa and Gamini (1999) at the University of Botswana Library (UBL) used the survey methodology to gather data from academic staff, students and professional librarians. Both qualitative and quantitative data were collected through open-ended and closed-ended questionnaires respectively. The service quality

determinants at the UBL such as reliability, responsiveness, assurance, access and communication were used in the questionnaire. The results of the study showed that there was a significant difference in perceptions about service quality between graduate and undergraduate students. The researchers believed that the difference depended upon the level of study. The different needs of different faculties had an impact on the significant difference of perceptions. However, the results of the study indicated that the university library was providing quality library service. The researchers commented that the method of measuring library quality using statistics was no longer useful. They also asserted that the "time has come to assess quality and significance of such services" (Thapisa and Gamini 1999).

Nitecki and Hernon's (2000) assessment of the quality of academic library services at Yale University's libraries in the USA demonstrated that the overall expectations of library users were met. The SERVQUAL instrument used in the study was useful in the sense that it provided information to gauge the expectations and perceptions of users on service quality of the University's libraries. According to the researchers, "the library did not surpass reader expectations in any service attribute, but it did come close to meeting most expectations". The study depicted service attributes that were the furthest from meeting users' expectations namely the library website, interlibrary loan, online catalogue with easy-to-follow instructions, re-shelving the materials promptly, photocopiers and computer printers in good working conditions, and materials being in their places on shelves. The study came up with various conclusions. It pointed out that the importance of conducting assessment rests with what will be done with the insights gained. User expectations and perceptions are valuable if the staff discuss them and managers help to establish an action plan and monitor service improvement. The survey instrument is a communication channel between the users and library staff. Appropriate mechanisms to create a method of communication back to the users through library education and marketing channels is necessary. Communication of the result of users' expectations and perceptions of service quality in the form of commitments to users is of critical importance. Finally, a culture of service quality assessment provides opportunities to demonstrate to the users how the information learnt by the staff, about users'

expectations and perceptions, help to shape the service that libraries provide and the commitment that librarians make to their users (Nitecki and Hernon 2000:268–269).

Majid, Anwar and Eisenschitz (2001) in assessing service quality in five major agricultural libraries in Malaysia used a questionnaire-based survey to gather data from the respondents. Five major Malaysian agricultural institutions, that is, the Malaysian Agricultural Research and Development Institute, Palm Oil Research Institute of Malaysia, Rubber Research Institute of Malaysia, Forest Research Institute of Malaysia and the University Putra Malaysia participated in the survey. Agricultural scientists and academics, with at least a bachelor's degree in science, or an equivalent qualification, were included in the study. A proportionate stratified random sampling technique was used to generate a random sample. Each institution participating in the study constituted a stratum. The study showed that service quality was linked to adequate collections, services and facilities, involvement of users in selection of library materials, convenient library location, users participating in user education programmes, availability of assistance for using library resources and facilities and subject background of library professionals (Majid, Anwar and Eisenschitz 2001).

Ho and Crowley's (2003) focus group study to assess the perceptions of the reliability of library service at Texas A&M University asserts that the focus group method is useful for identifying areas needing improvement. The study shows the importance of user perceptions when designing and evaluating library service quality. The study sees the need to use the focus group method in tandem with quantitative techniques to assess user perceptions of library service quality. It pointed out that the use of a variety of techniques may enhance libraries' understanding of service reliability and how it can be improved across different organizational settings.

It is apparent from the above studies that in order to understand and provide quality service to the library users, assessment of the quality of library service from the perspective of users is essential. This is not to divorce the significance of other assessment approaches. Surveys such as LibQUAL+^{TM}, SERVQUAL, and other

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questionnaire based instruments are the common assessment techniques that most studies employ. This does not imply that other techniques such as focus groups, interview schedules, and case studies are of little importance. It is evident from the studies that a good assessment is that which is accompanied with an action plan on the part of library administration to implement what has been found and monitor service improvements.

It is important to note that the quality of service in academic libraries is affected by budgetary constraints, management policies, design and condition of facilities, personnel decisions, and level of staffing. Most studies show that success in meeting user needs and expectations is attributed not only to regular assessments of quality of services, but most importantly to adequate human, financial and physical resources in implementing the results of assessments. Failure to meet user needs and expectations, for example, the study done by Opaleke (2002) in the Nigerian context, is often due to financial constraints. Budgetary constraints can be the source of poor services in academic libraries. The library which has limited funds cannot recruit qualified and adequate library staff, provide an adequate collection, facilities and equipment, and cope with the new technologies. It is obvious that in such a library it would be a futile endeavour to assess service quality, identify areas that need improvement or attempt to meet user needs and expectations.

3.4   The impact and challenges of library assessment models

Many models have been developed to assess service quality in academic libraries. The development of LibQUAL+^{TM} based on the SERVQUAL model, and the implementation of Balanced Scorecard Model and the European Foundation for Quality Management Excellence Model, as Retief (2005:64) notes, "lifted service quality measurement to a new level of library management and ensured relevant and accurate accountability towards all library stakeholders".

These assessment models brought new challenges to academic libraries to abandon the traditional way of assessing library quality in favour of a new way of service quality assessment that advocates user focus and involvement; that is, changing the concept of service quality assessment from collection-centred to user-centred. The library staff should understand, as Zhan and Zhang (2006) note, that "libraries do not exist for people who work in them, but for people they serve". Arduous action is required by library staff to ensure quality service that meet user expectations and needs.

According to these assessment models, user focus and user involvement has created an interactive, dynamic environment that has facilitated overall quality improvement in academic libraries. Emphasizing how assessment could be beneficial to the library Covey (2002) asserts:

> To reap real and consistent benefits from assessments, libraries must pool their knowledge and experience, and organize assessment as a core activity integrated into the fabric of daily life as firmly and conspicuously as collection development and reference service.

The literature shows that there are diverse approaches to measuring service quality in academic libraries. This implies that there is no single or right way of assessing service quality in academic libraries. Thus, librarians and information specialists should employ the best combination of old and new assessment methods or models to provide the most useful assessment of library service that may contribute to the overall quality service in academic libraries (Bawden, Petuchovaite and Vilar 2005).

3.5 Summary

In this chapter the concept of service quality was discussed in more detail. The most important and relevant models commonly used in service quality assessment, the related studies on service quality in the academic library context and methodologies and findings

of these studies were identified and discussed. The Chapter ended with a brief discussion of the impact and challenges of library assessment models.

Chapter 4

RESEARCH METHODOLOGY

This chapter presents the research method and procedures utilized in the study. The design of the study, population, sampling techniques, instrumentation, data collection, and methods of data analysis are presented.

4.1 Research design

There are two basic approaches to research. These are quantitative and qualitative paradigms (Kothari 2004:5). The approach that the researcher undertook was largely quantitative. The quantitative approach measures phenomenon using numbers in combination with statistical procedures to process data and summarize results (Bertram 2004:59; Bless and Higson-Smith 2000:37). Although the focus of the study is quality, the quantitative approach has been largely adopted in order to, as Payne and Payne (2002:181) points out, "describe and account for regularities in social behaviour, rather than seeking out and interpret the meaning that people bring to their own actions." The quantitative approach was preferred because the type of data sought, the measurements used and the method of data analysis employed required this approach (see 4.4 and Appendix 1 below).

The research design is the plan of how a researcher systematically collects and analyses the data that is needed to answer the research questions; it is a blueprint for the collection, measurement and analysis of data (Bertram 2004:57; Kothari 2004:31). Since this study sought to describe users' perceptions of the quality of library service, a cross-sectional, descriptive survey design was used (Babbie and Mouton 2001:92).

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The survey design was considered suitable for this study for various reasons: first, it is popularly used for studies on user's perceptions of quality of service. Most of the studies on users' perceptions of service quality reviewed (Thapisa and Gamini 1999; Majid, Anwar and Eisenschitz 2001; Jankowska, Hartel and Young 2006; Hiller 2001; Opaleke 2002; Nitecki and Hernon 2000) used the survey design. Second, the survey design is economical in that it allows gathering data on a once-off basis in order to describe the nature of existing conditions. Third, the survey design was preferred by the researcher because of the speed of gaining information and the fact that it allowed for gathering data in a short span of time – an important consideration for this study (Bertram 2004:61). Last, the survey design enables researchers to collect large amounts of data with relatively little effort (Ngulube 2005a:4).

4.2 Sampling

In this section the population of the study and sampling frames are presented and the sample size and characteristics of the sample described.

4.2.1 Population

Population refers to the larger group from which the sample is taken and to which findings are to be generalized (Trochin 2000:1). Busha and Harter (1980:55-57) define the word "population" as any group of people, objects or institutions with at least one common characteristic. The common characteristics of the population under study are that all are actual users of the IUCo Library; and they belong to the IUCo community by their status of being students and academic staff. The population of the study from which the sample was drawn consisted of 1239 undergraduate students (the figure excludes the third year B.Ed and BBA students who were away on internships when the research was conducted); 31 postgraduate students and 50 academic staff.

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4.2.2 Sampling frames

Sampling, according to Bertram (2004:64), "involves making decisions about which people, settings, events or behaviour to observe". The sampling frame is the list of ultimate sampling entities, which may be people, households, organizations, or other units of analysis. The current database of registered students and academic staff were employed as sampling frames from which the units of analysis were drawn.

4.2.3 Sample size

A sample is a finite part of a statistical population whose properties are studied to gain information about the whole (Merriam-Webster 2000). When dealing with people, it can be defined as a set of respondents (people) selected from a larger population for the purpose of a survey.

There is no clear-cut answer to a sample size. The sample size depends on the purpose of the study, data collection methods, and style of the research. With the survey design, the sample size required for a heterogeneous population is relatively large (Bertram 2004:64). Since the population under study constituted a heterogeneous population of undergraduate students and was relatively large, it follows that, the researcher did not study the whole universe of undergraduate students and to this end a probability sampling technique was used. Payne and Payne (2004:203) suggest that the universe of 1250 should have a sample size of 294. Thus using Payne and Payne (2004) as a guide, a sample of 294 was drawn from the 1239 undergraduate students. This proportion was chosen to ensure a high return rate of questionnaires and confidence with the findings. More specifically a proportional random sampling technique was adopted to draw the sample from the undergraduate students (Bless and Higson-Smith 2000). The sample was drawn from each year of study from every programme as Table 1 below indicates. This technique was chosen for the purposes of representativeness of the sample and generalization of the research findings (Babbie and Mouton 2001:169-173). With regard to the other two populations, the researcher studied all 50 academic staff and all 31

postgraduate students. The universe and the sample size of the undergraduate students are shown in Table 1 below.

Table 1

Universe and sample size of undergraduate students

Faculty	Programme	1st year		2nd year		3rd year		4th year		Total	Total Sample
		Total	Sample	Total	Sample	Total	Sample	Total	Sample		
Theology	BD	10	2	3	1	4	1	-	-	17	24
	BAC	57	13	-	-	-	-	-	-	57	
	D.Th	16	4	8	2	-	-	5	1	29	
FABEC	BBA	160	38	53	13	Internship		-	-	213	51
FASS	BAJ	63	15	31	7	15	4	-	-	109	78
	B.Ed	60	14	31	7	Internship		-	-	91	
	BCAT	128	31	-	-	-	-	-	-	128	
LAW	LLB	363	86	147	35	85	20	-	-	595	141
	Totals	857	203	273	65	104	25	5	1	1239	294

4.2.4 Characteristics of the sample

According to Trochin (2000) "before gathering your sample, it's important to find out as much as possible about your population. ... You should at least know some of the overall demographics; age, sex, class, etc., about your population". The demographics of the sample of this study includes male and female academic staff, postgraduate students and undergraduate students, including the undergraduate's year of study. The study incorporates all these characteristics of the sample as shown in Chapter 5.

4.3 Data collection instruments and procedures

In this section the following are described: the instrument used to collect the data, forms of questions asked, peer review and pre-testing of the questionnaire, validity and reliability of the instruments, administration of the questionnaire and response rates.

4.3.1 The instruments

Instruments in research refer to the methods that are used to collect data to answer the research questions. There are many ways of primary data collection techniques in surveys. Some of these techniques include questionnaires, interview schedules, focus groups, and observation (Bless and Higson-Smith 1995:105-113). The instrument that the researcher used in collecting both qualitative and quantitative data was the self-administered questionnaire.

4.3.2 The questionnaire

A questionnaire is a method of gathering self-reported information from respondents through self-administration of questions. A six page questionnaire consisting of six major sections was constructed. The LibQUAL based survey questions (Marnane 2004; Ntseane 2005; Hernon and Altman 1998:105; HSLIC 2003) were adapted to suit the IUCo Library context. The first part of the questionnaire gathered demographic data on the participants. The aim was to gather data that would help to correlate response sets between different groups of respondents in order to see whether responses were consistent across groups. The second section asked about respondents' usage patterns of the library service to determine their frequency in using the facility. Section three had 26 statements which the respondents were asked to rate on a scale of 1 – 5 (that is strongly agree, agree, neutral, disagree and strongly disagree) their expectations of service quality. The section had an additional open-ended question which asked the respondent to give further comments on the services listed in the 26 statements. Section four was similar to section three, but in this section the respondents were asked, using the same scale, to rate their perceptions of library services currently provided by IUCo Library. Section five had three questions which asked the respondents to rate, again on the same scale, their experiences as they interacted with the library services. The last section had an open-ended question which asked the respondents to give any further comments about IUCo Library services (see the questionnaire in Appendix 1).

4.3.3 Forms of questions

In general, there are two types of questions, namely open-ended or closed-ended. The study used both open-ended and closed-ended questions. This was done to collect both subjective and objective data through the use of both formats (Fitzgibbons 2003). To allow the respondents to answer in their own words and give unprompted opinions, three open-ended questions were asked. The advantage of this form of question is that unexpected and insightful suggestions can be provided by respondents and this was the case in the present study (see the list of respondents comments in Chapter 5, section 5.1.5). The disadvantages of this open format are, first, the questions require more thought and time on the part of the respondents to answer and as a result they may be ignored by the respondents (again this was the case in the present study). Second, it is not easy to automatically tabulate or perform statistical analysis on them (Fitzgibbons 2003).

The closed-ended questions were asked to elicit structured responses. The following three categories of scaled response questions were asked in this format. First, nominal scaled questions (forced options) which asked about respondents' gender, position, age, year of study and faculty. Second, ordinal scaled questions which asked the respondents to rate the degree of agreement or disagreement to a particular statement. This kind of format usually has a mid point (undecided, neutral or not sure) to give an option for the respondents who do not agree or disagree with the statement (see the questionnaire in Appendix 1). The format is commonly called the Likert scale. Third, matrix questions which asked several questions that have the same set of answer categories (as Likert scale above). The closed-ended forms of questions are both easier and faster for respondents to complete (Fitzgibbons 2003).

4.3.4 Peer review and pre-testing the questionnaire

In order to eliminate the chance of questions meaning different things to different respondents, they must be clear, succinct, and unambiguous (Williams 2003). A clear and precise questionnaire is important for the respondents to understand what the researcher

is asking them (Bertram 2004:83). To this end, the questionnaire was reviewed by selected people in the Information Studies Programme. In addition to a peer review, the researcher pre-tested the questionnaire before administering it to the respondents (Babbie and Mouton 2001:244-245). The questionnaire was pre-tested on a random sample of 10 people comprising both students and academic staff from the population to be studied. The questionnaire was given to them to be completed one week before administering the questionnaire to the sample population. This exercise helped the researcher to check the following: clarity of questions, the layout of questions, correct spelling, identify ambiguous and unclear questions, omission of relevant questions that needed to be asked, difficult questions for respondents, and comments from the respondents (Saunders, Lewis and Thornhill 2000:306). The respondents experienced no difficulties in completing the questionnaire. The exercise was thus successful and no changes were made to the questionnaire.

4.3.5 Validity and reliability of instrument

The validity and reliability of instruments is critical in research (Ngulube 2005a). For a questionnaire to be valid, it should "examine the full scope of the research question in a balanced way" (Williams 2003). The aspects of validity that need to be tested are criterion, factual and face validity. In this study the researcher adapted the existing LibQUAL+^{TM} instrument (Marnane 2004; Ntseane 2005; Hernon and Altman 1998:105; HSLIC 2003) which, according to Williams (2003), ensures criterion validity. This instrument has been thoroughly tested and its validity is well established, that is, it measures what it is supposed to measure and can be replicated and yield the same results.

Williams (2003) defines reliability as "an assessment of the reproducibility and consistency of an instrument". According to Williams (2003) two aspects of reliability, test–retest and internal consistence, for a self-completed questionnaire need to be examined. The latter aspect of reliability, namely internal consistence was determined by asking general questions that recapitulate specific questions in the questionnaire in a different way (see section 7 of the questionnaire in Appendix 1).

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4.3.6 Administering the questionnaire

Subsequent to pre-testing the questionnaire, 294 copies of a covering letter (see Appendix 2) and the questionnaire (see Appendix 1) were photocopied and stapled. The date and case numbers were written on each questionnaire. Eleven research assistants were drawn in to help distribute the questionnaire to the respondents. The assistants included academic staff and Student Class Representatives (CR). In addition to the self-explanatory covering letter and questionnaire instructions, the assistants were given instructions on how to go about administering the questionnaire and help the respondents should they need clarification. Each research assistant was given the required number of respondents for each class (see Table 1 in 4.2.3) to whom they had to distribute the questionnaire.

The questionnaire was randomly given, by the research assistants, to the required number of respondents in each class during class sessions. The importance of "randomness" was stressed and there was no indication that this particular quality was not achieved by the assistants The academic staff research assistants administered the questionnaire to B.Ed and BAJ students. The student research assistants distributed the questionnaire to MBA, PGDM, BAC, Law, BBA and BCAT students. The researcher administered the questionnaire to Theology students. Some lecturers allowed the students to complete the questionnaire during class sessions while others told students to complete it after the session. The respondents who completed the questionnaire during the class session returned it to the research assistants. The respondents who were not able to complete the questionnaire during the class session returned the questionnaire either to the research assistants or placed it in a box marked for this purpose at the circulation desk in the library. Those who did not complete the questionnaire in class were told to return it the same day or before 16 July 2006.

The questionnaire was administered to academic staff in two ways. First, the researcher gave the questionnaire personally to the academic staff who were in their office asking them to complete it and stating that the researcher would collect it from them after a

week. For those academic staff who were not in their office the questionnaire was placed into their pigeonhole and follow up was done to confirm that they had received it.

The response rate for the academic staff was initially low. The researcher had to see the academic staff, who had not completed the questionnaire, on a weekly basis and ask them to complete the questionnaire before the end of July 2006. It was through this follow up that most academic staff completed and returned the questionnaire to the researcher or placed it in the box at the circulation desk in the library.

4.3.7 Response rates

According to Babbie and Mouton (2001:261) a questionnaire return rate of 50% is adequate for data analysis and reporting. A return rate of 60% is good and 70% is regarded as very good. Williams (2003) in fact argues that a response rate of 20% for a self-administered questionnaire based survey is sufficient to report the results. The questionnaire return rates for this study were 213 or 72.4% for undergraduate students, 20 or 64.5% for postgraduate students and 34 or 68% for academic staff – giving an overall response rate of 68.3%. This was a promising return rate and more than adequate for data analysis and reporting.

4.4 Methods of data analysis

Two techniques are used in data analysis and interpretation. These are qualitative and quantitative techniques. Quantitative data analysis technique was principally employed. Statistical analysis using SPSS was used to analyse and interpret study findings (Babbie and Mouton 2001:411). Before analysing the raw data, each completed case (questionnaire) was evaluated to check for missing data, ambiguity, omissions and errors. The questionnaire responses were then coded and entered into the computer for cleaning to identify inconsistencies and outliers (Williams 2003). The qualitative data were analysed and interpreted using the qualitative method. Data analysis using SPSS was

extremely helpful and useful to analyse and report the findings in a more manageable way.

4.5   Summary

In this chapter the research method and procedures utilized in this study were presented. The design of the study, population, sampling techniques, instrumentation, data collection, and methods of data analysis were also described and discussed.

Chapter 5

RESEARCH RESULTS

This chapter reports the results of the survey of the sample population of users of IUCo Library, which was conducted by means of a self-administered questionnaire. The validation for each section of the questionnaire is given and the results are reported.

5.1   Questionnaire results

5.1.1 Demographics

Background information on the respondents was asked. Demographic information was essential for correlation of the response sets between different groups of library users. This information was necessary to explore whether the responses were consistent across groups. Thus questions 1.1, 1.2, 1.3, and 1.4 determined respondents' gender, age, position, faculty and year of study if undergraduate. The biographical data of the respondents are reflected in Table 2 below:

Table 2

Demographic data of respondents

Characteristic	Frequency	Percent
Male	165	61.8
Female	102	38.2
Under 20 years of age	5	1.9
21 – 30 years of age	152	56.9
31 – 40 years of age	75	28.1
41 – 50 years of age	24	9.0
Above 50 years of age	11	4.1
Academic staff	34	12.7
Postgraduate students	20	7.5
Undergraduate students	213	79.8
First year students	144	67.6
Second year students	49	23.0
Third year students	19	8.9
Fourth year	1	0.5

There were substantially more male respondents, 165 (61.8%) than female respondents, 102 (38.2%). The majority of respondents, 152 (56.9%), were within the age range of 21 – 30. A small minority of respondents, five (1.9%), were under the age of 20. The demographics show also that the undergraduate students, 213 (79.8%), were in the majority. With regards to the year of study of undergraduate students, the result shows that a large number 144 (67.6%), were first year students.

5.1.2 Library usage patterns

In this section, three questions were asked to probe how frequently the users use the library and its services. This was done to determine the impact of frequency of use of library facilities on users' perceptions and expectations of service quality. The questions also aimed at examining the usage patterns between different groups in order to weigh the importance of the library between these groups in terms of usage patterns.

5.1.2.1 Frequency of use of library and its resources

Question 2.1 asked how often the respondents use the library and its resources. The usage patterns of the library and its resources by the respondents are shown in Tables 3 and 4 below.

Table 3

Overall frequency of use of library and its resources

N=267

Usage	Frequency	Percent
Daily	172	64.4
Weekly	69	25.9
Monthly	21	7.9
Quarterly	3	1.1
Never	2	0.7
Total	267	100

The majority of respondents, 172 (64.4%), used the library and its resources on a daily basis. Only two (0.7%) respondents had never used the library and its resources. Table 4 below shows further usage patterns of the library and its resources within the different groups of respondents.

Table 4

Frequency of use of library and its resources by groups

Characteristic	Daily		Weekly		Monthly		Quarterly		Never	
	Count	%	Count	%	Count	%	Count	%	Count	%
Gender Male	103	62.4	48	29.1	12	7.3	2	1.2	-	-
Female	69	67.6	21	20.6	9	8.8	1	1	2	2
Position Academic staff	16	47.1	14	41.2	3	8.8	1	2.9	-	-
Postgraduate	14	70	5	25	1	5	-	-	-	-
Undergraduate	142	66.7	50	23.5	17	8	2	0.9	2	0.9
Faculty Theology	19	70.4	6	22.2	2	7.4	-	-	-	-
Business & Economics	45	63.3	18	24.4	7	9.9	1	1.4	-	-
Arts & Soc. Sciences	57	78.1	15	20.5	1	1.4	-	-	-	-
Law	51	53.1	30	31.2	11	11.5	2	2.1	2	2.1

The female respondents, 69 (67%), postgraduate respondents, 14 (70%), and the Faculty of Arts and Social Sciences respondents, 57 (78.1%), have the highest percentage of weekly usage of the library and its resources. Remarkably, two (2%), female undergraduate respondents from the Faculty of Law had never used the library and its resources.

5.1.2.2 Frequency of use of Yahoo™, Google™ and other non-library gateways for information

Question 2.2 asked how often respondents used Yahoo™, Google™, or other non-library gateways for information. The usage patterns of library users of these non-library gateways for information are shown in Table 5 and 6 below.

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Table 5

Overall frequency of use of non-library gateways for information

N=267

Usage	Frequency	Percent
Daily	106	39.7
Weekly	113	42.3
Monthly	29	10.9
Quarterly	14	5.2
Never	5	1.9
Total	267	100

The largest proportion of respondents 42.3% (113) used Yahoo™, Google™, or other non-library gateways for information on a weekly basis and interestingly five (1.9%) respondents had never used such resources for information. Table 6 below shows further usage patterns of the library and its resources within different groups of respondents.

Table 6

Frequency of use of non-library gateways for information by groups

Characteristics	Daily		Weekly		Monthly		Quarterly		Never	
	Count	%	Count	%	Count	%	Count	%	Count	%
Gender										
Male	70	42.4	66	40	16	9.7	10	6.1	3	1.8
Female	36	35.3	47	46.1	13	12.7	4	3.9	2	2
Position										
Academic staff	19	55.9	4	11.8	5	14.7	3	8.8	3	8.8
Postgraduate	7	35	12	60	1	5				
Undergraduate	80	37.6	97	45.5	23	10.8	11	5.2	2	0.9
Faculty										
Theology	12	44.4	12	44.4	2	7.4	1	3.7		
Business & Economics	27	38	30	42.3	10	14.1	3	4.2	1	1.4
Arts & Social Sciences	37	50.7	27	37	5	6.8	2	2.7	2	2.7
Law	30	31.3	44	45.8	12	12.5	8	8.3	2	2.1

As can be seen the vast majority of respondents in all groups used the non-library gateways for information on either a daily or weekly basis.

5.1.3 Users' expectations and perceptions of service quality

Section three and five comprised the major questions of the study which were directly related to the research objectives. The reason for asking these questions was to determine users' expectations and perceptions of the quality of library service in order to answer the research questions, thereby identifying the gap between expectations and perceptions – the focus of the study. In several tables below, the fraction values for the response category labelled "Count" have been derived from the calculations of the total number of group response to all statements of service within the category of service divided by the number of statements for each response (see Tables 8, 10, 12, 14, 16, 18, 20, 22, 24 and 26).

5.1.3.1 Users' expectations of service quality

Question 3 had 26 statements of service quality. The respondents were asked to rate the statements (on a scale of 1 = strongly agree; 2 = agree; 3 = neutral; 4 = disagree; and 5 = strongly disagree) by indicating the number that best described their degree of expectations of service quality that the library should provide. The statements are divided into five categories. The categories and respondents' expectations are shown below:

5.1.3.1.1 Comprehensive collection

The statements included in this category are: adequate print collection (books), adequate print journals and adequate electronic journals. The respondents' expectations of service quality in this category are reflected in Table 7 below.

Table 7

Users' expectations of comprehensive collection

N=267

Response	Adequate print collection		Adequate print journals		Adequate electronic journals	
	Count	%	Count	%	Count	%
Strongly agree	152	56.9	121	45.3	102	38.2
Agree	68	25.5	82	30.7	85	31.8
Neutral	28	10.5	36	13.5	56	21
Disagree	13	4.9	25	9.4	20	7.5
Strongly disagree	6	2.2	3	1.1	4	1.5
Total	267	100	267	100	267	100

The majority of respondents, 152 (56.9%), strongly agree that they expect an adequate print collection (books), 121 (45.3%) adequate print journals and 102 (38.2%) adequate electronic journals for their work. A minority of respondents, 19 (7.1%), 28 (10.5%) and 24 (9%), either disagree or strongly disagree that they expect adequate print collection (books), adequate print journals and adequate electronic journals for their work respectively. An average of users' perceptions for each statement of service in this category by groups is shown in Table 8 below.

Table 8

The average of users' expectations of comprehensive collection by groups

Category	Group	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Count	%	Count	%	Count	%	Count	%	Count	%
Comprehensive	Academic staff	18	52.9	8.6	25.5	3.3	9.8	2.6	7.8	1.3	3.9
Collection	Postgraduate	7.3	36.6	5.6	28.3	5.3	26.6	1.5	7.5	1	5
	Undergraduate	99.6	46.8	64	30	31.3	14.7	15.6	7.3	2.3	1.1

A comparison within different groups of respondents shows that an average of 27 (78.4%) academic staff have relatively higher expectations for each item of comprehensive collection.

5.1.3.1.2 Access to information

The statements included in this category are: easily available access to electronic databases, prompt interlibrary loan, efficient short loan, prompt re-shelving of books and journals, clear catalogue with useful information, library opening hours that meet user needs, prompt corrective action regarding missing books and journals, and a clear webpage with useful information. The respondents' expectations of service quality in this category are reflected in Table 9 below.

Table 9

Users' expectations of access to information

N=267

Statements	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	Count	%	Count	%	Count	%	Count	%	Count	%
Easily available access to electronic databases	116	43.4	81	30.3	45	16.9	19	7.1	6	2.2
Prompt interlibrary loan	85	31.8	78	29.2	66	24.7	24	9	14	5.2
Efficient short loan	118	44.2	80	30	41	15.4	21	7.9	7	2.6
Prompt re-shelving of books	138	51.7	72	27	40	15	11	4.1	6	2.2
Prompt re-shelving of journals	133	49.8	72	27	42	15.7	15	5.6	5	1.9
Clear catalogue with useful information	161	60.3	55	20.6	28	10.5	19	7.1	4	1.5
Library opening hours that meet user needs	156	58.4	62	23.2	34	12.7	12	4.5	3	1.1
Prompt corrective action regarding missing books and journals	119	44.6	66	24.7	63	23.6	13	4.9	6	2.2
Clear webpage with useful information	141	52.8	73	27.3	33	12.4	14	5.2	6	2.2

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Generally, few respondents either disagreed or strongly disagreed to the statements under access to information. The respondents have the highest expectations of a clear catalogue with useful information (216 or 80.9%), opening hours (218 or 81.6%) and a clear webpage with useful information (214 or 80.1%). Interestingly, 66 (24.7%) respondents are neutral to prompt interlibrary loan and 14 (5.2%) strongly disagree. An average of users' expectations for each statement of service in this category by groups is shown in Table 10 below.

Table 10

The average of users' expectations of access to information by groups

Category	Group	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Count	%	Count	%	Count	%	Count	%	Count	%
Access to	Academic staff	20.4	60.1	6.7	19.9	3.5	10.4	2	5.8	1.8	5.4
information	Postgraduate	7.7	38.8	4.3	21.6	4.6	23.3	2.2	11.2	1.3	6.8
	Undergraduate	101.4	47.6	59.8	28.1	35.3	16.6	12.6	5.9	3.6	1.7

A comparison between different groups of respondents shows that an average of 27 (80%) academic staff have a relatively high percentage of expectations (either strongly agree or agree) for each item of access to information.

5.1.3.1.3 Library equipment

The statements included in this category are: adequate number of computer workstations, computers that work well, adequate photocopying facilities and adequate printing facilities. The respondents' expectations of service quality in this category are reflected in Table 11 below.

Table 11

Users' expectations of library equipment

N=267

Statements	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	Count	%	Count	%	Count	%	Count	%	Count	%
Adequate number of computer workstations	145	54.3	55	20.6	37	13.9	15	5.6	15	5.6
Computers that work well	153	57.3	54	20.2	35	13.1	15	5.6	10	3.7
Adequate photocopying facilities	127	47.6	73	27.3	36	13.5	13	4.9	18	6.7
Adequate printing facilities	146	54.7	69	25.8	23	8.6	14	5.2	15	5.6

The average of 143 or (53.7%) of the respondents to each service strongly agree that they expect an adequate number of computer workstations, photocopying facilities, printing facilities and computers that work well. The average of 63 (23.5%) of respondents to each service agree that they expect adequate library equipment. Only an average of 15 or (5.4%) of the respondents strongly disagree that they expect adequate library equipment. An average of users' expectations for each statement of service in this category by groups is shown in Table 12 below.

Table 12

The average of users' expectations of library equipment by groups

Category	Group	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Count	%	Count	%	Count	%	Count	%	Count	%
Library	Academic staff	20.2	59.5	9.2	27.2	2.2	6.6	1.3	3.9	1.2	3.6
equipment	Postgraduate	9.2	46.2	4.5	22.5	3.5	17.5	1.7	8.7	1.3	6.6
	Undergraduate	113.2	53.1	49	23	27	12.6	11.5	5.4	12.2	5.7

A comparison within different groups of respondents shows that an average of 29 or (86.7%) academic staff have the highest expectations for each service in the library equipment category.

5.1.3.1.4 Library staff

The statements included in this category are: library staff who are friendly, library staff who are readily available to respond to users' queries, library staff who are willing to help users, library staff who understand user's library service needs, and library staff who have the knowledge to answer user questions. The respondents' expectations of service quality in this category are reflected in Table 13 below.

Table 13

Users' expectations of Library staff

N=267

Statements	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	Count	%	Count	%	Count	%	Count	%	Count	%
Library staff who are friendly	143	53.6	74	27.7	30	11.2	14	5.2	6	2.2
Library staff who are readily available to respond to user queries	160	59.9	60	22.5	32	12	12	4.5	3	1.1
Library staff who are willing to help users	148	55.6	83	31.2	24	9	8	3	3	1.1
Library staff who understand user's library service needs	167	62.5	46	17.2	40	15	12	4.5	2	.7
Library staff who have knowledge to answer user questions	157	58.8	57	21.3	31	11.6	18	6.7	4	1.5

The majority of respondents, an average of 155 (58.1%) to each service, strongly agree that they expect the library staff to be friendly, readily available to respond to user questions, willing to help users, understand user's service needs, and have knowledge to answer user questions. A small number of respondents, an average of four (1.3%), to each service in this category strongly disagree. An average of users' expectations for each statement of service in this category by group is shown in Table 14 below.

Table 14

The average of users' expectations of library staff by groups

Category	Group	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Count	%	Count	%	Count	%	Count	%	Count	%
Library	Academic staff	24.4	71.7	5.8	17	4	11.7	1	2.9	1	2.9
staff	Postgraduate	7.8	39	6.6	33	4.4	22	1.3	6.6	1	5
	Undergraduate	122.8	57.7	51.6	24.2	23.8	11.2	11.6	5.4	3	1.4

As the table shows, academic staff (30 or 88.7%) have the highest average of expectations for each service in library staff category.

5.1.3.1.5 Library as a place

The statements included in this category are: quiet library environment, library space that inspires user study and learning, library space for group learning and group study, library environment that has sufficient lighting, and safe and secure space for study. The respondents' expectations of service quality in this category are reflected in Table 15 below.

Table 15

Users' expectations of library as a place

N=267

Statements	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	Count	%	Count	%	Count	%	Count	%	Count	%
Quiet library environment	157	58.8	61	22.8	24	9	14	5.2	11	4.1
Library space that inspires user study and learning	146	54.7	68	25.5	36	13.5	10	3.7	7	2.6
Library space for group learning and group study	105	39.3	73	27.3	48	18	25	9.4	16	6
Library environment that has sufficient lighting	172	64.4	62	23.2	27	10.1	2	.7	4	1.5
Safe and secure place for study	154	57.7	70	26.2	24	9	12	4.5	7	2.6

An average of 147 (55%) respondents for each service in this category, strongly agree that they expect the library to be a quiet environment; has space that inspires user study and learning; has the space for group and learning and group study; has sufficient lighting; and is safe and secure place for study. Interestingly, an average of nine (3.4%) respondents for each service in this category strongly disagreed. An average of users' expectations for each statement of service in this category by group is further shown in Table 16 below.

Table 16

The average of users' expectations of library as a place by groups

Category	Group	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Count	%	Count	%	Count	%	Count	%	Count	%
Library as a place	Academic staff	22.8	67	7.8	22.9	2.8	8.2	1	2.9	2	5.9
	Postgraduate	9.4	47	4.6	23	4	20	2	10	1.5	7.5
	Undergraduate	114.6	53.7	54.4	25.5	25	11.7	11.6	5.4	7.4	3.4

A comparison, within different groups of respondents, shows that an average of 30 (89.9%) academic staff have the highest expectations for each service in library as a place category.

5.1.3.2   Users' perceptions of service quality

Question 5 had 26 statements of service quality (the same as put forward in Question 3). The respondents were asked to rate the statements (on a scale of 1 = strongly agree; 2 = agree; 3 = neutral; 4 = disagree; and 5 = strongly disagree) by indicating the number that best described their degree of perceptions of service quality that the library provides. The statements are divided into five categories. The categories and respondents' perceptions are shown below:

5.1.3.2.1   Comprehensive collection

The statements included in this category are: adequate print collection (books), adequate print journals and adequate electronic journals. The respondents' perceptions of service quality in this category are reflected in Table 17 below.

Table 17

Users' perceptions of comprehensive collection

N=267

Response	Adequate print collection (books)		Adequate print journals		Adequate electronic journals	
	Count	%	Count	%	Count	%
Strongly agree	32	12	20	7.5	18	6.7
Agree	106	39.7	47	17.6	42	15.7
Neutral	47	17.6	67	25.1	71	26.6
Disagree	63	23.6	107	40.1	102	38.2
Strongly disagree	19	7.1	26	9.7	34	12.7

A small majority of respondents, 138 (51.7%), either strongly agreed or agreed that the library currently provides a print collection (books) adequate to their needs. A substantial

133 (49.8%) respondents either disagreed or strongly disagreed that the library currently provides adequate print journals. As for the electronic journals, 136 (50.9%) respondents either disagreed or strongly disagreed that the library adequately provides them. An average of users' perceptions for each statement of service in this category by groups is shown in Table 18 below.

Table 18

The average of users' perceptions of comprehensive collection by groups

Category	Group	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Count	%	Count	%	Count	%	Count	%	Count	%
Comprehensive collection	Academic staff	1	2.9	6.6	19.6	4.3	12.7	19.6	57.8	2.6	7.8
	Postgraduate	-	-	5.3	26.6	5.3	26.6	5.3	26.6	4	20
	Undergraduate	22.6	10.6	53	24.8	52	24.4	65.6	30.8	19.6	9.2

A comparison within different groups of respondents shows that an average of 22 (65.6%) academic staff, nine (40%) postgraduate and 85 (40%) undergraduate students for each service in this category either disagreed or strongly disagreed that the library provided an adequate comprehensive collection.

5.1.3.2.2   Access to information

The statements included in this category are: easily available access to electronic databases, prompt interlibrary loan, efficient short loan, prompt re-shelving of books and journals, clear catalogue with useful information, library opening hours that meet user needs, prompt corrective action regarding missing books and journals, and clear webpage with useful information. The respondents' perceptions of service quality in this category are reflected in Table 19 below.

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Table 19

Users' perceptions of access to information

N=267

Statements	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	Count	%	Count	%	Count	%	Count	%	Count	%
Easily available access to electronic databases	19	7.1	51	19.1	80	30	86	32.2	31	11.6
Prompt Interlibrary Loan	15	5.6	19	7.1	75	28.1	56	21	102	38.2
Efficient Short Loan	35	13.1	92	34.5	52	19.5	59	22.1	29	10.9
Prompt re-shelving of books	47	17.6	110	41.2	53	19.9	38	14.2	19	7.1
Prompt re-shelving of journals	41	15.4	100	37.5	68	25.5	42	15.7	16	6
Clear catalogue with useful information	39	14.6	85	31.8	66	24.7	60	22.5	17	6.4
Library opening hours that meet user needs	81	30.3	92	34.5	38	14.2	41	15.4	15	5.6
Prompt corrective action regarding missing books and journals	23	8.6	39	14.6	97	36.3	54	20.2	54	20.2
Clear webpage with useful information	29	10.9	40	15	92	34.5	48	18	58	21.7

The highest proportion of respondents, 173 (64.8%), either strongly agreed or agreed that the library provided opening hours that met their needs. However, 158 (59.2%) and 108 (40.4%) respondents either strongly disagreed or disagreed that the library provided prompt interlibrary loan and corrective action regarding missing books and journals respectively. An average of respondents' perceptions for each statement of service in this category by groups is shown in Table 20 below.

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Table 20

The average of users' perceptions of access to information by groups

Category	Group	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Count	%	Count	%	Count	%	Count	%	Count	%
Access to	Academic staff	3.6	10.6	8.2	24.1	7.2	21.2	8.8	26.1	7.2	21.3
information	Postgraduate	1.5	0.1	3.8	19.4	7	35	3.8	19.4	4	20
	Undergraduate	32.1	15	57.6	27	54.7	25.7	41	19.2	27.4	12.8

A comparison within different groups of respondents' positions shows that an average of 90 (42%) undergraduate students for each service in this category were content with the services while only 12 (34.7%) academic staff and five (19.5%) postgraduate students were content. Seven (21.2%) academic staff and seven (35%) postgraduate students were neutral.

5.1.3.2.3 Library equipment

The statements included in this category are: adequate number of computer workstations, computers that work well, adequate photocopying facilities and adequate printing facilities. The respondents' perceptions of service quality in this category are reflected in Table 21 below.

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Table 21

Users' perceptions of library equipment

N=267

Statements	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	Count	%	Count	%	Count	%	Count	%	Count	%
Adequate number of computer workstations	24	9	73	27.3	54	20.2	70	26.2	46	17.2
Computers that work well	39	14.6	81	30.3	48	18	68	25.5	31	11.6
Adequate photocopying facilities	18	6.8	20	7.5	64	24.1	50	18.8	114	42.9
Adequate printing facilities	30	11.2	87	32.6	54	20.2	73	27.3	23	8.6

Generally, many respondents either disagreed or strongly disagreed that the library provided adequate services in the library equipment category. A relatively high percentage of respondents, 120 (44.9%), either strongly agreed or agreed that the library provided computers that work well. An average of users' perceptions for each statement of service in this category by groups is shown in Table 22 below.

Table 22

The average of users' perceptions of library equipment by groups

Category	Characteristic	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Count	%	Count	%	Count	%	Count	%	Count	%
Library equipment	Academic staff	4	11.7	10.5	30.9	8	23.6	7	20.8	5.2	15.7
	Postgraduate	-	-	3.7	18.7	4.2	21.2	4.5	22.5	7.5	37.5
	Undergraduate	24.7	11.6	51	23.9	42.7	20	53.7	25.2	40.7	19.1

A comparison within different groups of respondents' positions shows that an average of 15 (42.6%) academic staff for each service in this category either agreed or strongly agreed. But an average of 12 (60%) postgraduate and 94 (44.3%) undergraduate students for each service in this category either disagreed or strongly disagreed.

5.1.3.2.4 Library staff

The statements included in this category are: library staff who are friendly, library staff who are readily available to respond to users queries, library staff who are willing to help users, library staff who understand user's library service needs, and library staff who have the knowledge to answer user questions. The respondents' perceptions of service quality in this category are reflected in Table 23 below.

Table 23

Users' perceptions of library staff

N=267

Statements	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	Count	%	Count	%	Count	%	Count	%	Count	%
Library staff who are friendly	77	28.8	93	34.8	52	19.5	33	12.4	12	4.5
Library staff who are readily available to respond to user queries	75	28.1	106	39.7	43	16.1	33	12.4	10	3.7
Library staff who are willing to help users	70	26.2	108	40.4	50	18.7	28	10.5	11	4.1
Library staff who understand user's library service needs	42	15.7	80	30	59	22.1	66	24.7	20	7.5
Library staff who have the knowledge to answer user questions	38	14.2	70	26.2	60	22.5	78	29.2	21	7.9

Generally the respondents have higher perceptions of library staff. However, 99 (37.1%) respondents either strongly disagreed or disagreed that library staff have the knowledge to answer user questions, while 86 (32.2%) felt the same way concerning staff understanding of users' library service needs. An average of users' perceptions for each statement of service in this category by groups is shown in Table 24 below.

Table 24

The average of users' perceptions of library staff by groups

Category	group	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Count	%	Count	%	Count	%	Count	%	Count	%
Library staff	Academic staff	7.6	22.3	12.2	35.8	5.4	15.8	7	20.5	1.8	5.2
	Postgraduate	1	5	6	30	7	35	3	15	3	15
	Undergraduate	51	23.9	74.4	34.9	39.4	18.4	37.8	17.7	10.4	4.8

A comparison within different groups of respondents' positions shows that an average of 125 (58.8%) undergraduate and 20 (58.1%) academic staff for each service in this category either agreed or strongly agreed. An average of seven (35%) postgraduate students was neutral.

5.1.3.2.5 Library as a place

The statements included in this category are: quiet library environment, library space that inspires user study and learning, library space for group learning and group study, library environment that has sufficient lighting, and safe and secure space for study. The respondents' perceptions of service quality in this category are reflected in Table 25 below.

Table 25

Users' perceptions of library as a place

N=267

Statements	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	Count	%	Count	%	Count	%	Count	%	Count	%
Quiet library environment	29	10.9	38	14.2	56	21	72	27	72	27
Library space that inspires user study and learning	41	15.4	91	34.1	64	24	47	17.6	24	9
Library space for group learning and group study	19	7.1	42	15.7	77	28.8	70	26.2	59	22.1
Library environment that has sufficient lighting	99	37.1	89	33.3	40	15	23	8.6	16	6
Safe and secure place for study	48	18	82	30.7	72	27	43	16.1	22	8.2

A total of 144 (54%) and 129 (48.3%) respondents either disagree or strongly disagree with the perception that the library environment was quiet and library space for group study and learning was adequate respectively. The highest percentage, 70.3% (188), of respondents either agree or strongly agree that the library environment has sufficient lighting. An average of users' perceptions for each statement of service in this category by groups is shown in Table 26 below.

Table 26

The average of users' perceptions of library as a place by groups

Category	Group	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Count	%	Count	%	Count	%	Count	%	Count	%
Library as a place	Academic staff	5.2	15.4	8.2	24.1	7.4	21.7	9.8	28.8	5.5	16.1
	Postgraduate	3	15	4.2	21	4.4	22	4	20	4.4	22
	Undergraduate	40	18.7	56	26.2	50	23.4	37.2	17.4	29.8	13.9

A comparison within different groups of respondents shows that an average of 96 (45%) undergraduate students for each service in this category either strongly agreed or disagreed that the library provides better service.

5.1.4 Rating of information skills, satisfaction and overall service quality

This, the fourth section, comprised three general questions. The questions were intended to briefly recapitulate the major questions and to explore the overall users' satisfaction and quality of service provided by the library.

5.1.4.1 Library provision of information skills to users

Question 7.1 asked to indicate to what extent the respondents agreed or disagreed with the statement that "The library provides me with the information skills I need for my study". The extent of respondents' agreement is provided in Chart 1 below.

Chart 1

Library provision of information skills to users

N=267

Strongly Disagree 1.1%

Disagree 15.4%

Neutral 25.5%

Strongly Agree 13.9%

Agree 44.2%
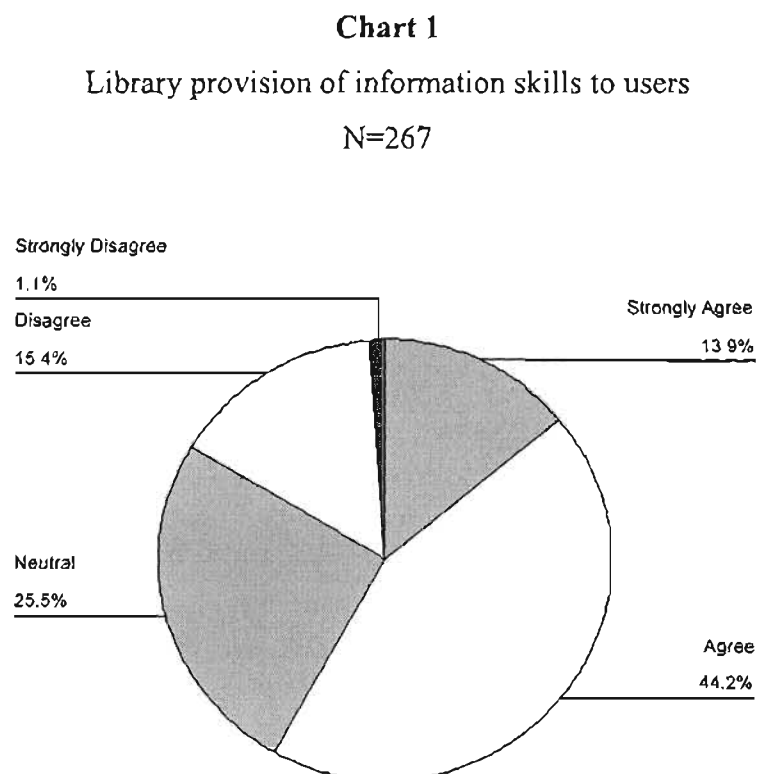
The higher percentage of respondents 118 (44.2%) respondents agreed that the library provides users with information skills they need for their work. However, 68 (25.5%) respondents were neutral in their response to this question. Interestingly, three (1.1%) respondents indicated their strong disagreement with the statement that the library provides users with information skills needed for their work. Table 27 below further reflects the degree to which the library provides such skills by groups.

Table 27

Library provision of information skills to users by groups

Position	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	Count	%	Count	%	Count	%	Count	%	Count	%
Academic staff	3	8.8	9	26.5	12	35.3	10	29.4	-	-
Postgraduate student	2	10	8	40	7	35	2	10	1	5
Undergraduate student	32	15	101	47.4	49	23	29	13.6	2	.9

Interestingly, a high number of academic staff, 12 (35.3%), was neutral. The majority of undergraduate students, 133 (62.4%), either strongly agreed or agreed that the library provided information skills to users. Ten (50%) postgraduate students either strongly agreed or agreed to such service.

5.1.4.2 Users' satisfaction with library support for their learning, research and teaching needs

Question 7.2 was asked to indicate the extent to which the respondents agreed or disagreed with the following statement: "In general I am satisfied with library support for my learning, research and teaching needs". Chart 2 below shows the extent to which the respondents are satisfied with library support for their learning, research and teaching needs.

Chart 2

Users' satisfaction with library support for learning, research and teaching

N=267
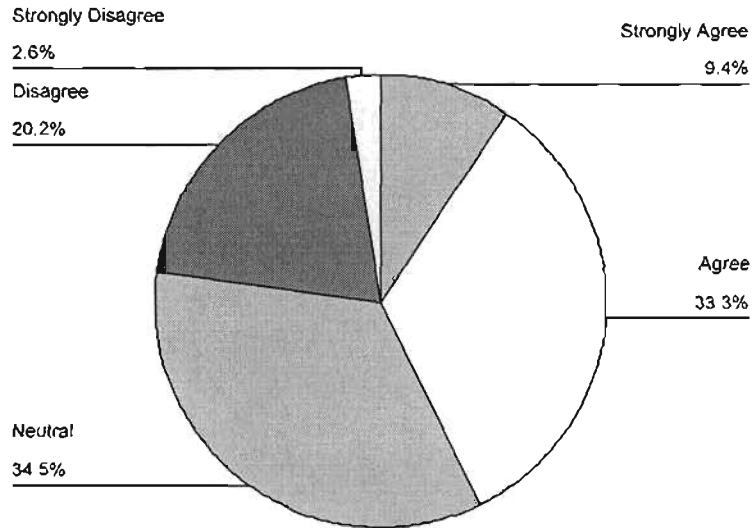
The highest percentage of respondents, 34.5% (92), was undecided whether they were satisfied with library support for learning, research and teaching needs. Eighty-nine (33.3%) respondents agreed that they were satisfied with the library support and seven (2.6%) respondents strongly disagreed that they were satisfied with such support. Table 28 below further reflect users' satisfaction with library support for learning, research and teaching by groups.

Table 28

Respondents' satisfaction with library support by groups

Position	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	Count	%	Count	%	Count	%	Count	%	Count	%
Academic staff	2	5.9	9	26.5	10	29.4	12	35.3	1	2.9
Postgraduate student	2	10	4	20	9	45	4	20	1	5
Undergraduate student	21	9.9	76	35.7	73	34.3	38	17.8	5	2.3

Nine (45%) postgraduate students were neutral regarding satisfaction with library support. Ninety-seven (45.6%) undergraduate students were satisfied with library support. A fairly large number of academic staff, 13 (38.2%), either disagreed or strongly disagreed with satisfaction with library support for their research and teaching needs.

5.1.4.3   Users' rating of overall quality of library service provided

Question 7.3 asked how the respondents would rate the overall quality of the service provided by the library. Respondents' rating of service quality is reflected in Chart 3 below.

Chart 3

Users' rating of the overall quality of service provided by the library

N=267
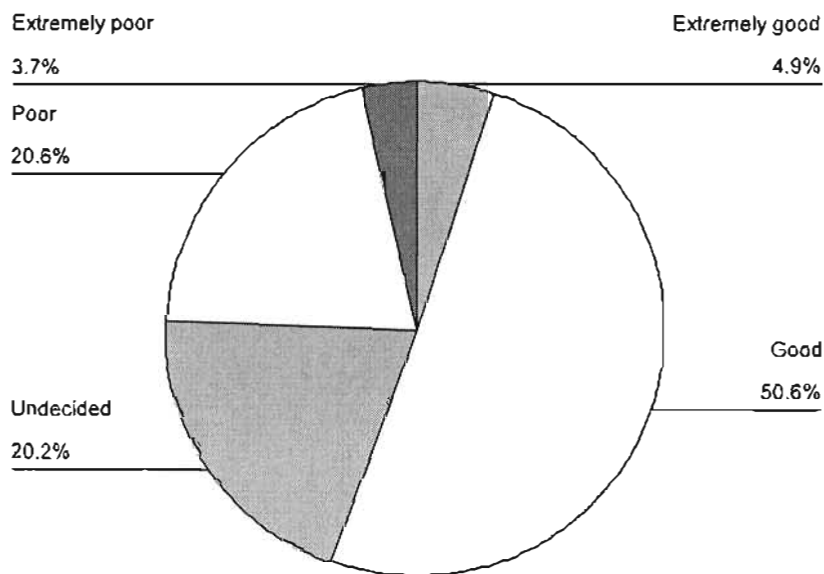
A small majority 55.5% (148), rated the overall quality of service provided by the library as either good or extremely good. Interestingly, 20.2% (54) were undecided in their

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rating. Table 29 below further reflect users' rating of the overall quality of service provided by the library by groups.

Table 29

Rating of overall service quality by groups

Position	Extremely good		Good		Undecided		Poor		Extremely poor	
	Count	%	Count	%	Count	%	Count	%	Count	%
Academic staff	-	-	17	50	7	20.6	10	29.4	-	-
Postgraduate	1	5	5	25	5	25	8	40	1	5
Undergraduate	12	5.6	113	53.1	42	19.7	37	17.4	9	4.2

A half of academic staff, 17 (50%), rated that the overall service quality of the library as good. The largest number, 125 (58.7%), undergraduate students either rated the overall service quality as extremely good or good. The majority of postgraduate students, nine (45%) either rated the overall quality as poor or extremely poor; and five (25%) were neutral.

5.1.5 Users' comments about IUCo Library services

The three open-ended questions used in the questionnaire demanded qualitative data. The questions were aimed at soliciting more thought from the respondents on the quality of services rendered to them. The questions were designed to give the respondents an opportunity to state their own views about the service.

Questions 4 and 6 asked the respondents to add any further comment about the services listed in questions 3 and 5; and question 8 asked the respondents to give further comments about Iringa University College Library services. The results of these questions are combined together because the comments were related.

Of 267 respondents, 147 (55%) added comments to at least one of the open-ended questions. Of the 34 academic staff who responded to the questionnaire, 27 (79.4%) offered comments. Of the 20 postgraduate students, 16 (80%) gave comments, while 104 (48.8%) of the 213 undergraduate students did likewise. A summary of respondents' comments by groups is shown in Table 30 below.

Table 30

Summary of respondents' comments by groups

Group	Respondents		Comments	
	Count	Percent	Count	Percent
Academic staff	27	18.4	55	17
Postgraduate students	16	10.9	44	13.7
Undergraduate students	104	70.7	223	69.3
Total	147	100	322	100

As the table shows, many comments, 223 (69.3%), were offered by undergraduate students.

Table 31 below further shows the full-text of respondents' comments, grouped according to the broad categories of service under investigation. Some respondents chose to offer more than one comment in each broad category.

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Table 31

Respondents' comments

Comprehensive collection	Count	Percent
All required resources for study should be available	23	7.14
The library should increase up-to-date and relevant books	13	4.04
Most books are useless (out-of-date)	7	2.17
Increase law books (and statutes)	7	2.17
More journals are needed	4	1.24
Current theology books are required	3	0.93
Increase tourism books and journals	3	0.93
Increase books for topology	2	0.62
Increase journalism books	2	0.62
Reference books are very few	2	0.62
Postgraduate books are insufficient	2	0.62
Library should provide up-to-date journals	2	0.62
Library should launch a good Africana section	1	0.31
Not all good books should be kept at short loan	1	0.31
Library be stocked with current publications for research	1	0.31
Newspapers are not brought in the library timely	1	0.31
More books for journalism should be available	1	0.31
CD-ROM service required	1	0.31
Total	**76**	**23.6**

Library equipment	Count	Percent
Computers are inadequate	17	5.28
Poor printing services	13	4.04
Photocopying services should be improved	12	3.73
Improve printing services-increase printing papers and printing hours	11	3.42
Computer services need to be improved	8	2.48
Some computers are not working well (maintenance)	4	1.24
More computers are required for users	3	0.93
ICTs services should be operational even during evening hours	3	0.93
Increase the number of printers	3	0.93
Photocopying services are very poor	2	0.62
Special computer access for postgraduate students	1	0.31
Total	**77**	**23.9**

Access to information	Count	Percent
Opening hours should be 24 hours	10	3.10
Services not organized	3	0.93
The library needs a good website with useful information	2	0.62
Internet speed is very low	2	0.62
Misallocation of books by students	2	0.62
Install electronic catalogue	2	0.62
User training on library use, rules and responsibility needed	2	0.62
The library should be opened on Sundays and holidays	1	0.31
Library webpage is not good	1	0.31
Mutilation of books	1	0.31
Intranet should be user-friendly	1	0.31
Suggestion books should be available for users to give comments	1	0.31
Academic software required	1	0.31
Overnight loan and over weekend loan service required	1	0.31
Interlibrary loan be improved	1	0.31
Re-shelving of books is not properly done	1	0.31
Loan period is too short	1	0.31
Special library services for postgraduate students	1	0.31
Library operations should not be interrupted by public lectures	1	0.31
Faculty or department libraries be introduced	1	0.31
Total	**36**	**11.2**

Library staff	Count	Percent
The library needs qualified, committed and honest staff	26	8.07
Library staff need training	7	2.17
Library staff not qualified	5	1.55
Number of library staff should be increased	3	0.93
Library staff do not understand their duties and library rules	2	0.62
Library staff require public relation course	2	0.62
Staff should be friendly	2	0.62
Library management needs improvement	2	0.62
Specialized librarians should not work at circulation desk	1	0.31
Library staff should be punctual to their work	1	0.31
Security guard are disturbing	1	0.31
ICTS staff not competent	1	0.31
Total	**53**	**16.4**

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Library as a place	Count	Percent
Lot of noise in the library (discussions and using cell phones)	20	6.21
Security system be installed to safeguard the library property	18	5.59
Theft of computer mice and other library resources	7	2.17
The library building should be extended	7	2.17
Library space is too small for users	5	1.55
Library space for discussions needed	5	1.55
Short loan should have study area/space	1	0.31
Library should have extra space for photocopying and printing services	1	0.31
Academic staff should be provided with a special space for them	1	0.31
Special space for researchers should be available	1	0.31
Library not safe	1	0.31
Library staff should show example in maintaining quiet environment	1	0.31
More toilets required	1	0.31
Activities that are not related to the library should not be entertained	1	0.31
Cleanliness be done when students are not in the library	1	0.31
Dusting of books and journals are not done	1	0.31
Total	**72**	**22.3**

Other comments	Count	Percent
I am satisfied with library services, services are good	7	2.17
Every thing should be improved	1	0.31
Total	**8**	**2.5**

A large proportion of comments were offered to comprehensive collection, 76 (23.6%), library equipment, 77 (23.9%), and library as a place, 72 (22.4%). Specifically, many comments were given to the following: all required resources for study should be available (23); the library needs qualified staff (26); the library environment is noisy (20); and a security system is needed in the library (18).

5.2   The gap between users' expectations and perceptions

The study sought to establish the gap between users' expectations and perceptions of service quality delivered to them by the IUCo Library and thereby identify the strengths and weaknesses of the existing library services (see section 1.2.1 and 3.2.3 above). In this section users' expectations and perceptions of service quality are numerically reported

and compared. The positive and negative responses, namely, strongly agree and agree, disagree and strongly disagree, are combined together respectively to form one positive (agree) and negative (disagree) response. The reason for this is to enable easier tabulation, comparison and ensure clarity. In Table 32 below users' expectations and perceptions and the gap between them are shown. In the *agree* column in the *difference* column, the larger the number the bigger the gap. In the *neutral* and *disagree* column in the *difference* column, the smaller the number the bigger the gap.

Table 32

The gap between users' expectations and perceptions

Service	Expectations			Perceptions			Difference		
	Agree	Neutral	Disagree	Agree	Neutral	Disagree	Agree	Neutral	Disagree
Comprehensive collection	**610**	**120**	**71**	**265**	**185**	**351**	**345**	**-65**	**-280**
Print collection	220	28	19	138	47	82	82	-19	-63
Print journals	187	56	24	67	67	133	120	-11	-109
Electronic journals	203	36	28	60	71	136	143	-35	-108
Access to information	**1806**	**205**	**392**	**957**	**621**	**825**	**849**	**-416**	**-433**
Electronic databases	197	25	45	70	80	117	127	-55	-72
Interlibrary Loan	163	38	66	34	75	158	129	-37	-92
Short loan	198	28	41	127	52	88	71	-24	-47
Re-shelving of books	210	17	40	157	53	57	53	-36	-17
Re-shelving of journals	205	20	42	141	68	58	64	-48	-16
Library catalogue	216	23	28	124	66	77	92	-43	-49
Library opening hours	218	15	34	173	38	56	45	-23	-22
Corrective action	185	19	63	62	97	108	123	-78	-45
Library webpage	214	20	33	69	92	106	145	-72	-73
Library equipment	**822**	**131**	**115**	**372**	**220**	**475**	**450**	**-89**	**-360**
Computer workstations	200	37	30	97	54	116	103	-17	-86
Computers that work well	207	35	25	120	48	99	87	-13	-74
Photocopying facilities	200	36	31	38	64	164	162	-28	-133
Printing facilities	215	23	29	117	54	96	98	-31	-67
Library staff	**1095**	**157**	**82**	**759**	**264**	**312**	**336**	**-107**	**-230**
Friendly staff	217	30	20	170	52	45	47	-22	-25
Readily available	220	32	15	181	43	43	39	-11	-28
Willingness to help users	231	24	11	178	50	39	53	-26	-28
Understand user needs	213	40	14	122	59	86	91	-19	-72
Knowledgeable staff	214	31	22	108	60	99	106	-29	-77
Library as a place	**1068**	**159**	**108**	**578**	**309**	**448**	**490**	**-150**	**-340**
Quiet environment	218	24	25	67	56	144	151	-32	-119
Space that inspires users	214	36	17	132	64	71	82	-28	-54
Space for group study	178	48	41	61	77	129	117	-29	-88
Sufficient lighting	234	27	6	188	40	39	46	-13	-33
Safe and secure space	224	24	19	130	72	65	94	-48	-46
Totals	**5401**	**772**	**768**	**2931**	**1599**	**2411**	**2470**	**-827**	**-1643**

Services that have a relatively big gap (difference between agree for expectations and perceptions) are electronic journals, difference 143 (47.6%), interlibrary loan, 129 (48.3%), clear library webpage with useful information, 145 (54.2%), photocopying

facilities, 162 (60.6%), and quiet library environment, 151 (56.5%). Services that have a smaller gap include: prompt re-shelving of books, difference 53 (28.9%), library opening hours that meet user needs, 45 (16.8%), staff who are readily available to respond to user queries, 39 (14.6%), staff who are willing to help users, 53 (28.7%) and library environment that has sufficient lighting, 46 (17.2%).

5.3   Summary

In this chapter the validation for each section of the questionnaire has been given and the results of the survey of the sample population of users of IUCo Library, which was conducted by means of a self-administered questionnaire, have been reported.

Chapter 6

DISCUSSION OF THE RESULTS

In this chapter, the findings of the study are discussed in the light of the research problem, objectives and the literature reviewed. The purpose of this study has been to determine the users' perceptions of the quality of library service they receive at IUCo Library and to find out how far IUCo Library has succeeded in delivering such service, thereby identifying the strengths and weaknesses of the existing library service. The objectives of the study were:

- o to determine users' expectations of the quality of library service;
- o to find out users' perceptions of the quality of library service;
- o to establish whether the library is meeting the service quality expectations of the users;
- o and to make recommendations to the library based on the findings of this study.

The chapter discusses the information gathered from the self administered questionnaire and presented in the previous chapter. The various library services in the major questions are grouped into five categories. These are a comprehensive collection, access to information, equipment, library staff and library as a place. In each category, the services are discussed in the light of the first three objectives of the study. The gap between users' expectations and perceptions of service quality is discussed. The gap is considered significant if the difference is greater than 25%; and insignificant if it is less than 25%. The significance of these services, in the academic library, in meeting users' needs and expectations is also discussed as is the provision of information skills to users and additional services resulting from respondents' comments. Finally, the usefulness of the instrument used and the proposed approach to service quality assessment are commented on.

The findings that are discussed in this chapter relate to the academic staff as well as postgraduate and undergraduate students who responded to the questionnaire. In view of the relatively high response rate of the survey, it is possible to make generalizations about the whole population of academic staff and students.

6.1   Library usage patterns

This section explores the findings related to frequency of use of the library and its resources and the non-library gateways by the IUCo Library users.

6.1.1 Frequency of use of library and its resources

The library, as stated earlier, is the nerve centre of higher learning institution (see Chapter 1, page 1). The study has shown that the IUCo Library is vital for users, though there are variations within different groups of respondents concerning the use of the facility. Overall, many users are aware of the importance of the library and make use of library services to gain access to information on a daily (172 or 64.4%), weekly (69 or 25.8%) and monthly (21 or 7.9%) basis (see Table 3). The comparison on frequency of use of library and its resources within groups of respondents shows that females, 69 (67%), postgraduate students, 14 (70%), and the FASS, 57 (78.1%), had the highest percentage of weekly usage of the library and its resources (see Table 4).

6.1.2 Frequency of use of Yahoo^{TM}, Google^{TM} and other non-library gateways for information

IUCo Library users are aware of other non-library information gateways available through the use of networked and Internet capable computers. Through these information

gateways, many users are able to access information that support their research, learning and teaching needs on a daily (106 or 39.7%), weekly (113 or 42.3%) and monthly (29 or 10.9%) basis (see Table 5). The results show that the vast majority of respondents in all groups used the non-library gateways for information on either a daily or weekly basis (see Table 5).

6.2 Comprehensive collection

For the purposes of this study, comprehensive collection refers to adequate books and journals (imprint format) and adequate electronic journals that address the needs of the users and meet the objectives of the parent institution namely, that of research, teaching and learning.

Comprehensive collections contribute significantly to service quality in the academic library (Opaleke 2002; Majid, Anwar and Eisenschitz 2001). The collection needs to be balanced in terms of subject areas and formats to meet the needs of all users. As one respondent in the present study commented, "the library should make sure that all required readings are in place". The study revealed that there are variations between different groups of users concerning the expectations and perceptions of services within this category. The academic staff, for example, expect more than do students, and their perceptions are low compared to those of students. The difference may be because of the different needs of academic staff and students (Thapisa and Gamini 1999).

The study has further revealed that the users of IUCo Library expect adequate books, 220 (82.4%), journals, 203 (76%) and electronic journals, 187 (70%) for their work. The higher expectations of users imply that service quality in the academic library is linked, among other things, to adequate collections (Majid, Anwar and Eisenschitz 2001; Opaleke 2002; Jankowska; Hartel and Young 2006). Unfortunately, users' perceptions show that books, 138 (51.7%) respondents, print journals, 67 (25.4%) and electronic journals, 50 (22.4%), are generally not adequately provided to suit their teaching,

learning and research needs. The results of the open-ended questions show that 76 comments were given by respondents to this service. Many comments, 73 (96%), were directed at having an adequate print collection (books) as well as both print and electronic journals. The comments depict the need for the library to have recent books and journals that cater for the needs of all the faculties present at the university. The reference collection also needs to be updated and added to. As a respondent commented, "the library needs to provide up-to-date books and journals that meet the needs of all library users".

It is clear that there is a significant gap between user expectations and perceptions of service quality in terms of a comprehensive collection. The difference between users' expectations and perceptions of service quality in this category is print books 31%, print journals 45% and electronic journals 54% (see section 2.4.4 for the number of full-text electronic journals held in the library, Table 30 for users' comments and Table 31 for the gap between users' expectations and perceptions). This gap implies that the library has not succeeded in rendering quality service to its users with regard to the comprehensive collection. There is an indication that users are not content with the current service. This is illustrated by the large proportion of respondents' comments (76) expressing dissatisfaction with the collections the library holds.

Many factors could be attributed as to the reasons for failure on the part of the library to have a comprehensive collection. One of the reasons, as some respondents commented, is theft of useful journals and books by some unscrupulous users. The absence of an electronic security system in the library makes it easier for dishonest users to steal the books and other valuable items in the library. However, electronic security systems alone are useless if the users are irresponsible. Library security, as Evans, Amodeo and Carter (1999:463) assert is the responsibility of all users including library staff. "Money spent monitoring the library and replacing lost materials means less money for new materials, services, or equipment".

Another reason for the failure of the library to have comprehensive collections could be attributed to financial constraints, an issue which, as the literature review has indicated (Opaleke 2002), is common to academic libraries. To have a comprehensive collection means to have sufficient funds to support collection development. Print and online resources are very expensive. Annual subscriptions to electronic journals and print journals require a significant amount of money. Print reference collections and other print resources also require substantial amounts of money. It should be pointed out that the private universities in Tanzania (such as the one currently under study) have no access to government funds, their budgets depend entirely on students' fees and "good Samaritans" in the form of outside donations. For this reason it is not easy for academic libraries such as these to be able to have comprehensive collections. Their dwindling budgets cannot support all required resources for the users (see section 2.6).

6.3 Access to information

Access to information for this study refers to easily available access to electronic databases, prompt interlibrary loan, an efficient short loan, prompt re-shelving of books and journals, clear and useful catalogue, adequate library opening hours, prompt corrective action regarding missing books and journals and a webpage with clear and useful information that addresses accessibility issues to library resources and information.

As noted the purpose of an academic library service is to support teaching, learning and research. This purpose cannot be achieved if the resources and information required are not accessible to users. Thus, the major objective of the library is to ensure that a wide variety of the required resources and information is acquired. In addition the information and resources should be properly stored and preserved and organised in such a manner as to be easily accessible. Assistance should be provided to users in locating needed information for their work (Evans, Amodeo and Carter 1999:2-4); and instruction provided on effective research techniques and use of the library (Majid, Anwar, and Eisenschitz 2001).

IUCo Library users expect these services to be available and successfully and professionally provided to them. For example, 197 (73.7%) respondents expect easily available access to electronic databases; 163 (61.1%) prompt interlibrary loan; 198 (74.2%) an efficient short loan; 210 (78.7%) prompt re-shelving of books; 205 (76.8%) prompt re-shelving of journals; 216 (80.9%) a catalogue that is clear and has useful information; 218 (81.6%) library opening hours that meet user needs; 185 (69.3%) prompt corrective action regarding missing books and journals; and 214 (80.1%) expect a webpage that is clear and has useful information. These responses demonstrate that the users of IUCo Library have higher expectations of what the library should offer to them, that is, services that enable them to easily access information. However, the services that are not operating as they should be operating have a negative impact on users' expectations to such services. These include prompt interlibrary loan and prompt corrective action regarding missing books and journals.

The users experiences with the actual library services provided to them show that some of the services of this category are poorly provided and others not. For example, 157 (58.8%) respondents have reasonably high perceptions for prompt re-shelving of books, 141 (52.9%) for prompt re-shelving of journals, and 173 (64.8%) for opening hours. Services with lower perceptions of users are electronic databases, 70 (26.2%) respondents, interlibrary loan, 34 (12.7%), short loan, 127 (47.6%), a catalogue that is clear and has useful information, 124 (46.4%), prompt corrective action regarding missing books and journals, 62 (23.2%) and a clear webpage with useful information, 69 (25.9%). The results of the open-ended questions show comparatively fewer comments, 36, on this category of access to information. Most of the comments, 12 (33) are on library opening hours and loan period.

As with the category of comprehensive collection (see section 6.2), the study shows variations between different groups of users concerning the expectations and perceptions of service quality regarding the access to information category. For example, academic staff have the highest expectations, 27 (80%), followed by undergraduate students, 161

(75%) and postgraduate students, 12 (60.4%). Their perceptions to each service in this category show that undergraduate students have a fairly higher average, 90 (40%), followed by academic staff, 12 (34.7%), and postgraduate students, five (19.5%) who have the lowest average.

The study indicates that there is a gap between users' expectations and perceptions of service quality pertaining to access to information. The extent of the gap varies depending on the individual services. The comparison between expectations and perceptions indicates a significant gap for electronic databases (48%), interlibrary loan (48%), corrective action regarding missing books and journals (46%) and a webpage that is clear and has useful information (54%); but there is no significant gap between expectations and perceptions concerning re-shelving of books (20%), print journals (24%) and library opening hours (17%). Given this, it is particularly evident that the attention of library management needs to focus on services that have a significant gap as noted above.

The literature reviewed showed that library opening hours also facilitate access to information. Ease of access requires that the library provides convenient hours of operation. Opaleke's (2002) Nigerian study demonstrated that opening hours did not meet user needs. This is not the case in the current study, although a few respondents would like library to be opened 24-hours a day and seven days a week regardless of public holidays and weekends (see Table 31). Nitecki and Hernon's (2000) study which examined the quality of academic library services at Yale University's libraries showed service attributes that were the furthest from meeting user expectations, as does the current study. These were the library website, interlibrary loan, online catalogue, prompt re-shelving of resources and materials correctly shelved.

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6.4   Library equipment

Library equipment for this study incorporated an adequate number of computer workstations, computers that work well, adequate photocopying facilities and adequate printing facilities that facilitate information access.

Library equipment in this study refers to Information and Communication Technologies (ICTs) such as computers, printers, photocopiers and their services. ICTs such as these are necessary for today's academic libraries. These ICTs facilitate information access for users. A networked computer which is linked to the Internet, for example, "open[s] up a whole world of information – much of it available free of charge to library users and the librarian who serve them" (Barclay 2000:xiii).   Internal and external communication, dissemination and sharing of knowledge through an intranet and the Internet have become possible via computer networking. Fast access to educational databases and online journals, and easy searching of the library collection through the OPAC has become, in academic libraries, the order of the day. Thus for academic libraries to contribute significantly to the quality of information they deliver to the users, for effective and efficient delivery of information, ICTs are not an option but rather a prerequisite. As Barclay (2000) writes "libraries that fail to become part of the electronic information revolution are in danger of being seen as unnecessary, outdated book museums".

The study revealed that the users of IUCo Library expect an adequate number of computer workstations, 200 (74.9%), computers that work well, 207 (77.5%), adequate photocopying facilities, 200 (74.9%), and adequate printing facilities, 215 (80.5%) to enhance their work. The facilities such as these are expected to be available in adequate numbers and perform as expected when needed. However, the views of respondents as they interact with actual services delivered to them in terms of this particular aspect of service show that their experiences are generally not good. For example, only 97 (36.3%) users perceive that the computer workstations are adequate; 120 (44.9%) that computers work well, 38 (14.3%) that the library has adequate photocopying facilities; and 117

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(43.8%) that the printing facilities are adequate. The study shows variations in expectations and perceptions to this service within groups of users. The academic staff have higher expectations and perceptions, 29 (86.7%) and 15 (42.6%) an average to each service respectively, while the postgraduate students have the lowest expectations and perceptions, 14 (68.7%) and four (18.7%). Arguably, the academic staffs' higher perceptions of library equipment can be attributed to the presence of computers that work well in each academic staff office and dedicated printing and photocopying services for them.

Users' comments in the open-ended questions show that a large proportion of comments, 77 were concerned with library equipment. Thirty three (43%) comments were about the inadequate number of computer workstations and services and 26 (34%) about inadequate printing facilities and poor printing services. Theft of computer mice and lack of prompt corrective measures to this problem, according to users' comments, has worsened the service and contributed to the users not using many of these computers. It is against this background that one respondent commented, "the library should have excellent security system to guard against misuse, or loss or damage to library facilities". As for the photocopying services, the respondents' perceptions and comments show that the service is not operating as it should be. Therefore, it is not surprising that the respondents point to the urgent need to improve this service in the library to help users use it for their academic work. Respondents' comments also revealed that users expect the ICT staff who have been given the responsibility to provide these services, do so in a manner that adds value to them thereby meeting users' needs.

Overall, the study demonstrates that there is a significant gap between users' expectations and perceptions of service quality for library equipment. The difference between users' expectations and perceptions of library equipment is as follows: adequate photocopying facilities 61%, adequate computer workstations 39%, computers that work well 33% and adequate printing facilities 37%. The literature reviewed indicates that library equipment in similar studies was either inadequate or not in good working condition (Nitecki and Hernon 2000; Opaleke 2002). Opaleke's (2002) study shows that library equipment in the

four institutions of higher education in Kwara State, Nigeria, like the IUCo Library, was inadequate to meet users' needs, while Nitecki and Hernon's study showed that computer printers and photocopiers, according to users' views, were not in good working condition. This does, to some extent, refute the researcher's general assumption that the developed countries have better services in terms of equipment compared to developing ones.

6.5 Library staff

In the library staff category, the study focused on staff friendliness, availability willingness to help, ability to understand users' library service needs and having the knowledge to answer users' questions.

An academic library needs competent, committed, honest and enthusiastic staff. The study revealed that users of IUCo Library have high expectations concerning staff. They expect the library staff to be friendly, 217 (81.3%); readily available to respond to their queries, 220 (82.4%); willing to help, 231 (86.8%); understand users' library service needs 213 (79.7%); and have the knowledge to respond to their questions and give appropriate answers, 214 (80.1). Conversely, their perceptions as they interact with the services show a somewhat higher percentage on some services and lower on others. For example, 170 (63.6%) users perceive staff as being friendly; 181 (67.8%) staff are readily available to respond to their queries; 178 (66.6%) staff are willing to help; 122 (45.7%) staff understand users' library service needs; and 108 (40.4%) staff are knowledgeable to answer users' questions.

The results of the open-ended questions indicate that a total of 53 comments to this category of service were offered. Forty (75%) of these comments related to the knowledge of staff (training needs and qualifications of staff); and three (6%) related to inadequate number of library staff in relation to the growing number of users. The comments of the respondents depict that there is a problem with the educational background of many library staff (see section 2.5 for the qualifications and number of library staff). As respondents assert, "investing in training to library staff would make a

significant improvement to service delivery"; "most of the library staff are not adequately knowledgeable to many library rules and uses, therefore cannot properly direct users".

The study shows that there is a gap in this service. The comparison between expectations and perceptions indicates a significant gap in staff understanding of users' library service needs (34%) and staff who have the knowledge to answer users' questions (40%). The other services in this category have no significant gap. For example, the difference of users' perceptions and expectations for friendly staff is 18%; for those staff readily available to respond to user queries, 15%; for staff who are willing to help is 20%. Most of the literature reviewed does not show that library staff is a problem. Yet, Opaleke's (2002) study indicated that an inadequate number of professional librarians employed in academic libraries was the experience in the Nigerian context, which is also the case in the present study.

Keeping the academic library fully staffed is a challenge in the Tanzanian context. These libraries are open for long hours and require large numbers of skilled employees. Acquisitions, cataloguing, circulation and reference departments all need specialized personnel. IUCo Library is experiencing staffing problems (see section 2.5). These problems include the employment of many unqualified staff and having too few library staff compared to the number of users and services offered by the library (see comments by respondents in Chapter 5). This scenario makes effectiveness and efficiency in library operations extremely difficult. The success of IUCo Library, no matter how well designed, depends ultimately on the quality and number of the personnel responsible for the library. Qualified and highly motivated professional staff, adequately supported by technical and clerical staff, is critical if the library is to deliver a quality library service.

6.6   Library as a place

In this study, the library as a place category discussed the following critical areas and their contribution to library service quality: quiet library environment; library space that

inspires users' study and learning; a library space for group learning and group study; a space that has sufficient lighting; and a safe and secure place for study.

Library users not only expect to get relevant resources for their work, but also a suitable place to read, search for information, discuss with colleagues issues pertaining to academic work; a place to contemplate academic affairs; and a place to write their academic work. To meet these expectations the library needs to be well equipped to help all kinds of users to accomplish their work.

The size of the library should be appropriate to the number of users who use it, and the activities taking place in it. The library space should be big enough to accommodate users, library staff, the collection and equipment that facilitate library work and access to information. The results of the study indicated that expectations with regard to the library as a place are generally high in that 218 (81.6%) users expect a quiet library environment; 214 (80.2%) expect a library space that inspires users to study and learn; 178 (66.6%) expect a library space for group learning and group study; 234 (87.6%) expect a library environment that has sufficient lighting; and 224 (83.9%) expect a safe and secure place for study. As said above, services that are poorly offered have a negative impact on users' expectations. This is the case for library space for group learning and group study which has lower expectations than other services in this category of service. IUCo Library is relatively small compared to the growing number of users. Contrary to users' expectations, the study showed, to a certain extent, a low level of perceptions to some services and high to others. For instance, only 61 (22.8%) responded that space was adequate for group learning and group study; 67 (25.1%) users perceived a quiet library environment; 130 (48.7%) the library is safe and secure place for study; 132 (49.5%) thought the library space inspired user own study; and 188 (70.4%) considered the library environment had sufficient lighting. The study further showed that an average of 31 (89.9%) academic staff for each service had the highest expectations followed by undergraduate students (169 or 79.2%), and then postgraduate students (14 or 70%). As for the perceptions, undergraduate students had a comparatively high average of

perceptions (96 or 44.9%) for each service followed by academic staff (13 or 39.5%) and then postgraduate students (7 or 36%).

A total of 72 comments from open-ended questions were offered for this category of service. Twenty one (29%) of these comments concerned the library space. The users commented that the library is too small compared to the current number of users using the library and the services operating in it. As one respondent commented, "the library is so small in size to accommodate the number of students at the college". Twenty six (36%) comments concerned safety and security of the facility. The users felt that the facility is not safe and secure. It is due to this that library resources and computer accessories are stolen by the users. The users comment that the library should install a security system to monitor and safeguard the library resources. Twenty one (29%) comments were directed towards preferring a quiet library environment. Users commented that the library is noisy and as a result users are not benefiting from it. Some of the library staff were also making a noise in the library. As a respondent commented, "library staff should provide a good example of maintaining quiet environment in the library for users to learn from them".

The study revealed that there is a gap between expectations and perceptions to this service. The extent of the gap varies with individual services. For instance, the services with a significant gap are a quiet library environment (57%), space for group learning, group study (44%), safe and secure place for study (35%) and library space that inspires user's own study (31%). Library space with sufficient lighting however has a small gap (17%).

6.7   Provision of information skills to users

The provision of information skills or user instruction is an important component of access to information and service quality (Majid, Anwar and Eisenschitz 2001). The study revealed that 155 (58.1%) respondents agreed to the statement that "The library

provides me with the information skills I need for my work". The undergraduate students had the highest percentage of agreement (62.4% or 135) that the library provided information skills to users; postgraduate students ranked second (50% or 10 respondents); and academic staff had a low percentage (35.3% or 12 respondents) of agreement. The academic staff had a low percentage because the library provided information skills only to students, particularly first year students. User training, as Evans, Amodeo and Carter (1999: 113) assert, "promotes lifelong learning by enabling people not only to get the information they are currently seeking, but also to learn to find information for themselves in the future". Users, by having such training, may be able to use all information formats effectively and efficiently. The training could be in the form of orientation for new library users to familiarize them with the library environment, available services, rules and regulations governing the library use, and searching and retrieval skills. Instruction through signage, handouts and formal instruction to groups of users may help users effectively use the library and its resources. As one respondent commented, "the library should regularly provide training to library staff and users on the use of the resources and regulations and rules governing the library".

6.8   User satisfaction with library support

The study revealed that less than half, 114 (43.7%), of the respondents either agreed or strongly agreed that they are satisfied with the library support for their learning, research and teaching needs. The results show variations within groups with regard to satisfaction with library support for learning, research and teaching needs.   The undergraduate students (97 or 45.6%) had a fairly high satisfaction level with library support and the academic staff (11 or 32.4%) and postgraduate students (six or 30%) had the lowest satisfaction level. Arguably academic staff needs are not the same as those of the undergraduate students. For example, academic staff need extensive information in a variety of formats for their research and teaching needs. In addition, they are more conversant with the subject matter and so it is easier for them to know exactly what they are looking for in the library. It is in the researcher's view that academic staff understand

better what "professional competence and expertise" means when it comes to engaging in conversation with the library staff. In the reference interview, for example, academic staff may know that the library staff are not capable of responding adequately to their queries or rather, the library staff know very little about what the academic staff want. It is from this perspective that the academic staff may not be satisfied with library support for research and teaching needs. As two academic staff members commented, "the library should have trained staff who are able to help users who need assistance with materials and advice" and that "there is a need to improve delivery of service and public relations. Sometimes one wonders whether, except one, the library staff understand what they are supposed to be doing in the library at all".

Unlike academic staff, undergraduate students need information which is easily handled in manageable quantities in order to fulfil their current needs such as presentations, term papers, tests and examinations. This kind of information is readily available in the library's short loan where academic staff have placed some of the key references for students to refer to. Reference interviews with students in such a case are easier. Library staff may thus be in a position to help users to promptly access the information requested. This kind of work does not require a professional librarian to help the students, but rather any staff member with a good memory of where the information is located and, of course, an understanding of the Dewey Decimal Classification System. It is from this perspective that the student may be satisfied with the service.

One may give more examples on why such variations in satisfaction levels within different groups of respondents occur. Suffice to say that satisfaction is a concept that is hard to measure. The library cannot satisfy every user in spite of excellent service delivery. People are complex and so are their needs and satisfaction is therefore relative to individuals.

6.9 The Overall quality of service provided by the library

The study showed that the overall rating of the quality of library service rendered to users by IUCo Library is fairly good. The results showed that 148 (55.5%) respondents either strongly agreed or agreed that services are good. The results within the groups showed that undergraduates (135 or 58.7%) ranked services higher than did academic staff (17 or 50%) and postgraduate students (six or 30%). According to these results, it follows that, the library is not excelling in the provision of quality service to its users; hence, the need for improvement. This is contrary to the literature reviewed in which most of the studies demonstrated the overall quality of the libraries to be good (Hiller 2001; Thapisa and Gamini 1999; Nitecki and Hernon 2000). The only study which had a negative result is that by Opaleke (2002).

6.10 Significance of the instrument and proposed approach to service quality assessment in academic libraries

The survey methodology was used in this study. The questionnaire, adapted from LibQUAL+^{TM} (Marnane 2004; Hernon and Altman 1998:105; HSLIC 2003; Ntseane 2005), was used to collect data from the respondents. The result of the study shows that not all respondents answered the open-ended questions. However, those who did answer came up with very interesting and worthwhile comments for library improvement. The closed questions were all answered by respondents.

The questionnaire was both instrumental and successful in soliciting users' expectations and perceptions of service quality at IUCo Library. The instrument was capable of determining the gap between users' expectations of service quality and their perceptions of the actual service delivered to them by the library, thereby identifying the strengths and weaknesses of IUCo Library in rendering quality service to its users. As a result, the data collected were able to answer the research questions posed.

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The LibQUAL+™ instrument is thus extremely useful in assessing service quality in academic libraries with the focus on users, to determine the gap between expectations and actual services delivered to users. The tool is essential if the aim is to solicit information from users and to use the feedback to improve library operations.

However, while assessment of service quality with the focus on users of services alone in the African context, specifically the Tanzanian context, can be useful in understanding users' needs and expectations; it cannot ultimately guarantee service quality in academic libraries that are confronted with scarce resources, dwindling budgets, and an inadequate number of qualified professional librarians. Other assessment approaches should be established or researched to address service quality in academic libraries in the developing countries – countries which tend to be burdened and incapacitated by poverty. The user-centred approach that assesses the library service quality may well yield "good" results and reveal areas in the library that require improvement. Yet, the crucial problem that these libraries will be facing is how to go about implementing the feedback from users in improving the quality of services when they do not have the necessary resources to achieve the quality expectations of users.

The literature review has shown that studies in the developed countries do not mention finances, qualified and adequate library staff, new technologies and online resources as significant problems (see section 3.3 above). But studies done in the African context, such as that by Opaleke (2002) in particular, show that these are the common problems for many African libraries including the IUCo Library. Thus, one cannot be doing justice by using the same across-the-board approach to measure service quality in academic libraries without seriously taking into account the context in which the libraries are found.

A new instrument of service quality assessment in academic libraries in developing countries, Tanzania in particular, should be developed. The instrument should incorporate critical areas such as: the mission, goals and objectives of the parent institution; policies, rules and procedures of the library; library staff; professional service quality standards;

library budget; and users. An instrument or model that overlooks one of these critical components in assessing service quality in academic library is likely to be unrealistic. The academic library that does not integrate into its service the university mission, goals, and objectives cannot meet the quality expectations of the users and those of the parent institution. Policies, rules and procedures that do not address the changing needs of users and cope with current trends in library management are likely to undermine library service quality. Inadequate and unqualified library staff, budgetary constraints and ignoring the contribution of users in assessing service quality may all lead to poor service quality in academic libraries. In other words, these critical areas need to be included into the assessment instrument to establish the quality of service. Each and every component has a contribution to poor or excellent service in the academic library. The figure below illustrates the dependent components of service quality in the academic library. Hence, the figure can be used as a model for future service quality assessment in academic libraries in the Tanzanian context.

Figure 3

Suggested dependent components of service quality in the academic library

(Created by Rev. Cornelius Asyikiliwe Simba)

6.11 Summary

This chapter discussed the library usage patterns, users' expectations and perceptions of library service quality, and the provision of information skills to users. It also discussed user satisfaction with library support, the overall quality of service provided by the

library and the significance of the instrument used in this study and proposed an approach to service quality assessment in academic libraries in the Tanzanian context. The users used the library and its resources on a regular basis. Generally, users' expectations of library service quality were high and their perceptions were fairly low. The information skills the users need for their work were, to a certain extent, provided. There was a general discontent with the library support for users' learning, teaching and research needs. The overall quality of service provided by the library was fairly good.

Chapter 7

CONCLUSION AND RECOMMENDATIONS

The overarching thesis of this study was to establish whether there is a gap between users' expectations and perceptions of service quality rendered to them by the IUCo Library. In order to accomplish this far-reaching purpose, the specific objectives of the study were:

- o to determine users' expectations of the quality of library service;
- o to determine users' perceptions of the quality of library service;
- o and to determine whether the library is meeting the service quality expectations of the users.

It was expected that the study would identify the strengths and weaknesses of the existing library services and thus make recommendations to the library based on the findings of the study.

In this chapter the summary of thesis and conclusions are made. The recommendations based on the findings are also presented. The suggestions on areas of further research on the area of study are also given.

7.1   Summary of thesis

The thesis began with an introductory chapter which covered the research problem, the purpose and objectives of the study, the rationale, scope and limitations. The chapter also provided the definitions of key terms used and briefly outlined the structure of the study.

The second chapter, *Background of the study*, dealt with the important aspects of the environment in which the study is situated. It gave a brief history of IUCo and IUCo

Library and highlighted the mission statement of the library, its services, staff, sources of income and cooperation with library organizations and consortia.

Chapter 3, *Literature review*, discussed in more details the concept of service quality and explored the relevant models commonly used in service quality assessment, the related studies on service quality in an academic library context and methodologies and findings of these studies. It concluded with a brief discussion of the impact and challenges of library assessment models.

The next chapter, *Research methodology*, presented the research method and procedures utilized in the study. It also presented the design of the study, population, sampling techniques, instrumentation, data collection, and methods of data analysis used.

The fifth chapter, *Research results*, reported the results of the survey of the sample population of users of IUCo Library, which was conducted by means of a self-administered questionnaire.

Discussions of the results, Chapter 6, discussed the research results as they pertained to the library's usage patterns, users' expectations and perceptions of library service quality, and the provision of information skills to users. It also discussed user satisfaction with library support, the overall quality of service provided by the library and the significance of the instrument used in this study. An approach to service quality assessment in academic libraries in the Tanzanian context was also proposed.

7.2 Conclusions

Broadly, the results of the study show that there is a gap between user expectations and perceptions of service quality rendered to users of IUCo Library thus validating the hypothesis of the study. The study revealed variations within groups of users, namely academic staff, postgraduate and undergraduate students, concerning library use,

expectations and perceptions of service quality. The differences can be attributed to the level of study, and the different needs and priorities of users within these groups. The study also revealed that some services were not operating as they should be and this had a negative impact on users' rating of their expectations. These services include: interlibrary loan, photocopying, corrective action regarding missing resources, library space for group learning and group study and electronic databases. The study revealed further the strengths and weaknesses of the library in terms of service delivery to users, and suggested areas that need improvement and addition of new services (see 7.3).

Specifically, the users of IUCo Library expect excellent service and well trained and qualified library and ICT staff to perform a variety of library operations. Conversely, their experiences with the actual service rendered to them show that the library is not living up to users' service quality expectations. In other words, the users' perceptions are low when compared to their expectations of library service quality.

The first objective of the current study was to determine users' expectations of the quality of library service. The study showed that the users have high expectations of library service quality. They expect comprehensive collections to suit their faculty and interdisciplinary needs. They expect adequate and functioning library equipment and the services offered to be of good quality. They expect services provided by these technologies to be sustainable. They expect services that facilitate access to information to be readily available and to contribute to effective and efficient access and use of information. They further expect competent, confident, courteous and honest library staff to perform library operations and help users to accomplish their aim when visiting the library. Users expect the library to be a place conducive for study, learning and research. In a nutshell, users of IUCo Library expect excellent services that will meet their learning, studying, teaching and research needs.

The second objective of this study was to determine users' perceptions of the quality of library service. The study revealed that IUCo Library users' perceptions are fairly high in some services and low in others. Services with fairly high users' perceptions include:

prompt re-shelving of books and journals, convenient library opening hours, friendly and willing library staff helping users and a library environment that has sufficient light. Services with low users' perceptions include the availability of electronic journals, easy and available access to electronic databases, interlibrary loan, corrective action regarding missing resources and photocopying services, a clear webpage with useful information, and a quiet library environment.

The third objective of the study was to establish whether the library is meeting the service quality expectations of the users. It is clear from the above discussion of the first two objectives that the library does not meet service quality expectations of users with regard to some services and it does with regard to others.

Failure of the library to not fully meet users' service quality expectations may be attributed to a number of reasons. Included amongst these are financial constraints, staffing problems, theft of valuable items, non-use of modern technologies to facilitate efficiency and effective service delivery (automation of library functions), and library space problems to mention a few. In order for the library to meet users' service quality expectations the proposed service quality dependent components (see Figure 3) should be adopted.

With regard to user groups, the study has pointed out that the academic staff had high expectations of service quality followed by undergraduate students. Interestingly, the postgraduate students had low expectations of service quality. However, the postgraduate students had the lowest perceptions of service quality followed by the academic staff. Although the reasons could be, as stated earlier, attributed to the level of study, and different needs and priorities within the groups; the usage patterns could have impacted on users' expectations and perceptions of the quality of library service. The study showed that postgraduate students had a high percentage of daily usage of the library and its resources followed by undergraduate students. This could be interpreted as meaning that the more the users interacted with the library services on a daily basis the greater the negative impact was on their rating of expectations and perceptions of service quality.

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7.3   Recommendations

The fourth objective of this study was to make recommendations to IUCo Library based on the findings of the study. In view of the research findings, the following are the recommendations to the library:

1)   The study has revealed the importance of library assessments to solicit, track and understand users' expectations and needs and to act upon users' feedback to improve the quality of library service. Consequently, it is recommended that the library administration should employ regular assessments of the library in order to listen to the voices of users, library staff, processes, and the parent institution. This will help the library to unquestionably understand the expectations and needs of users, library staff and the parent institution. Understanding these needs and expectations alone is useless if there is no mechanism in place to implement the results of the findings. The library should have in place a viable mechanism to enhance strategic and operational plans and the implementation of the plans for improvement of the quality of library service as well as and a feasible mechanism to monitor and sustain the improvement over time.

2)   The study has shown that a comprehensive collection is critical in the academic library. However, IUCo Library, according to the study, has not been able to provide the users with adequate books and journals. It is recommended that the library should have a comprehensive collections' development policy that addresses critical needs of the users and provides room for users, for example, academic staff to contribute to the process of selecting the resources for the library. The library collection development policy will ensure that the collection is useful for the users and financial and other resources are used well. The policy needs to be reviewed and updated on a regular basis to meet the changing needs of users and new programmes launched. It is through this that the limited library resources could be used effectively and efficiently for the benefit of users.

Since the library cannot have all the required resources for users, interlibrary loan is an acceptable complement to local access if it is easy to accomplish and rapid in delivery. The library should cooperate more with other higher learning institutions and be member of various library consortia to be have access to their collections and information through interlibrary loan or document delivery. There is no library in Tanzania that can claim to be self-reliant and self-sufficient. To this end, sharing the resources that these academic libraries have would help meet users' needs and expectations and solve the problem of inadequate comprehensive collections.

3)   The study has highlighted the challenge of staffing in the academic library and specifically, the need to have qualified library and ICT staff. For the academic library to perform well it needs to have in place qualified staff who are user-oriented. It is recommended that the library should be committed to ongoing staff training and development. Staff training and development is critical to upgrade the library staff knowledge, skills and abilities necessary to effectively perform their work and hence meet users' service quality expectations. Consequently, the library would be able to address the challenges of information access, face new responsibilities, meet changing user demands, and growing technological complexities. Furthermore the library should recruit more qualified librarians and ICT staff to fill identified vacant positions.

4)   The study showed that users are aware of services that are not currently operating in the library and those that are not operating as they should be operating but are essential for their work. The importance of services such as interlibrary loan, CD-ROM, Africana collection, photocopying, audiovisual, overnight and weekend loan (for short loan) to users cannot be underestimated. Users arguably benchmark the services offered to them with other libraries. They know how beneficial it is to have such services. It is from this scenario that it is recommended that the library should introduce such services as CD-ROM, an Africana collection and audiovisual resources to add value to users and contribute

to the overall quality of service in the academic library. It should also improve the services that are poorly delivered, namely interlibrary loan, photocopying, overnight and weekend loans.

5) Security issues have been pointed out in this study as absolutely necessary to be attended to. It should be noted that the university invests a significant amount of money to run and furnish the library with valuable resources for users. There is no library that would like items such as books, journals, newspapers, and computer accessories to be stolen. This, as found, has been happening at the IUCo Library. Given this, it is recommended that the library educate the users on the importance of every user to be a "guard" of the resources available in the library and act responsibly in the library. Additionally, the library should consider installing an electronic security system.

6) The catalogue helps users gain access to the library resources. The IUCo Library uses a card catalogue. Repetitive and tedious circulation processes and manual searching of information using a card catalogue contributes to the failure of users to access information promptly. For the library to deliver fast, accurate and effective services the use of modern technologies is, arguably, imperative. The automation of library functions, OPAC in this case, is beneficial in that it improves library services and increases productivity, efficiency, and accuracy in performing a variety of library operations. It is recommended that the library should be automated using a software package that has been proven beyond doubt to be useful, upgradeable, and accommodates all important functions of the library such as public access (OPAC), cataloguing, circulation, acquisition, serial control and interlibrary loan.

7) Given the conclusion that the provision of information skills to users is not adequately offered, it is recommended that the library should devise a programme, an information literacy programme, to train users on various issues of access such as searching, retrieving and evaluating both print and online resources

to empower users with skills needed for their work. The users should also be trained to use the library responsibly. It is through this programme that the users would use the library and its resources optimally and would fully exploit the benefits of the library.

8)   One of the major concerns raised in this study is the problem of library space. The current library space is not ideal for the growing number of users and services operating in it. The library should have ample space for users, displays, multimedia services, technical work, computer workstations, short loan services, shelving and offices. It is recommended that both the library and university administration should ensure that purposeful efforts are made to extend the library, taking into account the present needs and foreseeable future plans for new programmes and an increasing number of users and consequent usage.

9)   The study has shown that the library webpage is perceived as not being clear and not having useful information. One of the important advances in facilitating access to library information is the role of the library website. A well-designed website, with easy to use navigation, and with search engines made available through them are important to all types of users for easy access to information. It is recommended that the library should have a website that would serve as a gateway for educational information worldwide, educational databases and have links to essential sources of information for users to access. The website should be regularly evaluated and updated and dead links should be eradicated.

7.4   Agenda for further research

o   New tools of academic library assessment that integrate user views of service quality, library staff, university mission, goals and objectives, budget, and library processes, policies and rules need to be researched.

o   Barriers to delivery of quality library services in academic libraries in developing countries, is another important area that needs to be researched.

o   A further area that needs to be researched is the role of library staff in improving library services to satisfy users with diverse backgrounds and needs.

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APPENDICES

Appendix 1

Questionnaire about user perceptions of service quality at Iringa University College Library, Tumaini University, Tanzania

Questionnaire for collecting data on user perception of service quality at Iringa University College Library, Tumaini University, Tanzania

Date _____   Case _____

Instructions

a) Indicate the most appropriate answers by a tick [√] in the brackets or table provided.

b) Where a space is provided, use a pen to write your answers in it.

1. Biographic data

    1.1 Indicate your gender

        [ ] Male

        [ ] Female

    1.2 Indicate your age

        [ ] Under 20

        [ ] 21 – 30

        [ ] 31 – 40

        [ ] 41 – 50

        [ ] Over 50

    1.3 Indicate your position

        [ ] Academic Staff

        [ ] Postgraduate student

[ ] Undergraduate student. If undergraduate indicate your year of study _____

1.4 Faculty

   [ ] Theology

   [ ] Business and Economics

   [ ] Arts and Social Sciences

   [ ] Law

2. Please indicate your library usage patterns

   2.1 How often do you use the library and its resources?

      [ ] Daily

      [ ] Weekly

      [ ] Monthly

      [ ] Quarterly

      [ ] Never

   2.2 How often do you use Yahoo™, Google™, or other non-library gateways for information

      [ ] Daily

      [ ] Weekly

      [ ] Monthly

      [ ] Quarterly

      [ ] Never

3. Please tick [√] in the table below the number that best describe your <u>expectations</u> of the service in the library

   1 = Strongly Agree

   2 = Agree

   3 = Neutral

   4 = Disagree

   5 = Strongly Disagree

	I expect the library to provide ...	1	2	3	4	5
3.1	Adequate print collection (books) to my needs					
3.2	Adequate print journals for my work					
3.3	Adequate electronic journals for my work					
3.4	Easily available access to electronic databases					
3.5	Prompt Interlibrary Loan (loan from other libraries)					
3.6	An efficient Short Loan (Special Reserve Collection) service					
3.7	Prompt re-shelving of books					
3.8	Prompt re-shelving of journals					
3.9	Catalogue that is clear and has useful information					
3.10	Library opening hours that meet my needs					
3.11	Prompt corrective action regarding missing books and journals					
3.12	A webpage that is clear and has useful information					
3.13	An adequate number of computer workstations					
3.14	Computers that work well					
3.15	Adequate photocopying facilities					
3.16	Adequate printing facilities					
3.17	Staff who are friendly					
3.18	Staff who are readily available to respond to my queries					
3.19	Staff who are willing to help me					
3.20	Staff who understand my library service needs					
3.21	Staff who have the knowledge to answer my questions					
3.22	A quiet library environment					
3.23	A library space that inspires my own study and learning					
3.24	A library space for group learning and group study					
3.25	A library environment that has sufficient lighting					
3.26	A safe and a secure place for study					

4. If you would like to add any comment about any of the services above or add comment about any further services you expect from the library not listed above please do so

_____

_____

_____

_____

_____

5. Please tick [√] in the table below the number that best describe your <u>perceptions</u> of the service the library currently provides

       1 = Strongly Agree

       2 = Agree

       3 = Neutral

       4 = Disagree

       5 = Strongly Disagree

	The library currently provides ...	1	2	3	4	5
5.1	Adequate print collection (books) to my needs					
5.2	Adequate print journals for my work					
5.3	Adequate electronic journals for my work					
5.4	Easily available access to electronic databases					
5.5	Prompt Interlibrary Loan (loan from other libraries)					
5.6	An efficient Short Loan (Special Reserve Collection) service					
5.7	Prompt re-shelving of books					
5.8	Prompt re-shelving of journals					
5.9	Catalogue that is clear and has useful information					
5.10	Library opening hours that meet my needs					
5.11	Prompt corrective action regarding missing books and journals					
5.12	A webpage that is clear and has useful information					
5.13	An adequate number of computer workstations					
5.14	Computers that work well					
5.15	Adequate photocopying facilities					
5.16	Adequate printing facilities					
5.17	Staff who are friendly					
5.18	Staff who are readily available to respond to my queries					
5.19	Staff who are willing to help me					
5.20	Staff who understand my library service needs					
5.21	Staff who have the knowledge to answer my questions					
5.22	A quiet library environment					
5.23	A library space that inspires my own study and learning					
5.24	A library space for group learning and group study					
5.25	A library environment that has sufficient lighting					
5.26	A safe and a secure place for study					

6. If you would like to add any further comment about any of the services above or add comment about any further services not listed above please do so

_____

_____

_____

_____

_____

_____

7. Please indicate the degree to which you agree with the following statements

7.1 The library provides me with the information skills I need for my study

[　] Strongly agree

[　] Agree

[　] Neutral

[　] Disagree

[　] Strongly disagree

7.2 In general I am satisfied with library support for my learning, research and teaching needs

[　] Strongly agree

[　] Agree

[　] Neutral

[　] Disagree

[　] Strongly disagree

7.3 How would you rate the overall quality of the service provided by the library

[　] Extremely good

[　] Good

[　] Undecided

[　] Poor

[　] Extremely poor

8. Please give any further comments about the Iringa University College library services in the space provided below

---

For academic staff, I will collect the completed questionnaire from you. For students, please hand the completed questionnaire back to me. Should, for whatever reason, you are not able to return the completed questionnaire to me, please place it in a box, marked for this purpose, at the circulation desk in the library.

Should you need clarification, please contact me using one of the following contact details:

E-mail:	catsimba@gmail.com, catsimba@hotmail.com,
Cell:	+255 745 244307
Tel:	255 262 720 100,
Postal address:	P.O. Box 528, Iringa, Tanzania

Thank you for your co-operation.

Appendix 2

Cover letter to the respondents at Iringa University College

Rev Cornelius A Simba
P.O. Box 528
Iringa, Tanzania

Dear Respondent,

I am Rev. Cornelius A Simba, Master of Information Studies (MIS) student of the University of KwaZulu-Natal, South Africa. I am conducting this study as part of the requirements for the MIS degree. This survey aims at assessing your expectations and perceptions of the quality of library service offered to you. The result of the study will be communicated to the Iringa University College Library and the University administration. Better understanding of your expectations and perceptions may help the University and Library administration to improve library services and meet your quality service expectations and needs.

The questionnaire is intended for the actual users of Iringa University College Library i.e. all academic staff, all postgraduate students and a sample of 294 undergraduate students. However, participation in this survey is voluntary and without prejudice. Anonymity and confidentiality will be strictly observed when presenting the data. Please note that you are not required to provide your name or specific course of study.

You are kindly asked to answer all questions to the best of your ability.

Appendix 3

Informed Consent form for the sample population

INFORMED CONSENT FORM

Title of Study:

User perceptions of the quality of service at Iringa University College Library, Tumaini University, Tanzania

I, ..., hereby consent to participate in the study as outlined in the document about the study/ as explained to me by the researcher.

I acknowledge that I have been informed about why the questionnaire is being administered to me and the possible advantages and adverse effects which may result from my involvement in the above mentioned study. I also understand that I will not be forced to answer any questions if I choose not to even after signing this consent form.

I understand that the study will be conducted under the supervision of:

....

Contact:

....

I .... acknowledge that I understand the contents of this form and freely consent to participating in the study.

Participant

   Signed: ....

   Date: ....

Researcher

   Signed: ....

   Date: ....

Appendix 4

The map showing Tanzania regions