THE UNIVERSITY OF DAR ES SALAAM TRANSFORMATION PROGRAMME'S IMPLICATIONS ON THE RESOURCES AND INFORMATION SERVICES PROVISION OF IT'S TWO COLLEGES

By Patrick Mwakilama

A dissertation submitted in partial fulfilment of the requirements for the Award of the Masters of Arts in Information Studies of the University of Dar es Salaam

COLLEGE LIBRARY

MUHIMBIUTHIN GENCIES

August, 2003

CERTIFICATION

The undersigned certifies that she has read and hereby recommends for acceptance by the University of Dar es Salaam a dissertation titled: The University of Dar es Salaam Transformation Programme's Implications on the Resources and Information Services Provision of it's Two Colleges, in partial fulfilment of the requirements for the degree of Masters of Arts (Information Studies).

Professor Julita Nawe (SUPERVISOR)



AND COPYRIGHT

I, Patrick Mwakilama, declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other University for a similar or any other degree award.

Signature: -----

This thesis/dissertation is copyright material protected under the Berne Convention, the Copyright Act of 1999 and other international and national enactments in that behalf, on intellectual property rights. It may not be reproduced by any means, in full or in part, except for short extracts in fair dealings, for research or private study, critical scholarly review or discourse with an acknowledgement, without written permission of the Directorate of Postgraduate Studies on behalf of both the author and the University of Dar es Salaam.

ACKNOWLEDGEMENTS

I would like to thank all those who contributed in one way or the other towards the successful completion of this work. I would like to thank my Employer, the University College of Lands and Architectural Studies (UCLAS) for financial support, which enabled me to pursue studies at the Department of Information Studies, University of Dar es Salaam. Particular appreciation should go to the management of UCLAS for ensuring that funds were obtained.

I am heavily indebted to my supervisor Professor Julita Nawe for her invaluable, timely, continuous, and tireless guidance, advice and contribution throughout the pursuit of the study. Her constructive criticism and positive encouragement made this study possible.

I would also like to thank the teaching staff of the Department of Information Studies at the University of Dar es Salaam for facilitating this study. The comments made during the presentation of research proposal were instrumental and helpful in shaping this study.

I am indebted to my classmates, relatives, friends and colleagues who offered a lot of encouragement and support throughout this study.

My sincere gratitude and special thanks go to Dr. Alli Mcharazo for his guidance and encouragement throughout the course of pursuing my studies. His efforts to provide intellectual inspiration and advice shaped the direction of this study.

I would also like to thank the staff of the institutions were this study was carried out, especially, the academic and library staff of the Muhimbili University College of Health Sciences (MUCHS) and the University College of Lands and Architectural Studies (UCLAS). Their support and response to the questions enabled this work to be completed.

Finally, I am also indebted to my entire family, which has played an important role in making my studies possible. The following are worth mentioning:

- My parents who missed a great deal of my assistance.

- My wife Kisopo for accepting the idea that I should pursue further studies and

My children John and Lena who missed the company when they needed it.

DEDICATION

This work is dedicated to my parents, my wife and the children.

ABSTRACT

This study examined implications of the University of Dar es Salaam Institutional Transformation Programme (ITP) on resources and information services provision at the University College of Lands and Architectural Studies (UCLAS) and the Muhimbili University College of Health Sciences (MUCHS) Libraries. First it investigated the new demands in terms of library/information services, information resources (both print and non-print), facilities including IT facilities, library space, and human resources, which emerged as a result of UDSM 2000 Transformation Programme. Challenges facing librarians and other library staff working at UCLAS and MUCHS libraries in terms of managing transition from the old set up to the new set up, reorganization and policies, acquisition of resources and facilities are analyzed. Further, it investigated on the extent of current information resources, facilities/IT facilities, human resources, library space and services provision at MUCHS and UCLAS libraries in meeting the information needs of the new environment. In addition, this work looked at the reasons for shortfalls and recommended ways for addressing them.

The study employed case study methods to investigate this problem. Instruments used to collect data include a self-administered questionnaire, a structured interview schedule, personal observation, focus group discussion and review of published and unpublished documents.

The findings of the study have established that University of Dar es salaam 2000 Transformation Programmes (ITP) has raised new demands and challenges as regards to resources and information services provision. The findings also disclosed that the two college libraries' information resources/services, staffing, library space, IT facilities and equipment were inadequate in both quantity and quality to meet the new demands and challenges.

The study concludes that the absence of a library policy, inadequate funding, inadequate training to both users and library staff, lack of equipment/access to PC, lack of access to information resources, inadequate marketing strategies of services/resources, and poor management of both print and electronic information resources at MUCHS and UCLAS are the major reasons for the shortfalls in library resources/information services provision.

The proposed recommendations in this study to be considered include improved library collection, improved human resources capacity, resource mobilisation, allocation of more funds to libraries, and provision of more ICT facilities. The study also cites improved marketing of library services/resources, expansion of library building, improved public relations, networking and co-operation, conducting frequent user needs assessment and provision of a library policy and user education. Few areas for further research have been suggested in this study.

LIST OF ABBREVIATIONS AND ACRONYMS

CHSS Centre for Human Settlements Studies

HIS Institute of Human Settlements Studies

IGU Income Generation Unit

ITC Information and Communication Technology

IT Information Technology

ITP Institutional Transformation Programme

NGO Non-Government Organisation

MUCHS Muhimbili University College of Health Sciences

OPAC Online Public Access Catalogue

PC Personal Computer

PMU Programme Management Unit

RSP Rolling Strategic Plan

Sida/SAREC Swedish International Development Cooperation

Agency/Social and Academic Research Council

UCLAS University College of Lands and Architectural

Studies

UCU University College of Lands and Architectural

Studies Consultancy Unit

UDSM University of Dar es Salaam

UNESCO United Nations Educational, Scientific and

Cultural Organization

UNICEF United Nations International Children's Fund

WHO World Health Organisation

TABLE OF CONTENTS

	Page
Certification	i
Declaration and Copyright	
Acknowledgements	iii
Dedication	
Abstract	
List of Abbreviations and Acronyms	
List of Tables	
List of Figures	
List of Plates	
CHAPTER ONE	1
5 0	
INTRODUCTION	1
1.1 Background to the Problem	1
1.2 Statement of the Problem.	
1.3 Objectives of the Study	
1.3.1 General Objectives	
1.3.2 Specific Objectives	
1.3.3 Research Questions.	
1.4 Significance of the Study	
1.5 Limitation of the Study.	
1.6 Definitions of Terms.	
1.7 Theoretical Framework.	
CHAPTER TWO	19
LITERATURE REVIEW	19
2.1 Introduction	19
2.2 Transformation Programmes in Higher Education in Africa	
2.3 The Role of Academic Libraries in Facilitating the Achievement of	
Changing Needs of University Goals	
2.4 Curriculum Changes Versus Provision of Library Services	
2.5 Increased Student Enrolment Versus Provision of Library Services	
2.6 Information Technology (IT) and its Implications for Library	AND AND ASSESSED ASSESSED TO
Services	27
2.7 UDSM Institutional Transformation Programme	

2.8 Implications of UDSM Institutional Transformation Programme to MUCHS	35
/	
2.8.1 Implications of UDSM Institutional Transformation programme on Resources and Information Services Provision at MUCHS	
Library	38
2.9 Implications of UDSM Institutional Transformation Programme to UCLAS	
2.9.1 Implications of UDSM Institutional Transformation programme	
on Resources and Information Services Provision at UCLAS	
Library	44
2.10 Problems of Effective Library Resources/Information Services	
Provision in Third World Countries	46
CHAPTER THREE	49
RESEARCH METHODOLOGY	49
	4.5
3.1 Introduction.	49
3.2 Research Design.	49
3.3 The Study Area	50
3.3.1 Location.	
3.4 Population	51
3.5 Sampling Design	51
3.5.1 Sampling Methods	52
3.5.2 Sample Size	52
3.6 Methods of Data Collection	
3.6.1 Data Collection Instruments	
3.6.1.1 The Questionnaires	34
3.6.1.2 The Interviews-Guide	
3.6.1.3 Observation-Guide	
3.6.1.4 Focus Group Discussion.	50
3.6.2 Document Analysis	57
3.7 Instrument Testing	57 57
3.8 Data Analysis and Presentation	57 50
3.9 Ethical Issues	
CHAPTER FOUR	60
ANALYSIS AND PRESENTATION OF RESEARCH FINDINGS	60
4.1 Introduction	60
4.2.1 New Demands on Information Services	
4.2.2 New Demands on Information Resources	
T.2.2 INCVY Delitation of information Resources	

	4.2.3 New Demands on Information Retrieval Tools	
	4.2.4 New Demands of Library Space	68
	4.2.5 New Demands on Computers and other IT Facilities	68
	4.2.6 Challenges Facing College Library Staff in Meeting the New	
	Demands	69
	4.3.1 Information Services Offered	70
	4.3.2 Information Resources Offered	74
	4.3.3 Information Retrieval Tools Offered	79
	4.3.4 Library Space Offered	
	4.3.5 Computers and other IT Facilities Offered	84
	4.3.5 Human Resources	84
	4.4.1 Problems Facing College Libraries	86
	4.4.2 Measures Taken to Solve Problems Facing College Libraries	89
	4.5.1 What Needs to be Done to Improve Library Services/Resources	
	Provision	92
S.,	, in	
CHAF	PTER FIVE	95
N. 4		
INTE	RPRETATION AND DISCUSSION OF RESEARCH FINDINGS	95
	5.1 Introduction	95
	5.2.1 What are the New Demands and Challenges Facing College	
	Libraries?	95
	5.2.2 New Demands on Information Services/Information Resources	
	5.2.3 New Demands on Information Retrieval Tools	
	5.2.4 New Demands of Library Space	98
	5.2.5 New Demands on Computers and other IT Facilities	99
	5.2.5 Challenges Facing College Library Staff in Meeting New Demands	99
	5.3.1 Information Services Offered	100
	5.3.2 Information Resources Offered	102
	5.3.3 Information Retrieval Tools Offered	103
	5.3.4 Library Space Offered	104
	5.3.5 Computers and other IT Facilities	
in the second	5.3.6 Human Resources	105
	5.4.1 Problems Facing College Libraries	106
	5.4.2 Measures Taken to Solve Problems Facing College Libraries	108
	5.5.1 What Needs to be Done to Improve Library Services	109
CHAI	PTER SIX	111
	·	4.4.4
SUMI	MARIES, CONCLUSIONS AND RECOMMENDATIONS	111
	6.1 Summaries of the Findings	111
	6.2 Conclusions	
	6.3 Recommendations	117

REFERENCES124
APPENDIX I Self-Administered Questionnaire for Lecturers/Academic Staff130
APPENDIX II Self-Administered Questionnaire for Librarians/Library Assistants137
APPENDIX III Interview Schedule for Librarians141
APPENDIX IV Observation and Focus Group Discussion-Guide
APPENDIX V Attached Pro forma Letters for Research Permit

LIST OF TABLES

Table1: Library Services Needed by College library users	63
Table 2: New Demands on Information Resources: Lecturers' Opinions	66
Table 3: New Demands on Information Retrieval Tools	67
Table 4.1: Information Services Offered: Lecturers' Opinions	71
Table 4.2: Information Services Offered: Library Staff Opinions	74
Table 5.1: Information Resources Offered: Lecturer's Opinions	75
Table 5.2: Reasons for Rating Information Resources Offered as	
Inadequate	77
Table 5.3: Information Resources Offered: Library Staff Opinions	
Table 6.1: Information Retrieval Tools Offered: Lecturers Opinions	
Table 6.2: Information Retrieval Tools Offered: Library Staff Opinions	
Table 7: Library Staff by Position Held at MUCHS and UCLAS Libraries	
Table 8.1: Problems Facing College Libraries	86
Table 8.2: Measures Taken to Solve Problems	91
Table 9.1: What Needs to be Done to Improve Library Resources/	
Information Provision: Lecturer's Opinions	92
Table 9.2: What Needs to be Done to Improve Library Services: Library Staff	
Opinions	94

LIST OF FIGURES

Figure 1: Simple Systems Model	12
Figure 2: Complex Systems Model	
Figure 3: Library-User Environment	
Figure 4: Rating of Library Services Offered to College Library	
Users	72

LIST OF PLATES

Plate 1: Focus Group	Discussion with L	ibrary Assistants at	t UCLAS	88
Plate 2: Focus Group	Discussion with L	ibrary Assistants at	t MUCHS	89

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The working environment in which institutions of higher learning operate are changing (Nkunya, 2000:160; UDSM 2000:115-116). Trends in the political, demographic, social, cultural, economic, education, health, gender aspects, environmental concerns, regional integration, science and technology have created opportunities as well as challenges to higher learning institutions in Tanzania (UCLAS RSP 2001/2-2005/6; UDSM RSP 2000/01-2004/5; MUCHS RSP 1999/2000-2003/4). Furthermore, trends in national policies, student catchment, employment of university graduates, funding of higher education, networking and partnerships are among the challenges facing higher learning institutions in Africa, including Tanzania (UCLAS Five-Year RSP 2001/2-2005/6).

According to UDSM Transformation Programme (2000:58-59) higher learning institutions in Tanzania are currently undergoing a period of transformation in order to respond to the needs of social, political, cultural, economic, demographic and technological advancements. Universities in Africa, Tanzania in particular, are maintaining a regular review of education set-ups in order to remain competitive and to maintain academic relevance (Nkunya, 2000:173-174). The use of Information and Communication Technologies (ICTs), increased students enrolments, curriculum

change, new methods of teaching and increased research activities are among the major challenges facing institutions of higher learning in Tanzania (UDSM-2000: 109-110).

The University of Dar es Salaam was born out of a decision taken on March 25th, 1970 by the East African Authority to split the then University of East Africa into three independent universities for Kenya, Uganda and Tanzania (UDSM Prospectus 2001/2002: 1). The Muhimbili University College of Health Sciences (MUCHS) was established in July 1991 as a constituent college of the University of Dar es Salaam when the then Faculty of Medicine was upgraded to a University College. On the other hand, the University College of Lands and Architectural Studies (UCLAS) came into being after the upgrading of the former Ardhi Institute into a Constituent College of the University of Dar es Salaam (UDSM) on July 1st, 1996.

The University of Dar es Salaam being a subsystem of the higher education sector has been challenged to readjust to meet the needs of higher education in the country. To participate fully in higher education reform, the University of Dar es Salaam embarked on Institutional Transformation Programme (ITP). Some of the new needs that the University is addressing include: the expansion of student enrolments; new methods of teaching; introduced new academic programmes; increased research activities; provision of advisory and consultancy services and use of technology (UDSM ITP-2000: 110). For instance, pursuant to Institutional Transformation Programme, UDSM has, since the 1994/95 academic year, embarked on systematic expansion of student enrolment

(Ishumi, Maghimbi, and Kalembo, 2000:7-12; UDSM 200:110). The Muhimbili University College of Health Sciences (MUCHS) and the University College of Lands and Architectural Studies (UCLAS) being part of the University of Dar es Salaam have also embarked on Institutional Transformation Programme to cope with the needs of the new working environment. However, the on-going Muhimbili University College of Health Sciences and the University College of Lands and Architectural Studies transformation programmes have raised new demands and challenges on library resources/information services delivery at MUCHS and UCLAS libraries. This is because the task environment in which the two College Libraries operate has always been changing. The new status and organisation structure of the two Colleges call for improved and expanded library services in this new environment. The UCLAS college library strategic plan 2001/02 to 20005/06 for example, points out that:

The overall responsibilities of the college library are provision of information services and materials to support learning, teaching and research. It is, therefore, important to spell out clearly its role and responsibilities in realising them. The success of any college library development will largely depend upon the quality of its staff, collections and facilities including space. Also training and retraining of information personnel who can cope with new challenges is essential...(2002:4).

Academic institutions and their academic libraries play an important role in giving right direction to the economic, cultural, political, social, scientific and technological development of a nation. These two go side by side and help in promoting formal education for development of the students. A well–equipped library is essential for the efficient working of education institutions and for encouraging the literary and cultural interests of the students.

College Libraries being subsystems within the college setting are established to support the overall objectives of the parent institutions, that is, to support teaching, learning, research and consultancy services. Following UDSM 2000 Transformation Programme, MUCHS and UCLAS libraries are faced with new work environment. The two College Libraries are expected to respond positively to new demands and challenges that emerged as a result of new work environment to fully support the objectives of their parent institution. This means that they must adequately serve the needs and requirements of teachers, researchers and students towards reading, studying and research in the new college set-up. The question then becomes do the two College Libraries have the capacity to meet these challenges and demands in terms of needed resources, services, equipment and materials?

1.2 Statement of the Problem

The college libraries are expected to respond positively to the changing demands of the parent institution as a result of increased student enrolments, changes in curriculum, increased research activities, change in teaching methods, introduced new academic programmes and increased information resources available in electronic environment. However, the extent to which the two college libraries have responded to the changing demands is not known. Thus this study looked at the extent to which the two college libraries: Muhimbili University College of Health Sciences (MUCHS) and University College of Lands and Architectural Studies (UCLAS) at the University of Dar es

Salaam, are equipped to meet the challenges of Institutional Transformation

Programme –UDSM 2000. It also looked at the reasons for shortfalls and recommended ways for addressing them.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this research was to examine the extent to which current college library resources/information services provision at MUCHS and UCLAS meet new demands and challenges that emerged as a result of UDSM 2000 Transformation Programme (ITP).

1.3.2 Specific-Objectives

- To investigate new demands and challenges that UDSM Institutional Transformation Programme (ITP) poses to library resources and services provision to university colleges.
- To examine the extent to which college library facilities, resources and services currently in place are able to meet new demands and challenges.
- To examine problems and obstacles experienced by college libraries in coping with new demands and challenges and the way they are being solved.
- To recommend how best to respond to these new demands and challenges in facilitating effective and adequate library/information services provision.

MUHIMBILI UNIVERSITY &

1.3.3 Research Questions

- What are the new demands and challenges as regards to resources/information services provision at MUCHS and UCLAS libraries following UDSM Institutional Transformation Programme?
- How effective has been the current library services/resources support in the satisfaction/meeting the new demands and challenges raised by UDSM Institutional Transformation Programme?
- What problems face college libraries in coping with the new demands and challenges as regards resources and library services provision?
- What needs to be done by college libraries so as to meet the new demands and challenges posed by UDSM Institutional Transformation Programme?

1.4 Significance of the Study

This study will be useful in several ways:

- The findings of this study may contribute to better understanding of the new demands and challenges facing MUCHS and UCLAS libraries as a result of increased student enrolments, curriculum changes, new methods of teaching, introduced new academic programmes, increased research activities and use of information technology for teaching, research and learning.
- The findings of this study may help in refining strategies that would allow MUCHS and UCLAS libraries cope with new demands and challenges.

- This study may be a basis for determining constraints faced by other academic libraries in Tanzania in dealing with increased student enrolments, change in curriculum, increased research activities and information and communication technology infrastructures for other institutions which have not embarked on such changes.
- It may help in formulating collection development policies at MUCHS and UCLAS libraries.

1.5 Limitations of the Study

Because of limited time and financial problem it was difficult for a single researcher to conduct a comprehensive study. Also because of time and money problems, it was not possible to cover all the variables as regards to how library resources/information services provision at MUCHS and UCLAS meet the new demands and challenges raised by UDSM 2000 Transformation Programme. Variables that were covered include new demands on information services, information resources, information retrieval tools, library space, computers and other IT facilities, and challenges facing librarians. Others include the extent of library services offered in meeting new demands. Variables not covered include IT skills among users and library staff, and how users are knowledgeable about services/information resources available. Also during the interview some respondents were not willing to be interviewed.

1.6 Definitions of Terms

UDSM Institutional Transformation Programme: refers to changes made by the University of Dar es Salaam to improve its services suited to new demands. In this study it refers to increase in student enrolment, new methods of teaching, introduced new academic programmes, human resources development and application of information technology for teaching and learning.

Library Resources: refer to information materials both print and non-print, library staff, ICT/IT facilities, equipment, and furniture available in the library.

Library Services/Information Services: refer to services offered to library users and these include reference service, interlibrary loan, circulation services, loan services, indexing and abstracting services, information retrieval, current awareness, and selective dissemination of information, reprographic services, CD-ROM services, electronic document delivery services and user education.

Information Technology: a term, which covers a range of technologies relevant to the transfer of information, in particular to the use of computers, digital electronics, and telecommunications (The Cambridge Paperback Encyclopedia, 1999). In this study it refers to library use of computers, digital electronics and telecommunication for information gathering, processing, storage, retrieval and transfer of information. It means the use of computerized library catalogue, automated circulation services, the use

of CD-ROMs, Internet connectivity, electronic document delivery, and accessibility to electronic journals and other information materials in the library.

1.7 Theoretical Framework

The researcher used the systems theory approach to investigate the complexity of Institutional Transformation Programmes in institutions of higher learning in Tanzania and how the academic library may respond to meet these transformations. This approach provides a useful framework in understanding the contributions of each component forming the system. The systems approach helped to reveal the adequacy of library services to increased student enrolments, change in curriculum, new methods of teaching, introduced new academic programmes, increased research activities and provision of information technology facilities.

Ludwig Von Bertlanffy (1972:407) developed the general systems theory movement. He defines a system as "a set of elements standing in interrelation among themselves and with the environment" (Bertlanffy, 1972 cited in Stueart and Moran, 1993:17). According to Bhattacharya (1994:15, 16) Systems-Approach consists of applying a synthetic mode of thought as well as an analytic mode of thought for carrying out all the operations of management activities. He argues further that in the synthetic mode of thought, a system is viewed as a sub-system or super system. In the analytic mode of thoughts, a system is explained in terms of its specific structure functions and other attributes. The term 'structure' refers to the part, that is, 'components' and their inter-

relationships. It is argued that in the process of complete understanding of a system, one mode of thought complements the other.

Corresponding to synthetic mode of thought, the set of questions generally raised consist of the following:

- What constitutes the immediate environment of the system concerned?
- What are all the super-systems of different removes of which the system, concerned may be deemed to be a sub-system?
- What is the overall objective (goal) of each of those super-systems of different removes?
- What are all the coordinate systems?
- What is the overall objective of the coordinate systems, the achievement of which contributes to the achievement of the overall objective of the immediate supersystem?
- What is the overall objective of the concerned system? (Bhattacharya, 1994:16).

Analogously, corresponding to the analytic mode of thought, the set of questions generally raised consist of the following:

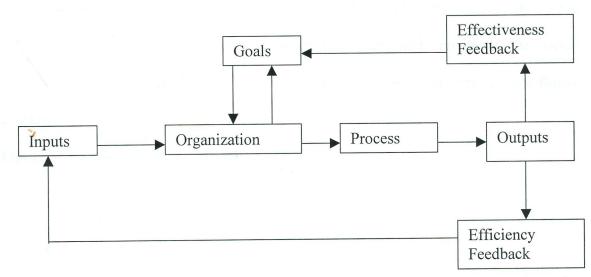
- What are the components of different levels of the concerned system?
- What are all the specific functions of each of these components?
- What are all the other attributes that are essential for each of these components, which would contribute to the accomplishment of its specific functions?

• What is the level of performance efficiency of each of these components? (Bhattacharya, 1994:16).

Kraft and Boyce (1991:2-3) argue that there is a common set of goal, which the various elements together as a whole are attempting to achieve. Elements that are not in the system are considered to be part of the environment. There is a system boundary between the system and the environment. An open system is the one that conducts transactions of one sort or another across the system boundaries with its environment. The open system is linked to the environment and is stimulated to respond to changes in such a way that the system maintains relevance to the changing work environment. On the other hand, a closed system has no links to the environment and it lacks the capacity to respond to changes in the environment. To illustrate how systems work and how effective the system is in responding to its environment, systems models such as simple system model, complex system model and the library-user environment are useful in this analysis. These models try to reveal an understanding of the effectiveness of a given organization to its environment. Underwood (1990:22) elaborates that, simple systems model shows the importance of both efficient (the degree to which resources are being used economically) and effectiveness (the degree to which the needs of the environment are being met). Morgan (1995:5) argues that efficiency is the relationship between the outputs of the system and the resources required for providing outputs. Effectiveness, on the other hand, is the degree to which the system is achieving its aim and objectives including ensuring that its policy aims are being met. Effectiveness, according to

Morgan (1995:5), is concerned with outcomes or impacts or the effects of the service on users and is assessed against a baseline (that is, various aims and objectives). According to simple systems model, the organization is linked to its environment by the passage of inputs, process, outputs and goals. This relationship is represented diagrammatically in **figure1** below:

Figure 1: Simple Systems Model



Source: Underwood, P.G. (1990). Managing change in libraries and information services: a systems approach, London: Clive Bingley, p. 21.

This model is useful in understanding the performance of a particular organization as it discloses the inputs needed by an organization, how these inputs are being processed into the organization, what outputs result from these inputs and, finally, how effective has been the outputs to customers. On the other hand, complex systems model shows the environment of the system, the inputs to the system, tasks of the system/organization, outputs and the extent of the inputs, tasks and outputs of the system in meeting the needs of the environment (Underwood, 1990:23-24). In understanding the effectiveness of a

system, complex systems model displays three environmental levels namely: internal, operating and general environment. The internal environment contained by the system boundary constitutes all those elements or entities that are within the official jurisdiction of the organization. In addition, the internal environment is composed of systems, which operate within the context of the organization and which interact with each other. Operating environment constitutes the group of customers and interest groups, which deal with, influence or are influenced directly by the work of the organization (Kraft and Boyce, 1991:3). The general environment on the other hand constitutes the social, economic and technological context within which any organization operates (see **figure 2** below).

General environment

Parent
Organization

Users

Internal environment
(Library system)

Operating environment

Figure 2: Complex Systems Model

Source: Underwood, P.G. (1990). Managing change in libraries and information services: a systems approach, London: Clive Bingley, p. 23.

From this model, an organization, which is under a super system, requires to know the overall objectives of the super system in which it belongs. After that the sub-system must establish its own objectives to achieve the overall objective of the parent organization. In addition, complex systems model show that in order for the sub-system to respond to these environmental needs, it must require the necessary inputs which must be processed properly to produce outputs meeting the needs of the overall objectives of the parent organization.

As these models uncover, systems approach defines the environment of the system and what the system offers to the environment. The relevance of the system is determined by the effectiveness of a given system to respond to the needs of the environment, that is, the degree to which the needs of the environment are being met.

Higher education sector in Tanzania is a super system composed of universities, colleges and other higher learning institutions as sub-systems. The University of Dar es Salaam, on the other hand, is a super system composed of institutes, colleges, faculties, libraries, and administration as sub-systems. The academic library is a super system composed of acquisition, reference service, readers' service etc as sub-systems.

At national level, higher education system's working environment consists of the political, social, cultural, economical and technological needs of higher education system in Tanzania. The effectiveness of higher education in Tanzania is determined by

the extent that the requirements of political, social, cultural, economic and technological changes are met. At university level, UDSM working environment is the entire higher education sector in Tanzania. The effectiveness of UDSM and its constituent colleges of MUCHS and UCLAS are determined by the extent that the requirements of higher education are met. At departmental level, the academic library's working environment is the parent organization (University or College). The effectiveness of an academic library is judged by the extent that the requirements of parent organization goals are achieved. Likewise, the effectiveness of acquisition, reference services, cataloguing, readers' service or documentation service is judged by the extent that they meet the overall objective of library resources/information services provision.

As systems approach exposes, an environment influences all the identified systems. Thus, change in environment needs automatically forces the system to respond and conform to the new environment needs. Recent changes in higher education setup in Tanzania forced UDSM and its constituent colleges to respond to new demands of higher education setup through UDSM 2000 ITP. As a result, this move affected all other sub-systems including library resources/information services provision. According to the systems approach, the library is an organization, within an external environment, which consumes resources (inputs), uses those resources within its own internal operations (processes) and produces products for a population of users (outputs). Morgan (1995:3) elaborates that, inputs into academic library service consist primarily

of financial resources which are translated secondarily into appropriate staffing, collections of books and periodicals, electronic databases and other physical plant. According to Morgan (1995:3), inputs into an academic library would be evaluated in terms of the role played by them in the library context i.e. the library's collection (input) would be evaluated in terms of satisfying the demands placed upon it (output). On the other hand, outputs from an academic library represent the services provided by that library that is, the number of reference enquiries accurately answered, the number of user education sessions successfully delivered, and the success in providing appropriate textbooks to support a student project.

Morgan (1995:19-20), when addressing library effectiveness required to meet user needs, pointed out that, the library as a system must operate taking into consideration the following components:

- Library systems: book and periodical system, classification schemes, indexing and abstracting systems, physical layout of the library, issue and return, protocols, overdue and fine, manual and electronic catalogues, enquiry services, general rules and regulations, security systems etc.
- Physical resources: books, periodicals, audio-visual materials, electronic databases and allied services, seating and different types of furniture, photocopying and other reprographic equipment etc.

- Staff: the different roles of library staff in terms of subject knowledge, function, competence levels within library hierarchy, what are the user expectation of the staff and are these realistic?
- Library environment: silent study areas, group study areas, bookable carrels, quiet/noisy atmosphere, lighting, general comfort, accessibility to the library, its services and the materials for different categories of users, the library size and the implication of user intimidation etc.
- Institutional environment: how supportive the library is in the parent organization?
 How close is the relationship between departments and the library, between other support services and the library within an institution.
- Big wide world: how influential is the government in terms of resources to the library? What are the effects of government policies on the library services in terms of capital expenditure, development etc.? How dependent are the institutions on technological advances in computing, networking, telecommunications etc.
- Users or readers or clients or customers or consumers of the library services: students, lecturers, researchers, other staff and other communities (that is, the different stakeholders) who use the services and resources of the library system.

Those components and their relationships as enumerated by Morgan (1995:19-21) provide an understanding of the extent of library resources/information services provision in meeting new demands and challenges raised by UDSM 2000 ITP. **Figure 3** below summarizes the different identified components and their relationships.

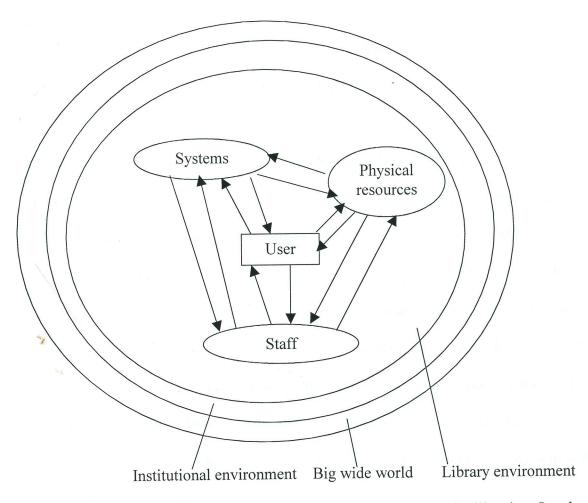


Figure 3: Library-User Environment

Source: Morgan, S. (1995). Performance assessment in academic libraries, London: Mansell Publishing, p. 20.

In view of simple systems model, complex systems model and library-user environment systems model it has been observed that the variables and issues raised by these models are useful in investigating this particular problem.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of related literature about the problem investigated. The reviews of related literature in this study began by looking at how different scholars argue about Transformation Programme in Higher Education in Africa, including Tanzania with particular reference to the two colleges of the University of Dar es Salaam: the Muhimbili University College of Health Sciences and the University College of Lands and Architectural Studies. Secondly, a review looked at the role of libraries in supporting or facilitating institutional transformation programmes in higher education institutions. Briefly, implications of increased student enrolment, change in curriculum and uses of technology to resources/information services provision in college libraries have been reviewed.

2.2 Transformation Programmes in Higher Education in Africa

Several studies discuss different perspectives of transformation programmes undertaken in different sectors after independence. Obanya (1999:547) argues that in the third decade of the attainment of independence by African nations, there is general realization that all is not well. Because of the general realization that things are not well, African nations are engaged in adjustment programmes. Obanya (1999:547) points out that adjustment is the battle cry everywhere whether as propounded by the World Bank, UNICEF, and the Economic Commission for Africa.

Many scholars argue that adjustment means that things have to change (Uys, 2000:2; Uys, 2001:5). Transformation programmes in higher education in Africa entail that higher education needs to be adjusted to the cultural, political, social, economic and technological demands of the present society (Kundi and Chijoriga, 2000:148). According to Ishumi (1994:63) the post-independence African Universities are entrusted with challenging task of advancing the traditions of scholarship and solving African domestic problems. In the light of the new demands and challenges facing higher education, African universities have embarked on transformation programmes. African universities have realized that, despite their presence, there are several problems preventing students and nationals from benefiting fully from education opportunities provided by institutions of higher learning and that these problems must be addressed if these institutions are to keep pace with the socio-economic and technological changes and respond to the requirements of ever-changing labour market (Diambomba, 1989:182, 195; Omari, 1991:3; Uys, 2001:1).

African universities have also recognized that to achieve these goals requires major programme of institutional reform. The reform outlined by different scholars involved in higher education in African universities are wide-ranging and intend to address and correct some of the following: curriculum reform, increase student enrolments, increase research activities, improve teaching and increase consultancy services. However, the successful implementation of many of the proposed reforms will, to a large extent, depend on improving the entire higher education system.

Recognizing the pivotal role each component forming higher education system must play is vital to successful realization of university goals. Rosenberg (1997:85) argues that universities in Africa recognise that, given rapid changes in society and the changing needs of students, there will have to be fundamental changes to the curriculum for higher education to be relevant and useful. Rosenberg (1997:85) adds that, strategies to implement the new curricula include redefining the role of library as a facilitator of learning, looking again at the effectiveness of the library to provide information resources. Rosenberg (1997:85) when addressing the situation of the University of Botswana emphasizes that African universities are in the period of transformation. For example, the University of Botswana student number has been rising steadily, academic staff number has risen in the same proportion, new departments and courses are established each year and postgraduate courses are introduced. The library as one of the support services of the university, therefore, needs to receive advanced warning of any new demands which it will be expected to meet.

2.3 The Role of Academic Libraries in Facilitating the Achievement of Changing Needs of University Goals

Academic institutions and academic libraries play an important role in promoting cultural, political, social, scientific and technological development of a nation. These two go side by side in promoting formal education for development of students. Mangla (1994:33) agues that:

A university, a college and for that purpose any institution of higher learning is rightly described as a community where teachers are the heads, students are the body and the library its heart. If the head and the body are to perform their functions properly and efficiently, its heart must be well developed and strong in its functioning.

This implies that libraries and information services play a vital role in the growth and development of higher education in the country. However, this vital role may not be realized if academic libraries are unable to quickly respond to the changing needs of the university community. The Truman Commission on Higher Education in India stated that "the library is second only to the instructional staff in its importance for higher quality instructions and research" (Mangla, 1994:34). The Kothari Commission on Education shares similar views with Mangla on the importance of academic library by emphasizing that:

No university, college, or department should be set without taking into account its library needs in terms of staff, books, journals, space, etc. Nothing could be more damaging to a growing department than to neglect its library or to give it a low priority. On the contrary, the library should be an important centre of attraction on the college or university campus (Cited in Mangla, 1994:33).

Casteleyn and Webb (1993:3) argue that because libraries play an important role to support their parent organizations, information services provision must always reflect user needs. As pointed out by Wittacker (1993:2):

If the reader wants to use the library on a self-basis, then the library must provide appropriate services such as guiding and catalogues. If the reader wants to use the library on a staff-assisted basis, then staff with appropriate knowledge and skills needs to be available etc.

This tells that libraries must be prepared to provide a variety of services needed by users. At the same time adequate library staff must be available to provide such services to users. For example, Hellinger and Henderson (1971) elaborate that:

The library is expected to provide more complete services with greater precision and reliability and to do so with little or no delay. Each demonstration of the ability to fulfil those expectations will encourage increased demand and each failure will be met with increased dissatisfaction and hence frustration (cited in Nyerembe, 2001: 5).

Many scholars argue that researchers, academics and students require access to information resources available electronically due to advances in Information and Communication Technologies (Barker, 1998:302; Nyerembe, 2001:6). However, Nyerembe (2001:4) argues that there is little to benefit from accessing to global or even local digital information resources if the skills to select, interpret and apply the information are absent or poorly developed in the population. The implication of this argument calls for academic libraries to provide users with the necessary skills to enable them select, interpret and apply information to suit their academic needs. It is evident, therefore, that academic libraries have a big role to play in supporting the changing

needs of teaching, research and learning by providing their users with the necessary skills to access both print and non-print information resources. To achieve this role academic libraries are required to get prepared to play their roles as argued by Casteleyn and Webb (1993:133) that:

Staff training and development is a key area for any librarian or information manager. For the service to operate effectively, library and information staff need to be seen not merely as signposts to sources, but rather as the key to their effective use and exploitation, that is, as professional information handlers and organizers who are also good communicators. Thus to achieve these, attitudes and skills as well as specialist knowledge are crucial.

As argued by Casteleyn and Webb (1993:133), library managers and other library staff have the duty to make sure that they play a meaningful role as expected by their customers. On the other hand, institutional management has the duty to create conducive environments to library staff for them to play a meaningful role in supporting the achievement of parent organization goals.

In view of the above arguments, academic libraries have the role to play in facilitating the achievement of the changing needs of university or college goals. Thus, academic libraries need to take measures which can help them to meet user expectations in the new work environment.

2.4 Curriculum Changes Versus Provision of Library Services

The academic library supports the curriculum through the provision of books, audiovisual resources and information services. Although these activities contribute to the development of the student, they are largely outside the university curriculum and

rarely acknowledged (De Silva and Turriff, 1993:14). These changes, therefore, call for increased collaboration between the teacher and the librarian (Schmidt and Cribb, 1998:1). Changes in the curriculum have implications for the library that must be addressed before they become a serious problem. All of them imply the need to recognize the supportive role played by academic libraries in the delivery of services and also in meeting curriculum needs and requirements. De Silva and Turriff (1993:26-27) argue that the freedom of every student to choose his/her own area of doing a project can bring about a number of problems particularly when the library is not informed about curriculum changes to ensure that the library has the needed resources for projects undertaken by students.

The library as a curriculum support service should be able to provide appropriate and adequate resources both print and non-print for both staff and students to use for a particular topic (Kumar, 1994:68-69). Library support of individuals or groups of learners will require the provision of learning resources of different interests and abilities. Effective and relevant sources of information are likely to motivate learners to work and produce high-quality assignments (Dickinson, 1994:29). All these suggest that without the librarian's participation in the curriculum matters, the support provided by the library would at best be fragmented if not inadequate for learners needs (De Silva and Turriff, 1993:26-27). Integrating the library into the curriculum cannot be successfully attempted unless there is support from the senior management and a policy recognizing the role of the library within the curriculum.

Increased student enrolments and increased research activities among the academic community mean that many students will be involved in doing projects of their choice. Thus, effective library should be able to support choices made by every student and researcher. The provision of adequate learning or information resources is a major problem when curriculum changes are made, when there is an increased student enrolment and increased research activities. Research shows that the introduction of new curricula makes it difficult for the library to meet the needs of new courses (Reid and King, 1994:21).

2.5 Increased Student Enrolment Versus Provision of Library Services

Increased student enrolment poses new demands and challenges to the current library space provision at the campus. Considering expansion, which takes place in higher institutions, Prashar (1994:123) argues that the library building should be planned to meet the requirements for the next ten years. UNESCO (1994) elaborates that:

The library space should be planned to meet the requirements for the next 20 years. Since it is bad in public finance to build now what is to be used in a distant future, it is worthwhile to restrict the projection to ten years only (cited in Prashar, 1994:123).

Kaula (1994:116) shares similar views with Prashar regarding library building required to support new demands and challenges, which the library must respond to, to meet the increased student enrolments. According to Kaula (1994:117) there is a minimum standard of library building required to support the college status even though internal management decisions determine its implementation. Hence, the internal management

decisions need to act according to the international minimum standards of library building required to support the college status.

2.6 Information Technology (IT) and its Implications for Library Services Provision

IT has the power to transform teaching, learning and research into a more effective and enjoyable experience for students, researchers and lecturers. Therefore aspects of IT now appear in most subjects and IT is considered to be an important resource and so is the library because it caters for all disciplines. Emphasizing the role of IT in University, Mutagahywa and Mbwette (2000:279, 288) point out that:

The power of ICT is used in accessing the information resources and information retrieved for teaching and learning. In this category, examples include, electronic databases, library search engines, digital educational materials, resources on the www, and on CD-ROMs. Due to increased exposure of students to knowledge resources on the Internet, they (students) will become increasingly conscious and more demanding. The library has to be aware of this and has to embrace the challenge rather than neglecting.

Based on the above emphasis, the future of academic libraries depends on the future of the institutions they serve. The application of information technology for teaching, research, and learning in institutions of higher learning and the increased availability of information resources in electronic formats will largely determine how libraries are wired and use technology. Libraries cannot set services that are not in tune with the felt needs of the people and institutions they serve. Libraries serve teaching, research and consultancy needs. As these functions change, libraries must change with them.

The use of Information and Communication Technologies (ICTs) in education is a paradigm shift due to the focus on learning, rather than teaching (Nyerembe, 2001:1). High-speed communication networks are enabling teachers to work together and to develop courses jointly. In addition, different scholars argue that teaching requires teachers to be available whereas multimedia applications target learners (students and researchers) by providing information materials for learning anywhere (Barker, 1998:301; Nyerembe, 2001:1). Thus ICT applications for libraries must be developed to provide new tools and systems in order to improve and expand networked libraries (Barker, 1998:301). Nyerembe (2001:6) argues that the advent of electronic technology to library and information services calls for a library to purchase resources in a variety of formats in order to meet user needs. This is because now information resources are available in many formats and many sources than ever before. Thus these changes have profound effect in library services provision.

Although information resources available in many formats and many sources than ever before have created enormous opportunities to African university libraries and librarians, they have equally presented challenges, which need to be addressed. Otto (1998:347) argues that access to electronic information resource products is completely different from traditional methods of administration and distribution of paper-based information resources. This implies that the working area of librarians is changing with new media. According to Otto (1998:347), new media means new products, new technical conditions, and new innovative and adaptable administrative and operational structures.

Barker (1998:301) elaborates further that information and communication technology use in libraries are making possible for the acquisition, processing, organization, storage, retrieval, dissemination and administration of information resources. This implies that libraries need to put in place ICT infrastructure for them to be able to cope with new challenges.

On the other hand, Kiondo (2001:3) argues that although advances in Information and Communication Technologies (ICTs) have created enormous opportunities to African university libraries and librarians, they have equally presented challenges which need to be addressed in a scientific and professional manner in order for libraries in Africa, including Tanzania to fully use these technologies. According to Kiondo (2001:7-8) despite all the development and advantages, which ICT can contribute in improving accessibility to information resources, most African university or college libraries are still lagging behind in terms of application of ICT. Lagging behind of most African university libraries in terms of application of ICT has raised questions about the capacity of African university libraries to sustain and use ICT services (Katundu, 1998:110-111; 2001:19).

2.7 UDSM Institutional Transformation Programme

The trends in the strategic external environment have created new demands and challenges for the UDSM, which include: expansion of student enrolments and training more effectively for the changing labour market, developing research capacities and

programmes in strategic and priority national areas, committed to standards and ideals of creative and internationally recognized academic work, sensitive to national needs, using technology and other means to ensure improved quality of outputs and efficiency and flexibility (UDSM-2000:109).

Complex and dynamic problems and challenges resulting from external environment have created new demands and challenges for higher education in Tanzania (Kundi and Chijoriga, 2000:148; Mkude, 2000:139). The challenges towards knowledge society and globalisation, the rapidly changing national economic situation, the low level of national research capacities, the on-going reforms in both education and health sectors and social demands for education have posed challenges to universities (UDSM-2000:148).

Different scholars argue that higher learning institutions in Tanzania lag behind in student enrolments, research activities and consultancy services (UDSM Institutional Transformation Programme, 2000:148). Kundi and Chijoriga (2000:151) argue that the outputs of present higher education institutions do not match with the needs of Tanzanian economy. Consequently, key areas such as science, engineering, and technology have shown significant gaps or shortfalls. However, despite the growing challenges, the university being the major national higher education institution in Tanzania is obliged to provide leadership and quality teaching, research and advisory services. Kundi and Chijoriga (2000:151) add that Tanzania severely lacks capacity for research that is necessary for significant social-economic development. Thus, the

universities being the major research institutions in the country need to play active role in enhancing the research output of the country and thus contribute to social progress. Health sector in the country is being reformed, thus the UDSM through MUCHS has the obligation to contribute proactively to the process and to prepare itself for effective participation under the reformed system.

Most literature discusses the mission of the University to be threefold, namely teaching, research and consultancy. However, there have been questions by scholars and politicians whether African universities can actually fulfil this mission by adapting to the needs of their surrounding societies (Ishumi, 1994:60; Butz, 1999:12). Recent advances in scientific, technological, economic, political, social and cultural spheres in the world-over have had a considerable impact on higher education in Africa including Tanzania.

The University of Dar es Salaam embarked on Institutional Transformation Programme called UDSM 2000 Transformation Programme (ITP) as a tool to respond to complex and dynamic problems and challenges resulting from the external environment (UDSM Five Year Rolling Strategic Plan, 2000/2001-2004/05). "The ITP is a tool designed to help the university provide good, relevant and pertinent higher education to Tanzanian youth" (Mkude, 2000:145,146). Thus, in order to cope with the needs of external environment, the University with the help of ITP continues to strive to:

 Become more responsible and responsive to the needs of the economy and national development,

- Provide wide access to its services so that a greater proportion of the population isable to benefit from a university education, and
- Build a new identity with its own distinctive characteristics in an effort to achieve and maintain a reputable national, regional and international position in terms of the relevance and quality of teaching, research and consultancy services (UDSM-2000).

The UDSM 2000 Transformation Programme's effort is being guided by the Frame Corporate Strategic Plan developed in 1994 through a participatory process involving all the main stakeholders of the university. According to UDSM Rolling Strategic Plan (2000/2001-2004/05) the Frame Corporate Strategic Plan is a document defining main areas of the Institutional Transformation Programme (ITP) such as:

- The UDSM internal deficits regarding policies and planning, efficiency and effectiveness of management, administrative, technical and support services, and
- The Tanzanian national and societal deficits regarding professional human resources and related higher education research and development capacities.

Thus, the operationalisation of the Frame Corporate Strategic Plan, actively involved the University Central Administration, Colleges, Faculties, Institutes, Departments, and Units as well as interest groups and the University community at large (UDSM Five-Year RSP, 2000/2001-2004/05). Colleges, Faculties and Institutes have since 1997 prepared their Five-Year RSP within the Frame Corporate Strategic Plan and the plans

are being implemented, reviewed and rolled forward every year (Kundi and Chijoriga, 2000:148).

In an effort to implement the needs of UDSM 2000 Transformation Programme, the University of Dar es Salaam formulated its mission statement, which include the following components:

- Directly engage in the creation, transmission and evaluation of knowledge in the pursuit of excellence in academic scholarship and intellectual inquiry through teaching, research and provision of advisory and public services,
- Provide the labour market with highly competent professionals, able to contribute effectively to the development of a modern and prosperous society which can be achieved through integration of research, teaching and advisory services,
- Become a nation and international centre of excellence in terms of quality and relevant knowledge creation skills, development, advisory and public services and effective entrepreneurship,
- Endeavour to excel in knowledge and human resource capacity building without sacrificing quality against quantity, and
- Act as a catalyst for: improved democratisation of the society; improved standards of education at national level; the promotion and conservation of national cultural heritage; the promotion of accelerated national economic, scientific and technological development; the improvement of gender balance and equity; and the improvement of a lifelong learning process (UDSM Annual Report 1999/2000:2).

According to the UDSM Annual Report (1999/2000:3), in order to strive towards the achievement of her mission, the University is guided by the following strategic objectives:

- To improve legal framework, organisation and management,
- To enhance the speed and impact of the Institutional Transformation Programme,
- To expand undergraduate and postgraduate student enrolment,
- To improve quality and relevance of teaching and learning,
- To improve human resource capacity and development,
- To improve the volume and quality of research and publications,
- To improve marketing and public relations,
- To improve library and publishing services,
- To improve the volume and quality of consultancy and advisory services to the public,
- To improve student welfare,
- To increase the number and productivity of national and international linkages,
- To improve Information and Communication Technology capacity and effectively used in teaching and research,
- To improve gender balance and mainstreaming,
- To improve health services provision in the country,
- To improve infrastructure and estates management, and
- To enhance capacity for financial management and sustainability.

Thus, in an effort to achieve its strategic objectives, the University of Dar es Salaam has since the 1994/95 academic year embarked on a systematic expansion of student enrolment (UDSM Prospectus 2002/2003:1). Units forming the University of Dar es Salaam continue to expand their student in-takes for example, the Faculty of Nursing doubled its student intake (UDSM Annual Report 1999/2000:4). Regarding improvement of academic programmes, new courses and programmes were launched in different units (UDSM Annual Report 1999/2000:4-5). Courses like philosophy in the Faculty of Arts and Social Sciences; a four year part-time Bachelor of Business Administration in the Faculty of Commerce and Management; B.Sc. in Environmental Health in the Institute of Public Health at MUCHS; and Postgraduate Diploma and M.Sc. in Urban Planning and Management became operational (UDSM Annual Report 1999/2000:4-5).

2.8 Implications of UDSM Institutional Transformation Programme to MUCHS

The Muhimbili University College of Health Sciences is a constituent college of the University of Dar es Salaam. It offers undergraduate, postgraduate, and diploma programmes in allied health sciences (University of Dar es Salaam Prospectus, 2002/2003:292). The College consists of four faculties and five institutes. Being part of the University of Dar es Salaam, the College is part and parcel of UDSM Institutional Transformation Programme. However, the vision of the College is to become a full-fledged University (MUCHS RSP 1999/2000-2003/4). The mission statement of the College includes the following components:

- To provide in Tanzania a place of learning, education and research in health sciences and through these, provide a service of quality required and expected of a university institution of the highest standard,
- To prepare students through regular and professional courses in the fields of health and allied health sciences for degrees, diplomas, certificates and other awards of the University of Dar es salaam and for any diplomas, certificates and other awards offered at the college,
- To contribute to the intellectual life of Tanzania, to act as a focal point for its cultural development and to be a centre for studies, service and research pertaining to the interests of the people of Tanzania,
- To be the main supplier of key policy makers, experts and personnel responsible for all key positions in industry, public institutions, government and private institutions in the health sector, and
- To be a catalyst in health sector reform, health research, providing direction and guidance in research, ensuring that research priorities are responsive to the needs of the community, and educating the public in health related issues (MUCHS Five-Year Rolling Strategic Plan, 1998/99-2002/03).

MUCHS Rolling Strategic Plan 1999/2000-2003/4 states that, in order to achieve its mission, the college attempts to achieve the following goals:

- To provide graduates in health sciences for Tanzania health care system,
- To provide specialists, super-specialists and scientists in the health areas,

- To train allied health personnel,
- To carry out research in the health and related sciences,
- To provide continuing education to health workers,
- To provide specialist and super-specialist services to patients and community,
- To provide consultancy services for Government, Non-Government Organizations
 (NGOs) and other institutions, and
- To review programmes and introduce new ones as required.

Like its parent organisation, MUCHS has its own strategic plan to guide its activities. However, the content of the college strategic plan is prepared to reflect the needs of UDSM 2000 Transformation Programme. MUCHS Five Year Rolling Strategic Plan 1999/2000-2003/4 has been prepared to enable the College to fully participate in Institutional Transformation Programme. Thus, MUCHS Five-Year RSP 1999/2000-2003/4 has enumerated fourteen strategic objectives to be implemented as follows:

- To upgrade the College to a full fledged university,
- To expand student enrolment to meet national needs,
- To reduce failure rate at the College,
- To realign the teaching curricula to conform with health sector reform strategies,
- To enhance performance and to improve the quality of MUCHS outputs,
- To enhance research capacity and capability,
- To improve linkage between research and application of research results,
- To strengthen the College library services,

- To secure adequate funds to finance teaching activities,
- To redress the observed gender imbalance amongst students and staff,
- To improve students welfare,
- To strengthen the use of information technology in the core activities of the College,
- To improve infrastructure and estates management, and
- To strengthen human resource management in the college.

In an effort to achieve the identified strategic objectives, MUCHS has started to implement the fourteen strategic objectives (MUCHS Five-Year RSP 1999/2000-2003/4). Several strategies have been set to achieve each strategic objective (MUCHS Five-Year RSP 1999/2000-2003/4). For example, MUCHS through UDSM ITP continued to increase student intake and revised curriculum to conform to health sector reform in Tanzania. In addition, the College also continues to expand student enrolment to meet national needs. The statistics show that student enrolment increases every academic year. For example, in the year 1996/97 the actual enrolment reached 433; 1997/98 was 470; 1998/99 the actual enrolment was 547 while 1999/2000 the actual enrolment reached 678 (MUCHS Five-Year RSP 1999/2000-2003/4).

2.8.1 Implications of UDSM Institutional Transformation Programme on Resources and Information Services Provision at MUCHS Library

The Medical Library was started under the auspices of the University of Dar es Salaam in 1970 when the then Faculty of Medicine was established under the University of Dar es salaam. The Medical Library was established to make the collection accessible not

only to the students and faculty staff, but also to researchers and to the practicing physicians in the field. Initially the student intake was small, and was for medicine only. Later on the Medical Library witnessed many developments taking place at the University of Dar es Salaam. With these developments, the library also started to grow in response to the new disciplines as well as consolidation for the old disciplines. When the Taculty of Medicine was upgraded to University College of the University of Dar es Salaam in July 1991, the Medical Library being among units forming the then Faculty of Medicine also had to be upgraded to a college library.

MUCHS Five-Year Rolling Strategic Plan 1999/2000-2003/4 shows that strengthening of the College Library Services is among the strategic objectives to be considered so that the college may achieve its mission, vision, and be able to respond to the needs of UDSM 2000 Transformation Programme (MUCHS RSP 1999/2000-2003/4). MUCHS Library being one of the units forming the College is faced with challenges raised by its parent organisation as it implements the needs of UDSM Institutional Transformation Programme.

According to the implementation report of the College Library Rolling Strategic Plan 2001 to 2002, MUCHS Library aims to achieve eight strategic objectives namely:

- To expand the library physical facilities to match the anticipated expansion of student enrolment,
- To ensure adequate and qualified staffing to match new demands,

- To rehabilitate the library buildings and facilities,
- To review and streamline library budgeting practice to include student unit costs,
- To modernize and improve library services through appropriate and efficient utilization of information and communication technologies,
- To ensure adequate information resources and services,
- To strengthen the security of the Library, and
- To strengthen and develop Faculty/Institute/Departmental Libraries to supplement the College Library resources.

The College Library has three sections namely: Reader services (Reference and Circulation) Section, the Periodicals and Documentation Section and the Cataloguing and Classification Section. Since 1981 the senior library staff (librarians) have been accorded academic status and the library is now considered as one of the academic departments of the college. Senior library staff are involved in research in addition to library work. The College Library is the largest National Collection of health/medical resource materials. Its main function is to provide library and documentation services to support health/medical service, research and teaching at the College and Muhimbili Medical Centre. However, the service is also extended to others engaged in health/medical service, teaching and research (UDSM Prospectus 2002/2003:403).

The collection mainly comprises books and periodicals in medicine and health. The last stock taking conducted in 1988/89 indicates the Library had 80,000 volumes and 350

periodical titles, 450 dissertation and theses, 500 microforms, 250 manuscripts, 675 government publications, 75 films, 275 audio-visual materials (Kabudi, 2001:44).

2.9 Implications of UDSM Institutional Transformation Programme to UCLAS

The University College of Lands and Architectural Studies (UCLAS) comprises two faculties, an institute, centre of continuing education, centre for information and communication technology, and a college library. UCLAS as a constituent College of the University of Dar es Salaam was formally established in July 1996. Two legal instruments namely GN 148 of 29th 1996 and UDSM Act No.12 of 1970 are the basis for the establishment of UCLAS. It was originally founded in 1956 as a Survey Training School, located at Mgulani, on the then Southern outskirts of the City of Dar es Salaam. The School was strategically moved to the Observation Hill (its present location) in 1958. In 1972, it became Ardhi Institute and began offering tertiary level education in Land Surveying, Urban and Regional Planning and Land Management and Valuation. Later on, Architecture, Building Economics and Environmental Engineering were added (UDSM Prospectus 2002/2003:429). The Institute of Human Settlement Studies (IHSS), which is an integral part of UCLAS, was founded in 1979 as the Centre for Housing Studies (CHS), a joint project between the Government of Tanzania and the Netherlands. Following strategic planning exercise between the management of the then Ardhi Institute and stakeholders, the CHS was renamed Centre for Human Settlements Studies (CHSS) in 1995. As Ardhi Institute, UCLAS had its own strategic plan. However, under the umbrella of the University of Dar es Salaam, it was incorporated in

the UDSM Institutional Transformation Process as a late comer (Annual Consultative Workshop on UDSM ITP, 1999:159).

UCLAS, being part of the University of Dar es Salaam, is in a major transformation process designed to build its institutional and programme capacity to become a centre of excellence in Land Development Management, Environment Management and Human Settlements Development (UCLAS RSP 2001/2-2005/6). To be in line with the requirement of UDSM 2000 Transformation Programme, UCLAS's vision is to become a centre of excellence in Land Development Management, Environment Management and Human Settlement Development while the UCLAS mission statement is to provide quality teaching, research and consultancy in Land Development Management, Environment Management and Human Settlements Development (UCLAS RSP 2001/2-2005/6:4; UCLAS Mission and Vision, 2001:7-8).

In the process of establishing itself as a constituent college and realizing its fundamental mission of teaching, research and delivery of public services that is in line with higher educational policy as well as UDSM ITP 2000, the College formulated its own Strategic Plan (1998-2003) in order to realize its goal (The Mission and Vision of UCLAS, 2001:7-8). As a constituent college of the University of Dar es Salaam, UCLAS, therefore, is guided and works within the framework of UDSM ITP. The UCLAS Five-Year RSP 2001/2-2005/6 provides strategic objectives that UCLAS is addressing to

enhance and improve its core mission. The critical strategic objectives addressed by UCLAS include:

- To improve legal framework, organisation and management capacity,
- To improve teaching and learning,
- To improve research and publications,
- To improve consultancy and continuing education,
- To enhance national and international linkages and partnerships,
- To enhance marketing of UCLAS outputs and public relations,
- To improve human resources capacity and development,
- To improve gender balance and mainstreaming,
- To improve Information and Communication Technology,
- To improve physical resources and estate management,
- To improve library services,
- To improve student affairs,
- To improve health affairs of staff and students, and
- To enhance financial management and sustainability (UCLAS Five-Year RSP 2001/2-2005/6).

UCLAS being one of the sub-component forming the University of Dar es Salaam, has responded to the needs of UDSM Institutional Transformation Programme by implementing a number of activities which include:

- The establishment of UCLAS Programme Management (PMU) Office in order to adequately pioneer the transformation process and the process of implementation of strategic plan at the College,
- The College has established UCLAS Consultancy Unit (UCU),
- The College has initiated postgraduate programme,
- UCLAS has also embarked on human resources capacity building and development in an effort to improve effectiveness and efficiency,
- The college has continued from time to time to strengthen co-ordination of College
 ICT activities by increasing ICT facilities and use ICT in core activities of the
 College,
- UCLAS has diversified sources of income through soliciting external donor funding,
 stimulating funding from local donors and by improving financial management,
- The establishment of Income Generation Unit (IGU) has increased internal income generation capacity, and
- UCLAS has embarked on increased student enrolment (UCLAS Five-Year RSP 2001/2-2005/6).

2.9.1 Implications of UDSM Institutional Transformation Programme on Resources and Information Services Provision at UCLAS Library

The existing UCLAS Library is a result of changes and transformation that have taken place since it was a Survey Training Centre (UCLAS Library Strategic Rolling Plan, 2002). When the Survey Training Centre was changed to Ardhi Institute in 1974, the

Library changed its objectives to reflect the needs of the then Ardhi Institute. In 1996 Ardhi Institute became UCLAS and the Library objectives had to change to reflect the needs of UCLAS. The sitting capacity of the UCLAS Library is only 70 users at a time. UCLAS Library operates under three functional sections namely Acquisition, Circulation and Reference and Periodical. The UCLAS Library has a collection of more than 20,000 bound volumes and about 200 periodical volumes. It is a small library by a university standard (UDSM Prospectus 2002/2003:441).

In the process of its development, the current Library has established mission, vision, objectives and functions that are in line with new challenges through a College Library Five-Year Strategic Rolling plan 2001/02 to 2005/06. In order to cope with new challenges, the Library Five-Year Strategic Rolling Plan has increased the number of sections from three to five: acquisition, cataloguing, readers services, reference and periodicals, documentation and information technology. The College Library strategic objectives addressed in response to new work environment include: assessment of user needs, collection development, provision of IT facilities/services, human resource development, improved resource mobilisation, and expansion of the library building.

According to UCLAS Library Rolling Strategic Plan- 2002/2-2005/6 there is a need to strengthen the College Library Services by expanding the physical facilities (building space) in line with envisaged student enrolment expansion, increase the book titles and journals, and reviewing the quantity and quality of staff in line with the emerging

challenges to the library. In addition, introducing College Budgeting Policy that will allow predictable funds for purchasing and replenishing books and journals is needed (UCLAS Library RSP- 2002/2-2005/6). Furthermore, there is a need to enhance the electronic part of the College Library by computerizing the Library Information System, putting books, theses etc online; to provide access to international digital databases through the Internet, and to putt in place photocopiers in the Library so as to reduce the amount of pilferage and vandalism (UCLAS Library RSP- 2002/2-2005/6).

In view of the above argument, the literature acknowledges that UCLAS Library faces new demands and challenges that it must respond to in ensuring that adequate resources/information services are offered. However, in order to have a true picture on the new demands and challenges specific to UCLAS Library, an in-depth study was conducted.

2.10 Problems of Effective Library Resources/Information Services Provision in Third World Countries

The University of Dar es Salaam and its University Colleges of MUCHS and UCLAS through UDSM 2000 Transformation Programme, is building a new identity in an effort to achieve and maintain a reputable regional and international position in terms of the relevance and quality outputs (UDSM- 2000). Thus a fundamental role of an academic library is to provide adequate and relevant information services to support teaching, research, and consultancy services. A range of new services is required to enable the Library to meet the challenges of the UDSM 2000 Transformation Programme. The

problem of effective resources/information services provision as pointed out by Katundu (2001:13) is lack of sustainability as regards to library financing. On the other hand, Nyerembe (2001:2-3) points out access issues, lack of training of both users and staff, inadequate collection both print and electronic and funding as among the problems affecting effective library resources/services provision. Whereas Mambo (1998:161) points out that:

Economic problems have resulted in poor and outdated collections and a low level or complete absence of technology to support proper information technology development and retrieval services in libraries. As a result most libraries are lagging behind in terms of information retrieval and especially in the use of IT such as computers for the collection, organization and dissemination of information.

2.11 Summary

The review of literature has established that library resources/information services provision plays an important role towards achieving the parent organization's goals. Out problems affecting effective studied, several literature of the resources/information services provision have been detected. In addition, the review has also identified some solutions. The findings from the review indicate that there is a broad consensus among the various studies consulted, particularly on the problems as well as their solutions. Another equally important observation has been that there is no one strategy or problem, which can effect or affect library resources and information services provision on its own.

2.12 The Research Gap

A few studies attempted to discuss the implications of the Institutional Transformation Programme on resources and information services provision. Although the different literature consulted provide an understanding of the problem being investigated, the information obtained seem to be general. Thus, it has been observed that the general approach adopted in the different literature studied does not provide comprehensive information to fully answer the problem at hand. Hence this study used a more specific approach to investigate the problem at hand in order to provide a detailed information, which the general approach could not provide.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section presents the research methodology and procedures used in the study. It covers the research design, study area and sample of the population, sampling design and sampling methods. Methods used for data collection, instruments used, the data analysis procedures, and ethical issues are also discussed.

3.2 Research Design

According to Kothari (1990:39) research design is the conceptual structure within which research is conducted. It constitutes the blueprint for the collection, measurement and analysis of data. A case study strategy was selected as being more appropriate for the indepth study of the problem at hand. According to Naoum (1998:4) deciding on which type of research strategy to follow, depends on the purpose of the study and the type of information required for answering the research problem. Case studies are used when the researcher intends to support his/her argument by an in-depth analysis of a person, a group of persons, an organisation or a particular project (Naoum, 1998:46). A case study design deals with a specific area, which could represent the whole or part of the study area. Yin (1994:23) points out that "in general, case studies are the preferred strategy when 'how' and 'why' questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life

context, especially when the boundaries between phenomenon and context are not clear and require multiple sources of evidence. The case study strategy allows the researcher to use a mixture of methods: personal observation, straightforward interviewing, and the tracing and study of relevant documents etc. (Casley and Lury, 1987:65).

3.3 The Study Area

The study was conducted at the two constituent colleges of the University of Dar es Salaam, namely: University College of Lands and Architectural Studies (UCLAS) and Muhimbili University College of Health Sciences (MUCHS).

3.3.1 Location

University of Dar es Salaam and the constituent colleges of MUCHS and UCLAS are located within Dar es Salaam Region situated along the Eastern Coast of Tanzania Mainland.

The choice of UCLAS and MUCHS Libraries is based on several factors. Firstly, the researcher is familiar with the College Library through his 3 years' working experience with the College. Secondly, as Constituent Colleges of the University of Dar es Salaam, the two College Libraries are facing almost similar challenges in response to the UDSM Transformation Programme currently in place despite the fact that they offer different degree programmes.

3.4 Population

In this study population under study consisted of the library and teaching staff at MUCHS and UCLAS. Library staff are the people who work in the library department and provide library services to customers. Directors or chief librarians and head of sections in the respective libraries were the targeted population because they are knowledgeable and professionally experienced. In addition they hold management positions crucial to decision-making and formulation of policies affecting resources and information services provision. Library assistants were also involved because they do a lot of clerical work, paraprofessional tasks and interact frequently with library users. They have unique experiences and opinions considered being helpful in answering the problem at hand. On the other hand, teaching staff/academics are the people who carry out teaching activities. In addition, are involved in curriculum reviews, researches, advisory services and identification of information materials suited to teaching, research and consultancy services. Furthermore, teaching staff were considered having extensive knowledge regarding Institutional Transformation Programmes in their respective Colleges.

3.5 Sampling Design

Peil (1985:26) defines sampling as the selection of a part to represent the whole. Sampling design is a definite plan for obtaining a sample from a given population (Kothari, 1990: 40, 69). In this study, non-probability sampling was used to determine the sample size and sampling method. Under non-probability sampling, the organizers of

the inquiry purposively choose the particular units of the universe constituting a sample on the basis that the small mass that they so select out of a huge one will be typical or representative of the whole (Kothari, 1990:73). According to Kothari (1990:73) this design may be adopted in small inquiries and researches by individuals, because of the relative advantages of time and money inherent in this method of sampling. The non-probability sampling method adopted in this study is purposive sampling method.

3.5.1 Sampling Methods

In order to get the required information for this study, purposive sampling technique was used. Purposive sampling is the process of choosing information rich samples for indepth study (Patton, 1990:169; Peil, 1985:31). One or few communities are selected for intensive study because they are considered typical or outstanding examples of the variables with which the research is concerned (Peil, 1985:31). For this study, purposive sampling technique allowed the researcher to identify only those respondents who were familiar with the problem investigated. This assisted the researcher in collecting relevant information for the study.

3.5.2 Sample Size

In total, the sample size of 50 respondents from the two colleges was used. 32(64%) are academics and 18(36%) are library staff. 20(62.5%) out of 32 academics are from MUCHS. This figure constitutes at least two academic staff from the four faculties and five institutes available at MUCHS whereas a total of twelve (37.5%) out of 32 lecturers

are from UCLAS. This figure represents two academic staff from the six departments available at UCLAS. Since most of the academics appear to have similar problems as revealed in the literature review, the decision of taking two academic staff from faculties or institutes or departments forming the college was considered to be logical and could produce data which reflected the reality of the situation. Ten (55.6%) out of 18 library staff are from MUCHS whereas eight (44.6%) out of 18 library staff are from UCLAS. The sample size of 50 respondents was considered to be appropriate for this study because, firstly, it was easy for a single researcher to manage this size. Secondly, this sample reflected the number of faculties, institutes and size of the college libraries at MUCHS and UCLAS.

According to Stephen and Hornby (1997:113) the desirability of a sample does not necessarily reflect the size of the population from which it is drawn rather, validity depends more on the appropriateness of the question asked, on the skills of the investigators, and on the fullness, accuracy and honesty of the responses.

3.6 Methods of Data Collection

Triangulation was used in this study. According to De Chernatory etal...(2002:2-3) triangulation involves the use of a combination of different methods of data collection, theoretical perspectives, data from different levels of persons, from multiple sources of data and different researchers simultaneously investigating a phenomenon. Similarly, Yin (1994:92) comments that with triangulation..."the potential problems of construct

validity can be addressed because the multiple sources of evidence essentially provide multiple measures of the same phenomenon". However, only two types of triangulation were used in this study namely: methodological and data triangulation. Methodological triangulation allowed a multi-method approach in examining the implications of UDSM ITP on resources and information services provision at MUCHS and UCLAS. The researcher used questionnaire, interviews, observation, focus group discussion and documentary reviews. Data triangulation enabled the researcher to seek views of multiple participants (lecturers, librarians and library assistants). These approaches were adopted to complement or overcome any deficiencies of other particular methods used or data gathered. The study used both primary and secondary sources of data.

3.6.1 Data Collection Instruments

A self-administered questionnaire and a structured interview schedule were used for data collection. In addition, document analysis, focus group discussion and observation guides were used to supplement the two instruments.

3.6.1.1 The Questionnaire

The choice of questionnaire as the main data gathering instrument resulted from the advantages it provides when compared to other types of instrument. According to Moore (1987:19-20) questionnaires are cheap, relatively flexible and can be used to reach a very large number of people. With self-administered questionnaires, respondents were asked to complete the questionnaire themselves. Both open and

structured questions were included in the questionnaire. According to Moore (1987:17) open questions allow respondents to record answers in their own words. Therefore, are suited to collecting information about differing shades of opinions. Closed questions allow respondents to choose between a number of alternative answers because they provide a range of answers and thus reduce the chances of respondent overlooking something and they reduce the possibility of obtaining ambiguous answers. In this case they are easy to complete and easy to analyse (see **Appendix I-II**). The researcher distributed the questionnaire by hand and a follow-up was done to make sure that questionnaires were filled in by the respondents and returned.

3.6.1.2 The Interview-Guide

The interview guide comprising six general questions were used to supplement data collected through questionnaires (see **Appendix III**). This was considered essential not only as a supplement to the questionnaire in obtaining data, but also to offset the disadvantages associated with the use of questionnaire as data gathering method. Structured interviews were conducted with the library assistants, librarians and heads of sections. Structured interview allowed questions to be presented in the same order and with the same wording to all interviewees. This enabled the interviewer to have full control on the entire process of the interview. Naoum (1998:58) has observed that with structured interview, answers can be more accurate, the response rate is relatively high and the answers can be explored with finding out why the particular answers are given.

3.6.1.3 Observation -Guide

Data were gathered through observation by the researcher directly in the field. Observation was undertaken during the distribution and collection of questionnaire, and when conducting interviews. This method enabled the researcher to investigate library facilities, information resources both print and non-print and various activities in the respective libraries (see **Appendix IV**).

3.6.1.4 Focus Group Discussion-Guide

According to Emory and Cooper (1991:147) focus group discussion is a panel of 8 to 12 respondents led by trained moderator. In this study focus group discussion was used for uncovering information about human perceptions, feelings, experiences, opinions and thoughts. A group of people were brought together to discuss issues raised by the interviewer or moderator on the research problem. The method had several advantages to this study. First, it assisted the researcher in generating questions because little was known about the topic being researched. Secondly, questions regarding new programmes could be investigated in a relatively quick and cost effective manner. Emory and Cooper (1991:147) argue that, as a group interview tool, focus group discussion is potential particularly where the generation and evaluation of ideas or assessment of needs is indispensable (see Appendix IV).

3.6.2 Document Analysis

Document analysis enabled the researcher to collect secondary data through library research. Secondary data refers to the data, which have already been collected and analyzed by someone else (Kothari, 1990:138). At times, there may be wealth of usable information in the already available data, which must be used, by an intelligent researcher but with due precaution (Kothari, 1990:138). In this case, various published and unpublished books, reports, papers, strategic plan documents and journal articles including electronic sources on the Internet and CD-ROM databases were reviewed.

3.7 Instrument Testing

The draft questionnaires were distributed to seven Masters students pursuing Information Studies Programme at the University of Dar es Salaam, Tanzania and two professional librarians with a Ph.D. to assess the clarity, validity, and relevance of the questions. The researcher made corrections based on the comments given by those who were involved in the testing of the instruments.

3.8 Data Analysis and Presentation

The collected data were both from closed and open-ended questions. The closed questions were pre-coded in terms of ideas and themes to establish categories for easy analysis. The categories were assigned before the data were collected. On the other hand, open-ended questions were post-coded in terms of ideas and themes. The categories were assigned after the data were collected.

After established the coding, that is, the unit of analysis and classified into mutually exclusive categories for sub-sequent analysis, data were actively analysed. Descriptive statistics was used as a method of analysis. According to Naoum (1998: 105) descriptive statistics method is the simplest method of analysis which provides a general overview of the results. It gives an idea of what is happening. Naoum (1998: 105) further elaborates that, the descriptive method either analyses the responses in percentages (as in the case of a big sample) or numbers (as in the case of a small sample). Statistical Package for Social Sciences (SPSS) assisted the analysis of quantitative data collected from closed questions to determine their percentages and frequencies.

Content analysis was also used to analyze data collected through open-ended questions from the questionnaire, interviews, focus group discussions and secondary sources. In this case the researcher listed the categories of the variable and counted the number of observations in each manually. The frequencies were then converted into percentages of the total number. According to Emory and Cooper (1991:457) content analysis is the systematic, objective analysis of the occurrences of words, phrases, concepts and themes so as to analyse the expressed content of the communication.

There after results/findings were presented in the form of tables. The results/findings were then discussed and interpreted. The percentages and frequencies formed the basis of discussions to the quantified data. However, ideas, themes and opinions formed the basis of discussions, and interpretations of the research findings to the qualitative data

that were gathered through open-ended questions, interviewees and focus group discussions.

3.9 Ethical Issues

Some of the respondents were not willing to disclose information about their attitude towards library development. In addition, some respondents questioned about the possibility of getting feedback of the research findings. Others were even sensitive about providing background information. In this case the researcher had to assure them that the information they provide would only be used for the purpose of the study and nothing else. The researcher maintained that confidentiality about the answers offered would be highly observed. The researcher also assured respondents to get feedback of the research findings. A consensus was reached that a copy of the research report would be deposited and available in the respective College Libraries for easy access to the participating respondents. The process of obtaining the informed consent of those participating in the research was communicated formally in writing. In this case to obtain the informed consent of both institutions and participants in the study, two covering letters were prepared, one by the University of Dar es salaam (see Appendix V) introducing the researcher to the official institutions under study and the other by the researcher (see Appendix V) which contained self introduction, information about the study and the way respondents would have access to the feedback of the research findings.



CHAPTER FOUR

ANALYSIS AND PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter presents and analyses collected data. The Questionnaire, interview, observation, focus group discussion and documentary review methods were used in the data collection. The study investigated the UDSM Institutional Transformation Programme and its implications on resources and information service provision at MUCHS and UCLAS libraries.

The study was based on the following objectives:

- To investigate new demands and challenges UDSM Institutional Transformation
 Programme poses on library and information service provision in the Constituent
 Colleges of UDSM.
- 2. To examine the extent to which the College Library facilities, resources and services currently in place are able to meet new demands and challenges.
- 3. To examine problems and obstacles experienced by the College Libraries to cope with new demands and challenges and the way they are being solved.
- 4. To recommend how best to respond to these new demands and challenges.

In order to achieve the specific objectives of this study, the following research questions were used to investigate the problem at hand.

- 1. What are the new demands and challenges regarding resources/information services provision at MUCHS and UCLAS libraries following UDSM Institutional Transformation Programme?
- 2. How effective has the current library services/resources support been in the satisfaction/meeting the new demands and challenges raised by UDSM 2000 Transformation Programme?
- 3. What problems face the College Libraries in coping with the new demands and challenges as regards resources and library services provision?
- 4. What needs to be done by the College Libraries to meet the new demands and challenges posed by UDSM 2000 Transformation programme?

The above research questions were the basis for the formulation of the questionnaire, interview, observation and focus group discussion guides. The research questions also were the basis for the analysis and presentation of data.

Findings are presented and analysed under the relevant research question explained above.

4.2 Research Question One- What are the New Demands and Challenges as Regards to Resources/Information Services Provision at MUCHS and UCLAS Libraries Following UDSM Institutional Transformation Programme?

Research question number one investigated the new demands and challenges raised by increased student enrolments, new methods of teaching, new programmes and IT use for library resources/information services provision. The question was important in that responses to it could provide relevant information as regards to current resources and library services provision needed at MUCHS and UCLAS libraries. Furthermore, such investigation was critical because the University of Dar es Salaam and its constituent colleges operate under the guidelines of UDSM ITP. The literature review reveals that since the inception of UDSM ITP, new demands and challenges have been raised in the various sectors of the University including library resources/information services provision. In addition, the literature review uncovered that, although many scholars have identified several current needs challenging different sectors of the University setting, investigate needs facing library little attempted to current resources/information services provision at MUCHS and UCLAS libraries.

4.2.1 New Demands on Information Services

It is important to know which library/information services are needed by the College Library users in order to determine which library services need to be provided. Lecturers from the two Colleges were asked to indicate their needs regarding library and information services. This question allowed respondents to choose more than one response. **Table1** summarizes the results.

Table1: Library Services Needed by College Library Users

Type of Library Service	Response										
See all the second second second	MU	CHS Libr	dhair isa	UCI	LAS Libi	ary	(4)				
	Yes		No .		Yes		No				
	Fr eq.	%	Fr eq.	%	Fr eq.	%	Fr eq.	%			
Borrow information materials	18	90%	2	10%	10	83.3%	2	16.7%			
Interlibrary loan	3	15%	17	85%	1	8.3%	11	91.7%			
Reference services	17	85%	3	15%	9	75%	3	25%			
Indexing/Abstracting services	18	90%	2	10%	9	75%	3	25%			
Information retrieval services	18	90%	2	10%	11	91.7%	1	8.3%			
CD-ROM services	20	100%	0	0%	12	100%	0	0%			
Internet services	20	100%	0	0%	12	100%	0	0%			
Electronic document delivery	14	70%	6	30%	8	66.7%	4	33.3%			
Information literacy	19	95%	1	5%	12	100%	0	0%			
programmes Orientation programmes	20	100%	0	0%	12	100%	0	0%			
Photocopying services	20	100%	0	0%	12	100%	0	0%			
Audio-visual services	7	35%	13	65%	0	0%	12	100%			

(n= 20 for MUCHS and n= 12 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002

As it is evident from **Table 1**, the analysis shows that all respondents from MUCHS and UCLAS needed library services such as Internet services, CD-ROM services, orientation programmes, and photocopying services. The analysis also shows that eighteen (90%) respondents from MUCHS needed to borrow information materials, indexing and abstracting services and information retrieval services from their library, whereas ten (83.3%) respondents from UCLAS needed to borrow information materials from their

College Library. Three (15%) respondents from MUCHS needed interlibrary loan services compared to only one (8.3%) respondent from UCLAS. Whereas nine (75%) respondents from UCLAS needed indexing and abstracting services, eleven (91.7%) respondents from UCLAS needed information retrieval services. Furthermore, seventeen (85%) respondents from MUCHS and nine (91.7%) from UCLAS needed reference services to be offered in their College Libraries. In addition, the analysis shows that fourteen (70%) respondents from MUCHS needed electronic document delivery services as compared to eight (66.7%) respondents from UCLAS. While seven (35%) respondents from MUCHS needed audio-visual services, none of the respondents from UCLAS needed such services.

4.2.2 New Demands on Information Resources

Nowadays information resources are in various formats (media). Lecturers from the two Constituent Colleges were asked to indicate information resources both print and non-print needed to suit their academic needs. This question intended to investigate on information resources both print and non-print needed as a result of Institutional Transformation Programme. Therefore, respondents to this question could indicate one or more than one type of information materials depending on the relevance of a particular information material to the academic needs of the respondent.

All the respondents from MUCHS and UCLAS needed information resources such as annual reviews, journals, electronic journals, electronic books, electronic reference

materials, scholarly database resources, hybrid digital collection and CD-ROMs to be availed in their College Libraries (see **Table 2**). The analysis also shows that all the respondents from MUCHS and eleven (91.7%) from UCLAS needed textbooks from their College Libraries, whereas sixteen (80%) respondents from MUCHS and eight (66.7%) from UCLAS needed manuals and handbooks respectively. Furthermore, the analysis shows that the majority of the respondents, that is, nineteen (95%) from MUCHS and all from UCLAS needed reference books. In addition, the analysis shows that only seven (35%) respondents from MUCHS and seven (58.3%) from UCLAS needed government publications from their College Libraries respectively. The majority (75%) of the respondents from MUCHS needed indexes and abstracts from their College Library as compared to only three (25%) respondents from UCLAS. Fourteen (70%) respondents from MUCHS and seven (58.3%) respondents from UCLAS needed guides to literature from their College Libraries. Finally, the analysis shows that fourteen (70%) respondents from MUCHS and two (16.7%) from UCLAS needed audio-visual resources. **Table 2** below summarizes the results of the analysis.

Table 2: New Demands on Information Resources: Lecturers' Opinions

Type of Information Resource	etriev			Res	sponse			ar white			
	MUC	CHS Libi	rary		UCL	UCLAS Library					
	Yes		No		Yes		No				
	Fre	%	Fre	%	Fre	%	Fre	%			
	q.		q.		q.		q.				
Textbooks, Books	20	100%	0	0%	11	91.7%	1	8.3%			
Reference books	19	95%	1	5%	12	100%	0	0%			
Government	7	35%	13	65%	7	58.3%	5	41.7%			
publications	1,111	- usi				LATTIB					
Manual	16	80%	4	20%	8	66.7%	4	33.3%			
Handbooks	16	80%	4	20%	8	66.7%	4	33.3%			
Indexes/Abstracts	15	75%	5	25%	3	25%	9	75%			
Guides to literature	14	70%	6	30%	7	58.3%	5	41.7%			
Annual reviews	20	100%	0	0%	12	100%	0	0%			
Journals	20	100%	0	0%	12	100%	0	0%			
Electronic journals	20	100%	0	0%	12	100%	0	0%			
Electronic books	20	100%	0	0%	12	100%	0	0%			
Scholarly database	20	100%	0	0%	12	100%	0	0%			
resources											
Hybrid digital	20	100%	0	0%	12	100%	0	0%			
collection		K SUFE OF S									
CD-ROMs	20	100%	0	0%	12	100%	0	0%			
Audio-visual material	14	70%	6	30%	2	16.7%	10	83.3%			

(n= 20 for MUCHS and n= 12 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002

4.2.3 New Demands on Information Retrieval Tools

Information retrieval is important in that it enables library users to retrieve the required information or information resources. Information retrieval service is dependent on the retrieval tools offered by the library in question. In addition, quick retrieval service is dependent on the type of retrieval tool the user is offered. Therefore, the library which

offers a variety of retrieval tools is likely to meet the requirements of different users as regards to information retrieval. To this end lecturers were asked to indicate which information retrieval tools they needed for information retrieval. **Table 3** summarizes the results of the analysis.

Table 3: Demands on Information Retrieval Tools

Type of Retrieval Tool	UHS	aner I il	1.45 18	Res	sponse				
	MUC	CHS Lib	orary		UCL	AS Libra	ary		
	Yes						No		
	Fre	%	Fre	%	Fre	%	Fre	%	
	q.		q.		q.		q.		
Card Catalogue	16	80%	4	20%	6	50%	6	50%	
OPAC	14	70%	6	30%	10	83.3	2	16.7%	
Indexes and Abstracts	15	75%	5	25%	3	25%	9	75%	
Bibliographies	14	70%	6	30%	10	83.3%	2	16.7%	
Guides to literature	14	70%	6	30%	7	58.3%	5	41.7%	

(n=20 for MUCHS and n=12 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002

The analysis indicates that sixteen (80%) respondents from MUCHS needed card catalogue for information retrieval as compared to six (50%) respondents from UCLAS. The majority of the respondents, that is, fourteen (70%) from MUCHS and ten (83.3%) from UCLAS needed OPAC for information retrieval. The analysis further shows that fifteen (75%) respondents from MUCHS and only three (25%) respondents from UCLAS needed indexes and abstracts. Fourteen (70%) and ten (83.3%) respondents from MUCHS and UCLAS respectively needed bibliographies for information retrieval.

In addition, the analysis shows that fourteen (70%) respondents and seven (58.3%) respondents from MUCHS and UCLAS respectively needed guides to literature for information retrieval.

The overall analysis indicated that different information retrieval tools were needed for information retrieval at MUCHS and UCLAS libraries.

4.2.4 New Demands of Library Space

Lecturers were asked to indicate whether they needed reading space or not from their College Libraries. This question aimed at knowing if USDM ITP raised any demands on reading space provision to the College Libraries. It is important to ask users about their opinion regarding reading space because reading space is one of the major library services expected to be offered by any academic library. The analysis show that all respondents from MUCHS and UCLAS needed adequate reading space from their College Libraries.

4.2.5 New Demands on Computers and other IT Facilities

Equally important question included was the analysis of current computer and other IT facilities needed at MUCHS and UCLAS libraries. The analysis disclosed that all respondents from MUCHS and UCLAS needed computers, relevant software to access electronic information resources, and reliable connectivity to fully access electronic information resources.

4.2.6 Challenges Facing College Library Staff in Meeting New Demands

Academic libraries in institutions of higher learning are established to offer library/ information services required by lecturers, students and researchers. Increase in student enrolments, new methods of teaching, new academic programmes and the application of IT in various activities of the university community pose challenges to information professionals. The four librarians from the two College Libraries were asked during the interview to identify challenges facing them following UDSM ITP. This question intended to answer research question one, which investigated the challenges faced by MUCHS and UCLAS libraries regarding current library/information services provision. Content analysis was used to analyze the identified challenges.

The challenges facing library resources/services provision mentioned by the four librarians interviewed include securing adequate library funding, provision of adequate information resources both print and non-print, short and long-term training of library staff, provision of computer-aided library services, resources and other IT facilities, provision of adequate space, mobilisation of resources, and provision of adequate human resources. Two respondents mentioned changing negative attitude that prevailed towards library development among the university community, and conducting frequent user needs assessment to be the other challenges facing librarians in their attempt to improve library resources/services provision. Generally, the analysis showed that MUCHS and UCLAS library staff were faced with a big challenge of meeting user needs in terms of

space, services, computers and other IT facilities, human resources, and information resources both print and non-print.

4.3 Research Question Two-How Effective has been the Current Library Services/ Resources Support in the Satisfaction / Meeting the New Demands and Challenges Raised by UDSM ITP-

4.3.1 Information Services Offered at MUCHS and UCLAS Libraries

This question was designed to answer research question two aimed at investigating how effective has the current library services at MUCHS and UCLAS libraries been in meeting changing user needs.

Library users were asked to indicate the type of services offered in their College Libraries. As is often the case, the user may need one or more than one library/information service from the College Library. Therefore, the respondents were asked to indicate the type of library/information service(s) offered by their College Libraries. The analysis of this question showed that eighteen (90%) respondents from MUCHS borrowed information materials from their College Library as compared to eleven (91.7%) respondents from UCLAS. The majority (85%) of the respondents from MUCHS and ten (83.3%) from UCLAS indicated that their College Libraries offered reference services. With regard to indexing and abstracting services, only eight (40%) respondents from MUCHS and none from UCLAS indicated that their College Libraries offered such services. All respondents from MUCHS and UCLAS indicated that their College Libraries offered Libraries offered Internet and photocopying services. Also all respondents from

the two Colleges indicated that their College Libraries did not offer CD-ROM services, electronic document delivery services, and information literacy programmes. Analysis of data to this question was based on the total response. **Table 4.1** below summarizes the results of the analysis to this question.

Table 4.1: Information Services Offered: Lecturers' Opinions

Type of Library Service				Res	ponse			idah	
	MU	CHS Lib	rary		UCLAS Library				
	Yes		No		Yes		No		
	Fre	%	Fre	%	Fre	%	Fre	%	
Borrow information materials	q. 18	90%	q. 2	10%	11	91.7%	q. 1	8.3%	
Interlibrary loan	2	10%	18	90%	0	0%	12	100%	
Reference services	17	85%	3	15%	10	83.3%	2	16.7%	
Indexing/Abstracting services	8	40%	12	60%	0	0%	12	100%	
Information retrieval services	20	100%	0	0%	12	100%	0	0%	
CD-ROM services	0	0%	20	100%	0	0%	12	100%	
Internet services	20	100%	0	0%	12	100%	0	0%	
Electronic document delivery	0	0%	20	100%	0	0%	12	100%	
Information literacy programmes	0	0%	20	100%	0	0%	12	100%	
Orientation programmes	20	100%	0	0%	12	100%	0	0%	
Photocopying services	20	100%	0	0%	12	100%	0	0%	
Audio-visual services	0	0%	20	100%	0	0%	12	100%	

(n= 20 for MUCHS and n= 12 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002

Library users were also asked to rate library services offered in their college libraries.

Figure 4 below summarizes the results of the analysis.

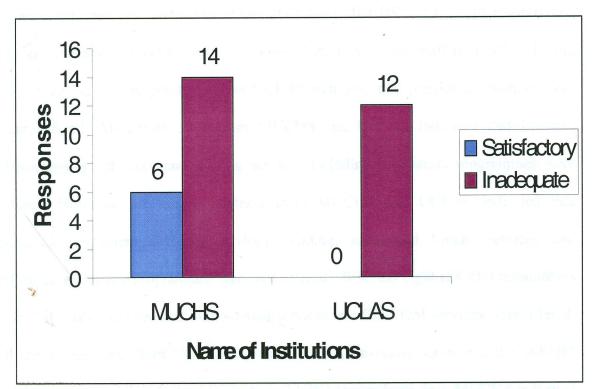


Figure 4: Rating of Library Services Offered to College Library Users

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002

As shown in **Figure 4**, six (30%) out of the 20 lecturers from MUCHS indicated that the College Library services offered were satisfactory. There was no response from UCLAS. Fourteen (70%) respondents from MUCHS and all the respondents from UCLAS indicated that the College Library services offered were inadequate because electronic document delivery, access to electronic documents, and CD-ROM services were missing in their respective libraries. Twelve (60%) respondents from MUCHS and all the respondents from UCLAS indicated that indexing and abstracting services were missing in their libraries. All respondents from MUCHS and UCLAS indicated that their College Libraries did not offer information literacy programmes (see **Table 4.1**).

MUHIMBILI UNIVERSITY

Sixteen library staff were also asked to fill in a self-administered questionnaire in order to indicate which library services were offered at MUCHS and UCLAS libraries. This figure constituted nine and seven library staff from MUCHS and UCLAS respectively. The analysis showed that eight (88.9 %) out of the nine library staff from MUCHS and only three (42.9%) respondents from UCLAS indicated that interlibrary loan services were offered. All library staff from MUCHS and UCLAS indicated that Internet, photocopying, reference and lending services including orientation programmes were offered. However, all the respondents from MUCHS and UCLAS indicated that electronic document delivery services, binding, automated library services and information literacy programmes were not offered. Whereas eight (88.9%) respondents from MUCHS indicated that audio-visual services and CD-ROM services were offered, all the respondents from UCLAS indicated that audio-visual services and CD-ROM services were not offered. In addition, two (22.2%) respondents from MUCHS indicated that indexing and abstracting services were offered whereas all the respondents from UCLAS indicated that such services were not offered. Table 4.2 below summarizes the results of the analysis.

Table 4.2: Information Services Offered: Library Staff Opinions

Type of Library Service		1		Resp	onse			
	MU	JCHS Lib	rary	_	UC	LAS Lib	rary	0
ables 5 1 Division 11 of	Yes		No		Yes		No	
4	F	%	F	%	F	%	F	%
	re		re		re		re	
	q.		q.		q.		q.	
Lending information	9	100%	0	0%	7	100%	0	0%
materials	la.			X 11 1				
Interlibrary loan	8	88.9%	1	11.1%	3	42.9%	4	57.1%
Reference services	9	100%	0	0%	7	100%	0	0%
Indexing/Abstracting	2	22.2%	7	77.8%	0	0%	7	100%
services								
Automated library operations	0	0%	9	100%	0	0%	7	100%
Information retrieval services	9	100%	0	0%	7	100%	0	0%
CD-ROM services	8	88.9%	1	11.1%	0	0%	7	100%
Internet services	9	100%	0	0%	7	100%	0	0%
Electronic document delivery	0	0%	9	100%	0	0%	7	100%
Information literacy	0	0%	9	100%	0	0%	7	100%
programmes								Lillotta
Orientation programmes	9	100%	0	0%	7	100%	0	0%
Photocopying services	9	100%	0	0%	7	100%	0	0%
Audio-visual services	8	88.9%	1	11.1%	0	0%	7	100%

(n= 9 for MUCHS and n= 7 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002

4.3.2 Information Resources Offered

Lecturers from MUCHS and UCLAS were asked to indicate which information resources (both print and non-print) were offered in their College Libraries. This question aimed at answering research question two, which required examining the extent to which the college library information resources (both print and non-print) met new demands and challenges raised by UDSM ITP. Respondents were asked to indicate one

or more than one type of information resource(s) offered to them. **Table 5.1** below summarizes the results of the analysis to this question.

Tables 5.1: Information Resources Offered: Lecturers' Opinions

Type of Information Resource	Response										
	MUC	CHS Lib	rary	LUM-16 d	UCLAS Library						
	Yes		No	No			No				
	Fre	%	Fre	%	Fre	%	Fre	%			
	q.		q.		q.		q.				
Textbooks, Books	19	95%	1	5%	12	100%	0	0%			
Reference books	19	95%	1	5%	12	100%	0	0%			
Government	2	10%	18	90%	9	75%	3	25%			
publications											
Manuals	19	95%	1	5%	8	66.7%	4	33.3%			
Handbooks	19	95%	1	5%	8	66.7%	4	33.3%			
Indexes/Abstracts	12	60%	8	40%	0	0%	12	100%			
Guides to literature	8	40%	12	60%	0	0%	12	100%			
Annual reviews	0	0%	20	100%	0	0%	12	100%			
Journals	20	100%	0	0%	0	0%	12	100%			
Electronic journals	0	0%	20	100%	0	0%	12	100%			
Electronic books	0	0%	20	100%	0	0%	12	100%			
Scholarly database	0	0%	20	100%	0	0%	12	100%			
resources											
Hybrid digital	0	0%	20	100%	0	0%	12	100%			
collection		a a series and the		- NT			1 11 1.0	CHS a			
CD-ROMs	0	0%	20	100%	0	0%	12	100%			
Audio-visual material	0	0%	20	100%	0	0%	12	100%			

(n=20 for MUCHS and n=12 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002

Nineteen (95%) respondents from MUCHS indicated that their College Library offered textbooks, books, reference books, manuals, and handbooks whereas all the respondents from UCLAS indicated that their College Library offered textbooks, books and

reference books (see **Table 5.1**). Two (10%) respondents from MUCHS and nine (75%) respondents from UCLAS indicated that their College Libraries offered government publications. All the respondents from MUCHS and UCLAS indicated that their College Libraries did not offer electronic journals, scholarly databases, electronic books, hybrid digital collections and other electronic databases and CD-ROMs including audio-visual resources such as audio, video and films.

Furthermore, lecturers from the two institutions were asked to rate information resources (both print and non-print) offered by their College Libraries. Six (30%) respondents from MUCHS indicated that information resources offered by their College Library were satisfactory. There was no response from UCLAS. Fourteen (70%) respondents from MUCHS and all from UCLAS indicated that information resources offered by their College Libraries were inadequate.

Respondents, who had the opinion that information resources offered at MUCHS and UCLAS libraries were inadequate, were asked to indicate reasons regarding their opinions. **Table 5.2** below summarizes the results of the analysis.

Table 5.2: Reasons for Rating Information Resources Offered as Inadequate

Type of Reason	407 [5]			Resp	onse		, roke	intranc
	MUC	CHS Libr		UCLAS Library				
	Yes		No		Yes		No	
	Fre q.	%	Fre q.	%	Fre q.	%	Fre q.	%
Reference materials outdated	12	85.7%	2	14.3%	9	75%	3	25%
Few relevant materials for research	12	85.7%	2	14.3%	12	100%	0	0%
Few relevant materials for teaching	13	92.9%	1	7.1%	10	83.3%	2	16.7%
Few reference materials	6	42.9%	8	57.1%	9	75%	3	16.7%
Few journals	14	100%	0	0%	12	100%	0	0%
No electronic journals	12	85.7%	2	14.3%	12	100%	0	0%
No electronic books	12	85.7%	2	14.3%	12	100%	0	0%
No scholarly database resources	12	85.7%	2	14.3%	12	100%	0	0%
No hybrid digital collection	12	85.7%	2	14.3%	12	100%	0	0%
No CD-ROMs	12	85.7%	2	14.3%	12	100%	0	0%

(n= 20 for MUCHS and n= 12 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October to November 2002

Table 5.2 shows that library users indicated a number of reasons for inadequate provision of information resources in their College Libraries. Twenty-one (80.8%) out of twenty-six respondents from the two Colleges indicated that information resources provision was inadequate because most of the reference materials were outdated. Twenty-four (92.3%) out of twenty-six respondents indicated that information resources provision was unsatisfactory because few relevant books were available in their fields of

research. Twenty-three (88.5%) out of twenty-six respondents indicated that information resources provision was unsatisfactory because their College Libraries offered a few relevant information resources in the courses they teach; fifteen (57.7%) out of twenty-six respondents indicated that information resources provision was unsatisfactory because a few reference materials were available. Provision of a few journals was indicated by all the twenty-six respondents as another reason for the inadequacy of information service provision, while twenty-four (92.3%) respondents attributed it to unavailability of CD-ROMs, electronic journals, electronic books, scholarly database resources, and digital collections.

To crosscheck the validity of information gathered from users, library staff were also asked to indicate information resources offered at MUCHS and UCLAS libraries. This question aimed at providing an opportunity for library staff to say which information resources were offered. The analysis showed that the two College Libraries offered print-based information resources such as textbooks, reference books, and journals. Five (55.5%) respondents from MUCHS and all from UCLAS indicated that government publications were offered. All the respondents from MUCHS and UCLAS indicated that non-print information resources such as electronic books, electronic reference books, electronic journals, digital collections and scholarly databases were not offered in the two College Libraries. Eight (88.9%) respondents from MUCHS library indicated that audio-visual materials and CD-ROMs were offered. All the respondents from UCLAS indicated that audio-visual materials were not offered. Table 5.3 below summarizes the results of the analysis.

Table 5.3: Information Resources Offered: Library Staff Opinions

Type of Information Resource			7=9	Resi	oonse	rop s	· 10 *****	
	MUC	CHS Libr	AS Libr	S Library				
	Yes		No		Yes		No	
	Fre q.	%	Fre q.	%	Fre q.	%	Fre q.	. %
Textbooks	9	100%	0	0%	7	100%	0	0%
Reference books	9	100%	0	0%	7	100%	0	0%
Government publications	5	55.6%	4	44.4%	7	100%	0	0%
Manuals	9	100%	0	0%	7	100%	0	0%
Handbooks	9	100%	0	0%	7	100%	0	0%
Indexes/Abstracts	8	88.9%	1	11.1%	0	0%	7	100%
Guides to literature	9	100%	0	0%	0	0%	7	100%
Annual reviews	1	11.1%	8	88.9%	0	0%	7	100%
Journals	9	100%	0	0%	7	100%	0	0%
Electronic journals	0	0%	9	100%	0	0%	7	100%
Electronic books	0	0%	9	100%	0	0%	7	100%
Scholarly database resources	0	0%	9	100%	0	0%	7	100%
Hybrid digital collection	0	0%	9	100%	0	0%	7	100%
CD-ROMs	8	88.9%	1	11.1%	0	0%	7	100%
Audio-visual materials	8	88.9%	1	11.1%	0	0%	7	100%

(n= 9 for MUCHS and n= 7 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002

4.3.3 Information Retrieval Tools Offered

Research question two also required to find out which and how the current information retrieval tools offered at MUCHS and UCLAS libraries met user needs in terms of information retrieval. As noted in research question one, information retrieval tools are

crucial in that they enable both users and library staff to retrieve the required information stored in the different storage media and library shelves. Information retrieval service is facilitated by the use of different information retrieval tools available in the library.

Lecturers were asked to indicate which information retrieval tools were offered in their College Libraries. All the respondents from MUCHS and UCLAS indicated that card catalogues were offered for information retrieval. Twelve (60%), eight (40%) and five (25%) respondents from MUCHS indicated that indexes and abstracts, guides to literature and bibliographies were offered for information retrieval. UCLAS Library did not offer all the three facilities. All the respondents from MUCHS and UCLAS indicated that OPAC was not offered for information retrieval. The analysis to this question revealed that card catalogue was the most offered retrieval tool. **Table 6.1** below summarizes the results of the analysis.

Table 6.1: Information Retrieval Tools Offered: Lecturers' Opinions

Type of Retrieval Tool	Response								
Tuest	MUCHS Library UCLAS Library								
	Yes	CHST	No		Yes	CLASI	No		
	Fre	%	Fre	%	Fre	%	Fre	%	
	q.	9/4	q.	100	q.	76	q.	94	
Card Catalogue	20	100%	0	0%	12	100%	0	0%	
OPAC	0	0%	20	100%	0	0%	12	100%	
Indexes and Abstracts	12	60%	8	40%	0	0%	12	100%	
Bibliographies	5	25%	15	75%	0	0%	12	100%	
Guides to literature	8	40%	12	60%	0	0%	12	100%	

(n=20 for MUCHS and n=12 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002

In addition, library users were asked to rate information retrieval tools in their College Libraries. Retrieval tools offered were considered satisfactory by eight (40%) of the respondents from MUCHS and not satisfactory by all the respondents from UCLAS. Twelve (60%) library users from MUCHS indicated that information retrieval tools offered were inadequate while all the respondents from UCLAS considered them as inadequate. Respondents were also asked to indicate why they rated information retrieval tools offered as inadequate. Response to this was that, information retrieval tools such as indexes, abstracts, guides to literature and OPAC were not always offered for information retrieval.

Table 6.2 below shows a summary of responses from library staff from both colleges regarding information retrieval tools used in their libraries.

Table 6.2: Information Retrieval Tools Used in the Library: Library Staff Opinions

Type of Retrieval Tool	Response										
V	MUC	CHS Libi	ary		UCI	LAS L	ibrary	•			
	Yes		No		Yes		No				
	Fre	%	Fre	%	Fr	%	Fre	%			
	q.		q.		eq.		q.				
Card catalogue	9	100%	0	0%	7	100	0	0%			
OPAC	0	0%	9	100%	0	0%	7	100%			
Indexes and Abstracts	8	88.9%	1	11.1%	0	0%	7	100%			
Bibliographies	2	22.2%	7	77.8%	0	0%	7	100%			
Guides to literature	8	88.9%	0	0%	0	0%	7	100%			

(n= 9 for MUCHS and n= 7 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002

As evident from **Table 6.2**, all the respondents from the two College Libraries indicated that card catalogue was offered for information retrieval. Eight (88.9%) respondents from MUCHS indicated that indexes and abstracts were offered for information retrieval while all the respondents from UCLAS indicated that indexes and abstracts were not offered. All the respondents from MUCHS indicated that guides to literature were offered for information retrieval whereas all the respondents from UCLAS indicated that guides to literature were not offered for information retrieval. Two (22.2%) respondents from MUCHS indicated that bibliographies were offered for information retrieval while all the respondents from UCLAS indicated that bibliographies were not offered for information retrieval. In addition, all the respondents from the two College Libraries

indicated that OPAC was not offered for information retrieval. Hence, the analysis of the results as indicated by library staff from the two college libraries uncovers that, card catalogue was the only retrieval tool offered mostly for information retrieval.

4.3.4 Library Space Offered

In an attempt to know the adequacy of the reading space offered, library users were asked to indicate whether the reading space provided by their College Libraries was adequate, satisfactory, or inadequate. Thirteen (65%) respondents from MUCHS indicated that the reading space offered was satisfactory. However, all the respondents from UCLAS indicated that the reading space was not satisfactory. Seven (35%) respondents from MUCHS indicated that the reading space offered by the College Library was inadequate while all the respondents from UCLAS indicated that the reading space was inadequate.

During the interview, the UCLAS library staff said that the siting capacity is only 70 readers at a time as compared to 260 readers at MUCHS library. The space problem was noted to be more serious at UCLAS than at MUCHS, although both of them need more space in order to cope with the increased student and other demands including shelving, equipment and office space.

4.3.5 Computers and Other IT Facilities Offered

Another important question included in this study related to an investigation of computers and other IT facilities. Lecturers were asked to indicate if their College Libraries offered computers and IT infrastructure. This question intended to investigate the availability of computers and IT facilities in the College Libraries. All the respondents from the two Colleges indicated that the College Libraries offered computers although the IT facilities were inadequate. Only one (5%) respondent at MUCHS rated IT facilities as adequate.

Computers and IT facilities were considered inadequate in terms of number, lack of software to access electronic information and unreliable connectivity to fully access electronic information resources. MUCHS and UCLAS libraries offered 15 and 11 computers respectively.

4.3.6 Human Resources

An effective library resources/information service provision requires not only provision of adequate library services, space, information resources, computers and other IT facilities but also the availability of adequate and trained library staff. The study noted that the College Libraries were not adequately staffed (only actual staff on posts, excluding those on leave without pay, study leave and leave of absence were considered). Table 7 below shows the different category of library staff available at MUCHS and UCLAS libraries.

Table 7: Library Staff by Position Held at MUCHS and UCLAS Libraries

Staff Position		Respoi	ıse		
	MUCHS	_	UCLAS		
	Freq.	Percent	Freq.	Percent	
Senior Librarian	0	0% -	0	0%	
 Librarian 	2	20%	2	25%	
 Assistant Librarian 	0	0%	0	0%	
 Principal Library Assistant 	4	40%	0	0%	
 Senior Library Assistant 	0	0%	1	12.5%	
 Library Assistant 	4	40%	5	62.5%	
-					

(n=10 for MUCHS and n=8 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002

From **Table 7**, it is clear that the staffing level was not satisfactory in terms of numbers and quality. Only two (20%) out of ten library staff from MUCHS are librarians, four (40%) are principal library assistants, and four (40%) are library assistants. At UCLAS, two (25%) out of eight library staff are librarians, one (12.5%) senior library assistant and five (62.5%) are library assistants.

As regards to levels of education and training, at MUCHS one (10%) library staff holds a masters degree, another one (10%) has a postgraduate diploma, four (40%) have diplomas whereas another four (40%) library staff have certificates. Only one (12.5%) library staff from UCLAS holds a Ph.D. degree, another one (12.5%) holds a masters degree, three (37.5%) have diplomas and three (37.5%) have certificates.

4.4 Research Question Three-What Problems Face College Libraries in Coping With the New Demands and Challenges as Regards Resources and Library Services Provision?

4.4.1 Problems Facing College Libraries

Four librarians from the two College Libraries were asked during the interview to mention problems affecting effective library resources/information services provision.

Table 8.1 below summarizes the analysis of the results.

Table 8.1: Problems Facing College Libraries

Type of Problem	Response	Percent
Inadequate Funding	4	100%
Inadequate collection in terms of number,	4	100%
relevance and currency		
Lack of user-education programmes	2	50%
Lack of CD-ROMs, audio-visual materials,	3	75%
teaching aids, microfiche equipment and		
related activities		
Inadequate library space for readers, materials	3	75%
and equipment	educes and st.	Since, the roll
Lack of electronic based information resources	3	75%
and utilisation	JUNE HOUSE OF THE SECOND	Partial or court
Inadequate heavy duty photocopying machines	1	25%
Lack of co-ordination between main library	3	75%
and departmental libraries		
Weak control of book theft and defacing	1	25%
Shortage of library staff	4	100%
Shortage of ICT/IT facilities	4	100%
Shortage of trained staff	3	75%

(n= 2 for MUCHS and n=2 for UCLAS)

Source: Compiled by the researcher from oral interviews with four librarians

From the above table, it is clear that the libraries' critical problem areas were staff and information in both print and non-print formats, followed by supporting equipment and space. Skills/qualification of staff was also ranked as a serious problem, which affects the provision of services. All the interviewed four librarians from the two College Libraries mentioned inadequate funding, inadequate collection in terms of number, relevancy and currency, inadequate library space for readers, materials and equipment, shortage of library staff, and shortage of ICT/IT facilities to be the problems affecting current library resources/information services provision at MUCHS and UCLAS libraries (see **Table 8.1**).

The analysis further shows that three librarians stated during the interview that lack of CD-ROMs, audio-visual materials, teaching aids, microfiche equipment and related facilities, lack of electronic based information resources and utilisation, lack of coordination between the main library and departmental libraries, and shortage of trained library staff are major problems affecting effective library resources/information services provision at the two College Libraries. Furthermore, lack of user education programmes and College Library guidelines/policies and procedures were stated by two librarians as problems affecting library resources/information services provision. Finally, only one librarian mentioned inadequate photocopying machines and lack of efficient security/checkpoint as among the problems affecting current library resources/information services provision at MUCHS and UCLAS libraries.

During focus group discussion, library assistants from the two College Libraries were asked to identify various problems affecting effective library resources and information services provision. The majority (62.5%) of the library assistants from MUCHS were of the opinion that inadequate salaries, lack of stocktaking for a long period of time, lecturers not visiting the College Library frequently, failure by lecturers and other academics to deposit their papers in the College Library, shortage of staff, shortage of information materials, mutilation and defacing of information materials, old shelves and inadequate furniture were the critical problems facing MUCHS library. On the other hand, the majority (66.6%) of the library assistants at UCLAS indicated that small library building, overcrowding in the library, mutilation and defacing of information materials, shortage of staff, lack of IT skills, lack of co-ordination between UCLAS library and departmental libraries, shortage of journals and books were problems affecting resources/information services provision.

Plate 1: Focus Group Discussion with Library Assistants at UCLAS



Plate 2: Focus Group Discussion with Library Assistants at MUCHS



4.4.2 Measures Taken to Solve Problems Facing College Libraries

The four librarians from the two College Libraries were asked during an interview to mention measures taken to solve problems faced by their College Libraries in ensuring that effective library resources/information services are offered at their respective libraries. Content analysis was used to analyze the results of these findings.

As indicated in **Table 8.2** below, three (75%) respondents mentioned that their College Libraries had established linkages with other institutions in order to see what others do and share experiences. Another three (75%) librarians mentioned expanded external linkages and co-operation as measures taken to encourage donor funding, resource sharing and collaborative projects. All the four interviewed librarians mentioned training of library staff under university scholarship to be among the measures taken to improve human resources capacity building. All the respondents mentioned introduced ICT/IT

facilities as another measure taken to improve access and utilisation of electronic information resources available worldwide. Also, all the four interviewed librarians said that College Libraries were getting support from several donors such as Sida/SAREC, Carnegie Corporation of New York, Book Aid International of London, and World Health Organisation (WHO). Documentary analysis from College Libraries strategic plans and annual reports also disclosed the same information.

Two (50%) respondents mentioned that their College Libraries were involved in interlibrary loan and resource sharing under the university's co-operation programmes as an attempt to solve the problem of shortage of resources. Another two (50%) respondents mentioned provision of College Library user manual as a measure taken to market library resources and services. Yet another two (50%) respondents mentioned existence of faculties or departmental libraries as a measure taken to provide information resources suited to a given faculty/department. Also two (50%) respondents mentioned provision of photocopying services as a measure taken to improved utilisation of print-based information resources. One (25%) respondent mentioned that repository of research reports from postgraduate programmes and repository of locally generated information resources are an attempt to deal with the problem of shortage of current information resources and improving current collection development.

Another one (25%) respondent mentioned that provision of orientation programmes aims at solving the problem of information retrieval and one (25%) respondent

mentioned introduced checkpoints as a measure taken to control theft of information materials.

All the interviewed librarians mentioned that employing additional library staff, especially professional ones, would solve the problem of shortage of library staff.

Table 8.2: Measures Taken to Solve Problems

Type of Measure	Response	Percent
College libraries have established linkages with	3	75%
other institutions		
Interlibrary loan, electronic document delivery,	2	50%
resource sharing under university's co-operation	rary Resources	information
programmes Training of library staff under university	4	100%
scholarship	tages	4
Repository of locally generated information	1	25%
resources from lecturers, researchers and students		
Repository of research reports from postgraduate	1	25%
and Ph.D. programmes		
Expanded external linkages and co-operation	3	75%
Existence of Faculties or Departmental libraries at	2	50%
the colleges	1700%	1.00%
Introduced ICT/IT facilities or projects	4	100%
Provision of photocopying services	2	50%
Provision of orientation programmes	1	25%
Provision of college library user manual	2	50%
Introduced security checkpoint	1	25%
Employed new staff	4	100%
Soliciting donor support	4	100%

(n= 2 for MUCHS and n=2 for UCLAS)

Source: Compiled by the researcher from oral interviews with librarians, October to November 2002

4.5 Research Question Four-What Needs to be Done by College Libraries so as to Meet New Demands and Challenges Posed by UDSM ITP?

4.5.1 What Needs to be Done to Improve Library Services/Resources Provision

Library users and library staff were asked to identify what needs to be done to improve current library resources/information services provision at MUCHS and UCLAS libraries. Content analysis was used to analyze the findings of this question. **Table 9.1** below summarizes the results of the analysis based on the responses given by library users.

Table 9.1: What Needs to be Done to Improve Library Resources/Information Services Provision: Lecturers' Opinions

Type of Activity/Issue	Response			
	MUCHS		UCLAS	
	Freq.	Percent	Freq.	Percent
Expand library building	14	70%	12	100%
Provision of computer-aided library services/resources	19	95%	12	100%
Access to a PC/IT facilities	20	100%	12	100%
To be able to access both print and non- print information resources	20	100%	12	100%
Provision of help and support for users	15	75%	11	92%
Provision of adequate collection in terms of number, relevancy and currency	20	100%	12	100%

(n= 20 for MUCHS and n= 12 for UCLAS)

Source: Compiled by the researcher from hand-distributed questionnaire, October 2002.

The analysis of responses given by library users indicated that all/most respondents from MUCHS and UCLAS considered the items listed below (details are given in **Table 9.1**) as important in improving provision of library services:

- Expansion of library building
- Provision of computer-aided library services/resources
- Improvement of access to a PC/IT facilities
- Improvement of access to both print and non-print information resources
- Provision of help and support to users
- Provision of adequate collection in terms of number, relevancy and currency

The analysis of responses given by librarians to this question indicated that all the four interviewed librarians from MUCHS and UCLAS mentioned improved collection development, improved human resources development, resource mobilisation, allocation of more funds to library department, expansion of library building and improved networking and co-operation as being the measures to be taken in order to improve library resources/information services provision (see Table 9.2). One librarian from MUCHS and two librarians from UCLAS mentioned provision of user education. All the two interviewed librarians from UCLAS mentioned provision of library policy, guidelines, procedures and strategic plans to be alternatives for improving library services provision. One librarian from each college library mentioned conducting frequent user needs assessment as being important improve resources/information services provision. All the two librarians from UCLAS and one

librarian from MUCHS mentioned marketing of library services/resources to be important in improving provision of library services. **Table 9.2** below summarizes the results of the analysis.

Table 9.2: What needs to be Done to Improve Library Services: Library Staff Opinions

Type of Activity/Issue	Response			
	MUCHS		UCLAS	
	Freq.	Percent	Freq.	Percent
Collection development	2	100%	2	100%
Human resource development	2	100%	2	100%
Resource mobilisation (e.g. Fundraising,	2	100%	2	100%
Income generation, Solicit donor funding	i the fi.	Survey F	Dêr sa gjir	sen and thei
etc)				
Allocation of more fund to library	2	100%	2	100%
department				
Provision of more ICT facilities/services	2	100%	2	100%
Frequent assessment of user needs	1	50%	1	100%
Marketing of library services/resources	1	50%	2	100%
Expansion of library building	2	100%	2	100%
Provision of library policy, guidelines,	0	0%	2	100%
procedures and strategic plans				
Networking and co-operation	2	100%	2	100%
Provision of user education	1	50%	2	100%

(n= 2 for MUCHS and n= 2 for UCLAS)

Source: Compiled by the researcher from oral interviews with librarians

CHAPTER FIVE

DICUSSIONS AND INTERPRETATION OF RESEARCH FINDINGS

5.1 Introduction

This chapter discusses and interprets the research findings. The organization of the discussion is based on the research questions.

The current study investigated some aspects of institutional transformation programmes in institutions of higher learning, specifically the University of Dar es Salaam and their implications to library resources/services provision at MUCHS and UCLAS. It investigated new demands and challenges raised by UDSM ITP with regard to resources and library services provision. The extent of current College Library services in meeting user needs was also investigated in this study. This study identified various problems faced by the College Libraries in meeting user needs and how those problems were addressed. Finally, it recommends what should be done to improve the current library resources/information services provision at MUCHS and UCLAS libraries.

5.2 What are the New Demands and Challenges Facing College Libraries?

The study findings reveal that measures taken to implement several strategic objectives set by UDSM ITP have affected the old set-up of MUCHS and UCLAS libraries. Increased student enrolments raised new demands on space and library budgeting. New academic programmes (both undergraduate and postgraduate) also raised new demands

and challenges on resources/information services provision. Out of the challenges raised by new academic programmes, a need to purchase new types of information materials suited to new programmes was identified. Furthermore, the application of Information and Communication Technologies (ICTs) for teaching and learning raised the need to use ICT facilities in the provision of library services and information resources support for teaching and learning in electronic environment.

5.2.1 New Demands on Information Services/Information Resources

The findings revealed that information services needed at MUCHS and UCLAS libraries include manual library services, electronic or computer-aided library services, user education, reprographic services and audio-visual services. More than 60% of the respondents from MUCHS and UCLAS needed library services such as borrowing of information materials, reference services, indexing and abstracting services. Other services needed were information retrieval, CD-ROM, Internet and electronic document delivery services. Others were information literacy programmes, orientation programmes, and photocopying services.

The findings on information resources needed to be offered at MUCHS and UCLAS libraries showed that College Library users needed both print and non-print information resources for some reasons. Implying that users needed access to both print and non-print information resources. Easy of use, currency and content could be the possible reasons for user interest in having access to both print and non-print information resources although were not investigated in this study.

In view of these findings, the results suggest the need to have both manual and computer-aided information services. They also suggest the need to have both print and non-print information resources. The findings by Augustino (2000:48-49) also uncovered the need to have both print and non-print information resources in academic libraries as it revealed that users had different interests and preferences in using the different formats of information resources.

However, the findings of the present study showed variations in responses on information resources needed by Library users. Some information services/resources were needed by the majority of users while others were needed by the minority users. Implying that those resources indicated by the majority of users were the most popular. However, this was not the case as this study later discovered that the majority of users did not indicate some resources because they were not aware of their existence. Suggesting that the marketing strategies of the two College Libraries had shortfalls for some reasons. This implies developing new marketing strategies to ensure that Library users know all the available information resources in their respective College Libraries.

5.2.2 New Demands on Information Retrieval Tools

The findings showed that Library users at MUCHS and UCLAS libraries needed both manual and computer-aided information retrieval tools. Popular retrieval tools needed were catalogues for both MUCHS (80%) and UCLAS (50%); OPAC for MUCHS (70%) and UCLAS (83.3%). This was followed by indexes and abstracts. Indexes and abstracts

were more popular to MUCHS (75%) than UCLAS (25%). It can be seen that unlike in the past where card catalogue maintained populairty, electronic bibligraphic tools are steadily gaining popularity. Popularity of both methods can be explained by their position in retrieving information. Previous study suggested that library users needed different information retrieval tools because the preference in using these tools differed among users (Wema, 2000: 67-68). Therefore, the library which offers a variety of information retrieval tools is likely to meet the requirements of a variety of users. The findings of the present study suggest that the extent of user's familiarity with the tool could be the motive behind user preference. In addition, the strength and weaknesses inherent to all information retrieval tools make users to demand access to a variety of information retrieval tools.

5.2.3 New Demands of Library Space

The findings showed that reading space is needed among university community. All the respondents from MUCHS and UCLAS indicated that the space was inadequate for both reading and library operations. The results reveal that provision of reading space is still essential despite changes in technology. Library users have interest to visit the library and use it for reading and other activities. Additionally, library staff also demand adequate library space. The ever-expanding library staff, ITC facilities, and information materials could attribute to this. The above observation can be interpreted that demands on reading space is likely to increase due to increase in student enrolments. This implies that College Libraries must provide adequate reading space to accommodate the increased number of College Library users.

5.2.4 New Demands on Computers and other IT Facilities

All the respondents from MUCHS and UCLAS indicated that they needed computers and other IT facilities. Electronic information resources being accessed via computer networks could attribute this. The need for electronic communication among scholars could be another reasons for the need of computers and other IT facilities.

5.2.5 Challenges Facing Library Staff in Meeting New Demands

The challenges facing library resources/information services provision identified by both MUCHS and UCLAS librarians include securing library funding, provision of adequate information resources (both print and non-print), provision of short and long-term training for library staff. They have also cited provision of computer-aided library services, resources and other library activities, provision of adequate human resources, provision of adequate space, and resource mobilisation.

The results suggest a changing role of librarians/information professionals. In addition, this suggests a changing library organization structure. The challenge facing librarians at MUCHS and UCLAS is how well to accommodate the emerging Institutional Transformation Programmes to their own situations. Implying that librarians need to be well informed about institutional strategic objectives and its implications to College library policies, processes and procedures. In this case librarians need to continuously identify new and emerging issues and understand how to apply them to their own situations. While in the past librarians were comfortable to some extent with the

financial resources allocated by the government through their parent institutions, the situation now is different because government funding does not cater for the ever changing needs facing Libraries. Suggesting more efforts to library heads/directors to diversify sources of Library funding. The results also suggest that the practice of the professional has changed. This calls for additional professional and managerial skills to be able not only to accommodate change but also to manage change. Whilst in the past it was worth for Libraries to offer one format of information resources, things have changed. Library users need access to information resources in a variety of formats for some reasons. Implying popularity of both formats in meeting the needs of users. Furthermore, the results suggest that training of library staff is now a mandatory. This has been attributed by the emerging complexity facing library staff in the new work environment. It has been observed that information professional skills, management practices, leadership, administration, need analysis, teaching skills and technical knowhow are always needed to equip library staff to cope with new challenges. In this case, it can be seen that, training and retraining are actions taken to improve the working of library staff in the new work environment.

5.3.1 Information Services Offered

Responses from library users and library staff uncovered that user education offered was not satisfactory. For example information literacy programmes were not offered. This could be due to lack of such programmes in undergraduate courses. Furthermore, it has been observed that no such programmes were offered in the two College Libraries.

Probably librarians did not consider such programmes to be crucial. The above observation can be interpreted to indicate that the majority of users at MUCHS and UCLAS did not have enough information literacy skills to enable them exploit information resources (both print and non-print) available. However, these may differ among users although it was not investigated.

The results also suggest that both MUCHS and UCLAS did not offer CD-ROM services and electronic document delivery services. This could be attributed by lack of ICT facilities in the two College Libraries. In addition, lack of knowledge on management and technology could be the other reasons led to the failure to offer computer-aided library services although were not cited by librarians of the two College Libraries.

Library staff from the two College Libraries indicated that interlibrary loan services were offered contrary to the majority of the library users from the two Colleges who said that such services were not offered. However, through interview with college library heads and documentary review, the researcher observed that interlibrary loan services existed. The variation in responses between the users and the library staff could be attributed to inadequate marketing of services and resources offered by the two College Libraries.

5.3.2 Information Resources Offered

The responses given by the library users and library staff revealed that that their respective College Libraries offered print-based information resources although there were variation in the responses. All the respondents from MUCHS and UCLAS indicated that their College Libraries did not offer electronic journals, scholarly databases, electronic books, hybrid digital collections, and other electronic databases. CD-ROMs and audio-visual resources such as audio, video and films were also not offered. However, Library users indicated interest in having the two formats in their libraries.

Majority of Library users from MUCHS and UCLAS indicated that information resources offered by their College Libraries were inadequate. They attribute this to outdated reference materials, few relevant books in their fields of research, few relevant information resources in the courses they teach, few reference materials and few journals. In addition, failure of the two College Libraries to offer electronic information resources was another reason cited by library users as contributed to inadequate information resources offered.

This study observed that electronic information resources were not adequately offered in the two College Libraries due to a number of reasons ranging from inadequate financial resources, poor connectivity, lack of IT facilities, lack of library software to access electronic resources and management related problems. Implying that the implementations of ICT projects had shortfalls for some reasons. This suggests that both

the College and Library management should oversee issues of finances and policies as far as implementations of ICT projects in the respective College Libraries are concerned. These imply that the management have the duty to make sure that ICT projects are implemented effectively for the two College Libraries to improve access to information resources in an electronic environment at MUCHS and UCLAS.

5.3.3 Information Retrieval Tools Offered

Responses from library users about information retrieval tools offered show that all the respondents from MUCHS and UCLAS said that both libraries had card catalogues. MUCHS also had indexes and abstracts (60%), bibliographies (25%) and guides to literature (40%). None of the respondents from UCLAS were satisfied with information retrieval tools. Eight (40%) of the respondents from MUCHS were satisfied with information retrieval tools.

On the other hand, all library staff from the two Colleges who were issued with questionnaire said that card catalogue was used for information retrieval. Eight (88.9%) respondents from MUCHS said that indexes, abstracts and guides to literature were used for retrieving information. The responses of the users concurred with those of the library staff. This shows that the information gathered is valid.

Common observation from library users and library staff revealed that OPAC were not offered by the two College Libraries. This was caused by failure of the two College

Libraries to automate their libraries. However, in practice it has been observed that OPAC provides quick retrieval service. Thus, the provision of OPAC saves the user's time and energy. In addition, OPAC offers the user multiple access to information resources and through it many users can access information resources at a time. Indexes and abstracts are also helpful tools for users who need specific and summarized information resources. On the other hand, users need card catalogue because they are convinient and can be accessed without electricity. The findings tell that despite changes in technology, both manual and computer-aided information trieval tools must be provided. This tendency suggests that these tools complement each other to facilitate effective information retrieval.

5.3.4 Library Space Offered

It was generally observed by the respondents from both Colleges that space was inadequate and so are computers and other IT facilities. The shortage of space is more apparent in UCLAS than MUCHS. The siting capacity of UCLAS library is 70 readers at a time as compared to 260 readers at MUCHS. It was also observed that shortage of space hinders not only provision of reading space but also storage space to accommodate computers, networks and photocopying machines. From the standpoint of the data, Library space is still essential not only to library users but also to library staff.

5.3.5 Computers and other ICT Facilities Offered

All the respondents from both Colleges indicated that computers and other IT facilities were offered in their College Libraries. Responses from library staff indicated that

fifteen computers were available at MUCHS library but only six computers were functioning. Eleven computers were available at UCLAS library and all were in use. It can be seen that ICT use in the two College Libraries is steadily gaining popularity. Although ICT facilities is gaining popularity at MUCHS and UCLAS libraries, ICT/IT provision at MUCHS and UCLAS libraries was inadequate because computer-aided library services/resources were not fully implemented. They were mainly used for Internet and word-processing. Library operations were not automated and no library software was installed in the respective libraries. In addition, the study observed that the number of computers networked was not adequate to meet user needs. One of the contributing factors could stem from technical, management, policy and administrative problems. Other factors could be lack of adequate funding, attitude of the library staff, and working practices of the end users. However, the results uncovered that both Institutional Management and Librarians are aware of the need to use ICTs to improve the delivery of library services at MUCHS and UCLAS. In addition, the results revealed that both Institutional Management and Librarians liked the application of ICT facilities in the delivery of library services. Library Automation Projects were underway to promote ICTs use for the delivery of library services. Implying that the two College Libraries were positively in transition to adopt new technologies.

5.3.6 Human Resources

The findings on human resources requirements show that the majority of the library staff from the two College Libraries are diploma and certificate holders. In addition, the study revealed that the number of library staff from the two College Libraries is not adequate

to cope with new demands and challenges raised by external environment. The above observation can be interpreted that staffing level of the two College Libraries is low as compared to the current status of their respective Colleges. Additionally, education level of most library assistants who are the majority is also low to enable them play a meaningful role in supporting users in new academic environments and offering user-friendly services both in ICT and manually-oriented facilities. Although this study observed that the two College Libraries have attempted both recruitment and training of the library staff, the rate of recruitment and training is very slow. It is noteworthy that UDSM 2000 Transformation Programme calls for proper balanced development among the various components forming the college system. Hence, if libraries are to meet the new challenges, they require not only good collections and tools but also skilled and adequate staff to maintain those collections, services and technology.

5.4.1 Problems Facing College Libraries

Quite a number of problems facing College Libraries have been identified in this study. The most critical ones mentioned include inadequate funding; inadequate collection in terms of number, relevancy and currency; inadequate library space for readers, staff, materials and equipment; shortage of staff and shortage of ICT/IT facilities. However, the identified problems can be categorised as technical or technology-related problems, resource-related constraints as well as policy and management-related problems. In this case, technical know-how is seen to be crucial for the two College Libraries in order to cope with new technology although it was not cited by all librarians during interviews.

Findings also suggest that the two College Libraries face management related problems. This tells that the management practices adopted in the past are no longer relevant now. This could be due to a change in the perspectives, work practices or due to change in technology. In addition, the results suggest that new policies are also needed. Probably the existing policies are no longer relevant or they need improvement.

Problem of library funding is associated with resources related constraints as well as policy and management related constraints. Implying that there is a need to redress the current policy and management practices. It has been observed that the financial resource allocated to library department is always inadequate. This could be due to ranking the library as of low importance among the university community. However, responses from library users revealed that library services are important and contribute allot towards achieving institutional goals. In this case, the library is an important component in today's college setting, therefore, must be given high priority in terms of fund allocation. According to Mambo (1998:161) most libraries have failed to develop good collections and infrastructure due to poor funding. In addition, Mambo (1998:161) observed that in developing countries, and Africa in particular, library developments are severely affected by poor funding from their governments or parent bodies. This study has observed similar finding on this aspect. This suggests that the funding of library resources/information services provision should be evaluated against its usefulness in meeting user needs. Additionally, if the decision of fund allocation does not consider the extent of meeting user needs, it is likely that the existence of College Libraries may

continuously not benefiting the students, lecturers and researchers. Currently, Sida/SAREC, Carnegie Corporation of New York, Book Aid International of London and World Health Organisation (WHO) are the major donors. This tendency suggests that the two College Libraries with strong support of their parent organizations need to utilize these opportunities of donor support effectively. However, the government must also provide adequate funding to supplement what donors are offering.

5.4.2 Measures Taken to Solve Problems Facing College Libraries

Librarians said during the interview that introduced ICT/IT facilities or projects, soliciting donor support, employing additional library staff, and training of library staff are measures taken to solve their problems. Other measures include established linkages and co-operation with other institutions, interlibrary loan and resource sharing, provision of photocopying service and provision of orientation programmes. In addition, repository of locally generated information resources and research reports from postgraduate programmes are measures taken to improve library services/information services provision.

The results revealed that despite measures taken by Institutional and Library Management to solve problems facing the two College Libraries, the extent of the two College Libraries in meeting new demands and challenges raised by UDSM ITP was inadequate. Implying that the employed measures were not capable of solving the identified problems. This can mean that wrong measures were identified or real problems were not scanned. The above observation can be interpreted to indicate the

differing capacity and knowledge between the parent bodies and the College Libraries in understanding the implications of the broad strategic objectives set by UDSM ITP to their own situations. This could be attributed by implementing the broad strategic objectives set by the parent institutions without reestablishing the capacity and knowledge base of the sub-units forming the parent body. Implying that there is a need to reestablish the capacity and knowledge base of the Sub-units to cope with new challenges. Additionally, this also suggests the need to identify real problems facing the two College Libraries.

5.5.1 What Needs to be Done by College Libraries?

The findings from library users show that more than 60% respondents from MUCHS and UCLAS suggest improved access to PC/IT facilities, improved access to both print and non-print information resources and adequate collections in terms of number, relevance and currency as alternatives for offering quality library services. In addition, the findings disclose that more than 90% respondents from MUCHS and UCLAS suggest the need to put in place computer-aided library services/resources.

On the other hand, all the four interviewed librarians from MUCHS and UCLAS suggested improving collection development, human resources, resource mobilisation, and adequate allocation of funds to the library department as areas that needed to be implemented. Also expansion of library building and improved networking and cooperation has been suggested among the measures to be taken in order to improve library resources/information services provision. Furthermore, putting in place user

education programmes for library users, and marketing of library services/resources are among the other measures needed to be done. Two librarians from UCLAS said that instituting a library policy is another measure that is likely to improve library resources/information services provision. One librarian from each college library suggested that frequent user needs assessment are instrumental towards improving library resources/information services provision. This mean that library management of the two College Libraries have identified several measures to put in place in order to improve the delivery of library services however, what is lacking is effective implementation of the identified measures. Lack of autonomy and support from the parent body could be the attributing factors. However, during interview with the heads of the two College Libraries revealed that institutional management from the two Colleges are willing to give support to College Libraries so long as they are sensitized, educated or informed on the need to do so.