

DECLARATION OF CANDIDATE



I, Sri Nawal Kishor Manoj, Research Scholar, Department of Library and Information Science, Assam University, solemnly declare that this thesis is based on my own original work except where due acknowledgement has been made. To the best of my knowledge, no part or whole of this thesis entitled “**Status of Collection Development and ICT Application in Libraries of Higher Educational Institutions of Sikkim: A Study**” has been previously submitted to this university or any other university or any institution for the award of any degree or diploma to me.

Place: Assam University

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Date:

Research Scholar

Certificate

This is to certify that Sri Nawal Kishor Manoj has carried out his bonafide and original piece of research work on the topic entitled “**Status of Collection Development and ICT Application in Libraries of Higher Educational Institutions of Sikkim: A Study**” under my supervision and guidance as per the requirements laid down in the Ph.D. Regulations of this university including **UGC (Minimum Standards and Procedure for award of Ph.D. Degree), Regulation, 2009.**

This is further to certify that the thought content of this thesis is original and based on the bonafide research work carried out by him under my supervision. As far as, I know that no part of thesis or whole has been submitted to any other university or institute for the award of any degree or diploma to him or to any others.

I wish him every success in life.

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This is to Certify that the Thesis entitled “**Status of Collection Development and ICT Application in Libraries of Higher Educational Institutions of Sikkim: A Study**” submitted by Nawal Kishor Manoj, Ph.D. Registration No. Ph.D/2353/13 of 10.09.2013, University Registration No. 06-120034382 of 2012-2013 in Department of Library and Information Science for the award of the degree of Doctor of Philosophy (Ph.D.) in Library and Information Science as per the provision of Ph.D. programme ordinance of Assam University, Silchar.

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It is not possible to conduct such a complex study with full perfection. Though I have made every effort, I am quite aware of my limitations, I beg pardon for all my errors and omission that may occur with or without my knowledge.

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PREFACE

In 21st century we are living in an information age and the simple word information has become the keyword in our life. Information becomes the power of human being. As a social services institution, library has been an important center for generation, collection, storage and dissemination of the information which interact between document and user. The major factor or function of the library is collection, storage and dissemination of information. To get fast and reproduce the information requires some communication and for communication requires some technology. In this century with the help of Information Communication Technology the functions of library and information centers have been become easy to access the information from worldwide.

*The present thesis entitled “**Status of Collection Development and ICT Application in Libraries of Higher Educational Institutions of Sikkim: A Study**” for the award of Doctor of Philosophy in Library and Information Science under the supervision of **Dr. Manoj Kumar Sinha, Associate Professor and Head, Department of Library and Information Science, Assam University, Silchar** aims to study and analysis on the Status of Collection Development and ICT Application in Libraries of Higher Educational Institutions of Sikkim and make suggestions for improving the infrastructure, condition and the services for the Higher Educational Libraries of small Himalayan state Sikkim. The present thesis comprises of 9 (Nine) chapters as per details given below;*

*The **First Chapter** gives an overview of people, language, and literacy rate of Sikkim. The chapter provides the brief description of Sikkim, statement of the problems, objectives of the study, limitation of the study and operational terms used in the study.*

*The **Second Chapter** presents the review of literature to study the presented or published literature reference to libraries, collection development, collection development policy, ICT Applications and infrastructures in academic, public, special libraries in India and abroad.*

*The **Third Chapter** presents about research methods, research design, construction of tools and procedure applied to collect relevant data and information for the research of the study.*

*The **Fourth Chapter** deals with an overview of Collection Development, meaning & definition, selection of materials, collection development policy, prerequisite of collection development, and weed out policy in the libraries and what to do with the weed out materials.*

*The **Fifth Chapter** gives an overview of ICT, components of ICT, and use of its application in different section in the Library and Information Centers to modernize the institutional library and information centres.*

*The **Sixth Chapter** traces the brief description about the history of education, development of education in Sikkim by missionaries, British and Durbar government and also about the education system and structure in Sikkim before and after becoming the Indian state. This chapter describes a brief account of status and development of higher educational system in India in general and Sikkim in*

particular. In the chapter it has been briefly described the selected higher educational institutions of Sikkim.

*The **Seventh Chapter** deals with the data analysis and interpretations pertaining to higher educational institutions, establishment, location, type of institutions, availability of collections – books, journals, newspapers, library committee, library services collection development policy, classification system, cataloguing system, library professionals, membership of library networks and ICT application in the libraries of higher educational institution of the state as well as the major findings, suggestion and recommendation of the study.*

*The **Eighth Chapter** deals with the major findings of the institutions background, libraries and information centers, collections – print and non-print, ICT infrastructure, library automation status, library professionals strength and development, problems faced in collection development, problems faced in ICT application adoption in the libraries, users study for satisfaction level of documents and library environment in particular.*

*The **Ninth Chapter** is the conclusion on the basis of fact and findings of the study and scope for further study in subject area and location.*

Annexure – I Questionnaire For Librarian / In-charge

II Questionnaire for Users

III List of Publications

CONTENTS

CHAPTERS	Page No.
Declaration	(i)
Certificate	(ii)
Acknowledgements	(iv)
Preface	(vii)
Table of Contents	(x)
List of Tables	(xvii)
List of Figures	(xix)
List of Maps / Photographs / Plates	(xxi)
List of Abbreviation Used	(xxii)
Abstract	(xxvi)
CHAPTER 1 INTRODUCTION	01 – 15
1.0 Introduction	1
1.1 Sikkim : A Brief Profile	4
1.1.1 Language	5
1.1.2 Literacy Rate in Sikkim	9
1.1.3 Literacy Rate in North East India	9
1.2 Statement of the Problem	9
1.3 Objectives of the Study	10
1.4 Scope and Limitations of the Study	11
1.5 Significance of the Study	13
1.6 Definition of Operational Terms	14
1.7 Conclusion	15
CHAPTER 2 REVIEW OF LITERATURE	16 – 53
2.0 Introduction	16
2.1 Collection Development	16
2.2 Library Automation, Networking and ICT Application	25
2.3 International Level – Literature Studied	42
2.4 Conclusion	53

CHAPTER 3	RESEARCH METHODOLOGY AND RESEARCH DESIGN	54 – 62
3.0	Introduction	54
3.1	Methodology	54
3.2	Population/Size and Area of the Study	55
3.3	Sampling Procedure for Survey	56
3.4	Design and Administration of Questionnaire	57
3.5	Tools used for Data Collection	60
	3.5.1. <i>Questionnaire Method</i>	60
	3.5.2. <i>Personal Interview Method</i>	60
	3.5.3. <i>Observation Method</i>	60
3.6	Data Collection Procedure	61
3.7	Period of Data Collection	61
3.8	Consolidation of Data	62
3.9	Conclusion	62
CHAPTER 4	COLLECTION DEVELOPMENT: A CONCEPTUAL FRAMEWORK	63 – 90
4.0	Introduction	63
4.1	Definition and Meaning	64
4.2	Purpose of Collection Development	65
4.3	Traditional Collection	66
4.4	Prerequisites of Collection Development	70
4.5	Collection Development Policy	72
4.6	Advantages of Collection Development Policy	73
	4.6.1 <i>Guiding Principles</i>	74
	4.6.2 <i>Goals and Objectives of Institution</i>	76
	4.6.3 <i>Needs of the Users</i>	77
	4.6.4 <i>Availability of Resources</i>	78
	4.6.5 <i>Process of Collection Development</i>	78
4.7	Collection Development in Academic Libraries	78
	4.7.1 <i>Selection of Materials</i>	79
	4.7.1.1 <i>Books</i>	79
	4.7.1.2 <i>Journals</i>	79
	4.7.1.3 <i>Databases</i>	81

4.7.2	<i>Collection Evaluation</i>	82
4.7.2.1	<i>Time Management</i>	83
4.7.2.2	<i>Other Issues</i>	83
4.8	Weeding Out Policy	83
4.8.1	<i>Factors for keeping Library away from Weeding out Old Library Collection</i>	85
4.8.2	<i>What Materials are to be weeded out?</i>	86
4.8.3	<i>When to Weed Out?</i>	87
4.8.4	<i>Why should Weed out?</i>	87
4.8.5	<i>What to do with Weeded out Materials?</i>	89
4.9	Conclusion	90
CHAPTER 5	ICT APPLICATION IN LIBRARY AND INFORMATION CENTER : AN OVERVIEW	91-101
5.0	Introduction	91
5.1	ICT: Meaning and Definition	93
5.2	Components of ICT	93
5.3	ICT Enabled Services	95
5.4	ICT Enabled Services offered by the Libraries	96
5.5	Uses of ICT in Modernisation of the Libraries	96
5.5.1	<i>Acquisition</i>	96
5.5.2	<i>Technical Section</i>	97
5.5.3	<i>OPAC</i>	97
5.5.4	<i>New Addition Alert Service</i>	97
5.5.5	<i>Circulation Section</i>	98
5.5.6	<i>Reference Service</i>	98
5.5.7	<i>Electronic Information Services</i>	98
5.6	ICT Advantages	99
5.7	ICT Disadvantages / Limitations	99
5.8	Role of INFLIBNET for Modernisation of Higher Educational Libraries	100
5.9	Conclusion	101
CHAPTER 6	HIGHER EDUCATIONAL INSTITUTIONS OF SIKKIM	102-158
6.0	Introduction	102

6.1	Sikkim : A Brief Introduction	103
	6.1.1 Education in Sikkim: A History	104
	6.1.2. Development of Education by Christian Missionaries	106
	6.1.3. Development of Education by British Government	107
	6.1.4. Development of Education by Durbar in Sikkim	108
	6.1.5. Education Department before 1975 in Sikkim	109
	6.1.6. Education Department after 1975 in Sikkim	110
	6.1.7. Structure of School Education before 1975	111
	6.1.8. Structure of School Education after 1975	112
6.2	Higher Education	113
	6.2.1. Higher Education in India	114
	6.2.2. An overview of Higher Educational Institutions in Sikkim	117
6.3	Profile of Higher Educational Institutions in Sikkim	120
	6.3.1. Sikkim University	120
	6.3.2. ICFAI University	122
	6.3.3. EIILM University	123
	6.3.4. Vinayaka Missions Sikkim University	125
	6.3.5. Sikkim Manipal University	126
	6.3.5.1. Sikkim Manipal Institute of Medical Sciences	127
	6.3.5.2. Sikkim Manipal Institute of Technology	129
	6.3.6. District Institute of Education and Training	131
	6.3.7. Rhenock Government College	132
	6.3.8. Sikkim Government College, Tadong	134
	6.3.9. Namchi Government College	135
	6.3.10. Government College, Gyalshing	137
	6.3.11.. SHEDA College, Deorali	138
	6.3.12. Damber Singh College	139
	6.3.13. Pakim Palatine College	140
	6.3.14. Government B.ED. College	141
	6.3.15. Loyola College of Education	143
	6.3.16. Harkamaya College of Education	144
	6.3.17. Advanced Technical Training Centre	146

6.3.18. Centre for Computer and Communication Technology	147
6.3.19. Industrial Training Institute	149
6.3.20. Himalayan Pharmacy Institute	150
6.3.21. College of Agricultural Engineering and Post Harvest Technology	152
6.3.22. National Institute of Technology	153
6.3.23. Institute of Hotel Management, Catering Technology	155
6.3.24. Sikkim Government Law College	156
6.4 Conclusion	158
CHAPTER 7 DATA ANALYSIS, INTERPRETATIONS AND DISCUSSIONS	159-208
7.0 Introduction	159
Section: A Status of Higher Educational Institutions Under the Study	160-164
7.1 List of Higher Educational Institutions under the Study- Abbreviation, Establishment, Location in Sikkim	160
Section: B Status of Collection Development	165-177
7.2 Collection Development in Libraries	165
7.2.1. Printed Materials (Books, Journals, Newspapers)	165
7.2.2 Non Print Materials (CD-DVD, Database-books, IR)	169
7.3 Library Committee and College Level Committee	170
7.4 Book Selection Policy	171
7.5 Book Purchasing Frequency	172
7.6 Weed Out Policy	173
7.7 Physical Form of Catalogue	174
7.8 Classification System adopted in Libraries	175
7.9 Cataloguing Method adopted in Libraries	176
7.10 Use of Subject Heading	177
Section: C Status of ICT Infrastructure and Library Automation	178-185
7.11 ICT Infrastructure Availability	178
7.12 Type of Internet Services	180
7.13 Library Automation of Higher Educational Institutional Libraries of Sikkim	181
7.14 Membership of Libraries with Library Network	185

Section: D	<i>Status of Library Working and Services</i>	186-189
7.15	Working Hours of the Libraries	186
7.16	Libraries working on Holiday / Sunday	188
7.17	Library Services / Facilities	189
Section: E	<i>Status of Library Professionals in Sikkim</i>	191-196
7.18	Status of Library Professionals in Libraries	191
7.19	Qualification of Librarian / In-Charge	192
7.20	Experience of Librarian / In-Charge	193
7.21	Status of Library Manpower	194
7.22	Promotional Activities for Library Staff	195
7.23	Training Programme Oriented	196
Section: F	<i>Problem faced in Collection Development and ICT Application in Libraries</i>	197-200
7.24	Problems faced in Collection Development by the Libraries	197
7.25	Problems to adopt ICT Application in the Libraries	199
Section: G	<i>Library Users and Satisfaction Level of Users</i>	201-208
7.26	Status of Library Users	201
7.27	User Study (Distribution, Age, Category of Respondents)	202
7.28	Library Visit Pattern & Purpose	205
7.29	Library Document Searching pattern in the library	206
7.30	Satisfaction Level with Library Collections	207
7.31	Satisfaction Level in Library's Internal Environment	208
7.32	Conclusion	208
CHAPTER 8	MAJOR FINDINGS, SUGGESTIONS AND RECOMMENDATIONS	209-221
8.0	Introduction	209
8.1	Major Findings	210
	8.1.1. Institutions Profile	210
	8.1.2. Collection Development	210
	8.1.3. Library Automation & ICT Infrastructure	212
	8.1.4. Library Working Hours & Services	213
	8.1.5. Library Professionals	213

LIST OF TABLES

Table No.	Title of Tables	Page No.
Table – 1:	Brief Statistical Record of Sikkim	7
Table – 2:	District-Headquarter, Administrative Centres in Sikkim	8
Table – 3:	Literacy Rate of Sikkim	9
Table – 4:	Literacy Rate Comparison to North East India	9
Table – 5:	List of Higher Educational Institution under the Study	12
Table – 6:	Sampling Design of Present Study - Libration/ In-Charges	56
Table – 7:	Sampling Design of Present Study - Users	57
Table – 8:	Questionnaire Distribution Design for User Study	57
Table – 9:	Comparison of Traditional and ICT Environment of Library	71
Table – 10:	School Education – Numbers of Schools in Sikkim	113
Table – 11:	Number of Higher Educational Institutions in India	117
Table – 12:	Higher Educational Institutions in Sikkim	119
Table – 13:	List of Higher Educational Institution under the Study	160
Table – 14:	Establishment of Institution in a Decade	162
Table – 15:	District-wise Status of Higher Educational Institution	164
Table – 16:	Print Collections (Books, Journal, Newspaper) in Libraries	165
Table – 17:	Printed Books available in ten thousand break up	166
Table – 18:	Status of Journals Subscription in Libraries	167
Table – 19:	Status of Newspaper Subscription in Libraries	168
Table – 20:	Non-Print Materials availability in the Libraries	169
Table – 21:	Status of Library Committee/ College Library Committee	170
Table – 22:	Status of Book Selection Policy	171
Table – 23:	Status of Book Purchasing Frequency	172
Table – 24:	Weed Out Policy	173
Table – 25:	Form of Catalogue used by the libraries	174
Table – 26:	Classification System adopted by the selected libraries	175
Table – 27:	Cataloguing Method used by the selected libraries	176
Table – 28:	Status of Subject Heading adopted by the Libraries	177
Table – 29:	Status of Institution wise ICT Infrastructure in the Libraries	178

Table – 30:	Status of ICT infrastructure available in Libraries	179
Table – 31:	Status of Operating Systems used in Libraries	179
Table – 32:	Type of Internet Service in Libraries	180
Table – 33:	Status of Library Automation in Higher Educational Libraries	182
Table – 34:	Library Automation Frequency in libraries of HE Institutions	183
Table – 35:	Type of Library Automation Software adopted in Libraries	183
Table – 36:	Membership of Library Network	185
Table – 37:	Working Hours of the Libraries	186
Table – 38:	Frequency status of Library working hours	187
Table – 39:	Status of Library working on Sunday or Holiday	188
Table – 40:	Status of Library Services (Traditional and Automated)	189
Table – 41:	Gender wise Status of Librarian	191
Table – 42:	Educational Qualification of Librarian	192
Table – 43:	Experience of Librarian/ In-charge	193
Table – 44:	Status of Library Professionals in Libraries	194
Table – 45:	Promotion Activities for Library Professional	195
Table – 46:	Training Programme organised for Library Professional	196
Table – 47:	Problems faced in the Libraries for Collection Development	197
Table – 48:	Problems to use ICT Application in the Libraries	199
Table – 49:	Library Users in Libraries of Higher Educational Institutions	201
Table – 50:	Questionnaire Responses received from Respondents	202
Table – 51:	Distribution of Questionnaire to Library Users	203
Table – 52:	Category wise Respondents	203
Table – 53:	Gender wise Respondents	204
Table – 54:	Status of Age wise Respondents	205
Table – 55:	Library Visit Pattern of Users	205
Table – 56:	Purpose of Library Visit	206
Table – 57:	Searching Pattern of the Materials in the Library	206
Table – 58:	User Satisfaction about available Library Material	207
Table – 59:	Library Environment rating	208

LIST OF FIGURES

Figure No.	Title of Figures	Page No.
Figure – 1:	Classification of Library Learning Resources	68
Figure – 2:	Formats of Library Collections	69
Figure – 3 :	Library Collection Development Cycle	70
Figure – 4 :	Components of Information and Communication Technology	95
Figure – 5 :	Establishment of Higher Educational Institutions in Sikkim	162
Figure – 6 :	Growth of Higher Education in a decade in Sikkim	162
Figure – 7 :	Types and Number of Higher Educational Institutions	163
Figure – 8 :	District wise status of Higher Educational Institutions	164
Figure – 9 :	Collections - Books (in thousands) Status in the Libraries	166
Figure – 10 :	Percentage and Frequency of books among the Libraries	166
Figure – 11 :	Status Journals Subscription in the libraries	167
Figure – 12 :	Status of Newspaper Subscription availability	168
Figure – 13 :	Status of Library Committee/ College Level Committee	170
Figure – 14 :	Status of Book Selection Policy	171
Figure – 15 :	Status of Book Purchasing Frequency	172
Figure – 16 :	Status of Weed out Policy frequencies in the Libraries	173
Figure – 17 :	Status of Types of Catalogue frequency	174
Figure – 18 :	Status of Classification System	175
Figure – 19 :	Status of Cataloguing Method used in Libraries	176
Figure – 20 :	Subject List of Heading followed by the libraries	177
Figure – 21 :	Use of Operating System in libraries	180
Figure – 22 :	Type of Internet Service	181
Figure – 23 :	Library Automation Software in Libraries	184
Figure – 24 :	Library Network Membership of Libraries	185
Figure – 25 :	Status of Working Hours of the Libraries	187
Figure – 26 :	Status of Library Working on Sunday/ Holiday	188
Figure – 27 :	Status of Library Services provided by the Libraries	190
Figure – 28 :	Gender wise frequency of Librarians/ In-charges	191
Figure – 29 :	Educational Qualification frequency of Librarians	192

Figure – 30 :	Status of Experiences of Librarians/ In-charges	193
Figure – 31	Status of Promotion Activities for Staff	195
Figure – 32	Status of Training Programmes organised for Library Staff	196
Figure – 33	Status of Library Users in the Libraries	202
Figure – 34	Types of Respondents in User study	204
Figure - 35	Membership Model of SILIBNET	231
Figure - 36	Proposed Design of SILIBNET	234

LIST OF MAPS/ PHOTOGRAPHS/ PLATES



Plate No.	Title of Maps/ Plates	Page No.
Plate – 1:	Position of Sikkim in India	6
Plate – 2:	Position of Sikkim in North East India	6
Plate – 3:	Districts in Sikkim	6
Plate – 4:	District Location wise Distribution of Institutions in Sikkim	120
Plate – 5	View of Stack Area of Central Library of Sikkim University	121
Plate – 6	View of Building of ICFAI University	122
Plate – 7	View of Campus Building of EILM University	124
Plate – 8	View of of Vinayaka Missions Sikkim University	125
Plate – 9	Building of Sikkim Manipal Institute of Medical Sciences	128
Plate – 10	Campus of Sikkim Manipal Institute of Technology	130
Plate – 11	View of Main Entrance of D.I.E.T., Gangtok	132
Plate – 12	View of Rhenock Government College, Rhenock	133
Plate – 13	View of Sikkim Government College, Tadong, Gangtok	135
Plate – 14	Campus View of Namchi Government College, Kamrang	136
Plate – 15	View of Library of Government College, Gyalshing	137
Plate – 16	View of main entrance of Damber Singh College	139
Plate – 17	View of Building of Government B.Ed. College, Soreng	142
Plate – 18	Campus View of Loyola College of Education, Namchi	144
Plate – 19	Buildings and Library of Harkamaya College of Education	145
Plate – 20	View of Building of ATTC, Burdang	146
Plate – 21	Building of CCCT, Chisopani, South Sikkim	148
Plate – 22	Campus of Industrial Training Institute	149
Plate – 23	View of Himalayan Pharmacy Institute	152
Plate – 24	View of Building, Library of CAEPHT, Ranipool	153
Plate – 25	Campus View of National Institute of Technology, Sikkim	154
Plate – 26	Campus of Institute of Hotel Management, Gangtok	155
Plate – 27	Building and Library stack area of Government Law College	15

LIST OF ABBREVIATIONS

AACR2	:	Anglo American Cataloguing Rules 2
ADINET	:	Ahmedabad Library Network
AICTE	:	All India Council for Technical Education
AIEEE	:	All India Engineering Entrance Examination
AIU	:	Association of Indian Universities
ATTC	:	Advanced Technical Training Centre
AV	:	Audio Video
B. Tech.	:	Bachelor of Technology
B.A.	:	Bachelor of Arts
B.Com.	:	Bachelor of Commerce
B.Ed.	:	Bachelor of Education
B.L.I.S.	:	Bachelor of Library and Information Science
B.Sc.	:	Bachelor of Science
BCA	:	Bachelor of Computer Application
BCI	:	Bar Council of India
BONET	:	Bombay Network
BSNL	:	Bharat Sanchar Nigam Limited
CAEHPT	:	College of Agriculture Engineering and Post – Harvest Technology
CALIBER	:	Convention on Automation of Libraries in Education and Research
CALIBNET	:	Calcutta Library Network
CAT	:	Common Admission Test
CAU	:	Central Agriculture University
CC	:	Colon Classification
CCC	:	Classified Catalogue Code
CCCT	:	Centre for Computers & Communication Technology
CCE	:	Computer and Communication Engineering
CCTV	:	Closed Circuit Television
C-DAC	:	Centre for Development of Advance Computing

CDP	:	Collection Development Policy
CD-ROM	:	Compact Disc Read Only Memory
CPMT	:	Combined Pre-Medical Test
CRT	:	Cathode Ray Tube
CSIR	:	Council of Scientific & Industrial Research
D. El. Ed.	:	Diploma in Elementary Education
D.I.E.T.	:	District Institute of Education and Training
DDC	:	Dewey Decimal Classification
DELCON	:	Database of Department of Biotechnology, Library
DELNET	:	Developing Library Network
DESIDOC	:	Defence Scientific Information and Documentation
DGE&T	:	Directorate General of Employment and Training
DRDO	:	Defence Research and Development Organisation
DVD	:	Digital Video Disc
ECE	:	Electronics and Communication Engineering
EEE	:	Electrical & Electronics Engineering
EIILM	:	Eastern Institute for Integrated Learning in Management
ERC	:	Eastern Regional Council
ERNET	:	Educational and Research Network
FSADD	:	Food Security and Agricultural Development Department
GB	:	Giga Byte
H E	:	Higher Education
HRDD	:	Human Resource Development Department
ICAR	:	Indian Council of Agricultural Research
ICFAI	:	Institute of Chartered Financial Analysts of India
ICT	:	Information and Communication Technology
IGNOU	:	Indira Gandhi National Open University
IHM	:	Institute of Hotel Management
IIT	:	Indian Institute of Technology
IIT-JEE	:	Indian Institute of Technology – Joint Entrance Examination
INDEST	:	Indian National Digital Library in Engineering and
INFLIBNET	:	Information and Library Network

IP	:	Intellectual Property
ISDN	:	Integrated Services Digital Network
IT	:	Information Technology
ITI	:	Industrial Training Institute
JCCC	:	J-Gate Custom Content for Consortium
LAN	:	Local Area Network
LCD	:	Liquid Crystal Display Televisions
LCSH	:	Library of Congress Subject Headings
LIC	:	Library and Information Centre
LIS	:	Library and Information Science
LLB	:	Bachelor of Legislative Law (Bachelor of Law)
LLM	:	Master of Laws
MAN	:	Metropolitan Area Network
MARC	:	Machine Readable Catalogue
MCA	:	Master of Computer Application
MCI	:	Medical Council of India
MHRD	:	Ministry of Human Resource Development
M.L.I.S	:	Master of Library and Information Science
NAAC	:	National Assessment and Accreditation Council
NBA	:	National Board of Accreditation
NCHM	:	National Council for Hotel Management
NCI	:	Nursing Council of India
NCTE	:	National Council for Teacher Education
NCVT	:	National Council for Vocational Training
NER	:	North Eastern Region
NISCAIR	:	National Institute of Science Communication and Information Resources
NISSAT	:	National Information System for Science and Technology
NIT	:	National Institute of Technology
N-LIST	:	National Library and Information Services Infrastructure for scholarly content
NOIDA	:	New Okhla Industrial Development Authority
NTTF	:	Nettur Technical Training Foundation

OHP	:	Over Head Projector
OPAC	:	Online Public Access Catalogue
PC	:	Personal Computer
PCI	:	Pharmacy Council of India
PG	:	Post Graduate
Ph.D.	:	Doctor of Philosophy
PLANNER	:	Planning of Library Automation and Networking for North Eastern Region
R & D	:	Research & Development
REC	:	Regional Engineering College
RFID	:	Radio Frequency Identification
SDI	:	Selective Dissemination of Information
SHEDA	:	Sikkim Institute of Higher Nyingma Studies
SIRNET	:	Scientific and Industrial Research Network
SLIM21	:	System for Library Information Management
SMIMS	:	Sikkim Manipal Institute of Medical Sciences
SMIT	:	Sikkim Manipal Institute of Technology
SMU	:	Sikkim Manipal University
SMU-DDE	:	Sikkim Manipal University – Directorate of Distance
SOUL	:	Software for University Library
SSUV	:	Sampurnanda Sanskrit University Varanasi
TV	:	Television
U/S 2f	:	Under Section 2 f
UDC	:	Universal Decimal Classification
UG	:	Under Graduate
UGC	:	University Grant Commission
UNESCO	:	United Nations Educational Scientific and Cultural
UPS	:	Uninterruptible Power Supply / Source
VCP/VCR	:	Video Cassette Player/ Video Cassette Recorder
VSAT	:	Very Small Aperture Terminal
WAN	:	Wide Area Network
WWW	:	World Wide Web
2G	:	Second Generation
3G	:	Third Generation

ABSTRACT

STATUS OF COLLECTION DEVELOPMENT AND ICT APPLICATION IN LIBRARIES OF HIGHER EDUCATIONAL INSTITUTIONS OF SIKKIM: A STUDY



The library is a heart of educational institution and the heart of library is its collection. In library world collection development is a universal process in which the library professionals assemble a variety of materials in order to satisfy the demands of the users. The users are from our society and they are changing and adopting latest information and communication technology using computers, printers, mobile, internet, smart phones, etc for daily work processing and communication to each other. The changing environment of the society leads the library to adopt the collection development and ICT Application in the library to upgrade the existence and to provide the best services to the community.

Sikkim consists of numbers of the higher educational institutions with presence of Central University, Private Universities, National Institute of Technology, Sikkim Manipal Institute of Medical Science, Sikkim Manipal Institute of Technology and various affiliated and private institutions adds significant value to the higher educational system of Sikkim.

The present study on the topic entitled “**Status of Collection Development and ICT Application in Libraries of Higher Educational Institutions of Sikkim: A Study**” was carried out for the purpose to know the present status of Collection Development and ICT Applications in Libraries of Higher Educational Institutions of Sikkim.

The main objectives of the study are as follows:

- ❖ To assess the status of Collection Development of Libraries of Higher Educational Institutions of Sikkim State;
- ❖ To examine the Collection Development Policies adopted by the Higher Educational Institution Libraries in the Sikkim State;
- ❖ To assess the status of ICT application as a tools for the modernisation of Libraries of Higher Education Institutions;
- ❖ To find out the basic infrastructural facilities available in the Higher Educational Institutional Libraries of Sikkim;
- ❖ To study the extent of computerisation activities of Library housekeeping operations for organisation and information dissemination; and
- ❖ To explore some of the difficulties encountered by Libraries while automating their housekeeping operations.

The present study has been designed for the status of collection development and ICT application in libraries of higher educational institutions in Sikkim which comprises of selected twenty five higher educational institutions. The area selected for the study is Sikkim state of North Eastern Region of India.

Literature published during 1972 – 2015 have been consulted from various sources such as journals, conferences/ seminar proceedings, e-journals, other articles from various academic websites to understand the concept of collection development and ICT Application in the higher educational libraries as well as the trends of academic libraries of abroad, India as well as North East India. The present review has covered 125 (one hundred twenty five) related literatures have been consulted which are directly or indirectly related to the topic under study. In relation to collection

development 32 national level and 10 international level papers and for ICT Application it has been consulted 57 national level and 25 international level papers have been consulted. In the study related to education, development of education before and after became Indian statehood, higher education, agencies involved and regulatory authority of higher educational institutions in India as well as Sikkim literatures, websites have been consulted.

In the research work, “Survey Methods” has been adopted for the study using questionnaires as main data collection tools which has been supplemented with interviews and observations to find out the present conditions of libraries of higher educational libraries in Sikkim. The universe of the study was Sikkim, sampling framework of higher educational institutions with sample of 25 (twenty five) higher educational institutions. For the users study the universe of study was the library users, sampling framework of library users of selected institutions with sample of random sampling of 50 (fifty) users in 6 (six) higher educational institutions, in which 3 (three) institutions from East Sikkim, 1 (one) from South Sikkim and 2 (two) from West Sikkim.

Keeping in view of the aims and objectives of the study, questionnaires had been designed comprises into different parts, i.e; institutions background, library’s collection, selection policy, ICT Application infrastructure, library automation, library services, internet facility, manpower development, problems faced in collection development and ICT Application aspects.

While surveying the institutions and collecting the data from the users various techniques have been adopted. In this regard, “Random Sampling” technique was used in the case of data collection through questionnaire from the user. The following

tools were used for collection of data pertaining to the present study: Questionnaire, which is followed by Interview and Observation Method.

The findings of the study show that the response rate of returned questionnaire of this study has been recorded as 100.00% from Librarians and 85.67% from users. The category wise responses shows that 94.58% students responded out of 240 samples where as 50.0% faculty responded out of 60 samples.

In the findings the institutions in Sikkim came into existence after 1975 onwards, 16.0% institutions were established during (1970-1980), 32.0% in (1991 – 2000), and 52.0% during (2000 - 2010), in which 32.0% are State Government Colleges, 28.0% Private colleges, 16.0% Private Universities, 12.0% Government Polytechnic, 8.0% College under Central Govt. and 4.0 % Central University in the state. Most of the libraries (52.0%) have below 10 thousands books, which followed by 32.0% libraries have 10-20 thousand books, 8.0% have 20-30 thousands books, and 8.0% have more than 30 thousand books.

In the study it was observed that maximum numbers (64.0%) of institutions have Library Committee/ College Level Committee which followed by 36 % has not any committee. The findings of the study shows that 56.0% libraries of institutions have book selection policy but 44% libraries are not following any book selection policy.

It was also observed in the study that most of libraries (68.0%) are purchasing books yearly basis, 21.0% go for half-yearly, only few libraries 11.0% Sikkim University and NIT, Sikkim are purchasing throughout the year as per recommendation or requirement of the users. The study reveals that maximum libraries (84.0%) have not any policy for discarding old books whereas only 16.0% institutions have weed out policy.

The study shows that majority of libraries (44.0%) are still not using any library application software for library automation, whereas only 32.0% institutions are fully automated and providing computerised library services and 24.0% libraries are partially automated their library housekeeping operations. There are only 24.0% libraries connected with DELNET and 12.0% with INFLIBNET membership and maximum number (64.0%) libraries are not connected with any Library Networks.

In the findings of the study reveals that most of the librarians (52.0%) feel lack of adequate staff, whereas 20.0% no and 28.0% have given no responses. It has been also observed that majority of librarians (60.0%) felt lack of administrative support 60.0% shows its yes, 24.0% say no and 36.0% have given no response.

In the findings majority of users (72.37%) of stated that reference materials are not adequate, which is followed by 14.01% stated partially adequate and 13.62% stated that adequate in their library. Similarly for textbooks 72.37% stated adequate, 15.56% respondent stated partially adequate and 12.06% respondent responded not adequate text books in the libraries.

In the study it is found that there are lacks of development of collections, implementation of library automation, manpower development, etc. in the libraries of higher educational institutions of Sikkim and also lacks of experiences among the library professionals to implement the techniques to modernize the library and information centers in the Sikkim.

Thus to fill up the gap of developments among the libraries there is an urgent need of having a library network model to fulfill the required discussions, co-operations among the libraries as well as library professionals. In this regard, a new model is proposed keeping in views of the changing scenario in digital environment to fulfill

the ultimate goal of libraries and library professionals to the community which would be known “Sikkim Library Network” (SILIBNET). If the implementation would be done on the proposed model which would be the contribution of the study towards the development of libraries of Sikkim state.

Key Words: Collection Development, ICT Application, Higher Educational Library, Sikkim.

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