

AN EVALUATION OF ICT INFRASTRUCTURE AND APPLICATION IN SELECTED COLLEGE LIBRARIES OF CACHAR DISTRICT, ASSAM

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Abstract

In today's fast growing digital environment it has become imperative for the library and information centres to implement ICT for effective management of library operations and providing user centric library services to meet the expectations of the new generation tech-savvy library users. The paper presents the results of a survey carried out in order to know the availability of ICT infrastructure facilities and application of modern technologies in selected college libraries of Cachar district, Assam. Primarily, questionnaire has been used as a data collection tool along with observations and informal interviews. The findings of the study reveal that most of the surveyed college libraries are presently in developing stage in terms of ICT implementation. It has been found that financial constraints and lack of ICT skilled staffs are the main hurdles which are impeding the proper implementation of ICT in the college libraries under the study.

Keywords: ICT, Library Automation, E-journal Consortia, College Library

1. INTRODUCTION

The rapid advancement in the field of Information and Communication Technology (ICT) has made profound impact on all the spheres of human activities and institutions including libraries and information centres. ICT has brought revolutionary transformation in functioning and management of libraries. The new technologies have significantly enhanced the capabilities of libraries to achieve efficiency and effectiveness in library operations and services. Libraries all over the globe are striving hard to use the new modern technologies for effective management and satisfying the ever rising user expectations and diverse information needs. The adoption and implementation of new technologies in library and information centres is no longer a matter of choice but a matter of survival in the rapidly changing technological environment. In this changing scenario, the college libraries also need to give emphasis on ICT infrastructure development and redesign their day to day activities and services. The study attempts to

analyse and report the current status of application of ICT in college libraries of Cachar which is one of the largest districts of Assam.

2. REVIEW OF LITERATURE

A number of studies have been carried out on ICT infrastructure and application in library and information centres in India and other parts of the world. Al-Ansari (2011) explored the application of information technology in special libraries in Kuwait and revealed that majority of the libraries are partially automated. Major obstacles for ICT application in special libraries as revealed by the study are lack of adequate personnel, ICT training programs, and low priority of libraries within their organization. Barik, Das and Ramesh (2011) mentioned that the ICT based services provided by the private Engineering and Management colleges of Orissa are very poor and not able to meet the needs of the users at their end due to various constraints relating to infrastructure, manpower, lack of ICT equipments and overall financial problems. Kaur (2012) revealed that majority of the degree colleges in Chandigarh have automated their libraries using standardised library automation software such as LIBSYS and SOUL. The study pointed out that the shortage of staff and lack of trained staff mainly hindered the expansion of IT applications beyond local networking within the library or the campus. Sevukan and Deepthi (2014) explored the status of library automation in 25 selected academic institutions in Southern Kerala and found that all the surveyed libraries were automated. Circulation has been found as the most popular module automated by all the libraries followed by cataloguing, acquisition, OPAC and serials control. The study recommended that the staff of the surveyed library should be sent for training courses to upgrade their IT skills by which efficiency of the existing system may be enhanced. A survey conducted by Sinha and Deb (2016) indicated that the agricultural libraries in Agartala are lagging behind in terms of ICT implementation and the study mentioned that the lack of qualified library personnel in the surveyed library is the main reason behind this condition. The authors suggested that, to improve the condition of the libraries in the state, the Government of Tripura should initiate and provide separate fund for library development and all the vacant post in various libraries of the state should be immediately filled up with library professionals competent in ICT application.

3. OBJECTIVES OF THE STUDY

Following are the main objectives of the study:

- To study the existing ICT infrastructure facilities available in selected college libraries of Cachar
- To know the various applications of ICT in the college libraries
- To identify the various obstacles confronted by the library professionals in application of ICT in the college libraries
- To provide suggestions for proper implementation of ICT and modernisation of the college libraries.

4. SCOPE OF THE STUDY

This article is based on a pilot study conducted for a doctoral research work at Assam University, Silchar. It has been decided to study the libraries of only general degree colleges of Cachar district which were provincialised by the Government of Assam in 2005, to examine the various issues and challenges of ICT application in the college libraries of this region. Hence, the scope of the present study is limited to the libraries of only 7 (seven) degree colleges of Cachar as listed below:

- Cachar College, Silchar
- Gurucharan College, Silchar
- Janata College, Kabuganj
- Madhab Chandra Das College, Sonai
- Nehru College, Pailapool
- Radhamadhab College, Silchar
- Women's College, Silchar

5. METHODOLOGY

This article is based on a pilot study conducted for a doctoral research work at Assam University, Silchar. Survey method of research has been adopted for conducting the study. A structured questionnaire has been designed and distributed to the Librarians or In-charges of the selected degree college libraries of Cachar district. The researcher personally visited the degree college libraries under the study and observed the existing ICT infrastructural facilities. The researcher also conducted informal interviews with the library professionals working in these colleges to know the various aspects of ICT application in these college libraries. The data thus collected were tabulated and analysed statistically using frequency distribution with percentage.

6. DATA ANALYSIS AND INTERPRETATION

Out of seven college libraries surveyed, six libraries have positively responded to the questionnaire. It has not been possible for the researcher to collect data from one college library i.e. Nehru College, Pailapool due to non-availability of any professionally qualified permanent library staff in that college at the time of survey.

6.1 General Information about the Respondent Colleges

Table 1 shows the general information about the colleges under the study. Gurucharan College, Silchar is the oldest and only higher education institute of Cachar District which was established in pre-independence India. The respondent colleges impart Higher Secondary and Undergraduate degree courses in Arts, Commerce and Science streams. All the respondent colleges have assessed and accredited by NAAC (National Assessment and Accreditation Council). Gurucharan College, Silchar is the first and only college of Cachar District which has been accredited as A Grade by NAAC.

Table 1: General Information about the Respondent Colleges

Sl.	Name of the College	Year of Estd.	Streams Available	NAAC Grade
1.	Gurucharan College, Silchar	1935	Arts, Commerce, Science	A
2.	Cachar College, Silchar	1960	Arts, Commerce, Science	B+
3.	Womens' College, Silchar	1963	Arts, Commerce	B
4.	Janata College, Kabuganj	1964	Arts	C+
5.	Radhamadhab College, Silchar	1971	Arts, Commerce	B
6.	Madhab Chandra Das College, Sonai	1972	Arts, Commerce, Science	B

6.2 Collection of Documents in the College Libraries

Adequate and enriched collection of print and non-print materials is very much essential to cater the information needs of the library users. Table 2 shows the collection of various types of information resources available in the college libraries under the study. The collection of printed resources in the college libraries mainly includes printed books, journals, magazines and newspapers. Gurucharan College Library being the oldest library among the respondent college libraries is having the largest collection of printed books i.e. 37077 followed by Cachar College Library which have a collection of 25000 printed books. The non-print collection includes only CDs/DVDs and none of the college library acquires any e-book or subscribes e-journals other than those available through N-LIST consortium.

Table 2: Library Collection

College	Books	Journals	Magazines	Newspapers	CDs/DVDs
GCC	37077	30	18	7	30
CCS	25000	12	5	7	20
WCS	19000	10	5	6	-
JCK	13651	5	11	3	17
RMC	18000	20	12	7	50
MCDC	10120	8	6	5	35

Note: GCC - Gurucharan College, Silchar
WCS – Women's College, Silchar
RMC - Radhamadhab College, Silchar

CCS - Cachar College, Silchar
JCK - Janata College, Kabuganj
MCDC - M. C. Das College, Sonai

6.3 Availability of ICT Equipment

Table 3 shows the details of the various ICT equipment available in the college libraries under the study. It reveals that, the libraries of G. C. College, Radhamadhab College and Janata College are in better position in terms of number of computers, and availability of other peripheral devices required for library automation and initiation of digital library services. These three college libraries have also introduced barcode system which helps in reducing human error and intervention in library operations. Among the seven surveyed college libraries, three libraries have CCTV surveillance system to prevent theft and misuse of information resources and services within the college library.

Table 3: ICT Equipment

ICT Equipment	GCC	CCS	WCS	JCK	RMC	MCDC
Server Machine	2	1	1	2	2	1
Client Workstations	20	3	2	3	10	1
Laser Printer	2	-	1	1	1	1
Scanner	1	-	1	1	1	1
LCD Projector	1	-	1	1	1	1
Photocopy Machine	1	1	1	1	1	1
Barcode Printer	1	-	-	1	1	-
Barcode Reader	1	-	-	1	1	-
CCTV Camera	9	-	-	6	-	4

6.4 Internet Connectivity

Internet connectivity with high bandwidth is very much essential in this digital era for providing information resources and services to the users beyond the four walls of the library. It has been found that all the surveyed college libraries have broadband internet connection. Also, four colleges have campus wide Wi-Fi network facility which allows the users to access internet and online resources within the college campus according to their suitability.

6.5 Status of Library Automation

Table 4 reveals that all the surveyed college libraries have initiated automation of library housekeeping operations using different versions of SOUL (Software for University Libraries developed by INFLIBNET Centre). These libraries are presently in different stages of automation as shown in the table. Most of these are partially automated and use only the basic modules of the library management software required for database creation and transaction of library documents i.e. Administration, Cataloguing and Circulation. It has been found that three college libraries are still using the older version of SOUL and they have not upgraded to its latest version i.e. SOUL 2.0. Majority of the college libraries have rated their present library automation software as Good and only one library rated it as Very Good. It is worth mentioning that none of the college library has rated their automation software as Excellent.

Table 4: Status of Library Automation

College Library	Status of Automation	Commencement of Automation	Automation Software	Satisfaction Level
GCC	Partially automated	2006	Soul 1.0	Average
CCS	Partially automated	2009	Soul 1.0	Good
WCS	Partially automated	2009	Soul 2.0	Good
JCK	Partially automated	2014	Soul 2.0	Good
RMC	Completely automated	2008	Soul 2.0	Very good
MCDC	Initial stage	2013	Soul 1.0	Good

6.6 Accessibility of E-Resources through Consortia

In today's knowledge society, access to electronic information resources is increasingly become important for education, learning and research. But, due to information explosion, rising cost of information resources and static library budget, it had become impossible for the academic libraries to subscribe the various online journals and databases to fulfil the varied information needs of the users. To overcome these challenges libraries are now-a-day prefers to subscribe the e-resources through consortium. All the college libraries under the study have joined N-LIST (National Library and Information Services Infrastructure for Scholarly Content) consortium for providing online access of scholarly information resources to their clientele.

6.7 Barriers of ICT Application

An attempt has been made to know the various factors that are impeding the application of ICT in the college libraries and the results are depicted in Table 5. It reveals that inadequate number of ICT skilled staff (100%), financial constraint (83.33%) and lack of infrastructure facilities (66.67%) are the major problems facing by the college libraries in application of ICT. Lack of support from college management is another major barrier of ICT application as mentioned by 50% of the surveyed libraries.

Table 5: Barriers of ICT Application

Problems	Frequency	Percentage (N=6)
Financial constraint	5	83.33
Lack of Infrastructure facilities	4	66.67
Lack of support from Authority	3	50
Inadequate ICT skilled staff	6	100
Lack of willingness of staff	2	33.33

8. CONCLUSION

ICT plays an important role in the development of library and information centres. Today, the success of a library is largely dependent on the most effective use and implementation of modern technologies in libraries. The present study reveals that most of the college libraries in Cachar district are in developing stage in terms ICT infrastructure and its implementation. Although, the surveyed college libraries have started library automation but all the software modules are not completed. Also few surveyed college libraries have not yet develop basic infrastructure facilities. All the college libraries have internet connectivity but only one or two nodes are available for users, so the study suggest that number of nodes and bandwidth should be increased and maintained regularly for optimum use of ICT based resources and services. Proper initiative should be taken on the part of the state government and UGC for providing regular funds to the college libraries for implementation of ICT and its maintenance. The concerned college authority should provide proper support to the library professionals in application of ICT and also provide permission for attending workshops/training programmes to enhance their technical skills for proper implementation of ICT and providing effective and efficient services to the college library users.

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