
Status of ICT Infrastructure and Application in Selected Government Degree College Libraries of Telangana State

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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 successful management of library operations and providing user centric library services to meet the expectations of the new generation technical intelligence of 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 Government degree college libraries of Telangana State. Primarily, questionnaire has been used as a data collection tool along with observations and informal interviews. The findings of the study reveal that most the surveyed Govt. Degree college libraries are presently not fully developed stage in terms of ICT implementation. It has been found that financial limitation and lack of ICT skilled staffs are the main hurdles which are impeding the proper implementation of ICT in the Govt. Degree college libraries under the study

Keywords

Government Degree College Libraries; ICT; Library Automation; E-journal Consortia; College Library

Electronic access

The journal is available at www.jalis.in



Journal of Advances in Library and Information Science
ISSN: 2277-2219 Vol. 10. No.3. 2021. pp.202-206

INTRODUCTION

Realising the important feature of instructive and learning landscape through Information and Communication Technology (ICT) (Granger, Morbey, Lotherington, Owston, & Wideman, 2002), the Malaysian government has began to invest profoundly in the education system to open a wider scope of ICT and create a dynamic ICT environment for learning. In the quest to become a technological literate country, learning institutions in Malaysia are integrating ICT into the curriculum to boost the teaching-learning practices. The ICT has been found as an effective tool to improve the teaching-learning process (Bakar, Ayub, Luan, & Tarmizi, 2010; Yee, Luan, Ayub, & Mahmud, 2009; Wong, Jalil, Ayub, Bakar, & Tang, 2003). It has the ability to transform and create innovative pedagogical approaches in the instructional process (Chen, 2007; Luan, Atan, & Sabudin, 2010). Simultaneously, the MoE sought the teachers to work in the midst of the latest ICT (Pillay & Thomas, 2004) and to be sufficiently equipped in utilizing ICT for instructional purposes (Luan & Teo, 2009; Wong & Hanafi, 2007). In line with this, laptops were provided to the school teachers to incorporate ICT in their lessons (Khambari, Luan, & Ayub, 2010; Moses, Khambari, & Luan, 2008).

ICT stands for “Information and Communication Technologies,” refers to technologies that provide access to information through telecommunications. It is similar to Information Technology (IT) but focuses primarily on communication technologies. This includes the Internet, wireless networks, cell phones, and other communication mediums (TechTerms, 2010). The phrase ICT has been used by academic researchers since the 1980s, but it became popular after it was used in a report to the UK government by Dennis Stevenson in 1997 and in the revised National Curriculum for England, Wales and Northern Ireland in 2000 (Wikipedia, n.d.). In the past few decades, ICT has provided society with a vast array of new communication capabilities. For example, people can communicate in real-time with others in different countries using technologies such as instant messaging, voice over IP (VoIP), and video-conferencing. Modern ICT has created a “global village”, in which people can communicate with others across the world as if they were living next door (TechTerms, 2010)

REVIEW OF LITERATURE

A number of studies are administered on ICT infrastructure and application in library and knowledge centres in India and outside India. Al-Ansari (2011) explored the appliance of data technology in special libraries in Kuwait and revealed that majority of the libraries are partially automated. Problems 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 & Ramesh (2011) mentioned that the ICT based services provided by the private Engineering and Management colleges of Orissa are very poor and unable to satisfy the requirements of the users at their end thanks to various constraints concerning 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 like LIBSYS and SOUL. The study acknowledged 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 & Deepthi (2014) examined the status of library automation in 25 selected academic institutions in Southern Kerala and located that every one the surveyed libraries were automated. Circulation has been found because the hottest 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 prevailing system could also be enhanced. A survey conducted by Sinha & Deb (2016) indicated that the agricultural libraries in Agartala are lagging behind in terms of ICT implementation and therefore the study mentioned that the shortage of qualified library personnel within the surveyed library is that the main reason behind this condition. The authors suggested that, to enhance the condition of the libraries within the state, the govt of Tripura should initiate and supply separate fund for library development and every one the vacant post in various libraries of the state should be immediately filled up with library professionals competent in ICT application.

OBJECTIVES OF THE STUDY

Following are the main objectives of the study:

- To study the existing ICT infrastructure facilities available in selected Govt. degree college libraries of Telangana State
- To know the various applications of ICT in the Govt. degree college libraries;
- To identify the various problems confronted by the library professionals in application of ICT in the Govt. degree college libraries

SCHOPE & METHODOLOGY

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 Telangana State. The researcher personally visited the seven autonomous 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. Out of nine autonomous Govt. degree college libraries surveyed, seven libraries have positively responded to the questionnaire. Only seven Govt. Degree Colleges has been selected for the survey. Hence, the scope of the present study is limited to the libraries of only 7 (seven) selected autonomous degree colleges libraries of Telangana State as listed below;

1. City College, Hyderabad
2. SN&BNR Govt. Degree College, Khammam
3. Giriraj Govt. Degree College, Nizamabad
4. Nagarjuna Govt. Degree College, Nalgonda
5. Govt. Degree College, Karimnagar
6. Tara Govt. Degree College, Sangareddy
7. Govt. Degree College, Siddipeta

Table 1: General Information about the Respondent Colleges

S.No	Name of the college	Year of Estb.	Streams available
1	City College, Hyderabad	1950	Arts, Commerce, Science
2	SR & BGNR Govt. Degree College, Khammam	1956	Arts, Commerce, Science
3	Giriraj Govt. Degree College, Nizamabad	1956	Arts, Commerce, Science

4	Nagarjuna Govt. Degree College, Nalgonda	1956	Arts, Commerce, Science
5	Govt. Degree College, Karimnagar	1956	Arts, Commerce, Science
6	Govt. Degree College, Siddipeta	1956	Arts, Commerce, Science
7	Tara Govt. Degree College, Sangareddy	1977	Arts, Commerce, Science

Table 1 shows the general information about the colleges under the study. City College, Hyderabad is the oldest and only higher education institute of Telangana State which was established in 1950 and

other colleges are arranged according to year of establishment. The respondent colleges impart higher secondary and undergraduate degree courses in Arts, Commerce and Science streams.

Table2: Collection of documents in the Govt. degree college libraries

S.No.	Name of the college	Books	Magazines	Journals	CD-ROM /DVD
1	City College, Hyderabad	72000	20	20	143
2	SR & BGNR Govt. Degree College, Khammam	49536	5	20	90
3	Giriraj Govt. Degree College, Nizamabad	56973	81	25	83
4	Nagarjuna Govt. Degree College, Nalgonda	20053	18	25	61
5	Govt. Degree College, Karimnagar	53845	18	23	67
6	Govt. Degree College, Siddipeta	45466	32	11	72
7	Tara Govt. Degree College, Sangareddy	19183	108	40	69

Table-2 indicates the collection of document in the Govt. Degree 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. The collection of printed resources in the college libraries mainly includes printed books, journals, magazines and CD-ROM/DVD's . City college of Hyderabad is being the oldest library

among the respondent college libraries is having the largest collection of printed books i.e. 72000 followed by Giriraj Govt. Degree college has 56,973 printed books, and lowest of printed book collection by Tara Govt. Degree College. All most all the Govt. Degree college libraries has adequate printed magazines and journals.

Table 3: Availability of ICT Equipment

S. No	Name of the college	Comp. Server	Computers	Printer	Scanner	LCD Projector	Xerox Machine	Barcode Printer	Barcode Reader	CCTV Camera
1	City College, Hyderabad	1	3	1	1	1	1	1	2	5
2	SR & BGNR Govt. Degree College, Khammam	1	4	1	0	0	1	1	2	4
3	Giriraj Govt. Degree College, Nizamabad	1	5	1	1	0	1	1	2	6
4	Nagarjuna Govt. Degree College, Nalgonda	1	4	1	1	1	1	1	2	7
5	Govt. Degree College, Karimnagar	1	2	1	0	0	1	1	2	3
6	Govt. Degree College, Siddipeta	1	2	1	1	0	1	1	3	2
7	Tara Govt. Degree College, Sangareddy	1	3	1	1	1	1	1	2	3

Table 3 shows the availability of various ICT equipment in the Govt. Degree college libraries Telangana State. It reveals that, the libraries of City College of Hyderabad, Giriraj college, Nagarjuna college and Tara Govt. Degree colleges 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 4: Barriers of ICT Application

S.No.	Problems	Frequency (N=7)	Percentage
1	Financial constraint	4	57.14
2	Inadequate ICT skilled staff	6	85.71
3	Lack of Infrastructure facilities	3	42.86
4	Lack of support from authority	3	42.86
5	Lack of willingness of staff	2	28.57

Table-4 shows the barriers of ICT applications among Govt. Degree college libraries. It reveals that the majority 85.71% of the libraries have inadequate ICT skilled staff, followed by 57.14% of them have financial constraints, 42.86% of them have lack of infrastructure facilities and lack of support from authorities and only 28.57% of the degree college libraries facing problem of lack of willingness of staff.

Internet Connectivity

Almost all the degree colleges have 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 and some of the colleges has good Wi-Fi facility in libraries.

Library Automation

All the seven colleges fully automated with different library software, City college, Hyderabad, Govt. Degree colleges of Karimnagar, Nalgonda, Nizamabad and Siddipeta libraries have initiated automation of library housekeeping operations using different versions of SOUL (Software for University Libraries developed by INFLIBNET Centre). Remaining two colleges are using NewGenLib library automation software, majority of the colleges are using SOUL software.

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, thanks to information explosion, rising cost of data resources and static library budget, it had become impossible for the tutorial libraries to subscribe the

numerous online journals and subject databases to fulfil the varied information needs of the users. to beat these challenges libraries are now-a-day prefers to subscribe the e-resources through consortium. All the school libraries under the study have joined N-LIST (National Library and knowledge Services Infrastructure for Scholarly Content) consortium for providing online access of scholarly information resources to their clientele.

CONCLUSION

ICT plays a crucial role within the development of library and knowledge centres. Today, the success of a library is essentially hooked in to the foremost effective use and implementation of recent technologies in libraries. Study reveals that the majority of the Govt. degree college libraries in Telangana State are in developing stage in terms ICT infrastructure and its implementation even though autonomous Govt. degree colleges better than other degree colleges. Although, the surveyed Govt. degree college libraries have started fully library automation but all the some of the software modules aren't completed. All the autonomous Govt. degree college libraries have internet connectivity but just one or two nodes are available for users, therefore 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 a part of the Government and UGC for providing regular funds to the school 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 reinforce their technical skills for correct implementation of ICT and providing effective and efficient services to the Govt. Degree college library users.

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