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A Study on Ioct Infrastructure in Private College Libraries at Sagar, Madhya Pradesh

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Abstract:
In today's rapidly evolving environment, it is essential for a library to adopt information and communication technology, enabling it to provide library services and support user needs efficiently. The present user is technology-friendly and wants the services in the fastest way. The survey was conducted to determine the status of ICT infrastructure in the selected 17 private college libraries of Sagar Teshil in Madhya Pradesh. The study concluded that computer facilities, hardware devices, and internet connections needed to be improved. The status of Library Automation and digitalization is not in good condition. Finances, skilled staff, ICF Infrastructure, and support from the authority are the main barriers to strengthening ICF Infrastructure in the private college libraries of Sagar Tehsil of Madhya Pradesh.

Keywords: ICT in Libraries, Library Automation, College Libraries and Digital Library.

INTRODUCTION:

Information and Communication Technology (ICT) is contributing to every field today, including education, post offices, banks, government offices, railways, and shopping malls etc. Libraries are also not untouched by information and communication technology, which is being used to transform the Traditional library to the Modern library. ICT further use, extensively to perform library activities and provide services, most effectively.

The main element required in the ICT development is its Infrastructure. The Information Communication Technology Infrastructure components comprise Hardware and Software. Hardware includes a Computer, Modem, Barcode Reader, Printer, Scanner, Xerox Machine, CCTV Camera setup, and RFID Equipment. While software includes library automation software, digital library software, Institute repository software, OCR software, etc.

The areas in which the libraries use ICT are Library Automation and digitalization of libraries. Library automation refers to the use of computers in the daily routine work of the library, which includes the Accession of Documents, Periodical Management, charging in and out of books, Cataloguing, Human Resource Management, Report Generation, and User data-based management, among other tasks. Digitization involves converting existing traditional documents (printed documents) into an electronic form using ICT tools such as scanners, high-quality cameras, a computer, and Optical Character Recognition (OCR) software. These electronic resources are further managed by using digital library software. The library with electronic resources is known as an e-library or digital library.

LITERATURE REVIEW

M. Santhosha and Kumari Aditya (2024) the research on the status of the ICT Infrastructure and services in the autonomous engineering college libraries, which are affiliated to VTU of the Mysore region. The study further finds that most of the engineering college libraries are at developing stages and have minimum ICT Infrastructure facilities.

Subba Samiksha and Das Subarna Kumar (2019) the paper investigate the 20 college Libraries of Darjeeling district of West Bengal in terms of Information and Communication Technology (ICT) status, which includes the library automation and its implementation barrier and ICT infrastructure in the libraries. Findings of this research indicate that many of the libraries lack hardware and software, and the internet speed is not appropriate. The paper suggested that libraries should provide sufficient finances, with a regular training program for the library staff to advance the knowledge of ICT among the staff.

Naik H. Sathish and Padmamma S. (2019). This study searches the ICF infrastructure and e-resources availability in medical college libraries of deemed universities in Karnataka. The research is about print resources, e-resources, library budget, and user education programs. Result shows that all the medical college libraries have good ICF infrastructure in the libraries.

Naveen C L and Kannappannavar B U (2019). The study comprises the availability of the services, source collection and ICT Infrastructure facilities at Government First Grade College libraries affiliated to Kuvempu University. Data collected through the questionnaire, as well as observation and informal interviews, is also used to enrich the data collection. The study also highlights the library automation, cataloguing, classification and finance used in the first-grade government colleges.

VS Savitha (2019). The research paper investigates the ICT Infrastructure and its use in the Libraries of Kolar District, Karnataka. The outcome of this paper is that most libraries of the Kolar district are at a developing stage and manpower is also a barrier for ICT growth in the Kolar district libraries.

S.K Santosh Kumar and S Chandrappa (2018). (Das, 2019) The paper focuses on the Library Automation, Library Management Software, and ICT Infrastructure at 23 Private Aided First Grade Colleges Libraries in Bangalore City. The major findings are that the colleges' libraries do not have ICT-skilled manpower, funds and Infrastructure for the development of libraries.

Dattatraya.T. Kalbande, and Subhash P. Chavan (2017). The survey is conducted to examine ICF Infrastructure facilities in the selected 40 Agricultural college libraries affiliated to Mahatma Phule Krishi Vidyapeeth, Rahuri. The study results show that almost all libraries do not have basic ICT infrastructure facilities to access the electronic resources of the libraries.

Choudhary Shibojit and Sarmah, Mukut (2017). The study is about the ICT infrastructure and application of modern technology in the selected college libraries of the Cachar district, Assam. The data is collected through a questionnaire, while observation and informal interview methods were also used to enhance the data. The researcher finds that financial and a lack of ICT-skilled staff are the main barriers for the implementation of ICT in the college libraries of Assam district, Cachar. These college libraries are in developing states of ICT infrastructure.

OBJECTIVE:

- To know the basic ICT Infrastructure in the Private College libraries.
- To find the Internet Connection availability.
- To identify the ICT-skilled Staff in the Private College Libraries.
- To study the Finance provided for ICT Infrastructure development.

- To analyze the Library automation and digitalization Status.

SCOPE AND LIMITATIONS

The present study covers only selected Private College libraries in the territories of Sagar Tehsil of Madhya Pradesh.

The study is limited to investigating the status of the ICT infrastructure in seventeen private college libraries of Sagar Tehsil of Madhya Pradesh.

METHODOLOGY

This article uses a survey method for the collection of the data. A structured questionnaire was distributed among the librarians of private college libraries of Sagar Tehsil. For the enrichment of the data, observation and interview methods were also adopted. An informal interview was also conducted with the librarian and library staff on various aspects of the ICF facilities and services. The Private college libraries were personally visited to observe the ICF Infrastructure facilities.

DATA ANALYSIS AND INTERPRETATION

The structured questionnaire was distributed in seventeen private college libraries of Sagar Tehsil, out of which sixteen colleges responded positively, while one college, that is SSHC Jain College, did not respond due to non-operation at the time of the survey.

S.No.	Name of the College	Year of Establishment	Address
1.	Shri Rawatpura Sarkar Mahavidyalaya, Sagar	2019	Pantnagar,Sagar
2.	BD Memorial College	2009	Makaronia, Sagar
3.	Babulal Tarabai Institute of Research and Technology (BTIRT)	2008	Siroja, Sagar
4.	Infinity Management & Engineering College	2008	Patheriya Jat,
5.	SSHC Jain Institute of Management and Research,	2008	Narsinghpur Road, Sagar,
6.	SVN College	2014	Siroja, Sagar
7.	Dronacharya Academy B.Ed. Mahavidyalaya	2009	Dhana, Sagar
8.	Gyan Sagar College of Education	2009	Sirounja, Sagar
9.	Thakur Feran Singh Shiksha Mahavidyalaya	2014	Shahpur, Sagar
10.	BT College	2019	Sirounja, Sagar
11.	Gyanveer Institute of Management & Science	2000	Rajghat Road, Tilli, Sagar,
12.	Novel College	2001	Rajakedi Makronia, Sagar
13.	Novel College of Education	2005	Rajakedi Makronia, Sagar

14.	Swami Vivekananda Mahavidyalaya	1994	Deendayal Nagar Makronia, Sagar
15.	Sunderlal Srivastava Memorial College	2005	Makronia, Sagar
16.	Vasudev Excellence College	2012	Bararu, Sagar
17.	GIS College	2008	Patharia Jat, Sagar

The collected Data have been analyzed statistically with percentages and presented in tabular form as follows: **Table 1: Private Colleges of Sagar Tehsil are included for the analysis**

Table 2: Number of Computers for Users and Official Use

S.No.	Name of College	Number of Computers for official use	Number of Computers for Users	Total Computers
1.	SRSM	01	02	03
2.	BDMC	00	00	00
3.	BTIRT	02	08	10
4.	IMEC	01	07	08
5.	SVN College	00	00	00
6.	DA	01	06	07
7.	GSCE	02	10	12
8.	TFSSM	01	00	01
9.	BTC	01	02	03
10.	GIMS	01	04	05
11.	NC	01	02	03
12.	NCE	01	01	02
13.	SVM	01	00	01
14.	SSMC	01	00	01
15.	VEC	01	01	02
16.	GISC	01	04	05
Total		16	47	63
Percentage		25.40%	74.60%	100%

Table 2 presents the computers available in the college libraries for users and official use. 2 out of 16 colleges have no computers in their libraries, either for official use or for library users. While only 3 college libraries have computers for official use, but no computers for their users. Out of the total computers that are 63(100%), 16 (25.40%) are for official use, and the remaining 47(74.60%) are for library users.

Table 3: Internet Connectivity

S.No.	Name of College	Internet Connection
1.	SRSM	YES
2.	BDMC	NO
3.	BTIRT	YES

4.	IMEC	YES
5.	SVN College	NO
6.	DA	NO
7.	GSCE	YES
8.	TFSSM	NO
9.	BTC	YES
10.	GIMS	YES
11.	NC	YES
12.	NCE	YES
13.	SVM	YES
14.	SSMC	NO
15.	VEC	YES
16.	GISC	YES
Total		11
Percentage		68.75%

Table 3 shows that 11(68.75%) college Libraries have Internet connectivity, while 5 (31.25%) libraries do not have Internet connectivity.

Table 4: Availability of Hardware Facilities in the Libraries

S.No.	Name of College	CCTV Camera	Xerox Machine	Printer	Scanner	Modem	Barcode Reader
1.	SRSM	YES	NO	YES	YES	YES	NO
2.	BDMC	YES	NO	NO	NO	NO	NO
3.	BTIRT	YES	YES	YES	YES	YES	YES
4.	IMEC	YES	NO	YES	YES	YES	NO
5.	SVN College	YES	NO	YES	YES	NO	NO
6.	DA	NO	NO	YES	YES	YES	NO
7.	GSCE	YES	YES	YES	YES	YES	YES
8.	TFSSM	YES	NO	NO	NO	NO	NO
9.	BTC	YES	YES	YES	YES	NO	NO
10.	GIMS	YES	YES	YES	YES	YES	NO
11.	NC	YES	YES	YES	YES	YES	NO
12.	NCE	YES	YES	YES	YES	YES	NO
13.	SVM	YES	YES	YES	YES	NO	NO
14.	SSMC	YES	NO	NO	NO	NO	NO
15.	VEC	YES	YES	YES	YES	YES	NO
16.	GISC	YES	YES	YES	YES	YES	NO
Total		15	9	13	13	10	2
Percentage		93.75%	56.25%	81.25%	81.25%	62.5%	12.50%

Table 4 indicates the availability of hardware facilities, which include CCTV, Xerox, Printer, Scanner, Modem, and Barcode Reader. It is observed that out of 16 college libraries, 15 libraries (93.75%) have CCTV, 13 libraries (81.25%) have a Printer and Scanner, 9 libraries (56.25%) have Xerox Machine, 10

libraries (62.5%) have a Modem in their libraries and only 2 Libraries have Barcode Reader.

Table 5: Status of Library Automation

S.No.	Name of College	Library Automated
1.	SRSM	NO
2.	BDMC	NO
3.	BTIRT	YES
4.	IMEC	NO
5.	SVN College	NO
6.	DA	NO
7.	GSCE	YES
8.	TFSSM	NO
9.	BTC	YES
10.	GIMS	NO
11.	NC	NO
12.	NCE	NO
13.	SVM	NO
14.	SSMC	NO
15.	VEC	NO
16.	GISC	NO
Total		3
Percentage		18.75%

Table 5 says that out of 16(100%) College libraries, only 3(18.75%) Libraries are automated, and 13 (81.25%) Libraries are not automated due to a lack of funds and unskilled ICT staff.

Table 6: Digital Library Status

S.No.	Name of College	Is Library digital
1.	SRSM	NO
2.	BDMC	NO
3.	BTIRT	YES
4.	IMEC	NO
5.	SVN College	NO
6.	DA	NO
7.	GSCE	YES
8.	TFSSM	NO
9.	BTC	NO
10.	GIMS	NO
11.	NC	NO
12.	NCE	NO
13.	SVM	NO
14.	SSMC	NO

15.	VEC	NO
16.	GISC	NO
Total		2
Percentage		12.5%

Table 6 shows that only 2(12.5%) college libraries are digital and 14 (87.5%) college libraries are not digital.

Table 7: Position of Website or Weblog in the Libraries

S.No.	Position of Website or Weblog	Responses
1.	Independent Website/Weblog	(1) 6.25%
2.	College Website/Weblog	(10) 62.50%
3.	No Website/Weblog	(5) 31.25%

Table 7 presents that a maximum number of 10 (62.50%) libraries do not have an independent website/weblog, no website/weblog is available in 5 (31.25%) college libraries, while only one (6.25%) college library has its own independent website/weblog.

Table 8: Barriers to ICT Application

S.No.	Barriers to ICT application	YES	NO
4.	ICT Skilled Staff	(12) 75%	(4) 25%
5.	Finances	(15) 93.75%	(1) 6.25%
6.	Basic ICF Infrastructure	(12) 75%	(4) 25%
7.	Lack of support from the Institute Authority	(12) 75%	(4) 25%

Table 8 depicts the barriers faced by the librarians in ICT application in Private College Libraries in Sagar Tehsil. The major difficulty is a Lack of Financial support in 15 (93.75%), followed by a Lack of basic ICF Infrastructure, support from the Institute Authority, and ICF Skilled Staff in 12 (75%) College libraries.

CONCLUSION

The growth of a Library in today's modern environment lies in the development of ICT Infrastructure. For the development of any library, it is essential to focus on the ICT Infrastructure by the Management Authority of that Institute. Without the growth of the library of any institute, the growth of that institute cannot be imagined. The present study concluded that computer facilities, hardware devices, and internet connections needed to be improved. The status of Library Automation and Digitalization of libraries in private college libraries in Sagar Tehsil is not in good condition. Only one college library has an Independent website/weblog out of 16 libraries. Finances, skilled staff, Basic ICF Infrastructure, and support from the authority are the main barriers to strengthening ICF Infrastructure in the private college libraries of Sagar Tehsil of Madhya Pradesh.

REFERENCES

1. Das, S. S. (2019). ICT infrastructure in College Libraries of Darjeeling District of West Bengal, India: A Survey. *International Journal of Research in Social Sciences* , 15.
2. K. S. Sivakumaren, V. G. (2011). ICT Facilities in University Libraries: A Study. *Library Philosophy and Practice (e-journal)*, 10.

3. Kalbande, D. a. (2017). ICT Infrastructure Facility in Agricultural College Libraries in Maharashtra: A Study. *International Journal of Digital Library Services*, 45-55.
4. Kannappannavar, C. L. (2019). Sources, Services and ICT Infrastructure in Govt. First Grade College Libraries: Colleges affiliated to Kuvempu University. *Library Progress (International)*, 10-16.
5. Kumari, S. M. (2024). ICT Infrastructure Facilities and Services in Autonomous Engineering College Libraries Affiliated to VTU of the Mysore Region. *International Journal of Research in Library Science (IJRLS)*, 179-186.
6. Padmamma, H. S. (2019). Availability of E-Resources and ICT Infrastructure in Medical College Libraries of Deemed Universities in Karnataka. *Indian Journal of Information Sources and Services*, 139–146.
7. S, S. K. (2018). Status of Library Automation and ICT Infrastructure in Private Aided First Grade College Libraries In Bangalore City. *International Journal of Library & Information Science (IJLIS)*, 9.
8. Shibojit Choudhary and Mukut Sarmah, S. (2017). An Evaluation of ICT Infrastructure and Application in Selected College Libraries of Cachar District, Assam. *International Journal of Digital Library Services*, 7.
9. VS, S. (2019). Libraries of Kolar District, Karnataka Availability of ICT Infrastructure and Its Use in College Libraries: A Study With Special Reference to Selected Libraries of Kolar District, Karnataka. *Library Herald*, 9.