

Impact of Application of ICT in College Libraries of Chirang District: A Survey

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Abstract

This study aims to investigate the impact of Information and Communication Technology (ICT) in college libraries within the Chirang district. The rapid advancements in technology have brought about significant changes in the way libraries function, making it crucial to assess the effects of ICT application on library services and user experiences. The data collected will be analyzed using descriptive statistics and thematic analysis. The results will provide insights into the extent to which ICT has transformed library services in the Chirang district, as well as the challenges faced during the implementation of ICT initiatives. The study will also explore the perceptions of library users regarding the effectiveness and accessibility of ICT-based resources and services. The findings of this research will contribute to the existing body of knowledge regarding the impact of ICT in college libraries. The study's results will help library administrators and policymakers in the Chirang district to make informed decisions on the allocation of resources for ICT infrastructure and training. Additionally, the study will provide recommendations for enhancing the utilisation of ICT in college libraries to improve overall service quality and user satisfaction.

Keywords: Information and Communication Technology (ICT), College Libraries, Chirang District, Survey, Digital Resources, Online Catalogs, Electronic Databases, Digital Preservation, Library Services, User Experience

Introduction

Information and Communication Technology (ICT) has revolutionised various sectors, including education and

libraries. College libraries play a vital role in providing access to knowledge and supporting academic pursuits. With the rapid advancement of technology, the application of ICT in college libraries has become increasingly important. This study focuses on assessing the impact of ICT in college libraries within the Chirang district.

ICT encompasses a wide range of technologies and tools, such as computers, internet connectivity, digital resources, online catalogues, electronic databases and digital preservation techniques. These technological advancements have transformed the traditional library landscape, enabling faster and more efficient access to information, improved storage and retrieval capabilities and enhanced collaboration opportunities.

The Chirang district, located in [provide relevant information about the district], houses several colleges with their own libraries. These libraries play a crucial role in supporting the educational needs of students and faculty members. Therefore, understanding the impact of ICT application in these college libraries is essential for assessing the overall effectiveness of library services and meeting the evolving demands of the academic community.

This study aims to conduct a survey among librarians, college staff and students from various colleges in the Chirang district. By gathering data on the availability and utilisation of ICT infrastructure, digital resources and online services, the study seeks to assess the extent to which ICT has influenced library operations and user experiences. Additionally, the study will explore the challenges faced during the implementation of ICT initiatives and gather insights into the perceptions of library users regarding the effectiveness and accessibility of ICT-based resources and services.

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Literature Review

This section provides an overview of relevant literature from internet sources, articles, books, journals and periodicals. It focuses on theories that aid in analysing potential issues arising from the study. Reviewing related literature enhances the researcher's understanding of the field, offering insights into tested procedures and interpretations from similar studies. The section explores pertinent concepts and theories, forming the study's framework.

The literature review encompasses several key studies on the application of Information Communication Technology (ICT) in academic libraries. Kumar and Biradar (2010) conducted a survey in Karnataka, India, analysing ICT infrastructure, library automation status and librarian attitudes using questionnaires, observations and interviews. Vijayakumar and Vijayan (2011) discussed the rapid development of Information Technology in libraries, emphasising its role in fulfilling users' information needs. Hussain, Khan and Zaidi (2013) explored ICT-based library services in Delhi and NCR B-schools, evaluating user satisfaction and issues faced, providing valuable insights for improvement. Saleem and Batcha (2013) investigated ICT application in academic libraries, focusing on the skills of library professionals and innovative service delivery. Chaurasia (2014) highlighted emerging technologies' impact on library management and services, reflecting the ongoing Information Revolution. Dhanavandan and Asokan (2016) assessed the challenges faced by library professionals in Tamil Nadu's engineering colleges regarding ICT implementation. Elisha (2016) examined the prospects and problems of ICT in Nigerian academic libraries, emphasising their essential role in information services. Kaur (2016) investigated the ICT application in Indian management libraries, emphasising the need for upgrading e-resource collections.

Govindarajan and Dhanavandan (2017) focused on the utilisation of ICT tools among ophthalmologists in India, revealing that a significant proportion of eye doctors, particularly those aged between 31 and 40, actively employed ICT in their profession, emphasising the relevance of ICT in healthcare. Ali and Ganaie (2019) highlighted the transformative influence of ICT on libraries, shifting from traditional print resources to digital

information services. Their study, centered on leading Indian university libraries, underlined the adoption of ICT-based library services and resources, including digital reference services, institutional repositories and remote access to electronic resources. Lastly, Partap and Neogi (2022) investigated the awareness and usage of ICT-based library and information services among agricultural science students in Uttar Banga Krishi Viswavidyalaya, West Bengal. Their findings showcased high awareness and utilisation rates of services like Online Public Access Catalogue, e-journals and e-books, underscoring the integral role of ICT in academic research and learning processes. These studies collectively demonstrate the diverse applications and growing importance of ICT across various professional and educational contexts.

Objectives of the Study

- To find out the impact of applications of ICT in the college libraries.
- To explore the problems that library users are facing after ICT applications.
- To identify and analyse the specific factors that hinder the use of ICT based library services.
- To suggest measures for improvement of existing resources and services in college libraries of Chirang district.
- To understand how ICT tools can be used to view, gather and disseminate library information among the users.

Scope of the Study

The scope of this study is focused on college libraries within the Chirang district, encompassing both public and private colleges. The study aims to assess the impact of ICT application on library services and user experiences. It includes an examination of ICT infrastructure, digital resources, online catalogues, electronic databases, digital preservation techniques and overall ICT utilisation in college libraries.

The study will involve surveying librarians, college staff and students from various colleges in the Chirang district to gather their perspectives on the implementation and effectiveness of ICT in library operations. The survey

will explore aspects such as access to ICT infrastructure, usage of digital resources, satisfaction with online services, challenges faced during the adoption of ICT and suggestions for improvement. The present study is limited to colleges in Chirang district. There are seven colleges in Chirang district and only five colleges which have been taken into consideration for the study are as follows:

- Bengtol College
- UN Brahma College
- Bijni College
- Basugaon College
- Sova Ram Borgoyary College

Methodology of the Study

- The study is based on survey.
- A structured questionnaire has been designed based on the topic of study.
- Librarians were taken into consideration and 175 students from all the five colleges under Chirang district.
- *Questionnaire*: All the questions are related to the study among them. Question is required for data interpretation and presentation of findings. All the question were related to the types of information needs, required service by the users, types of information sources used, frequency of library application or ICT, usefulness of services provided by the library and the types of problems faced by the users in the library. In the questionnaire the respondents have the option to suggest how to improved library application and ICT for better used in future. The

question to the respondent was addressed to specific channels or sources.

- *Question Method*: This method of data collection is quite popular and questionnaires are considered as the heart of a survey operation. In this questionnaire all questions were related to the types of information needed, reasons for seeking information, frequency of library application or ICT, usefulness of services provided by the library, required service by the users and sources of information used and the types of problems faced by the users in the library.

Data Analysis and Interpretations

The collected data is organised and tabulated by using qualitative and quantitative method tables and percentage. This chapter deals with the analysis and interpretation of the data, which have been collected through questionnaire. A total of 175 questionnaires were distributed in five colleges of Chirang district and five questionnaires were distributed to the librarian in five colleges of Chirang district. But only 116 questionnaires of were returned back by students and five out of five librarian questionnaires were returned back. There were 3159 students in the five colleges of Chirang district and 3.67% of total populations, that is, 175 questionnaires were distributed out of which only 116 questionnaires were returned back which constitute 3.16% of total population. While five librarians in the five colleges of Chirang district and 100% of total populations, that is, five questionnaires were distributed out of which five questionnaires were returned back which constitute 100% of total population. The researcher has selected the entire received questionnaire for analysis of data.

Table 1: College Wise Response Rates of Librarians

College	Questionnaires Distributed	Returned Back	Response Percentages
Bengtol College	1	1	100%
UN Brahma College	1	1	100%
Bijni College	1	1	100%
Basugaon College	1	1	100%
Soba Ram Borgoyary College	1	1	100%

The above data shows that five questionnaires were distributed to the five colleges of Chirang district and

out of five questionnaires five questionnaires, were received back which constitute 100% of total distributed

questionnaire. The researcher has selected all five questionnaires for analysis. From the above table we can see that the response rate is same. This shows that librarians take interest in such activities.

Table 2: Software Status of Library Automation

Status of Library	No of Response	Percentages
A. Fully automated	1	20%
B. Almost automated	2	40%
C. No automation	2	40%

The above tabulated data shows that 20% out of 100% is fully automated and 40% is almost automated and 40% does not have automation. Nearly 40% out of five colleges of Chirang district they never use automation to access library and information services. So it is clear that majority of the library use automation to access library and information services for updating themselves and for better services.

Table 3: DTP Software Available in Your Library

Availability of DTP Software	No of Response	Percentages
A. MS Office	3	60%
B. Acrobat reader	1	20%
C. Adobe page maker	1	20%
D. Others	0	0.00%

The above tabulated data shows that 60% respondent out of 100% used MS Office, 20% use Acrobat reader, and 20% use Adobe page maker facility in their own library, so from the above table it is clear that majority of the library use MS Office software for any type of DTP work.

Table 4: Availability Browsing Software

Availability Browsing Software	No of Response	Percentages
A. IE	0	0.00%
B. Chrome	4	80%
C. Mozilla fire fox	1	20%
D. Safari	0	0.00%

The above data shows that the total respondent of the population is 100% out of this 80% use Chrome and 20% use Mozilla fire fox browser in their library. IE and Safari are not used in College libraries of Chirang district because they are unknown about this browser. Majority of the library used Google Chrome for better services.

Table 5: Availability of Databases

Availability of Databases	No of Response	Percentages
A. Online database	2	66.66%
B. Bibliography database	1	33.33%
C. Image database	0	0.00%
D. Multimedia database	0	0.00%

From Table 5 it is clear that 60% of the total respondents 66.66% use online database in their library and 33.66% use Bibliography database for better services to the users. Image database and Multimedia database are not use by any of the library of Chirang district.

Table 6: Online Search Facility

Online Search	No of Response	Percentages
Yes	41	35.34%
No	75	64.65

The above tabulated data shows that 35.34% respondent used online search facility in their own library, where as 64.65% respondent don't have online search facility in their college library, so they are unknown about the latest techniques of studying online and updating their knowledge. Majority of the respondents cannot access online search facility.

Findings

The following are some of the major findings of college librarians of the study:

- It is revealed from the study that majority of staff respondents, that is, 3 (60%) are male in the five colleges of Chirang district.
- The study reveals that maximum number of staff respondents on library general facilities, that is, 5 (100%) had Stack Area, Reference Section, Reference Section, General Reading Hall and Drinking Water.

- The study finds out that ICT Infrastructure Facilities of the five colleges of Chirang district, that is, majority of the respondents 4 (80%) are satisfied with Computers, Barcode printers and Printers for their smooth running of the library.
- The study finds that most of the respondents, that is, 3 (60%) have experience SOUL 2.0 in their library for better services.
- The present study reveals that the majority of respondents, that is, 4 (80%) use Windows 7, 8 and 10 as an operating system in their library.
- The study finds that maximum number of respondents, that is, 4 (80%) don't have independent network in their college library.
- The study finds that maximum number of respondents, that is, 4 (80%) don't have campus network as a telecommunication and networking.
- The finding reveals that majority of respondents, that is, 35 (100%) response received from the two colleges of Chirang district were Bengtol College and Sova Ram Borgoyari College. It can be understood that this two colleges students take much interest in such activities.
- The study finds that most of the respondents, that is, 75 (64.65%) don't have online search facility in their college library, so they are unknown about the latest techniques of studying online and updating their knowledge.
- The present study reveals that the majority of respondents, that is, 71 (61.20%) used E-Book/E-Journal facilities in their colleges library.
- The study finds that maximum number of respondents, that is, 78 (67.24%) are satisfied with circulation service.

Suggestions

The following are some of the suggestions obtained out of the study:

- The five colleges of Chirang district must make an endeavour to improve its ICT Facilities.
- It should also automate its library in order to give better services to its users.

- The staff of the library should be given proper training particularly related ICT so that they can understand the needs of users such as e-resources, digital library, etc.
- It is also suggested that timing of the library should be increased as many hostlers prefer to visit the library at night.
- The staff strength should also be increased to provide better services.

Suggestions from the Respondents

- Newspaper should be updated daily with remarkable events, activities, achievements, incidents, etc. It may be regional, state, national or International.
- Books are a source of new knowledge, so we have to read daily.
- Books and Newspaper are the best communication which provides us job and weather information.
- E-paper and E-books are the most important part in our daily life which we can easily retrieve information when ever needed. So that it can help us for better future.
- In the present generation everybody have the mobile with an internet, which is more preferable than printed books. E-Resources should be provided in college network.
- Nowadays E-paper are available on internet which we can access anytime anywhere whenever we want. So E-media is better preferable than paper media.
- Library plays a vital role in our day to day life.
- Employment News is a way that enables us to informed job circulations.
- Novels and Magazines enables students to update their knowledge, therefore it is important to read the Novels and Magazines.
- In this modern generation, ICT is on its part and using E-books is the best option. Besides that it is also very important in environmental view point, or it can help to reduce carbon emission.

Conclusion

The application of Information Communication Technologies (ICT) tools is increasing in Academic Libraries especially in Arts & Science colleges due to the development of technologies. According to the respondent ranking, Mobile phone is in 1st position due to easy access at any time anywhere. For a long lasting, effective and relevant application ICT in Chirang district college libraries, the following measures should be taken up. The government must increase the funding of academic institutions. This is imperative seeing that some of the private institutions owners are inspired by similar attitude on the part of government. It is only when the funding of academic institutions is increased that the academic libraries in Chirang district college libraries will have the required funds to increase that ICT applications and support with local infrastructure such as LAN and local data bases such as electronic cataloguing systems and e-publication. Even with increased funding, the desired results will not be seen unless comprehensive ITC policies are developed and document as well as published for scrutiny at the national institutional and library levels. These policies will provide a blue print for ICT application and guide the implementers. Only when this is done, will be overall ICT application in Chirang district college libraries be integrated and made to serve collective good.

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