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Use of ICT Applications by Students, Faculty Members & Academic Staff in ITM Group of Institutions' Gwalior, India: A Statistical Survey

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Abstract
This study was conducted to investigate the application of information and communication technologies (ICT) in ITM Group of Institutions, Gwalior, M.P, India by investigating the ICT infrastructure, current status of library user's satisfaction, favorite activities toward ICT application. This study was confined only to the users of ITM Group of Institutions Library. The core of the questionnaire was analyzed using simple statistical tool to determine the significant the level of ICT integration. The analyses revealed that though the libraries had hardware, software, and communication facilities to some extent, ICT-based resources and services were not reaching the users to the expected extent. Application of ICT in ITM Group of Institutions libraries has not reached a very high level. Lack of budget, lack of manpower, lack of skilled staff and lack of training are the main constraints for not automating library activities. Even though library users have shown a positive attitude towards the use of ICT applications and library resources, they need extensive and appropriate training to make use of ICT tools.

Keywords: Information and communication technologies, Faculty Members, Staff, Students, ITM Group of Institutions, User studies.

1. Introduction

Information and communication technologies (ICTs) are defined as the integration of computers with telecommunications with the view to processing and disseminating information. Adoption and use of ICTs has become the yardstick of modernity. This is evidenced by their application in almost all aspects of human life such as business, music, education, etc. The lure of ICTs has not spared information seekers either such that there is a reported preference of electronic information resources over the once favored traditional print resources E-resources have suddenly become popular among users partly because of their ease of access, and their ability to be accessed even from afar, and around the clock. Consequently, a number of libraries have considerably grown their electronic collection to satisfy the information needs of the emerging group of users.

The monopoly libraries have had on information provision is over. Today libraries are shifting their role from the custodian of traditional information resources to the provider of service-oriented digital information resources. Widespread use of computers, increased reliance on computer networks, rapid growth of Internet and explosion in the quality, and quantity of information compelled libraries to adopt new means and methods for the storage, retrieval and dissemination of information. Library automation, development of digital libraries and application of innovative information and communication technologies (ICT) have tremendously increased because it provides enhanced user satisfaction, cost effectiveness, rapid responses, and easier operational procedures. Libraries and Information Centers have been employing ICT and electronic information resources and services to satisfy the diverse information needs of their users. E-journals, CD-ROM databases, online databases, e-books, web-based resources, and a variety of other electronic media are fast replacing the traditional resources of libraries. While libraries automated their library management activities and procure expensive electronic resources, these may not be optimally used. This is the main concern of librarians around the world. There are a lot of reasons for this state of affairs, like lack of sufficient funds, inadequate infrastructure, lack of qualified library professionals, and the like.

Concept of Information Communication Technology

ICT is any technology that enables communication and the electronic capturing, processing and transmission of information. These technologies include products and services such as desktop computers, laptops, handheld devices, wired or wireless intranet, business productivity software such as text editor and spread sheet, enterprise software, data storage and security, network security. ICT facilitates communication and assists in capturing, processing and the transmission of information electronically. ICT as a myriad of stand-alone media, that includes telephone and mobile telephony, radio, television, video, voice information systems and fax, as well as computer-mediated networks that link a personal computer (PC) to the internet. ICT is an integrated system that incorporates the technology and infrastructure required to store, manipulate, deliver and transmit information. Simply describe ICT as working with computers.

Need for ICT in Library

Emerging ICTs in India have changed traditional libraries into knowledge centers and librarians function more like consulting information engineers or knowledge managers. However, the situation in libraries in India is different and many are not in a position to fulfill their objectives reasons for which include:

- Lack of a good library policy;
- High rate of unplanned growth;
- Irrelevant collections;
- Poor organization of materials;
- High cost of collection and storage;
- Unqualified staff;
- Inefficient retrieval systems;
- Diversion or unscientific use of funds;
- Lack of support from management side.

In many cases university libraries lack the ability to give teachers and students the information support they require. Despite widespread awareness about the importance of libraries, they often remain the most disregarded division in colleges. The application of ICT in libraries is not up to the mark. Use of ICT tools in libraries is an important constituent that determines the quality of academic activities going on there. This paper aims to assess the extent of the use of ICT, the status of automation in libraries, and the attitude of users towards use of ICT. It also makes an attempt to provide guidelines and strategies for improving ICT facilities and library automation.

ITM Group of Institutions Library

ITM Group of Institutions-Gwalior is established by the Act of State Legislature, M.P. and is notified in the Official Gazette (extra-ordinary) of the State Government after having received the assent of His Excellency Governor of M.P. ITM GOIs are the result of both the learning opportunities offered and resources, experienced faculties, including rich libraries, museums, state-of-art laboratories and latest software. ITM Group of Institutions has largest library in the state. It has been aptly named Akshar Dham Central Library. Its enriching and updating library in both way (print as well as online) with more than 45,000 books including 15000 Reference books, 2751 CDs & DVDs, large nuber of periodicals and E book on relevant subjects. The library subscribe INDEST-AICTE consortium, contain 13000 E-journals from various international research societies includes IEEE, EBSCO, J-Gate, ASCE, Springer, Gale, Science Direct etc). The library automates with the support of SOUL & E-Granthalaya automation software.

2. Literature Review

The adoption and use of ICTs has greatly transformed the information landscape. Many studies have been conducted regarding the use of ICT in libraries. Several scholarly writings have focused on the issue of inevitability of ICT literacy among the university librarians and other personnel within the framework of the university libraries in the emerging ICT era.

Adepoju (2009), focused on the computer skill of librarians in academic libraries in Ondo and Ekiti states of Nigeria. Few librarians there use computers to carry out library functions, and only one third of respondents had received formal computer training. Ani et al. (2010) has postulated that ICTs are now “a commonly used tool for information gathering, processing, storage and retrieval, and dissemination in the emerging knowledge economy particularly in the advanced information societies”. This change has seen a remarkable shift in the information resources that are offered in many libraries and information resource centres. Whereas the traditional information sources have been print, many libraries today are now offering electronic information sources in addition to print resources. Chiware and Dick (2008) in Namibia examined the current state of the use of ICTs in the small and medium-sized enterprises (SME) sector to access business information services. The findings revealed that there is a very low level of ICT utilization among SMEs while among business support organizations it is relatively high. Bansode and Periera (2008) reported on a study of 23 college libraries in Goa, India. Four of these were fully automated, five were partially automated and 14 were in the early stages of library automation. A majority of the libraries lack the staff required for automation. Traditional barriers such as insufficient funds, lack of trained staff, and lack of space are faced by a majority of the libraries. Haneefa (2007) reported that though the libraries in Kerala in southern India had hardware, software, and communication facilities to some extent, ICT-based resources and services were not reaching the users. A good number of the library users were not satisfied with the application of ICT in their libraries and indicated inadequate ICT infrastructure as the major reason for their dissatisfaction. They proposed a variety of measures of formal orientation and training on ICT to become more effective users.

2.1. Research objective and Methodology

This study was carried out to assess the views of users about the impact of ICT tools on the utilization of library resources and services. The study also was an attempt to inventory the available information technologies being used for library operations, identify the advantages and disadvantages arising from the adoption of ICT policies for library services, and to determine constraints preventing the adoption of ICT policies. A survey methodology was designed for this study and a questionnaire was used to collect data from respondents. The researcher’s decided to use stratified sampling to select participants for the study. A total number of 80 questionnaires were distributed among the Student, Faculties and other staff member of ITM Group of Institutions. 65 filled questionnaires were returned back. The investigator selected 60 questionnaires for the analysis and 5 questionnaires were rejected due to incomplete responses.

3. Analysis and Awareness of ICT tool

The table indicates that out of 24 respondents i.e. Student 24(100%) was aware with computer and Internet facility, 22(91.66%) Student were aware with office software, 20(83.33%) were aware with Intranet, Printer, CD-writer, Copier, 16(66.67%) were aware with Graphic software, 14(58.33%) were aware with the Scanner and Laptop, 12(50.00%) were aware with Data Projector and 10(41.66%) were with the Web Publishing Software (Table-1).

It also indicate that out of 12 respondents i.e. Faculties 24(100%) were aware with computer, Printer, CD-writer, Copier, Scanner, 10(88.33%) were aware with the Internet& Surfing, Intranet, office Software, Graphic Software, Printer, 8(66.67%) were aware with Data Projector and 4(33.33%) were aware with Web Publishing Software from the analysis of table –1 it is clear that 24(100%) staff members were aware with computer and Internet and Surfing, 20(83.33%) were aware with the Office Software and Printer, 18(75.00%) were aware with Intranet and Web Publishing Software, 16(66%) were aware with Copier,14 (58.33%) were aware with CD-Writer, 12(50.00%) were aware with the Graphic Software, Scanner and Laptop and 8(33.33%) were aware with the Data Projector.

Table 1: Awareness of ICT Tools

Tools	No. of Respondents (n=60)		
	Student	Faculty	Staff
Computer	24(100%)	12(100%)	24(100%)
Internet & Surfing	24(100%)	10(83.33%)	24(100%)
Intranet	20(83.33%)	10(83.33%)	18(75.00%)
Office Software (MS-Office)	22(91.66%)	10(83.33%)	20(83.33%)
Web publishing Software	10(41.66%)	4(33.33%)	18(75.00%)
Graphic Software	16(66.66%)	10(83.33%)	12(50.00%)
Printer	20(83.33%)	10(83.33%)	20(83.33%)
Scanner	14(58.33%)	12(100%)	12(50.00%)
CD-Writer	20(83.33%)	12(100%)	14(58.33%)
Data Projector	12(50.00%)	08(66.66%)	08(33.33%)
Laptop	14(83.33%)	12(100%)	12(50.00%)
Copier (Xerox)	20(83.33%)	12(100%)	16(66.66%)

3.1 Approach of Awareness of e-Resources

It is clear from table-2 that out of a majority of 24 respondents 18 (75.005) Students were aware of ICT application with the help colleague, 6(50.00%) through membership. Majority of Faculties 6(50%) were aware of ICT application with the help of colleague, and 4(33.33%) got aware about the help of website. Majority of staff members 14 (58.33%) were aware of ICT application through other means. Table 2 also shows that among 60 respondents 24(40.00%) users were aware of ICT application with the help colleague followed by 14(23.33%) were aware with the help of information brochure followed by 12(20.00%) ware aware through library membership.

Table 2: Approach of Awareness of E-Resources

Awareness Approach	No. of Respondents n=60			
	Student (24)	Faculty (12)	Staff (24)	Total
Through Library Membership	06(25.00%)	02(16.66%)	4(16.66%)	12(20.00%)
Through Your Colleagues	18(75.00%)	06(50.00%)	-	24(40.00%)
Through Website	-	04(33.33%)	-	04(16.66%)
Through Information Broachers of Library	-	-	06(25.00%)	06(06.66%)
Through Staff and Other Sources	-	-	14(58.33%)	14(58.33%)

3.2. Frequency of using ICT Application

The below table revealed from the study and observed that the time duration for using ICT application. From the analysis it is found that out of 24 respondents 12 (50.00%) Students have the 2-4 years experience in using ICT application, 6(50.00%) Faculties have more than 6 years experience and 4(33.33%) have less than one year experience for using ICT application. Staff members (50.00%) have more than 6 years experience of using ICT application. Table also shows that 24(40.00%) respondents out of 60 are using ICT application more than 6 years.

Table 3: Frequency of using ICT application

Frequency	No. of Respondents (n=60)			
	Student (24)	Faculty (12)	Staff (24)	Total
Less than 1 year	2(58.33%)	4(33.33%)	-	6(10.00%)
1-2 years	-	2(16.66%)	4(16.66%)	6(10.00%)
2-4 years	12(50.00%)	-	4(16.66%)	16(26.66%)
4-6 years	4(16.66%)	-	4(16.66%)	8(13.33%)
More than 6 years	6(25.00%)	6(50.00%)	12(50.00%)	24(40.00%)

FAVOURITE ACTIVITIES TO USE ICT

Table 4 alarming to note that the response rate of researchers, 20(83.33%) has favorite activities as e-mail, 18(75.00%) have online learning, (16.66%) have surfing Internet and 10(41.66%) have download documents activity using ICT application. It also indicate the staff response indicate the 10(83.33%) Faculties using e-mail, online learning, preparing presentation document, 8(66.66%) Faculties were using surfing Internet, 6(50.00%) Faculties were using chat and 4(33.33%) Faculties were using discussion forms, blogging and download documents.

Favorite activities	No. of Respondents (n=60)		
	Student (24)	Faculty (12)	Staff (24)
E-mail	20(83.33%)	10(83.33%)	24(100.00%)
Chat	04(16.66%)	06(50.00%)	04(16.66%)
Discussion Forums	08(33.33%)	04(33.33%)	12(50.00%)
Video conferencing	02(08.33%)	02(16.66%)	-
Blogging	02(08.33%)-	04(33.33%)	-
Download music, films	10(41.66%)	04(33.33%)	16(66.66%)
Surfing Internet	16(66.66%)	08(66.66%)	16(66.66%)
Online learning (E-Learning)	18(75.00%)	10(83.33%)	16(66.66%)
Preparing presentations & documents	14(58.33%)	10(83.33%)	04(16.66%)

Table 4: Favorite activities to use ICT

4. Satisfaction wit Library Performance

Table 5 depicts that the satisfaction label of the users with library performance. Data indicates that a majority of 14(58.33%) Students were satisfied with the library performance. It also shows that out of 12 Faculties 8(33.33%) were satisfied with the library performance and majority of 10(41.66%) staff member were satisfied with the library performance. It is clear from the table out of 60 respondents, 32(53.33%) staff member also satisfied with the library performance.

Table5: Satisfaction with Library performance

Option	No. of Respondents (n=60)			
	Student (24)	Faculty (12)	Staff (24)	Total (60)
Extremely satisfied	6(25.00%)	2(16.66%)	1(04.16%)	9(16.66%)
Satisfied	14(58.33%)	8(33.33%)	10(41.66%)	32(53.33%)
Neutral	2(08.33%)	2(16.66%)	-	4(06.66%)
Dissatisfied	-	-	-	-
Extremely Satisfied	-	-	1(04.16%)	1(01.66%)

4.1 Use of ICT Application in Library Services

It indicates that out of 24 respondents i.e. Majority of Student 22(91.66%) was using Internet facility, 20(83.33%) were using the OPAC and online Search, 10(41.66%) were using the reprographic Service and 06(25%) were surfing internet. It also indicates that out of 12 respondents i.e. Faculties 8(66.66%) was using the OPAC, Internet facility and online search. 06(50.00%) were using reprographic Service. 04(33.33%) was using the Surfing Internet. It is clear that a majority of staff members 11(45.83%) were using the online search and 10(41.66%) was using the Internet facility.

Table 6: Use of ICT application in library services

Services	No. of Respondents (n=60)		
	Student (24)	Faculty (12)	Staff (24)
OPAC	20(83.33%)	08(66.66%)	04(16.66%)
Surfing Internet	06(25.00%)	04(33.33%)	05(20.83%)
Online Search	20(83.33%)	08(66.66%)	11(45.83%)
Internet Facility	22(91.66%)	08(66.66%)	10(41.66%)
Reprographic Service	10(41.66%)	06(50.00%)	05(20.83%)

Conclusion

Application of ICT in libraries has become inevitable in an era of information explosion and widespread use of digital information resources. Effective application of ICT in libraries helps in performing their operations and services most efficiently. This investigation has provided a useful summary of the application of ICT in ITM Group of Institutions Library. Though the libraries had hardware and software facilities to some extent, ICT-based resources and services were not reaching the users to the expected extent. This was severely affected the provision of ICT-based resources and services. This study sought to examine the awareness and use of ICT in ITM Library and reveals that among 60 represents, 40% are Student, 20% are Faculty and 40% were staff of ITM. The finding indicates that all respondents were well aware with the computers. It reveals that all students were aware with the internet and surfing all faculties were aware with the scanner, CD-writer, laptop and copier and staff of ITM were aware with internet and surfing. Most of the Students were aware with ICT application through colleges and Faculties were aware through website while other staffs of ITM were aware through other staff. A small numbers of Faculties were aware with ICT application through membership of library. This study has provided viable findings about ICT application and skills using the researchers, Faculty and staff. These findings may be useful in strengthening ICT component in the ITM Group of Institutions Library by taking into consideration the points raised by its users.

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