A Research Article on facilities of Information Communication Technology (ICT) in Management Departments of Gujarat University, Ahmedabad

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The computer invented in is a basic tool that leads the library towards the modernization. The invention of computer goes to the credit to Charles Babbage a professor of mathematics who designed the Analytical Engine and it was this design that the basic framework of the computers of today are based on.

Generally speaking, computers can be classified into five generations. First generation: 1937–1946. In 1937 it said that this computer weighed 30 tons, and had 18,000 vacuum tubes which were used for processing. When this computer was turned on for the first time lights dim in sections of Philadelphia. Computers of this generation could only perform single task, and they had no operating system.

DEFINITIONS OF ICT

According to UNESCO, (2007), the term "Information Communication Technologies (ICT) refers to form of technology that used to transmit, process, store, create, display, share or exchange information by electronic means. This broad definition of ICT includes such technologies as radio, television, video, DVD, telephone (both fixed line and mobile phones), satellite systems, computer and network hardware and software, as well as the equipment and services associated with these technologies, such as video conferences, e-mail, blog and so on." This definition refers two of technologies computer technology that involves the process, storage, creates and shares the information known as information technology and second is communicate, disseminate, transfer and exchange the information known as communication technology. Libraries use both types of technology.

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ICT Tools

There are mentioned ICT tools which are, computer, punched card, computer operating system, Lap-top, CPU, Modem, CD, Drive, USB pen drives, Zip drive, Disk drive, Printer, Scanner, Barcode Reader, DVD, Video, Mouse and trackball,

ICT Services

1. **UGC-INFONET: E-Journal Database**

   The UGC–INFONET e-Journal Consortium would provide without charge to scholarly journals and database in all areas of learning to the research and academic community. This initiative would help to get a discount on many scholarly journals and databases and enables the research and academic community to have an access to resources at their fingerprints.

2. **E- Database**

   Database meant by Dhaka, (2012), as "a collection of information, tables, and other objects organized and presented to serve a specific purpose, such as sorting, searching, and recombining data. Databases are stored in files.

3. **E-Blogs**

   The concept of E-Blog is cited by Ramani, V. (2008), It is an online shared diary where people can publish diary entries about their personal hobbies or experiences; public online updated chronological entries of links to web sites and subjects with personal remarks by users.

4. **E-Portals**

   The concept of E-Portal is also provided by Ramani V. (2008), that a web portal is a site that provides a single function via a web page or site. Web portals often function as a point of access to information on the World Wide Web. Portals present information from diverse sources in a unified way.

5. **E-Document Delivery**

   Technological advances have brought significant improvements in document delivery through conventional resource sharing among libraries. Online union catalogues greatly facilitate item location, and network messaging systems make the transmissions of a request from library to another a virtually instantaneous process.

6. **E-Print/E-Publishing**

   Some of the advantages to libraries and their users in solving the problems are as under:

   ➢ Due to e-publication access is increased for more users to more publications that individual libraries can acquire and store.

   ➢ Libraries can share central storage and retrieve facilities because of collection development and co-operative collection.

   ➢ Relative ease of duplication and archiving of electronic publications, preservation can be made easy.

➢ Libraries have wonderful opportunities to do their own e-publications through the Internet services such e-mail and World Wide Web.

7. Various ICT Based Services

➢ OPAC: It is online computerized catalogue of materials held in a library. The library staff and the public can usually access it at several computer terminals within the library, home or anywhere else.

➢ Current Awareness Services: The CAS is best described as delivering the right information to the right user to the right time in the right format to keep the user up to date with latest information in their interest area.

➢ Selective Dissemination of Information: The SDI is a part of CSA but a highly specialized service to restricted members of the library. In this service a user registers at such a system with keywords responding his or her fields of Internet.

➢ CD-ROM Network Service: In this information is being provided with the help of CDs to its users.

➢ E-Mail Service: The use and faculty members who have given their request to the library are being facilitated with the e-mail alert service.

➢ Bulletin Board Service: This is an electronic message service which serves specific interest groups. BBS allows one to review the messages left by others, and leave own message if anyone wants.

➢ Indexing and Abstracting Services: These are two different types of services. In index only citations can be given while in abstracting service abstracts for a set of published documents can be found.

➢ Online Circulation Process: Many library provides such a service that the readers can issue return the documents without being come to the library.

➢ Content Page Service: Any new arrival documents and information is circulated among the users in this service.

➢ Internet Service: Reference desk always equipped with Internet facility so some faculty or other information can delivered quickly to the users.

The e-marketing of above services can be done easily, within no time and very speedy.

Objectives of the Study

The major objectives of this study are

1. To identify the ICT infrastructure facilities in Gujarat University management department.
2. To know the ICT based software.
3. To find out the types of electronic resources available in the Gujarat University management department.

METHODOLOGY

This study is based on the primary data collected from the department of Gujarat University libraries.

Table 1- List of Management Department of University Libraries

No.	Name of Management Department of Gujarat University
1	B.K. School of Business Management
2	K.S. School of Business Management

A structural questionnaire was designed to obtain data. The questionnaire was divided into four sections: Hardware, Software, Technologies and Electronic Resources. Twenty five questionnaires were distributed among faculty of management department, of which 20 faculty of management department were responded (80%).

REVIEW OF LITERATURE

Walmiki and Ramakrishnegowda (2009) studied ICT infrastructures in university libraries of Karnataka and found that most of the libraries were u"lack sufficient hardware, software facilities and do not have adequate internet nodes and bandwidth". The campus LANs were not fully extended to exploit the benefits of digital information environment. Ahmad and Fatima (2009) found that researchers use a variety of ICT products and services for research and further remarked that ICT products help "to find information, access information, manage, integrate, evaluate, create, and communicate information more easily". It was recommended that training be organized to increase the use of ICT-based products and services.

Adeleke and Olorunsola (2010) studied ICT and library operations found that ICT facilities were the major constraints facing libraries in the use of tools. Shafi-Ullah and Roberts (2010) found that ICT infrastructure is necessary to make provide a research culture in higher education institutions and recommended allocating funds for ICT infrastructure. Etebu (2010) studied ICT availability and found a situation that is not encouraging. Patil (2010) found that users were not trained to use ICT- based products and services and further recommended an ICT training programme to increase the use of ICT products and services.

Data Analysis

The study was carried out in two management department libraries of Gujarat University. The demographic information related to these respondents is shown in table 2.

Table- 2 Demographic Information about Respondents

No.	Respondents of Department	Total	Percentage
1	B.K. School of Business Management Faculty	8	40%
2	K.S. School of Business Management Faculty	12	60%
Total		**20**	**100%**

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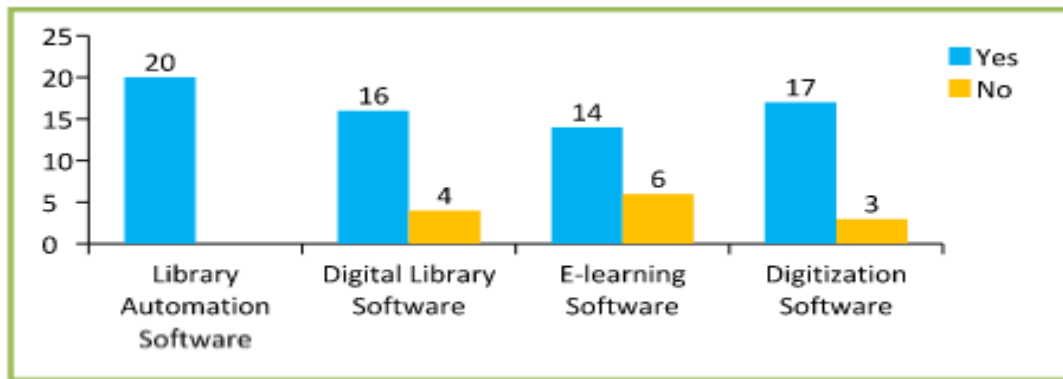*Known of Library Software*

Table- 3 ICT based Software

No	Description	ICT based Software		Total
		Yes	No	
1.	Library Automation Software	20	0	20
2.	Digital Library Software	16	4	20
3.	E-learning Software	14	6	20
4.	Digitization Software	17	3	20

(Yes= Aware, No= Not aware)

Figure-1- ICT based Software

Ninety percent of the faculties are aware regarding library automation and digital library software. And most of the faculties are also aware of digitization software also.
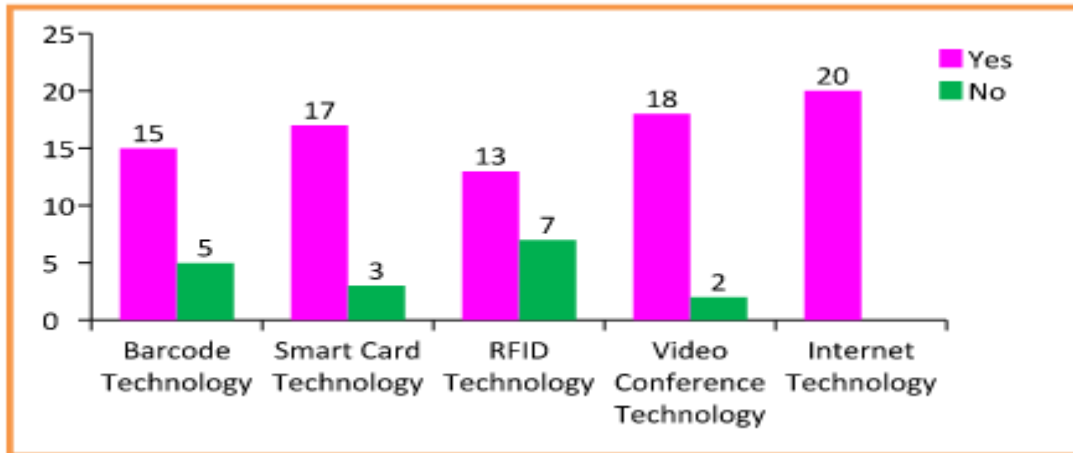
Awareness of ICT based Technologies

Table-4- ICT Based Technologies

No	Description	ICT based Technologies		Total
		Yes	No	
1.	Barcode Technology	15	5	20
2.	Smart Card Technology	17	3	20
3.	RFID Technology	13	7	20
4.	Video Conference Technology	18	2	20
5.	Internet Technology	20	0	20

(Yes= Aware, No= Not aware)

Figure-2- ICT based Technologies

All the management department faculties are well known about ICT based technology. Maximum faculties are known regarding Internet technology than video conference technology than Smart card technology than Barcode technology than RFID technology.

CONCLUSION AND RECOMMENDATIONS

The awareness of ICTs is increasing in academic libraries, especially in the university environment. Users' expectations have increased due to developments in technologies. The study recommends the following:

➢ The Department of University must increase the availability to enable the users to maximize the usage of ICT-based resources and services.

➢ The "Digital Library Service" is one of the most useful services in the department of university. Users can access digital resources using a number of different open source digital library software packages. The departments should implement digital library software.

➢ Department of University have to implement RFID system for facility of users

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Conflict of Interests

The author declared no conflict of interests.

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