

## **A Utilization Study to assess the Role and Impact of I.T. In Information Dissemination by Central Library, SGPGI based on User Feedback Survey**

Rajesh Kumar Tiwari<sup>1</sup>, R. Harsvardhan<sup>2</sup>, Bharat Sah<sup>3</sup>, Ajay Gupta<sup>4</sup>

<sup>1</sup>Department of Molecular Medicine & Biotechnology, Sanjay Gandhi PGI of Medical Sciences, Lucknow.

<sup>2</sup>Department of Hospital Administration, Sanjay Gandhi PGI of Medical Sciences, Lucknow.

<sup>3</sup>National Institute of Fashion Technology, Raebareli. Uttar Pradesh.

<sup>4</sup>Department of Biostatistics and Health Informatics, Sanjay Gandhi PGI of Medical Sciences, Lucknow

---

**ABSTRACT:** Information is an indispensable for human development as air is essential for the survival of all living organisms on earth, including human beings. The pace of change brought about by new information technologies has a key effect on the way people live, work, and play worldwide. The increasing role played by information technology in the development of library services for an active reaction to the challenges of the information service providing. The paper attempts to discuss the fast development of Information Technology and its application in the library services. Today libraries are equipped to accomplish the newly Information Technology based services. Information Technology enabled services fulfill the information needs of the users at the right time in the right place to the right person.

**KEY WORDS:** Information Technology, Libraries, Electronic Library, Digital Library, e-Library.

---

### **I. INTRODUCTION:**

In 1945 Vannevar Bush envisioned a machine called a *Memex*, a collective memory machine that would make knowledge more accessible. The increasing amount and complexity of information along with the time gap between creation and dissemination requires a new technology. Bush's technology, allows users to create their own "sort of mechanized private file and library". Through the miniaturization of data using photocells or microfilm, larger amount of information could be stored in very little space. Traditionally, information is stored in the index or hierarchical form, but this is not how the brain stores information. The *Memex* would arrange things associatively; mimicking the way the human brain store and contextualize information. This is a utilization study as it explains how the need of a new way to store, organize and retrieve increasing amounts of data led to the idea of modern day computers. In this study, where information and data continue to expand at an exponential rate, Information Technology began to transform libraries in the 1950s, when microfilm came into existence, in the mid-1960s when Xerox machine was created. IT based databases were developed in the 1970s, which offered more information and better ways to search and obtain data. Whereas, Networks such as OCLC and RLIN made it easier to share resources. With the invention of Information and Technology, libraries now use various types of technologies to aid the services they render. Every day new technological advances affect the way information is handled in libraries and information centers. The impacts of new technologies are felt by libraries in every aspect. Information Technology, communication technology and mass storage technology are some of the areas of continuous development that reshape the way that library access, retrieve, store, manipulate and disseminate information to others. The Central Library, (the center of higher academic learning) has been an integral part of Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow. Here academic Libraries are the libraries, mainly found in tertiary care Hospitals like SGPGIMS which are established to support learning, teaching and research processes.

Over the past twenty seven years, academic libraries have been affected by changes in information and technology. The rate of change is still accelerating in this area. The introduction of various information technology (IT) trends have lead to reorganization, changes in working pattern, demand for new skills and job retraining and reclassification position. Technological advancement of the past twenty five years, such as the electronic database, online services, CD-ROMs and introduction of internet has radically transformed access to information. IT holds the key to the success of modernizing information services. Applications of ICT are numerous, but mainly it is used in converting the existing paper-print records in the entire process of storage, retrieval and dissemination. IT has an impact on every sphere of academic library activity, especially in the form of the library collection development strategies, library building and consortia.

IT presents an opportunity to provide value-added information services and access to a wide variety of digital information resources to their clients. Furthermore, academic libraries are also using modern ICTs to automate their core functions, implement efficient and effective their library cooperation and resource sharing networks, implement management information systems, develop institutional repositories of digital local contents and digital libraries: and initiating IT based capacity building programs for library users.

Role of Information Technology is considered as the very basis of our existence, It is a vital resource for all-round development of the society. In every sphere of activity people are dependent on information. Indeed, there is no field of human activity wherein information is not a component. In this post- industrial and information oriented society 'Right to Information" has been considered as an indispensable vital component. The concept of information in the sense of knowledge communicated plays a central role in contemporary society. The development and widespread use of computer networks since the end of World War II, and the emergence of information science as a discipline in the 1950s, are evidence of this focus. Although knowledge and its communication are basic phenomena of every human society, it is the rise of information technology and its global impacts that characterize ours as an information society. It is common to consider information as a basic condition for economic development together with capital, labor and raw material, but what makes information especially significant at present is its digital nature. The impact of information technology on the natural and social sciences has made this everyday notion a highly controversial concept. Claude Shannon's (1948) "A Mathematical Theory of Communication" is a landmark work, referring to the common use of information with its semantic and pragmatic dimensions, while at the same redefining the concept within an engineering framework. The fact that the concept of knowledge, communication has been designated with the word information seems prima-face, a linguistic happenstance. An information system can be "any organized combination of people, Hardware, software, Communication Networks and data resources that collect, transform, and disseminates information in an organization". People have relied on Information Systems to communicate with each other using a variety of physical devices, information processing instructions and procedures, communications channels and have stored data since the dawn of civilization.

## **II LITERATURE REVIEW:**

The search of the related literature is one of the first steps in the research process for any research work; a comprehensive study of the related literature is an essential and indispensable prerequisite. According to best, "A familiarity with the literature in any problem area helps the student to discover what is already known, what others have attempted to find out, what method of attack has been promising and disappointing and what problems remain to be solved". Citing studies that show substantial agreement and those that seem to present conflicting solutions help to sharpen and define understanding of existing knowledge in the problem area, provides a background for the research report and makes the investigator to decide how far the selected problem is novel enough and does not have any change of duplication and suggests the area for further research studies as well. The phrase "review of literature" consists of two word review and Literature. The term review means to organize the knowledge to show that the proposed study would be an addition to this field. In research methodology the term "literature" refers to the knowledge of a particular area of investigation of any discipline which includes theoretical, practical and its research studies. The task of review of literature is highly essential and tedious because the researcher has to synthesize the available knowledge of the field in the unique way to provide the rationale for his present study. The investigator tapped the various sources of available literature like, Surveys of Research, Indian Educational Abstracts, Research, Journals, etc. pertaining to the present study. The investigator has therefore made an extensive study using research, important reports of research studies, etc. in connection to the problem under investigation this coterie of related literature has been reviewed in the following pages of this chapter. In order to ascertain the effectiveness of Health Information System the investigator reviewed the related literature and found that these studies have been conducted in this area.

Steven E, Fisher (1985) studied on topic Medical information online for physicians and allied health professionals he found that the Medical Information Network (MINET) is a computerized medical and health information system which is being made available on a subscription basis by the GTE Telnet Communication Corporation. Via the Network, physicians and other health care professionals have access to a wide variety of medical related information and communications services. In June 81 the American Medical Association (AMA) signed an agreement with GTE Telnet to be a primary provider of medical information to the Network. Describes MINET, and address the roles of AMA and GTE in the development of new products for the services. Korale, S.R. (1989) reported that against the background of the geographical, social and economic conditions of Sri Lanka, the structure of the health care system is outlined and the development of a health information system to support the information needs generated is described. Current developments, including the role of the Health Literature,

Library and information service Network and services are discussed, and problems enumerated. Argues in favor of the designation of one Library, capable of being developed as a center of excellence and with staff trained to exploit the new technologies, particularly CD-ROM, to provide a central core facility for the country as a whole. RB, LM & KJ (1993) found in his study that health point is a community based touch screen public access health information system aimed at making medical and health information easily accessible by the public and to provide feedback information on his demand. Reports on a survey of 13 health points in Glasgow, Scotland. The sites included shopping centers, supermarkets, libraries and public houses. Reports on a further survey of 10 health points in 1 town. Clyde bank, over 5 months, which examined routine information recorded by the system, interviewed 300 weekday shoppers in the street, and a random 271 people by telephone. Reports on a final survey, which studied 1 health point in a general practice for 36 weeks using a routine recording of the system and a postal survey of a systematic sample of 250 attenders. JHWV, Hartevelt (1993) intend to study that paper presented at the 4 sixth FID congress, 27-30 Oct. 92, Madrid, Spain. Presents a general discussion of Information management and information work in the context of a case study based on an implementation of information management in a computerized medical and health information system in Ghana.

Humphries, A.W. & Kochi, J.K. (1994) studied on the topic, providing consumer health information through institutional collaboration he found that article included in a section devoted to medical libraries and patient information. In recent years, the Claude Moore Health Sciences Library, Virginia University Health Sciences Centre, noted a growing demand for consumer health information. However, Because of other demand on time and resources, questions have been asked about how much time and money can be reasonable expended on such activities. Describes the consumer health information activities of the library through the Health Information System Pilot Project. Tiefel, (1995), Librarians interested in exploring a course ware -based approach to library user education have available to them a well-developed tradition of thinking about information skills teaching. This has been summarized elsewhere and it is not the intention of this paper to represent this material. However, it is worth noting how this tradition has shaped applications of educational technology to information skills teaching.

Salony, (1995). User education in libraries evolved at the end of the nineteenth century. It appeared that library users were failing to make best use of library and other information resources because of a number of factors Firstly, users did not possess the practical skills needed to exploit libraries. But beyond this, an intelligent information user needed a more complex set of intellectual skills, habits and attitudes. Tucker (1979) summarizes these as 'the art of discrimination', together with independent or lifelong learning skills. Snavelly and Cooper, (1997) these higher level skills have been codified under the banner of 'information literacy'. Hanson (1985) reported that the thinking has developed along a dual path. There is a tradition of theoretical deliberation about the pedagogy of information skills teaching, and alongside it there is a practitioner tradition of documenting practice which shows how far library professionals have been able to embody good instructional models in their teaching. Thus, to cite one example from many. Hanson (1985) took instructional models from Bruner and Gagne and applied them within the sphere of library user education. Such models emphasized important facets of the learning process. Bruner (1966) stated that the need to acknowledge the nature of the learner and the way in which the learner obtains knowledge. Drawing on Gagne (1977), Hanson also tried to give learners opportunities to demonstrate how they have understood the rules of information systems, while receiving feedback on their performance during practice in 'spaced reviews'.

Piette, (1995) noted that such educationally well-founded work tends to be frustrated by the shortcomings of the library instruction environment. Since user education takes place outside the regular instructional schedule, it takes place in a vacuum, leaving teacher librarians with few opportunities to create an enriching process of ongoing review, drill or practice. Academics or course tutors, in support of whose teaching library user education are offered, are far better placed to create such a learning experience. It is the academic who sees how information is used to inform a student's essay, and who is best positioned to give feedback and advice to the student on improving such use. Librarian-tutors can only really describe the mechanics of library use in occasional Decontextualized 'information skills' sessions. Moreover, it is only rarely that lecturers, together with library staff, share the role of examining and improving patterns of information exploitation within a course, although the literature does recognize the existence and importance of such collaborations (Carls on & Miller, 1984). Rader (1990) Nevertheless, there is a long history in user education practice of elaborating the concept of 'information literacy' as a subject in its own right, that is, as a subject which can be taught as a part of the standard academic curriculum outside of the courses which information skills teaching normally supports (Rader, 1990). The concept of user education as more than a simple set of practical skills, but as a larger philosophy of information use, is an important attempt to overcome the shortcomings of the library instruction environment and has had a significant impact on the content of user education programs.

Tiefel (op cit) points out that this syllabus is comprehensive and broadly applicable, and it also facilitates the larger ambition of leading the student towards the development of critical thinking skills. Broadly speaking, this ambitious user education syllabus has moved away from teaching skills that are based on simple, mechanical tools, in favor of generic and rather abstract searching principles that apply equally to any information tool (online catalogue, bibliographic database, internet search engine). Eadie, (1990) & Pacey, (1995). Added that in response to this, there is a practitioner school of thought which is hostile to the over elaboration of the information skills program. This school argues that the content of the user education syllabus should be essentially practical and modest, and that the very existence of user education as an activity in its own right may be more a reflection of the inability of librarians to make their libraries and database services usable. Savenije, (1999) told that if libraries and information systems were made easier to use, than the practical skills component of information literacy courses would effectively disappear, leaving an inflated array of philosophical teaching aims that could only make sense within the framework of proper, mainstream academic subject teaching. The potential of information technology to make libraries much easier to use suggests that the elimination of the practical skills barrier to information use may be nearer than ever before, and with it the need for most library user education.

### **III RESEARCH METHODOLOGY:**

**3.1 Data Collection and Analysis:** 53 copies of the Questionnaire (100% of the population) were administered to the Profession and the Paraprofessional library staff of these two selected Faculty and Non Faculty Members of Central Library, SGPGI Lucknow. The researchers personally administered the copies of the Questionnaires to the respondents. Items which needed clarification were explained to the respondents. To ensure that the respondents do not have ready answers and to avoid bias responses, the respondents were not pre-informed of the visit by the researchers. Out of the 53 copies of the Questionnaire administered, 49 (92.45%) were returned to the researchers at the end. Research is the process of systematic and in-depth study or search for any particular topic, subject or area of investigation, backed by collection, compilation, presentation and interpretation of relevant details or data. It is a careful search or inquiry into any subject of the subject matter, which is an endeavor to discover or find out valuable facts which would be useful for further application or utilization. Research may involve a scientific study or experimentation, and result in discovery or invention, which would aid either scientific development or decision making. It may be concerned with general abstract or concrete subjects. There cannot be any research which does not increase knowledge or improve scientific knowledge. A research that involves scientific analysis would result in the formulation of old concepts or knocking-off of an existing theory, concept or technique. It may develop hypothesis and test it. It may also establish relationships between variables and identify the ways and means for problem solving.

### **IV RESEARCH QUESTIONS**

#### **For Library Professionals**

- [1] Name & Designation, Qualification, Age and Gender.
- [2] Professional or Para Professional & Category
- [3] Level of Computer Knowledge & Type of Software used.
- [4] Usefulness of IT Resources & Reason for the use of IT Resources
- [5] Effectiveness of ICT Resources
- [6] Means of ICT Acquiring Skill & Self Assessment of your ICT Skill & Category of Staff.

#### **For Users of Library**

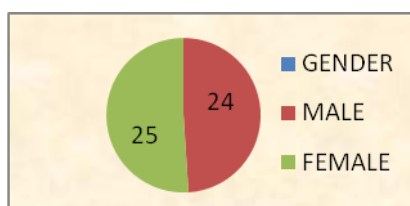
- [1] Name & Designation, Qualification & Age.
- [2] Gender & whether Professional or Paraprofessional
- [3] IT Tool Used & Reason of Using ICT Resources/ Do you visit SGPGI Central Library regularly.
- [4] Are you satisfied with the IT Resources provided in Central Library
- [5] Does the staff of the Central Library has required knowledge and skills in using IT resources?
- [6] If IT is applied in the Library, the user education Program is required.
- [7] What are the services are required in the Central Library.
- [8] Give your opinion about application of IT which will affect the library services
- [9] Are you aware of Medical Literature and Retrieval (MEDLARS) A Computer based system?
- [10] How much time you expend in the Library in a week.
- [11]

### **V RESULTS AND DISCUSSION:**

The focus of this research is on a Utilization Study to assess the role and impact of IT in information dissemination by Central Library, SGPGI based on user feedback survey in this chapter the data collected were presented, analyzed, interpreted and discussed.

To provide the data and institutional setting is Sanjay Gandhi Postgraduate Institute of Medical Sciences, Raebareli Road, Lucknow, India and Users of Central Library and Employees of Central Library both were at the same Institute located in District Lucknow of Uttar Pradesh, India.

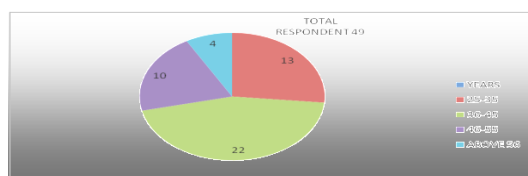
**Table 4.30:**  
**Gender analysis of both Categories of users.**



	Gender	No of Respondents	Percentage
1	Male	24	48.98%
2	Female	25	51.02%
	Total	49	100%

The table above shows that out of the total number of respondents from both the categories of employees, 25 (51.02%) were female while 24 (48.98%) were male. That is to say that the female staff forms the majority of the staff in both categories.

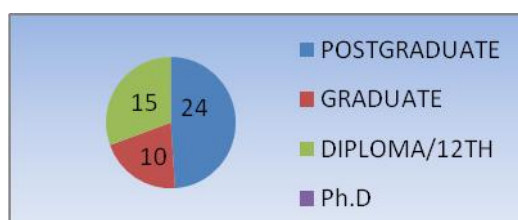
**Table 4.31:**  
**Distribution of respondents by Age**



	Age range	No of respondents	Percentage (%)
1	25 – 35 years	13	26.53%
2	36 – 45 years	22	44.90%
3	46 – 55 years	10	20.41%
4	56 and above	4	08.16%
	Total	49	100%

From the above Table 4.32, in view of the response of the respondents it was indicated that most of the respondents are 36-45 years representing 22 (44.90%) which form the majority of the respondents working in both categories, followed by 25 – 35 years representing 13 (26.53%) respondents; while 46 – 55 years representing 10 (20.41%) and 56 and above representing 4 (8.16%) respectively.

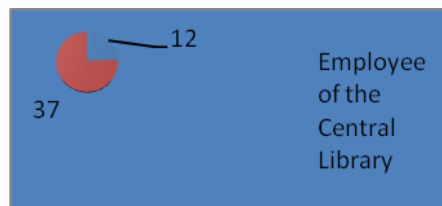
**Table 4.32:**  
**Educational Qualification of respondents**



	Qualification	No of Respondents	Percentage
1	PG/MD/DM/M.Ch/Research Student	24	48.98%
2	BSC/BLS/Graduate	10	20.41%
3	10 <sup>th</sup> /12 <sup>th</sup> /Diploma	15	30.61%
4	Ph.D	0	0
	TOTAL	49	100%

24 (48.98%) respondents had master degrees in Art, Science or Library and information science. 15 (30.61%) respondents that have a 10<sup>th</sup>/12<sup>th</sup>/ Diploma, and 10 respondents representing 20.41 % are BSC/BLS or simple Graduate. None of the respondents had PhDs.

**Table 4.33:**  
**Distribution of respondents based on the number of staff in both categories.**



	Option	No of Respondents	Percentage
1	Employee of the Central Library	12	24.49%
2	The User of the Central Library	37	75.51%
	Total	49	100%

Table 4.33: shows that the Employee of the Central Library is 24.49% and User of the Central Library, SGPGI, Lucknow is 75.51% based on the responses of the respondents.

**Table 4.34:**  
**Level of computerization**

S/N	Option	No of Respondents	Percentage
1	Yes	49	100%
2	No	-	
	Total	49	100%

In regards to the response of the respondents, it shows that the Employee working at the Central Library under study is computerized/automated. Because all the respondents responses were yes to the question posed by the researcher.

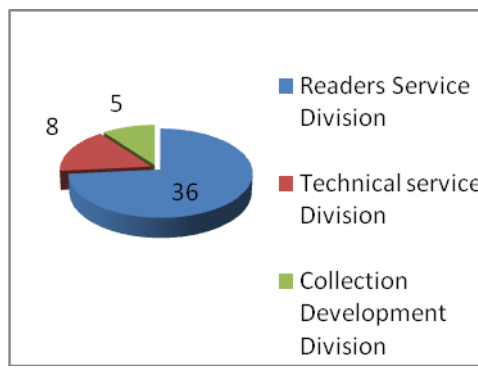


**Table 4.35:**  
**Type of software**

S/N	Application package	No of respondents	Percentage
1	LIBSYS 4	49	100%
2	TINLIB	-	-
3	GLAS	-	-
4	ERICA	-	-
5	CDS/ISIS	-	-
	TOTAL	49	100%

Table 4.35 shows that Employee of the Central Library is aware of the uses of LIBSYS 4 software in the library.

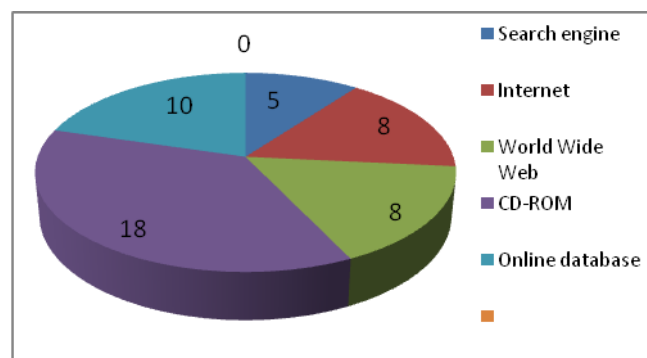
**Table 4.36:**  
**Distribution of respondents based on the divisions of the library that are computerized**



	Division of the library	No respondents	of %age
1	Readers service division	36	73.47%
2	Technical service division	08	16.33%
3	Collection development division	05	10.20%
	Total	49	100%

Table 4.36 shows that three divisions of Central library is computerized which are the readers services division, Technical service division and collection development division.

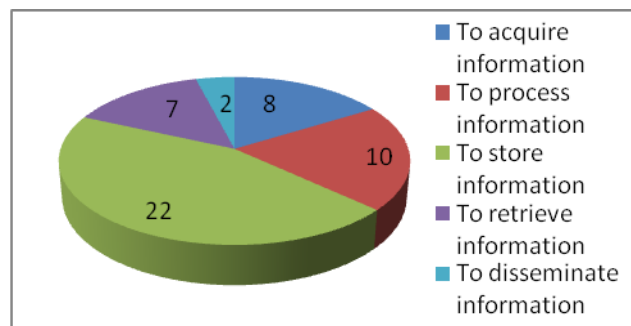
**Table 4.37**  
**Usefulness of IT resources.**



	ICT Resources	No of respondents	Percentage
1	Search engine	05	10.20%
2	Internet	08	16.33%
3	World Wide Web	08	16.33%
4	CD-ROM	18	36.73%
5	Online database	10	20.41%
	Total	49	100%

Table 4.37 shows that 18 i.e. 36.73% of the respondents made use of CD-ROM (compact-disk read only memory), 10 i.e. 20.41% respondents use the online database; 08 respondents representing 16.33% use the World Wide Web and Internet facility of Central Library and only 05 (10.20%) respondents use search engine. From the table it can be deduced that the majority of the respondents use CD-ROM.

**Table 4.38:**  
Reason for the use of IT resource



	Option	No respondents	Percentage
1	To acquire information	08	16.33%
2	To process information	10	20.41%
3	To store information	22	44.89%
4	To retrieve information	07	14.29%
5	To disseminate information	02	04.08%
	Total	49	100%

The table 4.38 above reveals that 22 (44.89%) use IT resources, mainly for storing information; followed by 10 respondents representing 20.41% who process the information; 08(16.33%) respondents use IT resources for acquisition of information; while 07 respondents representing 14.29 % use IT resources to retrieve information that has been stored for posterity purpose and 02 (04.08%) use IT resources for dissemination of information.

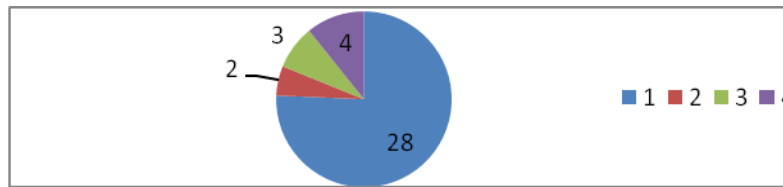
**Table 4.39:**  
**Distribution of respondents based on the category of Employee that would be needed to handle automation and assist users at Central Library, SGPGI.**

	Category of staff	No respondents	Percentage
1	Staff trained in IT	12	24.49%
2	Staff trained in librarianship	20	40.82%
3	Staff in various professions	17	34.69%
4	Any category of staff	0	0
	Total	49	100%



According to table 4.39 (40.82%) respondents from the majority of the category of Staff that would be needed in handling automation to assist users in meeting their information needs effectively are staff trained in librarianship and ITs, followed by 17 (34.69%) respondents representing staff trained in various professions. Only 12 respondents representing 24.49% indicate that staff trained in Information Technology.

**Table 4.40:**  
**Distribution of respondents based on the effectiveness of IT by both categories.**



Options	SA (1)	A (2)	D (3)	SD (4)
Automation has eased my library operation	28 57.14	12 24.49	06 12.24	03 06.12
Automation has show down my library operation	02 4.08	02 4.08	15 30.61	30 61.20
Automation has aided my library in meeting users need quickly	22 44.89	18 36.73	04 8.16	05 10.2
Automation has speeded up the process of cataloguing and classification of library materials	32 65.30	14 28.56	02 4.08	02 4.08
Automation has helped to reduce anti-library crimes	11 22.44	21 42.84	10 20.4	07 14.28
With automation the library has been effective in selective dissemination of information	24 48.98	13 26.52	06 12.24	06 12.24
Automation has positively impacted charging and discharging of books in my library	38 77.55	10 20.4	-	01 2.04
ICT enables most effective resource sharing	41 83.67	05 10.20	02 4.08	01 2.04
Online datable provide more up-to-date information in my library	23 46.94	17 34.69	04 8.16	05 10.20

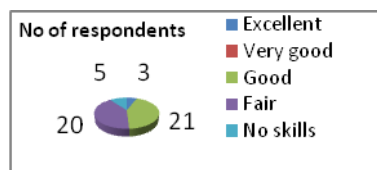
Table 4.40 shows the frequency at which the effect and effectiveness of IT has on academic library. The data reveal that 28 (67.14%) of the respondents strongly agree that automation has eased their library operation, 12 respondents representing 24.49% agreed that automation has eased their library operations, 06 (12.24%) of respondents disagree, only 03 (06.12%) of the respondents strongly disagree that automation has eased their library operation. 02 (4.08%) strongly agree and agree that automation has show down my library operations while 30.61 and 61.20 is disagree and strongly disagree with the statement. 22 (44.89%) population is strongly agreed and 18 (36.73) population are agreeing that Automation has aided my Library in meeting users need quickly while 04 (8.16%) population are disagreeing and 05 (10.2%) are strongly disagreeing with the statement.

65.3% population is strongly agreed and 28.56% population is agreeing with the statement that Automation has speeded up the process of cataloguing and classification of Library materials while 4.08% is disagree and the same percentage of the population is strongly disagree with the statement. 22.44% population is strongly agreed and 42.84% of the population is agreed that Automation has helped to reduce anti library crimes while 20.4% of the population is disagreeing and 14.28% of the population is strongly disagreeing with the statement. 24 respondents strongly agreed and 13 agreed that automation is effective in the dissemination of information while 06 each is disagree and strongly disagree with the statement.38 respondents which are 77.55% of the population is strongly agreed and 20.4% of the population is agreed that Automation has positively impacted charging and discharging of books in my library while only one respondent is strongly disagree with the statement.41 (83.67%) population is strongly agreed and 05 (10.20) is agreeing that ICT enables most effective resource sharing while 4.08% population is disagreeing and only 2.04% population is strongly disagree with the statement.

46.94% of the population is strongly agreed and 34.69% population is agreeing with the statement that Online databale provide more up-to-date information in my Library while 8.16% and 10.2% population is disagreeing and strongly disagreeing with the statement.

Table 4.41:

Rating of IT Skills



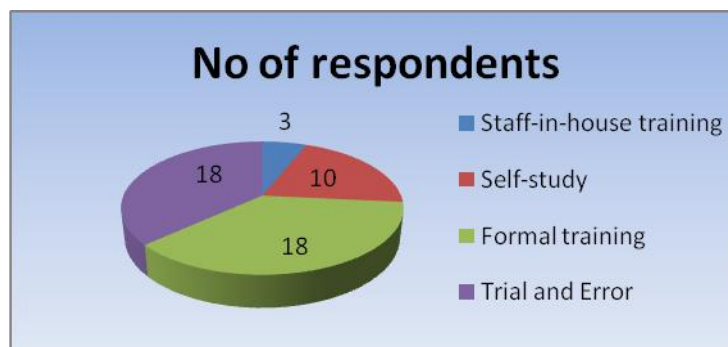
In table 4.41 Majority of the respondents who have good computer skills are 21(42.86%), followed by

Level of ICT/Computer literacy skill	No of respondents	%age
1 Excellent	3	6.12%
2 Very good	-	-
3 Good	21	42.86%
4 Fair	20	40.82%
5 No skills	5	10.20%
Total	49	100%

those that have fair computer skills, they are 20 (40.82%) respondents; few of the respondent representing 5 (10.20%) had no skill at all. Only respondents representing 3 (6.12%) had excellent computer skills.

Table 4.42:

Distributions of respondents based on how IT skills were acquired by both categories of Users.



	Means of Acquiring ICT Skills	Number of respondents	Percentage
1	Staff-in-house training	3	6.12%
2	Self-study	10	20.42%
3	Formal training	18	36.73
4	Trial and Error	18	36.73
	Total	49	100%

The table 4.42 above shown that the majority of the respondents, i.e. 18(36.73%) acquired their IT Skill either by formal training or by trial and error method followed by 10(20.42%) respondents acquired ICT skills via self - study and the least was 03(6.12%) respondents that acquired the skills via staff-in-house training.

## VI RESEARCH IMPLICATIONS

As eventual remarks, it is reminded that libraries are operating in a quickly changing situation, they should be aware of latest technologies to continue and maintain the importance of the service offerings. Utilization of Information Technology in present libraries is optimistic to gain right information at the right time in the right place and at the right cost. Information Technology helps to progress the rank of the library and it condenses the work stack of the library professions. Information Technology has broken the worldwide boundaries, new apparatus and methods help to provide better services to our clients. The necessity of sound information system as a support to the various developmental activities of the Health Sector in India was identified as early as Bhole Committee report soon after the independence. The National Health Policy of India (1983) inter-Ali states that appropriate decision making and program planning in the health and related fields is not possible without establishing an effective Health Information System and that nationwide organizational set up should be established to procure essential health information using latest IT techniques which may provide support for the local management of the health care and effective decentralization of the activities.

## VII FURTHER RESEARCH AREAS

In this study LIBSYS 4 system was taken for research. Other systems, unlike LIBSYS 4 can also be a part of research. The researcher can also study about the role of Health Information System in spreading health awareness among the people. Similar study may be conducted in other Libraries of India as well as abroad.

## REFERENCE

- [1] Saunders Comprehensive Veterinary Dictionary, 3<sup>rd</sup> Ed, Elsevier, 2007, p. 1380.
- [2] Little Oxford English Dictionary, Indian Edition, New Delhi: India, 2009, p. 320
- [3] The American Heritage and Dictionary of the English Language, 4<sup>th</sup> Ed, Houghton Mifflin Company, 2009, p. 2112.
- [4] O' Brien, James O. Introduction to Information System, Publishers Tata McGraw Hill, 12<sup>th</sup> Ed, New Delhi, 2005, p. 6
- [5] O'Brien, James O. Introduction to Information System, Tata Mc Graw Hill Publication, 12<sup>th</sup> Ed, New Delhi, 2005, p.6.
- [6] Singh, Ibohal Health information System in India, Delhi, BR Publication, 2005 p. 23.
- [7] Kothari, C.R. Research Methodology Method and Techniques, New Age Publication, 2<sup>nd</sup> Rev. Edition, New Delhi 2004, p. 120.
- [8] Kothari, C.R. Research Methodology Methods and Techniques, New Age Publication, 2<sup>nd</sup> Rev. Ed, New Delhi, 2004, p. 100.
- [9] Koul, Lokesh Methodology of Educational Research Vikas Publication, 3<sup>rd</sup> Rev. Ed, Noida, 1984, p. 115.
- [10] Koul, Lokesh Methodology of Educational Research Vikas Publication, 3<sup>rd</sup> Rev. Ed., Noida, 1984, p. 115.
- [11] The Advanced Learner's Dictionary of Current English, Oxford, 1952, p. 106.
- [12] Aguolu, C & Aguolu, I. E (2002): Libraries and Information Management in Nigeria. Maiduguri: Ed- Linform Services. 267pp.
- [13] Ani, O. E., Esin, J.E. & Edem, N. (2005): Adoption of information and Communication Technology (ICT) in Academic Libraries: a strategy for Library networking in Nigeria. The Electronic Library Journal, 23 (6), 27-37.
- [14] Aniekwu, A.N and Ogbeide, F.N. (2002): Information Technology and Technological Development in Africa. In Yusufu, A.K. (Ed) Journal of Engineering Science and Applications (JESA). Faculty of Engineering and Technology, AAU, Ekpoma. 3 (2), 83pp.
- [15] Anunobi, C.V. (2005): ICT Availability and use in Nigerian University Libraries. Global Review of Library and Information Science.1 (1), 39-51
- [16] Bryson, J. (1990): Effective Library and information Center Management. England: Gower Publishing. 165pp
- [17] Chisenga, J. (1995): The Skills of Information Technology in Zambian Libraries.
- [18] African Journal of Library, Archives and Information Science. 5 (1) 19-24 pp.
- [19] Cohn, Z. and Lefolli, S. (1995): Dictionary of Information Technology. London: Claremont Books. 75pp.
- [20] Ebijuwu, A.S. (2005): Information and communication technology in university libraries: the Nigerian experience. Communicate, Journal Of Library and Information Science, 7 (1&2).

- [21] Ehikhamenor, F. A. (1993): Information Technology and scientific and technological information in Nigeria: revolution and evolution". Africa Journal Of Library, Archives And Information Science. 39 (2) 113-123
- [22] Eyitayo, S.A. (1998): Relevance Of The New Information Technologies In Cataloguing. A paper presented at the Annual Cataloguing and Classification Seminar/Workshop, Ilorin (25<sup>th</sup>-30<sup>th</sup> October).
- [23] Idowu, A.O. and Mabawonku, I. (1999): The Information technology facility's application in some Nigeria Research and University Libraries. African Journal of Library, Archives And Information Science. 9(1).27-36.
- [24] Jaiyeola, R. (2007): Information and Communication (ICT) as a tool for Chartered Accountants. The National Accountant. 46 (1), 48 – 49pp.
- [25] Nwalo, K. I. N. (2000): Managing Information for Development in the 21<sup>st</sup> Century: prospects for African libraries, challenges to the world. Booklet 8. IFLA Jerusalem.14p
- [26] Nwokedi, V.C. (2007): Impact of Internet Use in Teaching and Research Activities of the Academic Staff of the Faculty of Medical Science. University of Jos. A case Study. Gateway Library Journal, 10 (1), 23-33.
- [27] Odion , F. and Adetona, C.O. (2009): Information and Communication Technology (ICT) as a tool for effective performance by Academic Librarians in Edo State of Nigeria. Communicate, Journal of Library and information Science. 11(1), 27-31
- [28] Ojedokun, A. A. (2000): Prospects of Digital Libraries. African Journal of Library, Archives and Information Science. 10(1). 13 – 21.
- [29] Oketunji, I. (2000): Application of information technologies in Nigeria: Problems and Prospects; paper presented at the 10<sup>th</sup> Biennial Conference of the National Association of Library and Information Science Educators. 7-20.
- [30] Oketunji, I. (2001): Computer Application to Libraries. In a Compendium of Papers presented at the 39<sup>th</sup> National Annual Conference and AGM of the NLA, Owerri. 2 –14.
- [31] Patra, B.K. (2008) The Role Of Information and Communication Technology on Management and Services in Academic Libraries. Techno India Group Research Journal, 1 (1).
- [32] Pillow, A. (2003): Database Electronic Resources <http://www.libunicletu/science/instruction/glossary.html> Retrieved on the 14th November 2009.