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Rajesh Kumar Tiwari
Assistant Professor (Visiting) at Sikkim Manipal University (LC), Department of Management Science & IT, Alambagh Lucknow, UP, India..

Bharat Sah
Director at National Institute of Fashion Technology, Raebareli, UP India.

Correspondence:
Rajesh Kumar Tiwari
Assistant Professor (Visiting) at Sikkim Manipal University (LC), Department of Management Science & IT, Alambagh Lucknow, UP, India.

A comparative multi-centric study of knowledge dissemination by library vis -a-vis role of it

Rajesh Kumar Tiwari, Bharat Sah

Abstract
Information is an indispensable for human development as air is essential for the endurance of all living beings on earth, including human beings. The rate of change brought about by new information technologies has a central effect on the way people live, study, and play worldwide. The increasing role played by information technology in the evolution of library services for an active reaction to the challenges of the information service providing. The report seeks to discuss the fast evolution of Information Technology and its application in the library services. Today libraries are equipped to execute the new 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 proper individual.

Keywords: Information Technology, Libraries, Electronic Library, Digital Library, e-Library.

1. Introduction
In 1945 Vannevar Bush envisioned a machine called a M*emex*, a collective memory machine that would make knowledge more accessible. The increasing quantity and complexity of information along with the time gap between conception and dissemination requires a novel technology. Bush's technology, allows users to make their own "form of mechanized private file and library". Through the miniaturization of data using photocells or microfilm, larger amount of information could be salted away in very small distance. Traditionally, data is stored in the index or hierarchical form, but this is not how the mind 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 estimation of modern day computers. In this study, where information and data continue to dilate 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 made. IT based databases were produced in the 1970s, which offered more information and more honorable ways to search and hold information. Whereas, Networks such as OCLC and RLIN made it more comfortable to apportion resources. With the invention of Information and Technology, libraries now use several types of technologies to aid the services they provide. Every day new technological advances affect the way information is handled in libraries and information centers. The shocks of novel technologies are felt by libraries in every facet. Data Technology, communication technology and mass storage technology are some of the regions of continuous development that reshape the way that library access, retrieve, store, manipulate and distribute data 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 and Academic Library is a part of National Institute of Fashion Technology at Raebareli, Lucknow UP, India. Here academic Libraries are the libraries, chiefly found in Academic Institutions like SGPGIMS (Sanjay Gandhi Post Graduate Institute of Medical Sciences, Raebareli Road, Lucknow, UP, India) and Academic Library of NIFT (National Institute of Fashion Technology, Raebareli, UP India) which are proven to support scholarship, instruction and inquiry operations.
Over the past twenty seven years, academic libraries have been touched on by changes in information and technology. The pace of alteration is even accelerating in this field. The innovation of various information technology (IT) trends have lead to reorganization, changes in working pattern, demand for new accomplishments 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 data.

IT keeps the key to the success of modernizing information services. Applications of ICT are numerous, but chiefly it is employed in converting the existing paper-print records in the total process of warehousing, retrieval and dispersal. IT holds a shock on every subject of academic library activity, especially in the form of the library collection development strategies, library building and consortia.

IT presents an opportunity to offer value-added information services and access to a broad assortment of digital information resources to their customers. 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 plans for library users.

Office of Information Technology is seen as the very foundation of our existence, It is a vital resource for all-round growth of the company. In every domain of activity people are dependent on data. Indeed, on that point is no area of human activity wherein information is not a factor. In this post- industrial and information oriented society „Right to Information" has been regarded as an indispensable vital component. The concept of information in the sense of knowledge communicated plays a key role in present-day society. The evolution and widespread utilization of computer networks since the close of World War II, and the emergence of information science as a subject area in the 1950s, are evidence of this focus. Although knowledge and its communication are basic phenomena of every human society, it is the advance of information technology and its global impacts that characterize ours as an information company. It is common to regard data as a basic condition for economic growth together with capital, labor and new stuff, but what makes information especially significant at present is its digital nature. The wallop of information technology on the natural and social sciences has brought in 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 practical dimensions, while at the same redefining the concept within an engineering framework. The fact that the concept of knowledge, communication has been indicated by 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.

2. Literature Review

The lookup of the related literature is one of the beginning steps in the research process for any research work; a comprehensive survey of the associated literature is an essential and indispensable prerequisite. According to best, A familiarity with the literature in any problem area helps the scholar to learn what is already known, what others have attempted to find out, what method of attack has been promising and disappointing and what problems persist to be resolved". Citing surveys that show significant agreement and those that appear to present conflicting solutions help to point and define understanding of existing knowledge in the problem area, provides a setting for the inquiry report and makes the investigator to determine how far the selected problem is fresh 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 coordinate the knowledge to depict that the proposed work would be an add-on to this area. In research methodology the term "literature" refers to the knowledge of a particular field of investigation of any subject which includes theoretical, practical and its research subjects. The task of review of literature is highly essential and slow because the researcher has to synthesize the available knowledge of the orbit in the unique way to provide the principle of his present work. The investigator tapped the various sources of available literature like, Surveys of Research, Indian Educational Abstracts, Research, Journals, etc. relating to the present subject. The investigator has therefore produced an extensive study using research, important reports of research subject areas, etc. in connection to the problem under investigation this coterie of related literature has been reexamined in the succeeding pages of this chapter. In parliamentary law to assure the effectiveness of Health Information System the investigator reviewed the associated literature and establish that these subjects have been carried on in this country.

Steven E, Fisher (1985) studied on topic Medical information online for doctors 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 broad assortment of medical related information and communications services. In June 81 the American Medical Association (AMA) signed an agreement with GTE Telnet to be a principal provider of medical information to the Network. Describes MINET, and come up to the roles of AMA and GTE in the evolution of novel products for the servings. Korale, S.R. (1989) reported that against the backdrop of the geographical, social and economic conditions of Sri Lanka, the structure of the health care organization is delineated and the evolution of a health information system to endure the information needs generated is reported. Current developments, including the use of the Health Literature, Library and information service Network and services are discussed, and problems enumerated. Argues in favor of the appointment of one Library, capable of being evolved as a center of excellence and with staff trained to exploit the new technologies, particularly CD-ROM, to furnish a central core facility for the state as a whole. RB, LM & KJ (1993) found in his written report that health point is a community based touch screen public access health information system targeted at getting to medical and health information easily accessible by the public and to provide feedback information on his requirement. Accounts on a study of 13 health points in Glasgow, Scotland. The sites included shopping centers, supermarkets, libraries and public houses. Accounts on a further study 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. Accounts on a final survey, which studied 1 health point in a general practice for 36 weeks using a routine recording of the arrangement and a postal survey of a systematic sample of 250 attendees. 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, marked a growing need for consumer health info. However, Because of other requirement on time and resources, questions have been asked about how much time and money can be reasonable expended for such actions. Describes the consumer health information activities of the library through the Health Information System Pilot Project. Tiefel, (1995), Librarians interested in researching a course ware -based access to library user education have available to them a well-developed tradition of thinking about information skills instruction. This has been summarized elsewhere and it is not the purpose of this newspaper to re-present this material. Nevertheless, it is worth noticing how this tradition has shaped applications of educational technology to information skills teaching.

Salony, (1995). User training in libraries evolved at the remainder of the nineteenth century. It appeared that library users were giving way to get better usage of library and other information resources because of a figure of factors Firstly, users did not possess the practical skills required 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. Snavely 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 double track. Thither is a tradition of theoretical deliberation about the instruction of information skills teaching, and alongside it there is a practitioner tradition of documenting practice which indicates how far library professionals have been able to embody good instructional models in their instruction. So, to quote one instance from many. Hanson (1985) took instructional models from Bruner and Gagne and applied them within the field of library user instruction. Such models emphasized important facets of the learning procedure. Bruner (1966) stated that the need to acknowledge the nature of the learner and the manner in which the learner obtains knowledge. Drawing on Gagne (1977), Hanson also tried to give learners opportunities to show how they have interpreted the rules of data systems, while getting feedback on their performance during practice in 'spaced reviews'.

Piette, (1995) noted that such educationally well-founded work tends to be spoiled 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 chances to make an enriching process of ongoing review, practice session or drill. Academics or course tutors, in support of whose teaching library user training are offered, are far better invested 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 poised to contribute feedback and advice to the student on improving such use. Librarian-tutors can only really identify 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 testing and improving rules 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 mere band of practical skills, but as a larger philosophy of information use, is an important attempt to sweep over the shortcomings of the library instruction environment and has caused 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. Generally speaking, this ambitious user education syllabus has moved out from teaching skills that are based on simple, mechanical puppets, in favor of generic and kind of abstract searching principles that apply equally to any information tool (online catalog, bibliographic database, internet search engine). Eadie, (1990) & Pacey, (1995). Added that in answer to this, there is a practitioner school of opinion, which is hostile to the over elaboration of the information skills program. This school argues that the capacity 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 rumination of the inability of librarians to pull in their libraries and database services usable. Savenije, (1999) stated that if libraries and data systems were made easier to use, than the practical skills portion of information literacy courses would effectively disappear, passing on an expanded array of philosophical teaching aims that could entirely make sense in the framework of proper, mainstream academic subject instruction. The potential of information technology to make libraries a great deal easier to use suggests that the evacuation of the practical skills barrier to information use may be nearer than ever before, and with it the need for most library user training.

3. Research Methodology

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 and 41 No. of Questionnaire (100% of the population) was administered to the Profession and the Paraprofessional library staff of these two selected User Members of Academic Library, NIFT Raebareli. 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 from SGPGI and 25 from Academic Library NIFT Raebareli out of 41 copies. Research is the process of systematic and in-depth study or search for any particular topic, subject or area of investigation, backed by collection, complication, 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.

4. Research Questions

For Library Professionals of SGPGI Central Library, Lucknow, India and Academic Library, NIFT Raebareli, India.

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.

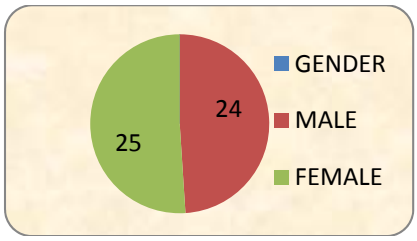
5. For Users of Library

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.

6. Results and Discussion

The focus of this research is on "A Comparative Multi-Centric Study of Knowledge Dissemination by Library Vis-à-vis Role of IT. 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 (Students) of NIFT Library both were in the same state of Uttar Pradesh, India.

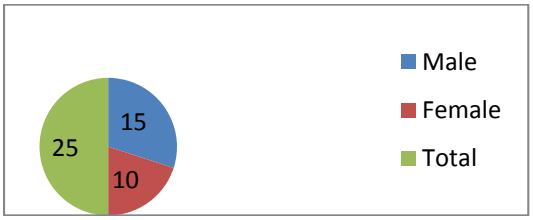
Table 4.31(A): Gender analysis of both Categories of user (SGPGI).



	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.

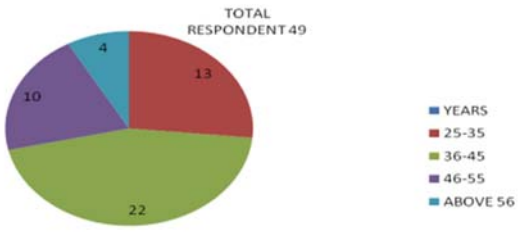
Table 4.31 (B): Gender analysis of both Categories of users (NIFT).



	Gender	No of Respondents	Percentage
1	Male	15	60.00%
2	Female	10	40.0%
	Total	25	100%

The table above shows that out of the total number of respondents from Users of NIFT Library, 10 (40%) was female while 15 (60%) were male. That is to say that the male users form the majority of the staff in both categories.

Table 4.32(A): Distribution of respondents by Age (SGPGI)

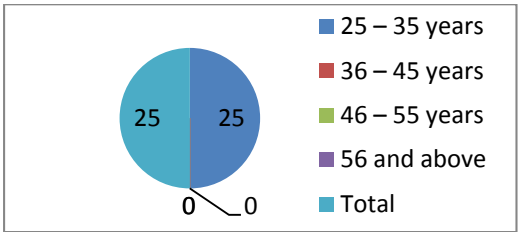


	Age range	No of respondents	Percentage (%)
1	20 – 35 years	13	26.53%
2	36 – 45 years	22	44.90%
3	46 – 55 years	10	20.41%
4	56 and above	4	08.16%
	Total	49	100%

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.

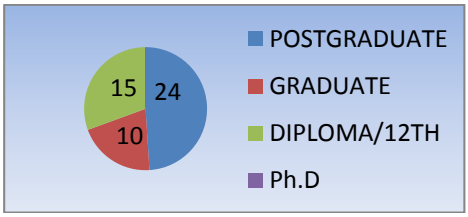
Table 4.32 (B): Distribution of respondents by Age (NIFT)



	Age range	No of respondents	Percentage (%)
1	20 – 35 years	25	100%
2	36 – 45 years	0	0%
3	46 – 55 years	0	0%
4	56 and above	0	0%
	Total	25	100%

From the above Table 4.32, in view of the response of the respondents it was indicated that most of the respondents are 20-35 years representing 25 (100%) which form the majority of the respondents.

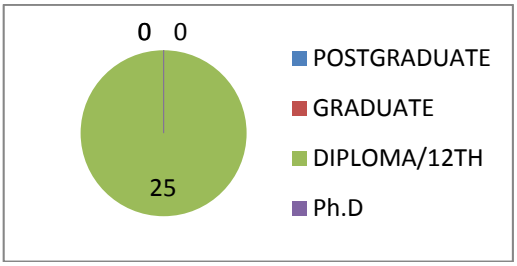
Table 4.33(A): SGPGI: Educational Qualification of respondents



	Qualification	No of Respondents	%age
1	PG/MD/DM/M.Ch/Research Student	24	48.98%
2	BSC/BLS/Graduate	10	20.41%
3	10th/12th/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 10th/12th / Diploma, and 10 respondents representing 20.41 % are BSC/BLS or simple Graduate. None of the respondents had PhDs.

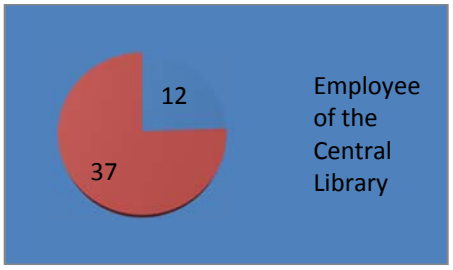
Table 4.33(B): NIFT: Educational Qualification of respondents



	Qualification	No of Respondents	%age
1	PG/MD/DM/M.Ch/Research Student	0	0%
2	BSC/BLS/Graduate	0	0%
3	10th/12th/Diploma	25	100%
4	Ph.D	0	0%
	TOTAL	25	100%

0 respondents had master degrees in Art, Science or Library and information science. 25 (100%) respondents that have a 10th/12th / Diploma. None of the respondents had PhDs.

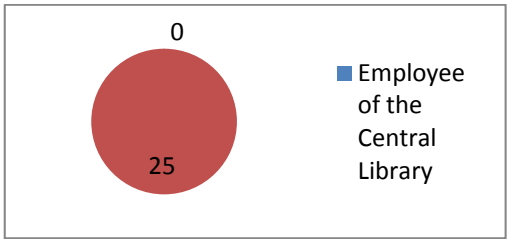
Table 4.34A: (SGPGI): Distribution of respondents based on the number of staff in both categories.



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

Table 4.34: 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 4.34B: (NIFT): Distribution of respondents based on the number of staff (user student) in this category.



	Option	No of Respondents	Percentage
1	Staff of the NIFT Library	0	0%
2	User of the NIFT Library	25	100%
	Total	25	100%

Table 4.34: shows that the students using NIFT Library is 100%.

Table 4.35 A: (SGPGI): Level of computerization

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

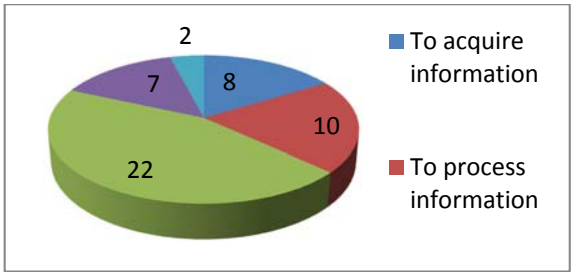
In regards to the response of the respondents, it shows that the Employee working at the Central Library under study is computerized/automated. Because all the respondents responses were yes to the question posed by the researcher.

Table 4.35B: (NIFT): Level of computerization

S/N	Option	No of Respondents	Percentage
1	Yes	25	100%
2	No	-	
	Total	25	100%

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

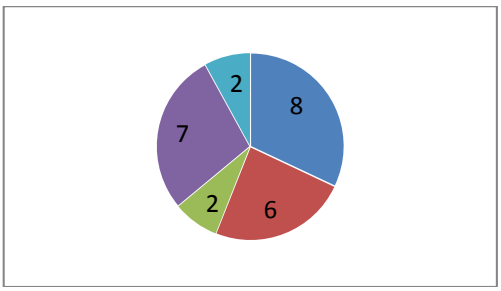
Table 4.36 A: (SGPGI): Reason for the use of IT resource



	Option	No of 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 4.36 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 4.36: (NIFT): Reason for the use of IT resource



	Option	No of respondents	Percentage
1	To acquire information	08	32%
2	To process information	06	24%
3	To store information	02	08%
4	To retrieve information	07	28%
5	To disseminate information	02	08%
	Total	25	100%

The table 4.36 above reveals that 08 (32%) use IT resources, mainly for acquiring information; followed by 07 (28%) who comes here for retrieving information.

7. 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 Bhore 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.

8. Further Research Areas

In this study LIBSYS 4 system took for research. Other system, 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.

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