International Journal of Academic Research
ISSN: 2348-7666; Vol.5, Issue-5, May, 2018
Impact Factor: 6.023; Email: drtvramana@yahoo.co.in

Impact of information technology on Medical faculties in Mysore city"

Mr. Harisha, K.J., Library Project Assistant, Maharaja's Campus, University of Mysore, Mysore, Email:kjharisha@gmail.com

Mr. Satheesha, H., Lecturer, Mettu University, Mettu, Ethiopia. Email:satheeshmlisc@gmail.com

Abstract: *This paper reports on an ongoing investigation into health sciences faculty's information-seeking behavior, including their use of new information technologies. A survey was administered to all faculties in medicine. It was similar to one administered to the same population in 2001. The survey asked about faculty's use of electronic resources, documented any shift from the use of print to electronic formats, and measured the utilization of library training. The response rate was 48.5% for medicine faculty. The study found that use of the print Index Medicus among faculty was in transition: While 30.5% continued to use the print resources, 68.0% of faculty accessed MEDLINE through electronic means. Faculty preferred accessing electronic databases from their offices to doing so from the library. Health sciences faculty used a wide variety of databases, in addition to MEDLINE, to fill their information needs. Most faculties did not take advantage of either in-house or electronic training sessions offered by librarians. The study concluded that the training preferences of faculty need to be further explored.*

Key words: *Information technology, E-resource, information retrieval, Information Management, Medical library*

Introduction

The word information technology is one of the most wielding talked concepts in the scientific word. Information Technology, in its strict sense is the main science of collecting, storing, processing and transmitting information. Computers and information technology are its main components and the influences of these two in information storage and dissemination are informatics. All the fields of education and libraries are utilizing the benefits o f information Technology. This studding is attempted to give some aspects on the impact o f information technology on medical faculty in Mysore city.

In 1962 **Philippe Dreyfus**, Coined the term informatics and be is the first man to define it. The information and knowledge revolution has for reaching information science, medical science and Health science consequences. The application of computers and information system in information field is a great innovation for information as well as information scientists. Man-made satellites, which permit an interchange and provide information between various points and earth and information technology has made rapid advances, especially in the field of medical.

We are well in to an ear that revolutionized the theory and practice of library and information science. The

major development that is talking place in libraries and information canters today is the wide speed availability and we of various kinds of electronic resources which have proceed by applying modern information Technology (IT) the commonly available Electronic information sources (EIS), CD-ROM (Compact Disc- Read Only Memory), OPAC(Online Publishing access Computing), web databases the Internet and other networked information sources are competing with an in some instances replacing the print bared information sources which have been in place for centuries as the primary media for storage and communication of recorded information.

The advent of the computer has made possible the creation of many new type of documents, Broadly these are referred to as ' electronic documents', Electronic document are acquired in computer format and publishers by releasing them to a central data bases. Libraries of all sizes and types are embracing digital collection, although most libraries will contain to offer both print and digital collection for many more year to come. Subscription of journal, magazines and abstraction and indexing services heavily weighted towards digital, while digital books (eBooks) are only begins to show presence in library collection.

Digital learning material (DLMs) and the types of digital information format that they represent are rapidly becoming vital resources for both faculty and student in a Medical library.

A library is the primary requirement of any Medical science education institution. The importance of Medical science Library has already been established. Now we are enjoying the fruitfulness of information technology in many ways. As health science information is the part and parcel of our daily life. We are very much depending up on the health science libraries acts as information.

Definitions of Electronic Information Sources

Library of congress in its draft interim guidelines for cataloguing electronic resources Defined Electronic Information Source "Manifestation of a work encoded for manipulation by computer. The manifestation resides in a carriers accessed either directly or remotely". The library of congress goes on the further define a "directly accessed electronic resource" as an "electronic resources whose carrier is 'touchable' e.g. a CD-ROM" and a "remotely accessed electronic resource as an electronic resource whose carrier does not embody a direct 'touchable' physicality [e.g. an electronic journal, or a data bases accessed through the Internet, or a web-site]".

AACR-2 defined electronic resource as "material encoded for manipulation by a computerized device. This material may require the use of a peripheral directly connected to a computerized device (e.g., CD-ROM) or a connected to a computer network. Ride defined electronic information source as "a wide range of production going from electronic periodicals to CD-ROMs, from E-books to having a common feature of being used and sometimes modified by a computer.

From the above definition, the following inferences are drown,

- Electronic information source are computer based information source
- Electronic information sources appear mainly in two forms
  1. Interneta
  2. CD-ROM
- Electronic information source cover a wide range of specific product such as E-journal E-Books, web resources and data bases.
- Delivery of information in EIS is through computers.

Need for the study

Information is the basic resource for any research or work. User in any institute use to depend mainly on the resource available for visit to Library and get information from various type of document. In such a situation it's quite easy to conduct the information use studies.

The developments in IT, the availability and use of EIS are gaining momentum in libraries and information centers. While the medical libraries in the developed countries are characterized by a rich collection of ESI with sound infrastructure facilities long bock, EIS are relatively new in a developing country like India. EIS started their appearance in Indian Medical libraries with the Establishment of Indian **Medlars** centers (IMC) at national Information centers NIC, New Delhi in 1985. To provide the Medical faculties with better, more reliable and efficient access to information, an analysis of the available electronic information resource facilities along with an understanding of the user behavior in the electronic environment is required. Electronic resources have come a big way to Medical professional the reduced cast of information access and processing basic computer facilities at their department may help Medical faculties to collect information from his/her work place. However a systematic study of the use of electronic in India is scantly reported in the literature. But the importance of the study need notable over emphasized. These kinds of study also help as to find out problem related to accessing of electronic information source by Medical faculties in any Institution.

Objectives

The major Objectives of the study is to investigate "the impact of information technology and medical faculty in Mysore city".

These specific Objectives of the study are

1. The find out the need to accept information technology
2. To determine the impact of information technology and Medical faculties
3. To identify the frequency of using electronic resource b y Medical faculties
4. To find out from where they are getting acquaintance with information technology
5. To find out the barriers faced by the medical faculties while using electronic information resource.
6. To identify medical faculties and professionals need for improving skills in use of electronic information resource.
7. To identify how to impact of information technology in medical faculties in now days.

Hypotheses: Introduction of new Information technology and medical faculties system in the may bring about a revolutionary change in the curriculum activities.

As the medical faculties have a very positive affinity towards, information technology. The hypotheses of the present study area follow.

The present study put forth the following hypotheses to test:

- The use of information in online has changed the traditional information seeking habits of Medical faculties.
- The use of EIS is hindered by several barriers.
- Medical science Information is widely scattered in different disciplines this Indicate it's inter disciplinary nature.
- Medical faculties are not satisfied with the ways in which they have learnt to use Information sources.

Scope and limitation of study

The study covers only those medical faculties working in Mysore city medical colleges and dental colleges. Medical faculties working in this institution having no electronic information sources, bit may also be using the faculty elsewhere, are considered in the study. The study covers 3 category of medical faculties namely lectures, readers, professors. In order to collect the comprehensive relevant data for the study, the questionnaire method was used. Lists of questions were formulated keeping in view, the need and objectives of the study. The questionnaires were personality distributed to Mysore regional medical colleges.

Methodology: - It is possible to suppose from the review of literature that information technology has some impact on the Medical faculties. The presents study aimed to determine whether there has been any change in the social life activities and curriculum system of faculties under the Impact of Information technology. Conceptually, the study is based on the hypotheses that information technology and therefore, computer technology effects the Medical faculties, Influencing the faculties routines. The study also measures the affinity that teachers have to information technology and Investigate why they need information technology.

The following methodology has been adopted in the study

1. Review of literature
2. Questionnaire for the Medical faculties
3. Objective type
4. Descriptive type
5. To show the level of agreement
6. Data analysis and inter pretention

Table 02

Questionnaire distribution and received

SL. NO	Name of Institutions	Questionnaire sent	Questionnaire received	Parentage (%) N=146
01	Mysore Medical College and Research Institute	75	49	65.33
03	JSS Medical College	63	35	62.50
02	Govt'Ayurvedic College	31	20	64.51
04	JSS Dental College	32	20	60.00
05	JSS Ayurvedic College	20	12	58.82
06	Farooqia Dental college	17	10	55.55
Total		**238**	**146**	**61.34**

- 20 medical faculties in Mysore medical college, out of which 40 questionnaire were received.
- 58 medical faculties in JSS medical college, out of which 28 questionnaire received.
- 35dental faculties in JSS dental college, out of which 15 questionnaire received.
- 56 dental faculties in Farooquia College, out of which 30 questionnaire received.
- 33 Medical faculties in govt .Ayurvedic College out of which 25 questionnaire received.
- 30 dental faculties in JSS Ayurvedic College, out of which 13 questionnaire received.

Awareness of IT Explosion

The present study reports the analysis of data gathered through the questionnaire designed for Medical faculties in Mysore city. The data analysis is based on questionnaire responses of Medical faculties as shows in the Table 03.

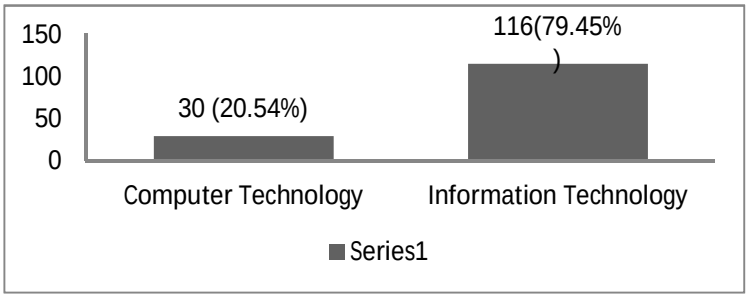
Medical faculties have used to information technology in now a days and its presents impact whether are accessing information from electronic resource so the use of IT explore in the 130(89.04%) of medical faculties in use of IT awareness in presently. Whereas the remaining 16(10.95%) of medical faculties are not sufficient use in IT because the Ayurvedic department. There is no use of IT so (10.95%) is not Impact of Information technology.

Information Technology

Information Technology, in its strict sense is the main science of collecting, storing, processing and transmitting information. Computers and information technology are its main components and the influences of these two in information storage and dissemination are informatics. All the fields of education and libraries are utilizing the benefits o f information Technology.

Figure-01

IT according to Medical



Medical faculties have use the computer technologies and information technology. Whether the what source of IT to Impact in Medical faculty. In this Figure 01 to indicate the 30(20.54%) respondent use the computer and 116(79.45%) respondent use of IT in Information resource to online, or electronic base sources. So the Indentify the user expects of IT sources.

Information models

Through the Medical faculties participates in the study can be according to their professional status. Faculties are also involved in research in many cases. Likewise Lecturers therefore in this section, analysis of respondents has been done for the entire sample only without distinction of professional status and professional area-This results is given in table 4

Table 04

Information following modules

SL.NO	Way of information following	NO. of Respondent	Percentage (%) N=146
01	Seminar/Conference	48	32.87
02	Research	43	29.45
03	Curriculum	35	23.97
04	Extra reading	20	13.69
	Total	**146**	**100.00**

Majority of the respondents 48(32.89%) reported that they use electronic information source for the purpose of dissertation/seminars or conferences ongoing research work Nearly half of the respondents 43(29.45%)use of Information source for ongoing research work 35(23.97%) of medical faculties use electronic information source use the curriculum activities 20(13.69%) respondent use of EIS for extra reading purposes.

Awareness of Computer knowledge

Table 05

Awareness of Computer knowledge

SL.NO	Knowing computer	NO. Of Respondent	Percentage (%) N=146
01	YES	103	70.54
02	NO	43	29.45
	Total	**146**	**100**

Medical faculties have used to information technology in now a days and its presents impact whether are accessing information from electronic resource so the use of IT explore in the 103 (70.54%) of medical faculties in use of IT awareness in presently. Whereas the remaining 43(29.45%) of medical faculties are not sufficient use in IT.

5.5 Colleges wise response data rate

Table-06

Colleges wise response data rate

SL.NO	Colleges	Questionnaire sent	Questionnaire received	Parentage (%) N=146
01	Mysore Medical College and Research Institute	75	49	65.33
02	Govt'Ayurvedic Medicine College	31	20	64.51
03	JSS Medical College	63	35	62.50
04	JSS Dental College	32	20	60.00
05	JSS Ayurvedic College	20	12	58.82
06	Farooqia Dental college	17	10	55.55
Total		**238**	**146**	**61.34**

The sample population for the present study is selected from among the Medical colleges. Distribute through the MMC (Mysore Medical College) 49(65.33) is digital facilities not provide in the college campus, and then Ayurvedic Medicine college receive 20(64.50%) response, JSS Medical colleges 35(62.50%) the response rate, is there not provide in the digital sources facilities . JSS dental College 20(60%) response, Farooqia Dental College 35(28.97%) of not provide in the college campus, and provide in the digital sources facilities.

Level of satisfaction for E-resources

The advance in networking and communication technology has made the information services available to the users on their desktop. The feature inbuilt in the search and retrieval of these resources has made the usage to the maximum. Library subscribes to various Bibliographic and full text a database which is of interest to the users. We also build our electronic resources with respect to Journals, Standards and patents.

Table-07

Level of satisfaction for using E-resources

SL.NO	Name of Digital resources	25%	50%	75%	100%	No of respondent N=146
01	Internet searching	39	42	49	16	**146**
02	CD-ROM	57	28	44	17	**146**
03	Conventional library work	60	30	33	13	**146**
04	E-resource	59	33	39	15	**146**
05	Photocopy services	47	37	29	33	**146**

This table 7 Shows the Internet searching 39 respondents access to 25% current information has impact in the development of academic and professional carried by using EIS 57 respondent use for CD-ROM source 25% ,60 respondent use for Convention library work.59 respondent to discus E-resource used for 25%. 47 respondents printing resource and photocopy services.

Digital source information

Information source is a source of information for somebody, i.e. anything that might inform a person about something or provide knowledge to somebody. Information sources may be observations, people, speeches, documents, pictures, organizations etc. They may be primary sources, secondary sources, and tertiary sources and so on. Different epistemologies have different views regarding the importance of different kinds of information sources.

Table-08

Digital source available

Digital sources through	25%	50%	75%	100%	No of res
CD-ROM databases	49	32	52	13	**146**
Subscription to on-line journals	67	28	34	17	**146**
On-line database access	71	39	24	12	**146**
Content page service	69	35	29	13	**146**

Medical faculties refers to IT source 49 respondents use for CD-ROM databases in 25% and then 32 respondents use for CD-ROM databases in 50% , 52 respondents use for CD-ROM databases in 75%, 13 respondents use for CD-ROM databases in100%. On-line journals refers to 67 respondents use for On-line journals in 25%, and 28 respondents use for On-line journals in 50%, 34 respondents use for On-line journals in 75%, 17 respondents use for On-line journals in 100%, On-line database access refers to 71 respondents use for On-line database access in 25%, and 39 respondents use for On-line database access in 50%, 24 respondents use for On-line database access in 75%, 12 respondents use for On-line database access in 100%

Latest source of Information

Table-09

Source of information on the latest events in this world

SL.NO	Name of E-resources	No. of respondent	Parentage
01	E-journal	43	29.45
02	E-book	32	21.91
03	Magazine	60	41.09
04	Database	11	7.53
	Total	**146**	**100**

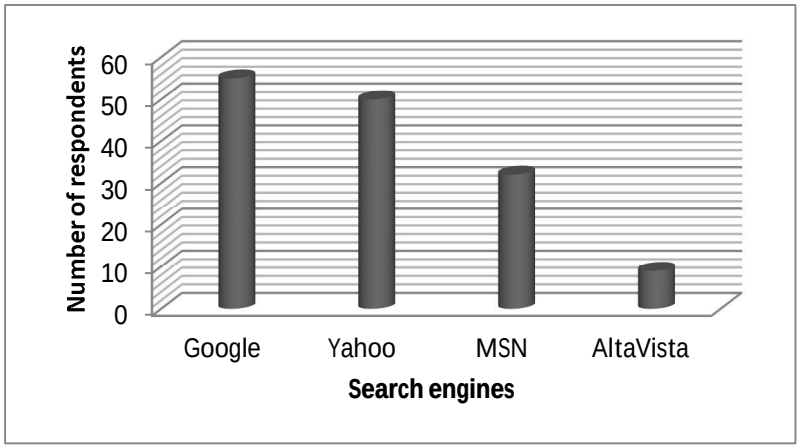
The study analyzed the EIS by the Medical faculties what source of use in Medical professional to identify in this table 43 (29.45%) respondents use for E-jourals.32 (21.91%) respondents use for E-books. 60(41.09%) respondents use for Magazines.11 (7.53%) respondents use for Data bases.

5.10 Prefer search engines

They are various search engines to access e-books and e-journals. Following table – 8 clear the respondent's preference for search engine to access e-books and e-journals. The following table illustrates the outcome of the results.

Figure-04

The electronic Medical information source response data rate



Different search engines are available for access e-books and e-journals. Figure 04 gives the result that respondent preference. Majority of the respondent i.e. *55* (*37.67*%) prefer *Google* search engine to access e-books and e-journals. Then very few of the study population(*09* respondents) prefer Yahoo, *50* respondents(nearly 31%) prefer to *MSN*, remaining *32* population are prefer to *AltaVista* engine to access e-books and e-journals.

Electronic resources

Respondents were asked to state the specific purpose for which they use electronic information source. This result is given table-11

Table-11

Resources for using electronic sources

SL.NO	Impact of IT resources	No. of respondent	Percentage (%)
01	Ongoing research work	25	17.12
02	Preparation of teaching notes	36	24.65
03	Information an methods of treatment	21	14.38
04	Disease specific information	20	13.69
05	Writing journal article	28	19.17
06	Diagnosis information	16	10.95
	Total	**146**	**100.00**

Majority of the respondents 36(24.65%) reported that they use electronic information source for the purpose of Preparation of teaching notes.

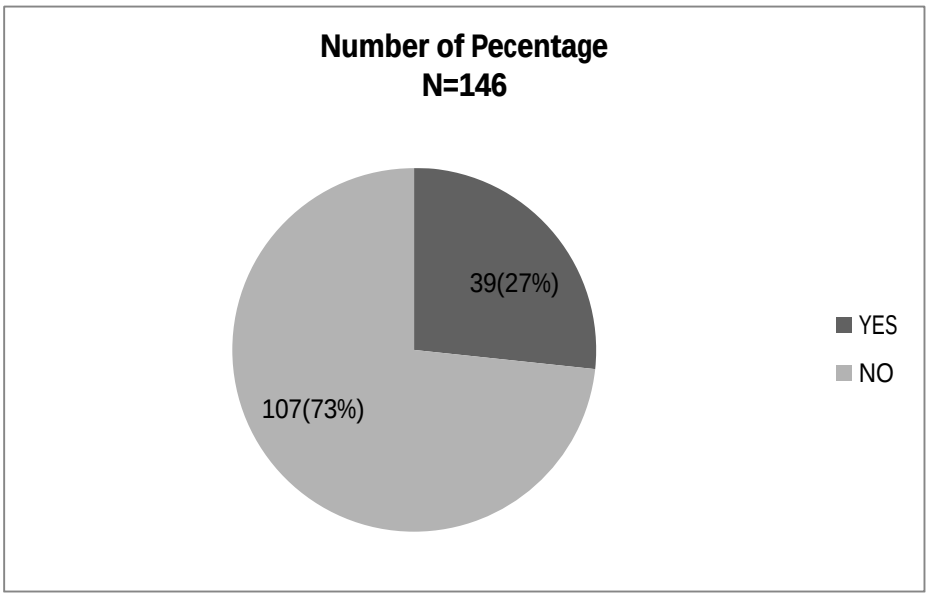
Nearly half of the respondents 28(19.17%) use electronic information source for the Writing journal article, 25(17.12%) respondents use for Ongoing research work, 21(14.38%) respondents use for Information an methods of treatment, 20(13.69%) respondents use for Disease specific information, 16(10.95%) respondents use for Diagnosis information.

Barrier of Electronic sources

In health informatics and most contexts, EMR and EHR (electronic health records) are used synonymously, but many people define an EMR as just the physician interface and EHR including both a physician and patient interface. The term has sometimes included other systems which keep track of medical information.

Figure 05

Barrier of Electronic information source



Medical faculties have used to information technology in now a days and its presents impact whether are accessing information from electronic resource so the use of medical faculties barriers of electronic information source, 39 respondents (26.71%) of Barrier of Electronic information source, 107 respondents 73.28% of barrier of electronic information source.

Satisfaction of Digital resource

Table-12

Satisfaction of using Digital resource

User satisfaction	Number of respondent	Percentage(%)
Satisfied	95	65.06
Not satisfied	51	34.94
Total 146		**100**

Medical faculties have used to information technology in now a days and its presents impact whether are accessing information from computer and its application in information process 95 respondents(65.06%) computer application was familiars, 51 respondents (34.94%) respondent for not sufficient in computer applications.

Facility provided

This table indicate the providing Internet browsing and CD-library facilities in college campus

Table-13

Facility Providing for Internet browsing and CD-Library

Response	No. Respondent	Percentage (%) N=146
YES	98	67.12
NO	48	32.87
Total 146		**100.00**

Medical faculties have used to information technology in now a days and its presents impact whether are accessing information for college library or campus are available for Internet browsing and CD-Library. The 98 respondents (67.12%) available for Internet browsing and CD-Library facilities.48 respondents (32.87%) are not available in college campus.

Respondent wise distribution

The study covers 3 category of medical faculties namely lectures, readers, professors. In order to collect the comprehensive relevant data for the study, the questionnaire method was used. Lists of questions were formulated keeping in view, the need and objectives of the study. The questionnaire were personality distributed to

Figure -06

Designations of respondent data rate

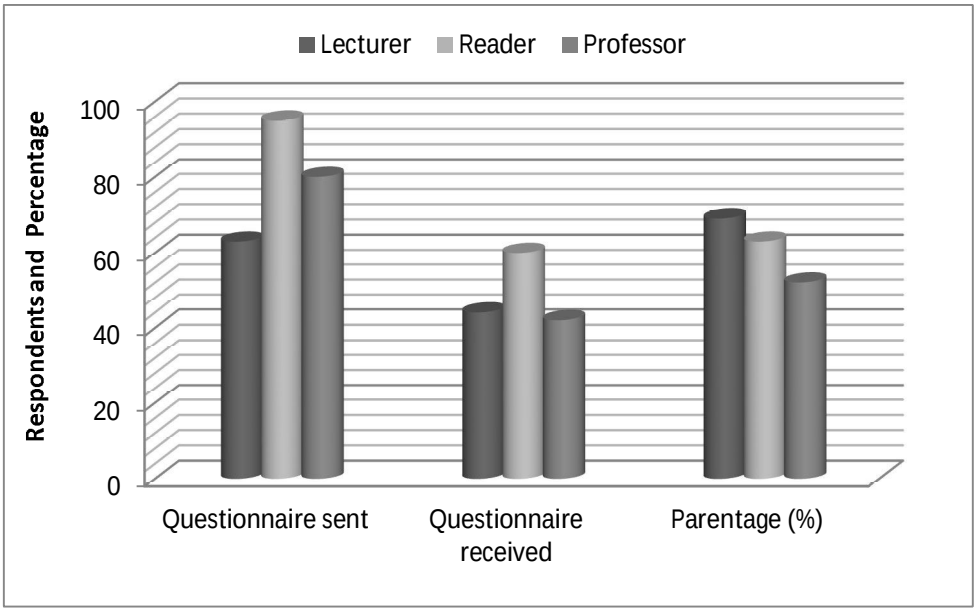


Table 14: Respondents the different grades of the respondents. 80 Questionnaire were sent to professors and 42 respondents were received from them. 95 questionnaire were given to readers and 60 respondent were received back.63 questionnaire were distributed to lecturers and totally 44 respondents were received, finally 146 questionnaire were received out of 238questionnare distributed.

SUMMARY AND FINDINGS

Out off the all Medical colleges faculty members, to whom the questionnaires were administrated, only 146 people returned dully filled in questionnaires. These 146 people constitute nearly 89.04% of the population covered. Further, this study covered one and all Medical colleges situated at Mysore. Its including graduates' colleges as well Medical and research institute.

The study was carried out to identify the "How to Impact of information technology *on* medical faculties in Mysore". The study revealed that most of the users (more than 94%) are completely aware use of e-books and e-journals. this has further prompted us to find information related to the sources of e-books and e-journals and to analyze the frequency of the e-books and e-journals.

The researcher invoked the faculties to elicit more about this study. The study found that one of the impotence of information that is only 17.41% of the respondents are using library to access e-books and e-journals. This is not good for the physical development of library and library

collections. So librarian must improve the library facility and attract the maximum number of users to the library.

The study revealed that more than 37.67% of the respondents were used Google search engine to access e-books and e-journals. At the same time only 8% of the respondents are used Medline, Meddlers search database to access e-books and e-journals.

The study presents that how frequently respondents use e-books and e-journals? It is depend on respondent need and requirement, because some of are use for only preparing lecture, some of use seminar and conference, some of use write articles and some of research & knowledge purpose.

The study found that which component / USB was used to carry e-books and e-journals. The study clear that more than 55% of the respondents are use pen drive. Because of its unique feature. At the same time no one is used floppy to carry e-books and e-journals.

The researcher found that majority (41.29%) respondents are prefer to use digital sources. It is clear from the table-08. Then it shows user not standing in digital resources. User can use both print and electronic resources simultaneously.

The study found that extent of information obtained from e-books and e-journals are useful to respondents. Very few percentage (8.38%) of the respondent's opinion relating to information obtain from e-books and e-journals are not useful because they prefer print resources is the best resources.

The study demonstrates the user satisfaction with the use of e-resources. Majority of the respondents, more than 81% are satisfied with using e-books and e-journals. Only 18% of the respondents are not satisfied. It is clear from the table-09. It shows the quality of content which contain e-books and e-journals and then e-resources publisher know how to fulfill the user need and requirements. Table 12 presents the satisfaction level of the respondents. Nearly 65.06% of the respondents are satisfied, and nearly 24% respondents are moderately satisfied. Remaining 18% of the respondents are very satisfied with using e-books and e-journals. When the Faculty did interview at that time many respondents suggest at least minimum 2mbps bandwidth Internet connection is necessary to each library for much more effective use of e-books and e-journals.

The study found that 238 of the respondents are agree or they really feel that the quality of studies, research and as well as teaching has been improved by using resources. Nearly 89.04% of the respondents are used IT in every day, to above statement. These respondents point out few reasons why they are strongly disagree for previous statement. If we simply use e-books and e-journals how can it improves the quality of studies, research and teaching. So only when we adopt or implement whatever we learn from then only the quality of studies, research and teaching will be improved.

CONCLUSION

Finally the study result shows that to provide the Medical faculties with better, more reliable and efficient access to information, an analysis of the available electronic information resource facilities along with an understanding of the user behavior in the electronic

environment is required. Electronic resources have come a big way to Medical professional the reduced cast of information access and processing basic computer facilities at their department may help Medical faculties to collect information from his/her work place. However a systematic study of the use of electronic in India is scantly reported in the literature. But the importance of the study need notable over emphasized. These kinds of study also help as to find out problem related to accessing of electronic information source by Medical faculties in any Institution.

The interviews revealed that both library staff and users had really felt the immense powers of the se of IT. Many staff members agreed that since the introduction of IT in their respective libraries, services had begun to flow more systematically and repetitive jobs had been reduced. The use of IT had enhanced: their access to information; reduction of paperwork; confidentiality of information; motivation of workers to work harder; training and improving their IT skills, etc. On the other hand, users also agreed that, since the introduction of IT in their institutions, the technology has had an impact on such aspects.

Reference

1. BARTEL, A., ICHNIOWSKI, C., AND SHAW, K. "How Does Information Technology Affect Productivity? Plant-Level Comparisons of Product Innovation, Process Improvement, and Worker Skills." Quarterly Journal of Economics, Vol. 122 (2007), pp. 1721–1758.
2. BLACK, A., CAR, J., PAGLIARI, C., ANANDAN, C., CRESSWELL, K., BOKUN, T., MCKINSTRY, B., PROCTER, R., MAJEED, A., AND SHEIKH, A. "The Impact of eHealth on the Quality and Safety of Health Care: A Systematic Overview." PLos Med, Vol. 8 2011.
3. BLOOM, N., SADUM, R., AND REENEN, J.V. "Americans do IT Better: US Multinationals and the Productivity Miracle." American Economic Review, Vol 102 (2012), pp. 167–201.
4. BLUNDELL, R. AND BOND, S. "Initial Conditions and Moment Restrictions in Dynamic Panel Data Models." Journal of Econometrics, Vol 87 (1998), pp. 115–143.
5. Eskin F, Bull A. Squaring a difficult circle. Health Serv J. 1991 Jan 10;101(5233):16–19.
6. Forsythe DE, Buchanan BG, Osheroff JA, Miller RA. Expanding the concept of medical information: an observational study of physicians' information needs. Comput Biomed Res. 1992 Apr;25(2):181.
7. Henry JB. Computers in medical education: information and knowledge management, understanding, and learning. Hum Pathol. 1990 Oct;21(10):998–1002.
8. Rootenberg JD. Information technologies in US medical schools. Clinical practices outpace academic applications. JAMA. 1992 Dec 2;268(21):3106–3107.
9. Kassirer JP. Learning medicine. Too many books, too few journals. N Engl J Med. 1992 May 21;326(21):1427–1428.
10.