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Information And Communication Technology (I.C.T) Among Librarians In Engineering Colleges In Srikakulan Distract: A Study

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Abstract:

Library and information professionals today need to acquire knowledge in engineering colleges and skills in information and communication technology (ICT) as the services of more and more libraries are now centering on information technology (I.T), especially in engineering institutions at srikakulam distract. Application of information and communication technology (ICT) in academic environment in India has increased gradually in the recent decades, more particularly in srikakulam backward distract in Andhra Pradesh. The aim of the study is to assess whether the developments in information communication technologies (ICT) have any influence on the library professionals' professional development, and the need for further education and training in the profession and evaluate their skills in handling developments in ICT. This paper examines the ICT skills among librarians in engineering colleges in srikakulam distract. The analyses of the data represent the extent and the levels of ICT skills possessed by the srikakulam distract engineering college librarians of this institution.

Keywords: ICT, Soul, Koha, Internet, Automation, OPAC, Search Engines, DBMS, I.T. web.

Introduction:

Engineering education is something related very closely to the economic stability of a country too, good technical skills can effect some new technological innovations as well as also helpful in engineering college libraries getting good jobs at national as well as international level. It, therefore, becomes very important for our engineering education to undertake periodic review of the curriculum and subject content of the engineering programmes to ensure that they are up-to-date and are effectively fulfilling the technological requirements of the country at par with international standards. The implementation and coordination of

engineering education program in srikakulam distract, Andhra Pradesh is usually the responsibility of the Government

The current development in science and technology has led to a new staggering condition about information created in the world. In the present ICT era, it becomes necessary for the librarians to use the computers and other devices in the day-to-day work. In this context, the librarians shall possess, in addition to the academic and professional qualifications, certain ICT skills, such as handiness in operating systems, use of application software packages, knowledge of databases and programming, acquaintance in webpage design, library automation software, technical skills, and managerial skills. This survey has been aimed to estimate the level of knowledge on ICT skills by the respondent librarians. This paper analyses various ICT skills possessed by librarians like programming languages, application software packages, Database management system (DBMS), library management software and web design and also finds out the constraints encountered by librarians in acquiring ICT skills.

The Engineering College Libraries:

The library is regarded as the 'nerve centre of knowledge', the centre of intellectual life and the heart and soul of the academic institution. It is the responsibility of the staff of engineering and technical libraries to provide right information at the right time to right user to save the time of the user. For the efficient, effective and scientific development of information resources and services, the libraries need to be designed and developed systematically. AICTE has framed elaborate norms for libraries of the engineering colleges offering different technical courses. For an institution, offering B. Tech and M. Tech Courses, the position of librarian is placed under the technical support staff. It further prescribes that the library should be provided with necessary staff to enable to provide services to staff and students for at least 12 hours in a day.

Utilities of Resources and Services in Engineering College Libraries:

Now a days the reading materials and information sources are changing from print to electronic. The sources for accessing resources in engineering college libraries, these are online catalogue, machine readable catalogue, online public access catalogue, web-based catalogue, bibliographic databases, CD-Rom databases, web based databases, on-line databases, electronic serials/journals, electronic books/thesis, e-learning resources,(CAS, SDI, EDDS, OPAC, M-Libraries)

National and International Networks:

ERNET, I-NET, NICNET, INDONET etc., are examples of such networks. Application networks are setup by or for a specific community for serving well-defined end-users. INFLIBNET, ADINET, BONET, CALIBNET, DELNET, MALIBNET, MYLIBNET, PUNENET etc. belongs to this category. International Networks: INIS, AGRIS, MEDLARS, INSPEC, etc, through some of the international and regional networks like the TELENET, TYMNET, DIALNET, ESA/IRS, BLAISE, EURONET, etc.

Review of Literature:

Jagadish and Devaraju (2020) studied Awareness and Use of E-resources by College Students. Information communication Technology (ICT) plays a major role in sharing & dissemination of knowledge. E-resources such as online Journals, e-books, E-databases E-reports etc. have also become an essential resource in learning process. This paper discusses about awareness and use of e resources by College Students on basis of survey method using questionnaires. This paper mainly focuses awareness and use of e-resources, frequency, purpose, reason and problem facing in using e-resources for their information needs.

Girja (2019) studied Information and Communication Technology has revolutionized the concept of Libraries. Each and every library is slowly getting digitized. The "Digital Library" is e-collections, capability and communications to support resources learning, do research, studious statement as well as preservation of our recorded Information. This article will discuss the factors that will necessitate the Shri Rawatpura Sarkar University Library to get digitized, as well as the definition, need, advantages and disadvantages of electronic libraries, the requirement for building a e-library etc. The emphasis is also put to describe the role of librarian in the new environment.

Mngutyo and Elizabeth (2018) discussed the importance of ICT skills and acquisitions by the librarian, the author emphasized that for libraries to transcend from traditional/manual operation to ICT (automation). Management must keep in view appropriate software application selection and the importance of setting aside funds to be used for the training of library and information science professionals.

Bansode and Viswe (2017) assessed the information communication technology (ICT) literacy of the library professionals working in University Libraries in Maharashtra. They found that majority of Library professionals has acquired the basic ICT literacy skills and suggested that University libraries should organize in-house training programs at regular intervals.

Objectives of Engineering College Libraries:

A library plays a pivotal role in ensuring the success of higher degree of engineering and technology. The important activities of engineering college libraries include the collection development, reference service, circulation, document delivery, user education, access to resources and service, etc. Engineering college libraries are expected to provide cost effective and reliable access to information using the state-of-the art information technology tools. The Primary objectives of the study are to identify the usage of ICT based resources and services amongst the researchers, students and staff members of the users. The engineering college libraries are established with the following objectives.

1. To evaluate the frequency, time spent, purpose and utilization of resources and services.
2. To share the resources and services through library networking to implement new IT processes to provide high quality information.
3. Analyze the knowledge of ICT of librarians in engineering institutions in srikakulam distract.

4. To study the problems faced by librarians in the effective use of ICT applications.
5. To recommend methods for improving the knowledge/skills of librarians.

Functions of the Engineering College Libraries:

To acquire, process, organize and make available varied types of reading materials for meeting the needs of different levels of user

1. To guide students and provide them the resources useful for enhancement of technical projects.
2. To keep the faculty members informed of the latest amount of resources in their fields of specialization.
3. To establish an information centre in library and render reader advisory services as to enable them to make use of library resources.
4. To adopt new technology, e.g. computerization in certain areas with a view to provide purposeful service in minimizing possible time.

Methodology:

In order to collect the comprehensive and relevant data from the Librarians of the engineering colleges in srikakulam districts, Andhra Pradesh, a structured questionnaire was designed and interview method was also adopted as the tool for collection of data. The questionnaire was formulated keeping in view, the objective and various facers of the study and the questionnaires were personally distributed and collected with constant personal pursuance and the data obtained from the filled in questionnaires, later classified, analyzed, tabulated and logically interpreted.

Data Analysis:

The survey brings a familiarity with use of ICT based resources, services and perceptions. It also tells us the use of resources and services, storing and organizing ICT based sources, levels of awareness about engineering databases etc. Finally, it proclaims the use of library resources and services, use of library & information services, familiarity with and use of information and communication technologies effectively and efficiently.

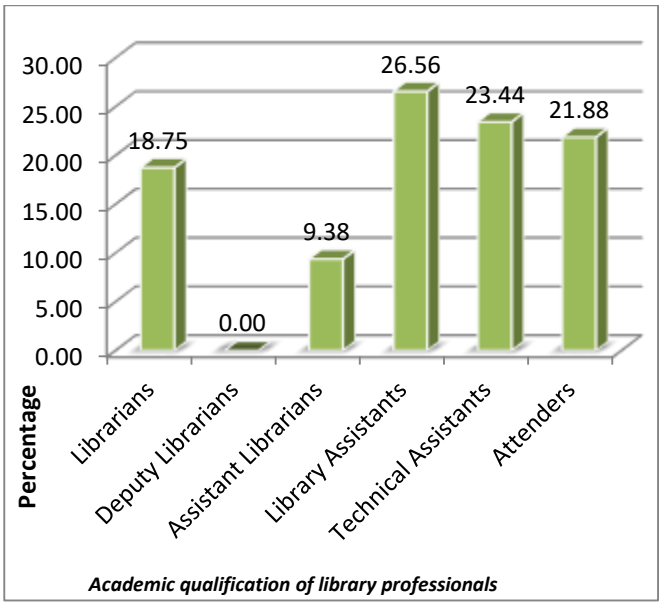
Human resource personals in the library- level wise

The professional staffs are required to attain the objectives of the library and information services in Information Age. Social and technological improvement has forever made institutions to change for acclimatize to the new developments. The ‘Library’ is also one such institution. The quality services depend upon qualified human personals in any organization. Naturally library and information centres treating non-profitable oriented organization. It provides the services unbiased manner .i.e. caste, creed, colour. The following table elaborate numbers of human resource persons and their designations at college level libraries.

Table No-1: Human resource personals in the Library -level wise

S. No	Designations	Range (No)	Total (N=64) (%)
1	Librarians	12	12 (18.75)
2	Deputy Librarians	0	00 (00.00)
3	Assistant Librarians	06	6 (9.37)
4	Library Assistants	17	17 (26.56)
5	Technical Assistants	15	15 (23.43)
6	Attenders	14	14 (21.87)
	Total	64	64 (100.00)

Figure No - 1



Level wise analysis of human resources in college libraries reveals that none of the libraries have deputy librarians. All most all the college libraries appointed librarians with prescribed qualifications, i.e. according to AICTE norms (nearly 19%). Regarding Assistant Librarians nearly 27 percent of them appointed in the college library environment followed by (23.43) appointed technical assistants. Lower level cadre of library was appointed nearly 22 percent. In is evident that there no deputy librarian for immediate in charge as if during the absence of Librarian.

Services offered by college libraries:

Libraries are being treated as centre of learning where the users, resources and professionals would meet effectively and efficiently. Libraries acquiring several information sources fulfilling educational cater needs of their users. The primary objectives of the libraries are acquiring to require and storing of the information. Not only for that storing information must be dissemination all the stake holders. As per the five laws of library science, according to first law 'books are for use. It indicates that among the resources available in the libraries should be fully utilizing. These concept are depending upon the library professional are being offered services in their libraries. Usage of the library recourses on depends upon the services offered by the library. Numbers of information services have been introduced by the libraries from time to time which include lending, current awareness service, bibliographic instruction, reference and advisory services reprographic service etc. The following table will be present the data regarding types of services were offered by the college library.

Table No-2: Services offered by college Libraries

S.No	Services offered by Libraries	Response		Total (N=12) (%)
		Yes	No	
1	Lending service	12 (100.00)	00 (00.00)	12 (100.00)
2	Library orientation	12 (100.00)	00 (00.00)	12 (100.00)
3	Bibliographic Instructions	6 (50.00)	6 (50.00)	12 (100.00)
4	Users advisory services	12 (100.00)	00 (00.00)	12 (100.00)
5	Inter-library loan	12 (100.00)	00 (00.00)	12 (100.00)
6	Compilation of bibliographic services	10 (83.33)	2 (16.67)	12 (100.00)
7	Indexing & abstracting services	12 (100.00)	00 (00.00)	12 (100.00)
8	List of additions	12 (100.00)	00 (00.00)	12 (100.00)
9	Reservation of documents	4 (33.33)	8 (66.67)	12 (100.00)
10	Reprographic services	12 (100.00)	00 (00.00)	12 (100.00)
11	Current Awareness Service	12 (100.00)	00 (00.00)	12 (100.00)
12	SDI services	12 (100.00)	00 (00.00)	12 (100.00)
13	Internet Browsing	12 (100.00)	00 (00.00)	12 (100.00)
14	OPAC	12 (100.00)	00 (00.00)	12 (100.00)
15	E-mail services	12 (100.00)	00 (00.00)	12 (100.00)
16	Multimedia services	8 (66.67)	4 (33.33)	12 (100.00)
17	Print out services	12 (100.00)	00 (00.00)	12 (100.00)
18	Microfilm services	00 (00.00)	12 (100.00)	12 (100.00)
19	Newspapers clipping services	12 (100.00)	00 (00.00)	12 (100.00)
20	Document delivery service	12 (100.00)	00 (00.00)	12 (100.00)

The investigation of response from above table reveals that an equal (100%) percent of colleges are facilitating lending, Library orientation, Users advisory services, Indexing& abstracting services, reprographic services, current awareness service, OPAC and E-mail services as well as are offering reference and Newspapers clipping services. Good number of (nearly 67%) libraries are providing

multimedia in their libraries about nearly 84 percent of the libraries offering compilation of bibliographic services and half of the percent (50) are being offered bibliographic Instructions.

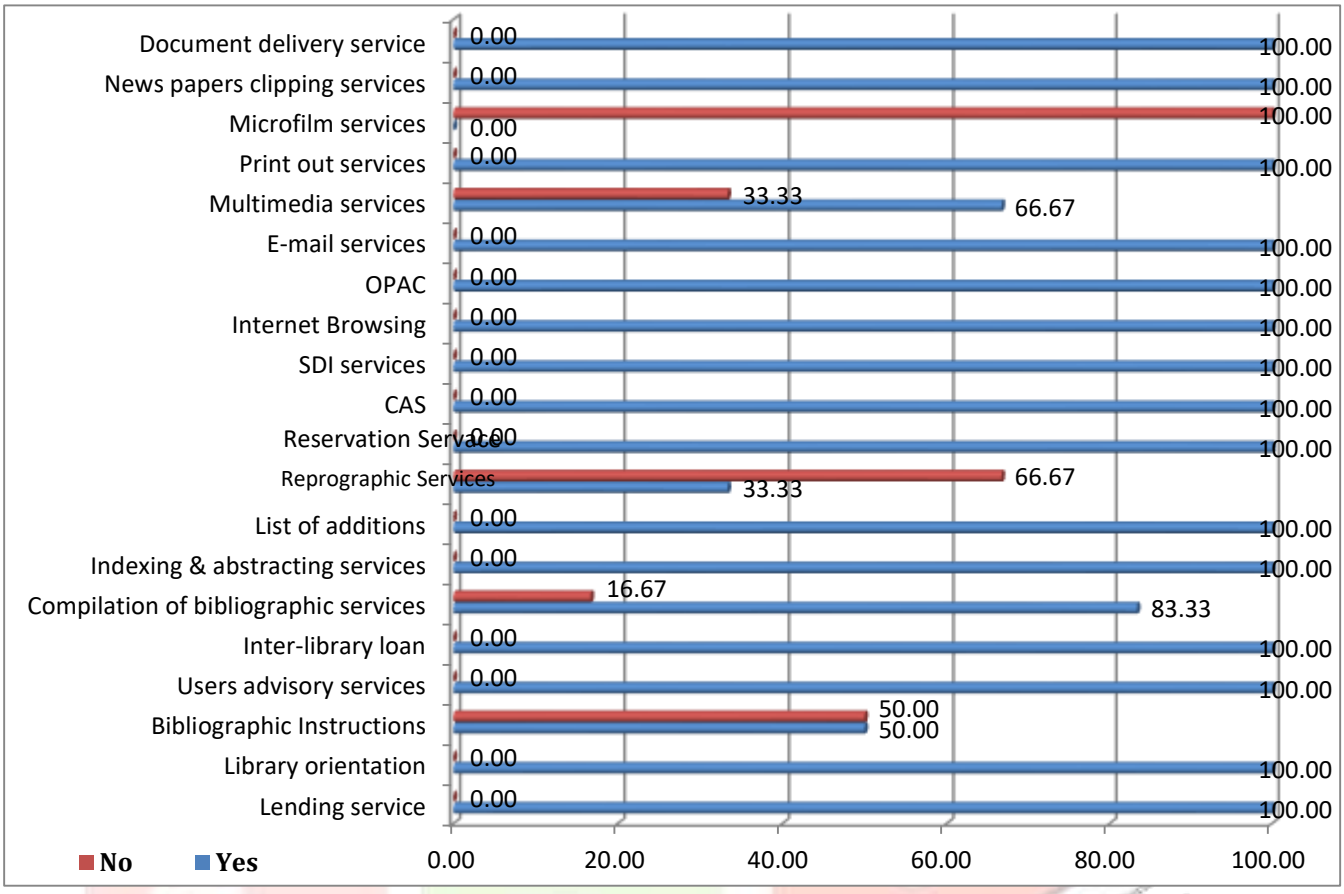


Figure No-2

Level wise analysis of human resources in college libraries reveals that none of the libraries have deputy librarians. All most all the college libraries appointed librarians with prescribed qualifications, i.e. according to AICTE norms (nearly 19%). Regarding Assistant Librarians nearly 27 percent of them appointed in the college library environment followed by (23.43) appointed technical assistants. Lower level cadre of library was appointed nearly 22 percent. In is evident that there no deputy librarian for immediate in charge as if during the absence of Librarian.

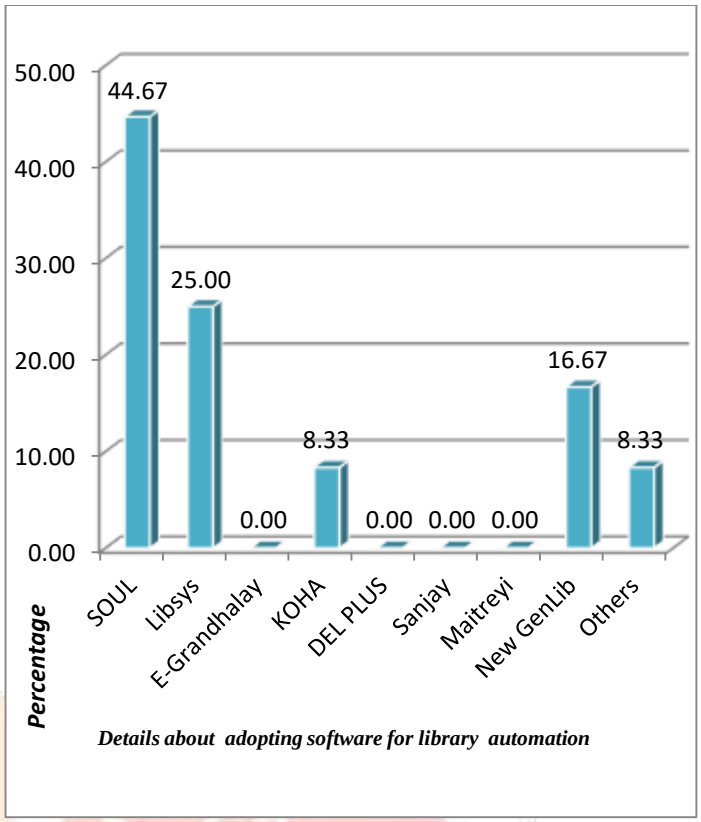
Details about adopting software for automation

Libraries are slowly and steadily changing their traditional services in to electronic services for speedy and accuracy purpose for their users. In this regard, some automation software is needed to be completion of automation task of any libraries. Library automation software is basically available two categories i.e. commercial and open source. Commercial software is being sold by some commercial vendors and open source software is freely available with source code. Details are mentioned in the following table, types of automation software are adopting by college libraries for automation purpose.

Table No-3: Details about adopting software for automation

S. No	Adopting software	Total (N=12) (%)
1	SOUL	5 (41.67)
2	Libsys	3 (25.00)
3	E-Grandhalay	00 (00.00)
4	KOHA	1 (8.33)
5	DEL PLUS	00 (00.00)
6	Sanjay	00 (00.00)
7	Maitreyi	00 (00.00)
8	BEESERP	2 (16.66)
9	Any other	1 (8.33)
	Total	12 (100.00)

Figure No-3



Above table shown the result surveyed by college libraries, majority of the libraries (nearly 42%) adopted SOUL (software for University Libraries) for automated their libraries, which is design and developed by INFLIBNET an autonomous centre established by UGC. Second highest percent of (25%) of libraries adopting Libsys developed by a Bangalore based private company. Nearly 17 percent of the libraries are being adopting BEESERP, local developed software. Few percent (8.33%) of them adopting KOHA, an open source software developed by open source initiative people, which is freely available over the WWW environment with source code.

Subscription details of online resources by college libraries:

Online resources are playing prominent role for the benefit of either user point of view or cost benefit view. Various vendors groups are being supplying online resources cheaper than print resources. The following table shows the different types of online resources subscribed by college libraries.

Table No-4: Subscription details of online resources by college libraries

S.No	Name of the online resources	Yes (%)	No (%)	Total (N=12) (%)
1	ASME	10 (83.33)	2 (16.67)	12 (100.00)
2	ASCE	11 (91.66)	1 (8.33)	12 (100.00)
3	IEEE	12 (100.00)	00 (00.00)	12 (100.00)
4	Elsevier	10 (83.33)	2 (16.67)	12 (100.00)
5	Springer	12 (100.00)	00 (00.00)	12 (100.00)
6	J Gate	8 (66.67)	4 (33.33)	12 (100.00)
7	ASTM Digital Library	10 (83.33)	2 (16.67)	12 (100.00)
8	Proquest	00 (00.00)	12 (100.00)	12 (100.00)
9	Wiley-Blackwell	00 (00.00)	12 (100.00)	12 (100.00)
10	Science Direct	00 (00.00)	12 (100.00)	12 (100.00)
11	SCOPUS	00 (00.00)	12 (100.00)	12 (100.00)
12	DELNET	12 (100.00)	00 (00.00)	12 (100.00)
13	McGraw-Hill Access Engineering	12 (100.00)	00 (00.00)	12 (100.00)
14	Emerald	00 (00.00)	12 (100.00)	12 (100.00)
15	IEI (Institute of Engineering &Technology)	12 (100.00)	00 (00.00)	12 (100.00)
16	NPTL Videos	12 (100.00)	00 (00.00)	12 (100.00)
17	UGC-INFONET	10 (83.33)	2 (16.67)	12 (100.00)

Among the 17 popular resources listed out to useful for college libraries which are available online mode. Majority of the colleges have been subscribed various online resources occupying highest percentages (100 each) IEEE, Springer, N List, McGraw-Hill Access Engineering IEI (Institute of Engineering &Technology), and NPTL Videos respectively. Second highest percent (nearly 92%) of the colleges subscribed ASCE (American Society for Civil Engineer) online recourses. An equal percent (above 83% each) of them subscribed ASME (American Society for Chemical Engineer) Elsevier, UGC-INFONET respectively. Nearly 67 percent of colleges

subscribed J Gate. Among the listed out, when it comes to subscribed online journals which is very much useful to engineering environment proudest, Wiley Blackwell, Science Direct, SCOPUS and Emerald which not subscribing by engineering college libraries.

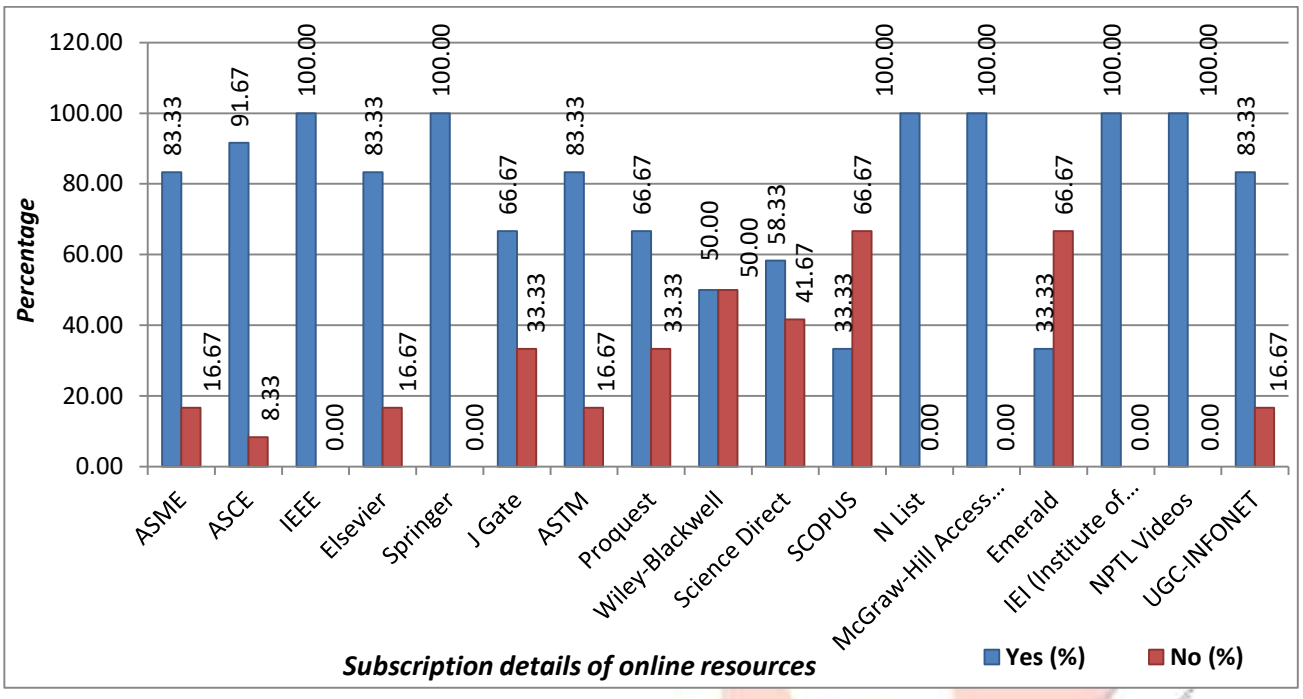


Figure No-4

Table No-5: Awareness of Library automation Software

S.No	Library Software	Aware (%)	Not aware (%)	Total
1	LIBSYS	25 (64.10)	14 (35.90)	39
2	AUTOLIB	23 (58.97)	16 (41.03)	39
3	LIBSOFT	21 (53.85)	18 (46.15)	39
4	KOHA	19 (48.72)	20 (51.28)	39
5	SOUL	09 (23.08)	30 (76.92)	39
6	NEWGEN LIB	07 (17.95)	32 (82.05)	39
7	EVERGREEN	05 (12.82)	34 (87.18)	39
8	DOLPHIN	03 (7.69)	36 (92.31)	39
9	Alice for Windows	02 (5.12)	37 (94.87)	39
10	LIBMAS	01 (2.56)	38 (97.43)	39

Table No-5: shows the awareness of library automation software among the librarians' to familiar more with LIBSYS (64.10%) followed by AUTOLIB (58.97 %), LIBASOFT (53.85 %),KOHA (48.72 %),

SOUL (23.08 %). The professionals expressed their skills as poor in the software such as NEWGENLIB (17.95 %), EVERGREEN (12.82 %), DOLPHIN, (7.69 %), Alice for Windows (5.12 %) and LIBMAS (2.56 %).

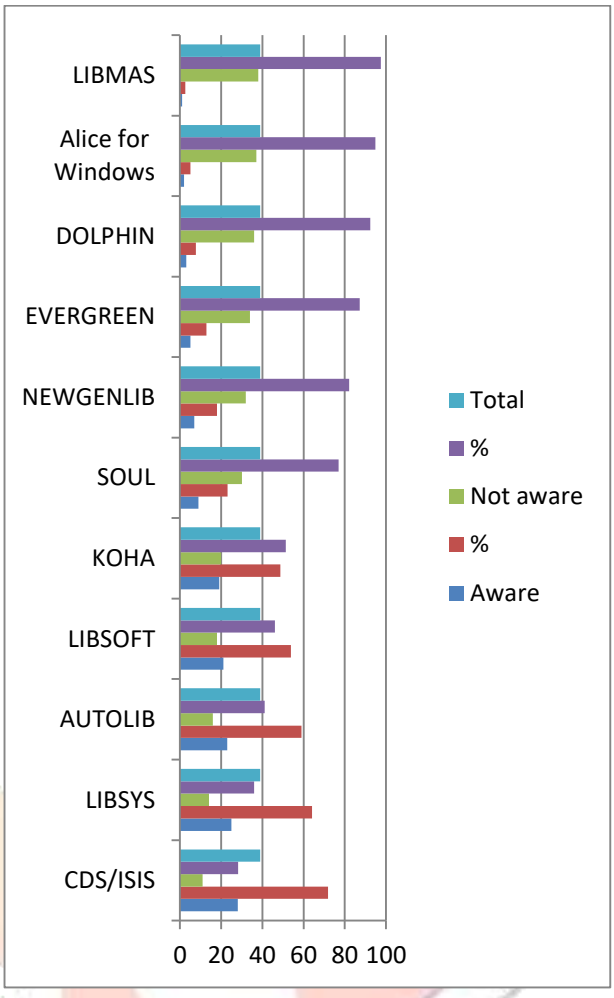


Figure No-5

Conclusion:

Technology obsessed knowledge economy, academic librarians and his group has a very important role to play as they have to satisfy the vital multidimensional information needs of their users. There is a need to equip them with core competencies and emerging skills required for the service delivery in electronic information environment. These skills are not only limited to having knowledge of ICT application but also related to understand how these can be utilized with a proper blending of traditional library skill for providing information with a single click to fulfill the fourth law of Ranganathan, i.e. “Save the time of the user”. However today, the changing perception of users and the technological advancements have forced the academic libraries to introduce new services based on user interest.

In this current situation, whereby ICT are being continuously updated, and the traditional formats, regular training for the librarians in changing technology is inevitable. In-house training programmes are more effective in libraries. From the present survey it is clear that most of the ICT technologies which are taken for this study are not yet been introduced in the library system. Therefore the library professionals are not in a position to use these technologies in their work. This will create a low level of technologies skill development among the professionals working in this library system. Concerning the implementation of the

technologies, lack of support from the authority is the major issue in university library. This study concludes that the librarians need proper ICT infrastructure and training to using the digital resources effectively.

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