

**IMPACT OF INFORMATION AND COMMUNICATION TECHNOLOGY  
THROUGH ELECTRONIC RESOURCES IN THE LIBRARIES OF  
DEEMED UNIVERSITY: A CASE STUDY WITH SPECIAL REFERENCE TO  
TAMIL NADU, SOUTH INDIA.**

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*Abstract:- The research of this article is focused on the impact of Information and Communication Technology through the availability of the electronic resources in the Libraries of the Deemed University of Tamil Nadu, South India. Twenty-Nine Deemed Universities are identified as a sample for this study. Totally 290 questionnaires were distributed. Only 195 respondents responded to the given questionnaires. The received questionnaires were further classified into different categories such as Age, Gender, Qualification and Designation. Percentage analysis was made and tabulated for the categorized respondents. The availability and the non-availability of the electronic resources in the Deemed University Libraries were also assessed through the response of the respondents and tabulated. The tabulation reveals that the majority of the respondents showed the lowest level of satisfaction about the availability of Electronic Resources in the deemed university libraries. An appropriate hypothesis was framed to find out the relationship between the opinions of the different age category of the respondents. The data received through the opinion of the different age category of the respondents about the availability of the Electronic Resources were tested with Chi-square test. The result of the test reveals that there is a significant association between the opinions among the different age categories of the respondents about the availability of the Electronic Resources. The article concludes with a suggestion that the user community should be given repeated orientation programme and the librarians should be trained to explore the open access electronic resources in the absence of the subscribed electronic resources.*

Keywords: Information Communication Technology – Electronic Resources – Deemed University

## I. INTRODUCTION

Information around us is the staple diet of human beings. Information is variously perceived as facts, intelligence, data, news and knowledge. Information has been a common ingredient to all areas of human endeavor in their day-to-day affairs. Members of a society acquire the needed information from a variety of sources. However, several of these sources are expensive, complex or difficult for individuals to acquire and use. Therefore, the role of libraries becomes vital in meeting the information needs of individuals in the society. Libraries develop their collections, facilities and services to meet the information needs of their patrons. Information & Communication Technology has impacted on every sphere of library activities, especially in the form of the library collection development strategies, library building and consortia. Information & Communication Technology presents an opportunity to provide value-added information services and access to a wide variety of digital based information resources to their clients. Furthermore, libraries are also using modern Information & Communication Technology tools to automate their core functions, implement efficient and effective library cooperation and resource sharing networks, implement management information systems and develop institutional repositories of digital contents. Information and Communication Technology has brought unique changes and transformation to library and information services such as the Online Public Access Catalogue, Current Awareness Service, Document Delivery Service, Inter Library Loan by finding the resources through Web-OPAC. The customer relations can be provided

more efficiently and effectively using Information & Communication Technology by means of accomplishing the task with great speed and accuracy.

## II. DEEMED UNIVERSITIES IN INDIA

Deemed University is a status of autonomy granted to high performing private educational institutions in India. This status of '*Deemed-to-be-University*', is granted by Department of Higher Education, Union Human Resource Development Ministry, on the advice of the University Grants Commission (UGC) of India, under Section 3 of the University Grants Commission (UGC) Act, 1956. The UGC began in 1956 after the Indian Parliament had passed the University Grants Commission Act "to make provision for the co-ordination and determination of standards in Universities and for that purpose, to establish a University Grants Commission (UGC)". The Deemed University status not only enables full autonomy in setting course work and syllabus of those institutes and research centers, but also allows it to set its own guidelines for the admissions, fee and instructions to the students. Universities having Deemed University status are known and recognized for good quality education.

## III. REVIEW OF LITERATURE

**Dhanavandan et al (2012)** examined the access and awareness of ICT resources and services in medical college libraries in Puducherry. The result revealed that the majority of the respondents (87.33%) used electronic resources for research/study, followed by communication (54.66%), to find relevant information (34.66%) and career development (20.66%). Further, it is indicated that 50% of the respondents acquired skills from external course, learned guidance (48%) and trial and error (16%). Majority of the respondents is informed of the constraints like too much of information retrieved (73.33%), and limited access to computer terminals (66.66%).<sup>1</sup> **Nagarajan (2012)** analyzed the ICT library among library professionals in various universities of Tamil Nadu. It is found that more than 53.18% of the library professionals are experts in using computers. 28.32% of library professionals acquired IT skills by undergoing training in their work places. The librarians, Deputy librarians and Assistant librarians are heading towards the use of ICT based services than Technical officers, Technical Assistants and Library Assistants. The Professionals (60.70%) needed training in the use of bibliographic resources, online catalogues (58.38%) and e-journals, e-books and e-databases (61.85%). It was found that majority of the library professionals are not very much confident of handling high level ICT tasks.<sup>2</sup> **Baby, M. D., (2012)** highlighted the developing technological skills for academic librarian in various universities of kerala. It is found that mobile (91.4%) and the internet (86%) are the most used and familiar of all technologies. Majority of the library professionals (88.6%) are skilled in operating systems, and institutional repository services service (22.7%). It is also seen that e-mail/instant messaging or chat is frequently used by 85.9% of professionals. The library professionals have positive attitudes on ICT and agreed that ICT provides quick access current date (97.3%) and quality of library services (97.3%). Inadequate training is the main problem for effective utilization of ICT (90.3%). It is recommended to organize training programmes and workshops to equip the professionals with the required skills

in modern technologies.<sup>3</sup> **Hoorens et al (2008)** hold the view that digital repositories can help Higher Education Institutions (HEIs) develop coherent and coordinated approaches to capture, identify, store and retrieve intellectual assets such as datasets, course material and research papers. With the advances of technology, an increasing number of Higher Education Institutions are implementing digital repositories. The leadership of these institutions, however, has been concerned about the awareness of and commitment to repositories, and their sustainability in the future. This study informs a consortium of thirteen London institutions with an assessment of current awareness and attitudes of stakeholders regarding digital repositories in three case study institutions. The report identifies drivers for, and barriers to, the embedding of digital repositories in institutional strategy. The findings therefore should be of use to decision-makers involved in the development of digital repositories. The approach is entirely based on consultations with specific groups of stakeholders in three institutions through interviews with specific individuals.<sup>4</sup> **Walters (2007)** observe that the rise of digital repositories is helping libraries reinvent themselves. The benefits to libraries and universities creating institutional repositories (IRs) are great as libraries restructure, pursue collaborations, and re-position themselves to become major digital publishers and broadcasters in the scholarly world. They will no longer be passive receivers of information but active disseminators of intellectual output for entire universities. This article explores the IR's role in overall library transformation and examines the organizational changes and internal partnerships necessary to strengthen IR programs. Specifically, the creation of digital library initiatives units as well as changes to other library units is discussed.<sup>5</sup>

#### IV. RESEARCH DESIGN

##### a. Objectives of the Study

To assess the status of the availability of the electronic resources in the Libraries of the Deemed University in Tamil Nadu through the opinion of the respondents. To identify the relationship between the opinion of the different age category of the user community of the Deemed University Libraries and to deliver a few suggestions for the enhancement of the electronic resources.

##### b. Research Methodology

Twenty-Nine Deemed Universities are identified as sample for this study. Keeping in view the objectives of the study, an effort is made to evolve a suitable methodology of the study. The questionnaire method was considered the most appropriate one for this study because it can measure user's background, experience and what they know about electronic information. It was well suited to the research questions taken up for this study.

Based on the infrastructure, resources and services available in the Deemed University Libraries (DUL), 10 questionnaires each were distributed to all 29 Deemed Universities in Tamil Nadu. Totally 290 questionnaires were distributed out of which 195 questionnaires were received from the user community.

### c. Hypotheses

H<sub>0</sub>: There is no significant association between the age of the respondents and respondents' opinion towards availability of electronic resources in libraries.

## V. ANALYSIS AND INTERPRETATION

### 5.1. Percentage Analysis of the Respondents

#### 5.1.1. Percentage Analysis of the Age Group of the Respondents

SL. NO.	AGE GROUP	NO. OF RESPONDENTS	PERCENTAGE ANALYSIS
1	18 TO 25 YEARS	29	15%
2	26 TO 30 YEARS	96	49%
3	31 TO 35 YEARS	36	18%
4	36 YEARS AND ABOVE	34	17%
<b>TOTAL NO. OF RESPONDENTS</b>		195	100%

**Table No.5.1.1. Percentage Analysis of the Age Group of the Respondents**

The percentage analysis of the table number 5.1.1 shows that 96 respondents belonging in the age group of 26 and 30 years which constitute about 49% average and 18% of the respondents in the age group of between 31 and 35 years, 17% of the respondents belongs to the group of 36 years and above. The lowest 15% of them ranges between 18 and 25 years.

#### 5.1.2. Percentage Analysis of the Gender wise Respondents

SL. NO.	GENDER	NO. OF RESPONDENTS	PERCENTAGE ANALYSIS
1	MALE	133	68%
2	FEMALE	62	32%
<b>TOTAL</b>		<b>195</b>	<b>100%</b>

**Table No.5.1.2. Percentage Analysis of the Gender wise Respondents**

#### 5.1.3 Educational Qualification wise Percentage Analysis of the Respondents

The table number 5.1.3 shows the details of the respondents on the basis of their educational qualification. It is very clear that the highest 128(66%) respondents have completed a post graduate degree as a minimum qualification and the remaining 67(34%) respondents have completed undergraduate courses.

SL. NO.	EDUCATIONAL QUALIFICATION	NO. OF THE RESPONDENTS	PERCENTAGE ANALYSIS
1	UG	67	34%
2	PG	128	66%
TOTAL NO. OF RESPONDENTS		195	100%

**Table No.5.1.3. Educational Qualification wise Percentage Analysis of the Respondents**

#### 5.1.4. Designation wise Percentage Analysis of the Respondents

SL. NO.	DESIGNATION	NO. OF RESPONDENTS	PERCENTAGE ANALYSIS
1	STUDENT	89	46%
2	RESEARCH SCHOLAR	6	3%
3	ASSISTANT PROFESSOR, ASSOCIATE PROFESSOR AND PROFESSOR	38	19%
4	LIBRARIAN	62	32%
TOTAL NO. OF RESPONDENTS		195	100%

**Table No.5.1.4. Designation wise Percentage Analysis of the Respondents**

The table number 5.1.4 indicates the percentage analysis of the respondents according to their designation. 89(46%) numbers of students are the majority of the respondents of the questionnaires. Librarians are placed second in the list of respondents with a count of 62(32%) questionnaires. Assistant Professors, Associate Professors and Professors are placed third in the list of respondents with a count of 38(19%) questionnaires. The Research Scholars are placed in the fourth place in the list of respondents with a count of 6(3%) questionnaires.

#### 5.2 Satisfaction of the Availability of Electronic Resources in the Deemed Universities

SL. NO.	E-RESOURCES	AVAILABLE	NOT AVAILABLE
1	E-BOOKS	62 (31.8%)	133 (68.2%)
2	E-JOURNALS	133 (68.2%)	62 (31.8%)
3	BIBLIOGRAPHIC DATABASE	94 (48.2%)	101 (51.8%)
4	CD-ROM DATABASE	77 (39.5%)	118 (60.5%)
5	E-LEARNING FACILITIES	101 (51.8%)	94 (48.2%)
6	DVD	131 (67.2%)	64 (32.8%)
7	LIBRARY CONSORTIUM	171 (87.7%)	24 (12.3%)

**Table No.5.2 E-Resources Availability and Non-Availability**

The table number 5.2 reveals the availability and non-availability of the electronic resources in the libraries of deemed university in Tamil Nadu. The details are as follows:

**E-Books:** 133 (68.2%) respondents believe that E-Books facilities are not available and 62 (31.8%) respondents agree that e-book facilities are available in the deemed university libraries.

**E-Journals:** 133 (68.2%) respondents agree that the e-journals are available and 62 (31.8%) respondents believe that the e-journals are not available in the deemed university libraries.

**Bibliographical Database:** 94 (48.2%) respondents agree that the bibliographical database is available, whereas 101 (51.8%) respondents disagree on the availability of the bibliographical database in the deemed university libraries.

**CD-ROM Database:** 118 (60.5%) respondents believe that the CD-ROM facilities are not available and 77 (39.5%) respondents agree that the CD-ROM facilities are available in the libraries of the deemed university.

**E-Learning Facilities:** 101 (21.8%) respondents agree that resources for the e-Learning are made available and 94 (48.2%) of the respondents disagree on the availability of the E-Learning Facilities.

**DVD:** 131 (67.2%) respondents agree the availability of DVD and 64 (32.8%) respondents disagree the availability of DVD in the libraries of the deemed university.

**Library Consortium:** 171 (87.7%) respondents agree the accessibility of the library consortium, whereas 24 (12.3%) respondents disagree with the non-availability of the library consortium.

### 5.3 Statistical Distribution of the respondents based on the availability of the Electronic Resources

Sl. No.	Various Dimensions	No. of Respondents	Percentage Analysis
		(n=195)	
1	Low	111	57%
	High	84	43%
	Total	195	100%
	<i>Mean: 3.94 / Median: 3.00 / S.D.: 1.927 / Min.: 1 / Max.: 7</i>		

Table No.5.3.1. Statistical Distribution of the Respondents on the Availability of Electronic Resources

It is clear through the table number 5.3.1 that 57% of the respondents have low level of satisfaction towards the available electronic resource in the deemed university library and 43% of respondents have a high level of satisfaction. The value of mean is 3.94, median is 3.00 and the standard deviation is 1.927.

#### 5.4. Testing of Null Hypothesis

##### Null Hypothesis

H<sub>0</sub>: There is no significant association between the age of the respondents and respondents' opinion towards availability of electronic resources in libraries.

Sl. No.	Dimensions	Chi square X <sup>2</sup> Value	Statistical inference
1	Age of the respondents and their opinion towards availability of Electronic resources	X <sup>2</sup> =6.413	0.0093<0.05 Significant

**Table No.5.4.1 Chisquare Test between the age of the respondents and their Opinion**

The table number 5.4.1 shows the results arrived through Chi-square Test. The test reveals that the calculated value is 0.0093, which is more lesser than the critical value of 0.05. Therefore, the null hypothesis is rejected and the alternate hypothesis of “H<sub>1</sub>: There is a significant association between the age of the respondents and respondents' opinion towards availability of electronic resources in libraries” is accepted.

#### VI. Findings

The association between the age of the respondents and their opinion towards the availability of electronic resource in deemed university libraries shows that there is a significant association. Therefore, it is clear that opinions of the respondents are not varying according to their age classification.

#### VII. Conclusion & Suggestion

As the majority of the respondents have low level of satisfactions about the availability of the e-resources, it is important for the deemed university library to improve the facilities of the electronic resources. For the effective use of the electronic resources and orientation should be a continuous effort, since the recruitment of the new staff is a part and parcel of any private institution. The low awareness of the user community may also be a reason for the majority of the respondents low satisfactory about the availability of the electronic resources in the libraries of Deemed University. Therefore, the libraries of the deemed university should repeatedly orientate the user community about the availability and how to access the electronic information resources subscribed by the University. The Library science professionals should be exposed to training at regular interval to have current awareness about the implementation of Information Communication technologies through electronic resources for the betterment of the Deemed University Libraries. As there are millions and trillions of Open Access Electronic Resources, the Librarian should be in such a way to promote the Open Access Electronic Resources to the user community even if the libraries have less number of paid access e-resources.

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