

**INFORMATION AND COMMUNICATION TECHNOLOGY: ITS  
IMPACT ON HUMAN RESOURCE DEVELOPMENT IN  
ACADEMIC LIBRARY AND INFORMATION CENTERS IN  
CHENNAI: AN ANALYTICAL STUDY**

**Abdul Kareem\***

**Mohamed Safiul Haq\*\***

**Dr.V.Kasi Rao\*\*\***

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**Abstract**

The aim of this study is to investigate the information and communication technology its impact on human resource development among academic Libraries and Information Centers in Chennai. Population studied in this research includes academic college Librarians and faculty and Students, sample size of 12 librarians and 31 students community obtained elimination of a number of samples in the calculation stage, normality was 43. Data collection tool was researcher made questionnaire of information communication technology and standard questionnaire of human resource development that their validity was confirmed. The data collected were analyzed using statistical methods. The results suggest an information communication technology and its impact on human resource development components professional skills, with the human resources development and Library users view and Suggestions.

In view of this, this paper presents one such study which has been carried out by surveying the application of ICT and impact of HRD among academic Library and Information Centers (LICs) in

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**Keywords:**

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academic libraries &  
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\* Doctorate Program, Bharathiar University, Coimbatore, Senior Executive Resource Centre, Great Lakes Institute of Management, Chennai

\*\* Doctorate Program, Bharathiar University, Coimbatore, Librarian, Measi Institute of Architecture, Chennai

\*\*\* Research Supervisor, Principal Documentation Officer & Head, Department of Documentation & Infr.Science, CSIR-CLRI, Ministry of Science and Technology, Govt. of India, Adayar, Chennai

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and around Chennai. There are nearly 300 Academic institutions at graduate, post graduate (PG) and research levels in various disciplines. It also studies the areas of ICT application, Collection Development Policy (CDP), manpower development and attitudes of staff towards ICT application and students. Finally, it also analyses the reasons for poor application of ICT, if any and concludes objectively that the application ICT in Academic library and information centers would certainly put an order and bring out a sequence of operations in view of knowledge discovery services in Library Information and Documentation Management Environment(LIME) without much of human intervention.

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## **1. Introduction**

The developments in Information and Communication Technology (ICT), which has been acquired from developed countries and their use in India is currently dominating. The ICT and impact of HRD in different types of libraries in India has gained sufficient momentum and it is of continuing interest to the information professionals in order to provide ICT based services. On the review of literature reveals a number of studies conducted in the application of IT/ICT in libraries, Information and Documentation Knowledge Resource Centers (**libidocs**) in the recent years.

The present paper presents one such study which has been carried out by surveying the application of ICT among academic library and information centers in and around Chennai. There are nearly 300 academic institutions at graduate, post graduate and research levels in various disciplines. In these libraries the application of ICT is in the progressive manner, but not in all areas of the libraries, information and documentation management services.

## **2. Scope of the Paper**

This paper aims to study the extent of ICT and impact of HRD in a sample of 12 academic libraries and 31 students comprising of university, self-financing professional college and self-financing arts and science college category libraries, Government Arts and Science Libraries and Specialised Institutions' Libraries. Further, it covers ICT application in collection developments,

manpower development, nature and quality of information services and in the other areas of library, information and documentation services (libidos) and personnel management policies. Finally, it also analyses the libraries' attitude towards ICT application and the reasons for poor, if any, the application of ICT. It concludes and argues towards the total application of ICT in academic libraries in the view of emerging network environment at international, national and regional levels.

### **3. Definitions**

According to seenivaslu ICT skills or IT skills can referred to as the overall competencies (knowledge, know – how, skills and attitudes) necessary to create, store analyze, organize, retrieve and disseminate digital information (text, images, sounds) in digital libraries of any type of information, ICT and HRD has provided library with new opportunities to improve their resources and services.

In today's world, information communication technology is considered as essence for human resource development in community and organizations and it fits fundamental aspects of human resources development and the nature of it, with the community and people. In human resource development, new human capacities must always be known, to do human capacities and qualities development in form of a process.

### **4. Hypotheses**

- a. Majority of the university libraries in Chennai have introduced ICT
- b. Among the academic libraries the Self-Financing professional college libraries are in better position in the application ICT
- c. Majority of the academic libraries are using commercially developed software packages
- d. There is an increasing trend in the provision of ICT based information handling services in the academic libraries
- e. Academic libraries are positive towards ICT
- f. Factors like budget, education and training to staff etc. have caused hindrances for the provision of ICT based information handling services in the academic library and information centres.

- g. Positive Attitude towards Information Communication Technology greater levels of Customer Satisfaction
- h. Amount spent on ICT greater levels of satisfaction
- I. Amount spent on Career Advancement program greater level of customer satisfaction

## **5.Literature Review**

**Paul,Hendriks (2001)**their study has discussed about determine the potential value of Information and Communication Technology applications for knowledge management. The five dimensions are highlighted below:

- 1) How and when will ICT, in interplay with other knowledge management measures
- 2) Help knowledge
- 3) Institutional and action-related resource
- 4) Realize its strategic potential
- 5) Knowledge management feasible.

**Ramesh Babu,Vinayagmoorthy and Gopalakrishnan (2007)**their on the study explained application of ICT academic environment in India has increased gradually in the recent decades, more particularly in Tamil Nadu. Development in the ICT has made profound changes in each and every field. These developments are also known as computer/information/communication/Internet/multimedia revolution, binary age information age, information society, information superhighway, and digital age. The changes are evident all over the world, and its effects being felt in every walk of life and in every field of knowledge. The field of library and information science (LIS) is also not an exception to this phenomenon.

**VesnaZupan (2011)** the study recommended that the Librarians with an alternative method to achieving stronger professional skills from information literacy tutorials and to produce reporting without the need for conventional learning management system (LMS). This study aimed at to overcome the attitude that information is most important for social development. It also aims at stress the ways to human resource development in the academic librarianship of Serbia.

**Anthony, Hendrickson (2003)** in this study on Human Resource (HR) function of organizations is changing rapidly, reacting to a changing social and organizational environment and rapidly evolving information technologies. Social and organizational changes exert pressure on HR professionals to provide expanded services, of a higher quality, faster, and seamlessly linked with other corporate functions. Information technologies (IT), which provide enabling technologies to assist HR professionals in the delivery of services, have also simultaneously increased the expectations that employees, managers, customers, suppliers, and regulators have for the HR function.

**Emeka Smart Oruh (2013)** this study point out that rising wave of globalization, technology change and sustainability debate, organizations are increasingly under pressure to tap into the energies of information systems in disparate areas of organizational life. Human resource management is one of the arms of the organization that uses information systems to operationally position itself as well as to strategically and tactically create an environment that will enhance competitive advantage and intangible assets such as organizational reputation and sustainability.

**Jenny Emanuel (2013)** this study suggested that younger academic librarians believe that their technology knowledge makes them more flexible and assertive in libraries compared to their older colleagues, and they have different ways of completing their work. The author initially wanted to learn if the increasingly high-tech nature of academic librarianship attracted Millennials to the career, but results showed that they had a much more complex relationship with technology than the author assumed.

## **6. Observation Based on the Review of the Literature**

It is very important for libraries to improve the quality of life through acquisition of knowledge and provide best service to the users. The academic libraries should provide for specialized information services to the users. The college authorities and government should allocate funds to overcome the financial constraints and limited human resources available in libraries.

Table - 1 Distributed of questionnaire and responses received

Sl. No	Types of Libraries	No. of Questionnaire distributed to the Librarians	Response received	%	No. of Questionnaire distributed to the Students/Scholars	Response received	%
1	Deemed Universities	3	1	8.33	8	5	16.12
2	Government-aided Colleges	3	2	16.66	5	2	6.45
3	Self-financing colleges	12	7	58.33	21	17	54.85
4	Polytechnic College	3	1	8.33	5	3	9.67
5	Pharmacy Colleges	2	1	8.33	5	4	12.90
6	Total	23	12	100	44	31	100

Table 2. Year of Automation

From the table 2, it is found that nearly 80% of the academic library and information centers automated for the library activities.

Sl. No	Year of Automation	Total No	%
1	1995-2000	4	33.33
2	2001-2005	3	25
3	2006-2010	2	16.66
4	2011-2015	1	8.33
5	No Automation	2	16.66
	Total	12	100

Table 3. Purpose of ICT application in Library and Information Centers

The below table on the purpose of IT application indicated that the majority of the library and information centers hold a positive attitude towards concepts like, to create awareness on ICT skills, to modernize Library activities, to develop institutional repository management services in the library and information centers etc. The top 3 reasons for ICT application were

1. To modernize library activities
2. To render effective information management services to the library user community
3. To Manage electronic resources

Sl. No	Description	Yes	No
1	To create awareness on ICT skills	8	
2	To modernize Library activities	11	1
3	To Manage electronic resources	8	
4	To develop institutional repository management services in the library and information centers	6	
5	To render effective information management services to the library user community	8	
6	To design and develop the database knowledge management services	7	

Table 4. Library Budget for last three years

The Library budget was collected for a 3 year period, between 2012 – 2015. The data revealed that the mean budget for the 9 colleges that participated in the survey was 13.14 Lakhs. The other details are given in Table 4.

Table 4			
Budget			
	2012-13	2013-14	2014-15
Mean	1096193.22	1540825.13	1392001.78
Median	900000	1500000	1500000
Range	50k-25L	75k-15.5L	40k-14L
Number of colleges	9	8	9

Std. Dev	893091.70	1224434.94	1175865.04
Total	9865739	12326601	12528016

Table 5. Library Budget for last three years

Table 5 provides the summary of the overall holdings of the colleges that participated in the survey. The data revealed that the mean for 10 colleges participated in the survey was 1 Lakhs forty nine thousands. The other details are given in the Table 5.

Table 5	
Holdings of Library	
Mean	42140.6
Median	20441.5
Range	149234
Number of colleges	10
Std. Dev	51370.47
Total	421406

Table 6 Membership of Library

Table 6 highlights the membership pattern across the 10 Colleges. The data revealed that the mean 10 colleges participated in the survey was 14800. The other details are given in the Table.6

Table 6	
Membership of Library	
Mean	6320.3
Median	4547.5
Range	14800
Number of colleges	10
Std Dev	5521.59
Total	63203

Table 7 Staff Strength of Library

Table 7 highlights the staff strength across the 11 colleges. The data revealed that the mean 11 colleges participated in the survey was 14. The other details are given in the Table 7.

Table 7	
Staff Strength of Library	
Mean	4.81
Median	1
Range	14
Number of colleges	11
Std Dev	5.07
Total	53

Table 8 Amount Spent on ICT

Table 8 gives the details regarding expenditure towards ICT for the year 2014-2015. The data revealed that the mean 8 colleges participated in the survey.

Table 8	
Amount Spent on ICT	
Mean	1663373
Median	1122500
Range	5366984
Number of colleges	8
Std Dev	1947666
Total	13306984

Table 9 Attitude of ICT

Data from table 9 highlights that the majority of the librarian's positive attitude towards implementation of ICT with mean score of 3.98. The other detail is given in the table 9.

Table 9	
Attitude of ICT	
Mean	3.98
Median	4.09
Range	1.54

Number of colleges	11
Std Dev	0.45
Total	43.83

Table 10 Students Satisfaction

Data from table 10 highlights that the majority of the students and user community positive attitude towards ICT and all other user services with mean score of 3.94. The other details are given in the table 10.

Table 10	
Students Satisfaction	
Mean	3.94
Median	4.11
Range	2.64
Number of Students	30
Std Dev	0.77
Total	118.35

Table 11 Benefits for the ICT application in Library

Data from table 11 highlights that the majority of the librarians positive attitude towards to create awareness on ICT Skills. The other detail is given in the table 11.

Table 11	
Benefits for the ICT application in Library	
To modernize library activities	11
To render effective services to the library user community	9
To manage electronic resources	8
To develop institutional repository management services	7
To create awareness services	7
To design and develop the database	7

knowledge management services	
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Table 12 Reasons for Poor ICT application

The below table on the reasons for the poor ICT application indicated that the majority of the library and information centers attitude towards concepts like, to insufficient funds, no support from the authorities for ICT applications etc. The top 2 reasons for poor ICT application were

1. To Insufficient funds
2. No support from the authorities for ICT application

Table 12	
Reasons for Poor ICT application	
Mean	4.00
Median	3.36
Range	3.18
Number of Colleges	12

Student satisfaction & Attitude towards ICT was captured on a 5-point Likert scale (strongly Disagree, Disagree, Neither Disagree nor Agree, Agree, Strongly Agree).

## 7. Conclusion

The survey has achieved its aims, in that it has provided the summary of the ICT impact towards the Human Resource Development in academic library and information Centers in Chennai in LIS professionals. The awareness of ICT and level of IT/ICT processes were started in the year between 1980-1985 and the year between 1990-1995 were taken for this study.

None of these were possessed the ICT application based information handling services before 1980 and followed traditional approach to Information Management(IM). It is only after 1995, 90% of these libraries and information centers are possessing ICT application based information handling services and 20% of these libraries and information centers are lacking

The gateways like VSNL, Enet, Nicnet are being used for information access. Among these gateways, the VSNL is in popular use. 50% of the libraries and information centers collection development have affected by ICT and (50%) management supports in the Personnel Management Development Policy(PMDP). The survey has further witnessed that there is no

alternative way except the ICT application based information handling services in libraries and information centers in near future in and around Chennai.

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