

AWARENESS OF INFORMATION COMMUNICATION TECHNOLOGY AMONG LIBRARY PROFESSIONALS OF HIGHER EDUCATIONAL INSTITUTIONS IN THE TIRUNELVELI DISTRICT

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ABSTRACT

Librarians should be well equipped with the latest technologies available in the information and communication sector; otherwise, they may not be able to provide better services to the users of libraries in higher educational institutions. The present study is initiated to analyze the awareness of library professionals of higher educational institutions about information communication technology. The researchers constructed a strong questionnaire and distributed it to 50 professionals in the study area. The researcher received 48 fully completed questionnaires from the respondents. The study revealed that the respondents are aware of the Web application, Blog tools, and Content Management Systems (C.M.S.).

Key Words: *Information Communication Technology, Library Professionals, Higher Educational Institutions, Level of Satisfaction, Tirunelveli district.*

Introduction

Professional Development is an essential part of the modern library & information science professional's successful career planning & prospects. The L.I.S. Professionals with better personal, professional, and technological competencies have great opportunities and bright futures in modern libraries. Applying new I.C.T. into libraries requires improving different skills and knowledge in library & information science professionals. Continuous staff training on emerging technologies is essential to learn, improving, and developing various professional skills, knowledge, and competencies. Professional competencies can be thought of as flexible knowledge and skills that allow the librarian to function in a variety of environments and to produce a continuum of value-added, customized information services that others cannot easily duplicate. They relate to the librarian's knowledge in the areas of information resources, information access, technology, management, and research, and the ability to use these areas of knowledge as a basis for providing library and information services. There is an urgent need to learn a variety of professional competencies to accomplish the role of a professional librarian in the constantly changing, challenging web environment. Professional competencies enable librarians to respond effectively and efficiently to the constant development of new technologies.

Technical Skills

In the age of the 21st century, L.I.S. professionals must be aware of emerging technologies. It has become increasingly important that librarians keep up with technology and have certain basic skills. In the current scenario, library professionals must know HTML, Networking, scripting languages, the ability to deal with the back-end of the OPAC, the ability to translate library services into the online medium, the ability to troubleshoot basic computer and printer problems or just a good healthy knowledge of emerging technologies. L.I.S. Professionals need to do much online beyond basic catalog and database searching (which isn't easy either). Librarians have to be able to use search engines and use them well. They need to be able to find quality online resources. They need to help patrons set up e-mail and teach basic Internet skills. They need to be able to troubleshoot problems/users' problems

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with accessing online library resources, at least to the extent that they can figure out if the problem is on the library's side or the user's side. When working in a library, your users often face problems using the scanner, fixing the printer, and troubleshooting any other technical problems they may have. As we get new computers, printers, scanners, etc., we will need to learn how to troubleshoot those. Librarians should be able to play with the library's technologies, learn what problems commonly come up, and fix them if necessary because it is often our responsibility to fix them.

Review of Literature

Seena and Sudhir Pillai (2014) conducted a study to investigate the awareness, skill, and attitude towards Information and Communication Technologies (I.C.T.) among library professionals in Kerala University Library, Thiruvananthapuram based on a questionnaire survey. The analyses revealed that the library professionals have relatively average level skills in various I.C.T.-related tasks in libraries. Many professionals indicated that the main constraint in the application of I.C.T. in libraries is inadequate training in I.C.T. applications. All the professionals expressed a positive attitude towards the application of I.C.T. in libraries.

Selvantony et al. (2014) examined library professionals' various skills in the Engineering Colleges of Tamilnadu. The study was conducted using a surveying method with a sample of 617 respondents. It is revealed that all the categories of Library staff are found to have more moderate skills and found less high skills among Librarian, Assistant Librarian, and Library Assistant

Ayoku and Okafor(2015) audited the information technology (I.T.) skill sets of librarians in some Nigerian university libraries. It is found that many respondents have knowledge and skills of e-mail use and word processing tasks but lack knowledge of search engines and directories other than Google and Yahoo. Many of them do not know how to evaluate and catalog e-resources; have no knowledge of subject gateways, specialized databases, and some open-access library databases; have no knowledge of database management; are not skilled in Web design, and are equally not familiar with Web design applications. The study recommends management support for I.T. skills training and continuous professional development to improve the librarians.

Statement of Problem

We observe that computer and communication technologies have drastically and directly affected human activities, including library and information science practices. Presently libraries are deeply engaged to modernize their operations and activities to provide fast, integrated, interactive, and comprehensive services to their stakeholders. Rapid advances in information processing, storage, and communication technologies have revolutionized the role of worldwide libraries in disseminating information services to their users. So the present study is initiated to assess awareness of information communication technology among library professionals of higher educational institutions in the Tirunelveli district.

Objectives of the study

- ❖ To identify the demographic profile of library professionals selected for the present study.
- ❖ To evaluate the library professionals' satisfaction with the I.C.T. facilities available in their library.

Hypothesis

Ho: Respondents' Awareness On Information Communication Technology has not influenced their satisfaction with the I.C.T. facilities available in the higher educational institutions of the study area.

Methodology

The population of the present study is the library professionals working in the higher educational institutions of the Tirunelveli district. The necessary data was collected using the questionnaire. A structured questionnaire was constructed based on the previous studies, considering the objectives of the present study. The questionnaire was distributed to randomly selected fifty librarians from various colleges in the district. The researchers received 48 completed questionnaires from the respondents (Response rate 96%).



Data Analysis and Interpretation:

Table 1
Age of the Respondents

Sl.No	Particulars Age of the	Number of Respondents	Percentage
1	Below 30 Years	13	27.08
2	30 – 40 Years	20	41.67
3	Above 40 Years	15	31.25
Total		48	100

(Source: Primary Data)

Table 1 discloses the age-wise classification of the selected respondents. Out of the 48 library professionals, a maximum of 20 professionals (41.67 percent) belonged to the age category of 30 – 40 years, 15 respondents above 40 years, and only 13 (27.08 percent) came under the age group of below 30 years.

Table 2
Educational Qualifications of the Respondents

Sl.No	Particulars Educational	Number of Retail outlets	Percentage
1	P.G with NET / SET	11	22.92
2	P.G with Ph.D.	24	50
3	P.G with NET / SET, Ph.D.	13	27.08

(Source: Primary Data)

Table 2 reveals the educational qualifications of the library professionals selected for the study. It is observed that a maximum of 24 respondents (50 percent) have a P.G in library science with Ph.D., followed by 13 respondents (27.08 percent) having P.G with NET / SET, Ph.D. and only 11 respondents are qualified with P.G with NET/SET.

Table 3
Classifications of Respondents based on the number of users of the library

Sl.No	Particulars Number of users of the library	Number of Respondents	Percentage
1	Below 1000 users	17	35.42
2	1000 – 2000 Users	20	41.67
3	Above 2000 users	11	22.92
Total		48	100

(Source : Primary Data)

It is observed in Table 3 that a maximum of 20 respondents (41.67 percent) have 1000 – 2000 users in their library, 17 respondents (35.42 percent) have less than 1000 users, and only 11 respondents (22.92 percent) have more than 2000 users in their library.



Table 4
Respondents' Awareness of 'Information Communication Technology

Sl.No	Variables	Code
1	Are you familiar with web technologies?	RA1
2	Web application	RA2
3	Blog tools	RA3
4	Content Management Systems (C.M.S.)	RA4
5	Digital Library software	RA5
6	Federated Search	RA6
7	Reference Management System	RA7
8	eLearning Management System	RA8
9	Video Sharing tools or Website	RA9
10	Web Conferencing Software	RA10

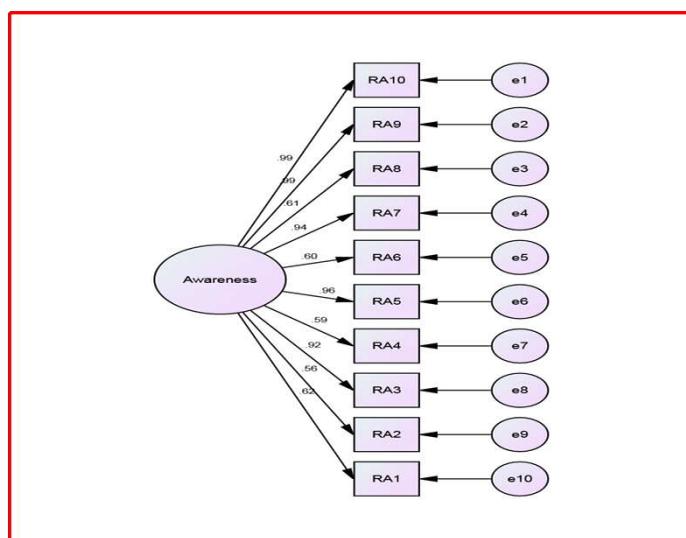


Figure 1: Respondents' Awareness of Information Communication Technology

Table 5
Model fit summary of Structural Equation Model

Indices	Value	Suggested Value
Chi-Square value	27.657	--
Degrees of Freedom	9	--
Chi-Square value / Df	3.073	<5.00 (Hair et al., 1998)
P Value	0.712	>0.05 (Hair et al., 1998)
GFI	0.933	>0.90 (Hu and Bentler, 1999)
AGFI	0.922	>0.90 (Hair et al., 2006)
NFI	0.916	>0.90 (Hu and Bentler, 1999)
CFI	0.921	>0.90 (Daire et al., 2008)
RMSEA	0.031	<0.08 (Hair et al., 2006)

The above table shows that the calculated p-value of 0.712 is greater than 0.05, which confirms a perfect fit. The G.F.I. (Goodness of Fit Index) value is 0.933, and the AGFI (Adjusted Goodness of Fit Index) value is 0.922. Both are more than the threshold level, representing a good model fit. The calculated CFI (Comparative Fit Index) value is 0.921, which also reveals a perfect fit. It is further noted that the RMSEA (Root Mean Square Error of Approximation) value is 0.031, which shows it is a perfect model fit. Hence Null hypothesis is accepted and supports that the suggested model is a fit and admitted for further analysis.

The researcher conducted a confirmatory factor analysis to determine whether the independent variable "Respondents' Awareness on Information Communication Technology" influenced the dependent variables (RA1 to RA10). That is, the selected variables properly explain the concept of "Respondents' Awareness of Information Communication Technology", and the responses of the respondent also support the same.

Table 6
Standardised Regression Weights



Dependent Variables	Relation ship	Independent Variable	Esti mate	Item Reliabi lities	Standardised Error Variance
RA10	<---	Awareness	0.989	0.978	0.022
RA9	<---	Awareness	0.993	0.986	0.014
RA8	<---	Awareness	0.613	0.376	0.624
RA7	<---	Awareness	0.94	0.884	0.116
RA6	<---	Awareness	0.598	0.358	0.642
RA5	<---	Awareness	0.955	0.912	0.088
RA4	<---	Awareness	0.59	0.348	0.652
RA3	<---	Awareness	0.917	0.841	0.159
RA2	<---	Awareness	0.557	0.31	0.69
RA1	<---	Awareness	0.619	0.383	0.617
			CR **0.868	AVE ** 79.17	

A confirmatory factor analysis with the ten variables was completed to enlighten the Respondents' Awareness of Information Communication Technology. The engraved Factor Loadings/ Regression weights of the Variables under the Factor "Respondents Awareness on Information Communication Technology" were highly significant, and objects had extremely suitable loadings. The C.F.A. analysis reveals that standardized factor loading strikes from 0.557 to 0.993. The reliability of the above-said variables is also measured through the Cronbach alpha (0.7013), which is more significant than the threshold value of 0.50 and assumes that all the variables are agreeable to measure the "Respondents' Awareness of Information Communication Technology.". The average variance explained was 79.17. The rule of thumb of AVE is 0.50 or higher points with adequate convergent validity. The composite reliability is 0.868. The rule of thumb for a construct reliability estimate is. Seven or higher, which suggests good reliability.

Table 7
Model Summary

Model	R	R Square	Adjusted R Square	Std. error of the Estimate
1	.836 ^a	0.699	0.692	0.91234
a. Predictors: (Constant), Respondents' Awareness On Information Communication Technology				

R-value denotes the correlation between the library professionals' awareness of Information Communication Technology and their satisfaction with the I.C.T. facilities available in the higher educational institutions of the study area. In this case, the value is 0.836, which is good. R-square shows the total variation for the dependent variable that the independent variables could explain. A value greater than 0.5 shows that the model is effective enough to determine the relationship. In this case, the value is .699, which is good.

Adjusted R-square displays the generalization of the results, i.e. the variation of the sample results from the population in multiple regression. It is required to have a difference between the R-square and Adjusted R-square minimum. In this case, the value is .699, which is not far from .692, so it is good. Therefore, the model summary table is satisfactory to proceed with the next step.

Table 8
ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	506.675	12	42.223	74.713	.000 ^b
	Residual	546.489	35	0.565		
	Total	1053.163	47			
a. Dependent Variable: Respondents' satisfaction with the I.C.T. facilities available in the higher educational institutions of the study area.						
b. Predictors: (Constant), Respondents' Awareness On Information Communication Technology						

Table 8 discloses the "F" value of 74.713, which is more than the threshold level, and the corresponding significance value is less than 0.05 at a 95 percent confidence level. Hence there is a chance for rejection of the null hypothesis framed for the analysis.

Table 9
Regression Coefficients

Independent Variable	B	Std. Error	Beta	"t" Value	"p" value
(Constant)	0.52	0.134		3.869	0
Are you familiar with web technologies?	0.12	0.025	0.127	4.829	.000***
Web application	-0.249	0.035	-0.272	-7.156	.000***
Blog tools	0.183	0.028	0.19	6.472	.000***
Content Management Systems (C.M.S.)	0.518	0.028	0.523	18.433	.000***
Digital Library software	-0.159	0.025	-0.163	-6.458	.000***
Federated Search	0.112	0.029	0.118	3.831	.000***
Reference Management System	-0.06	0.027	-0.061	-2.227	.026**
eLearning Management System	-0.141	0.025	-0.154	-5.685	.000***
Video Sharing tools or website	0.286	0.027	0.298	10.629	.000***
Web Conferencing Software	-0.093	0.024	-0.1	-3.833	.000***

*** Significant at 1 percent level

** Significant at a 5 percent level

*Not significant.

Table 9 divulges how the independent variables stimulate the dependent variable chosen for the study. Out of ten variables selected regarding the Respondents' Awareness of Information Communication Technology, all ten variables influence the dependent variable, "Respondents' satisfaction about Information Communication Technology available in their institution." since the "t" value of the independent variables is more than the critical value of 1.96. The agreeing "p" value is less than 0.01 / 0.05 at a 99 / 95 percent level of confidence.

Hence it is concluded that the null hypothesis is rejected, and the study accepted the alternative hypothesis – “Respondents' Awareness of Information Communication Technology has influenced their satisfaction with the I.C.T. facilities available in the higher educational institutions of the study area”.

Library professionals must utilize information and communication technology in activities like automation, e-resources, and digitization techniques. Nowadays, more library professionals are well qualified and well trained to apply the I.C.T. in various library operations and library services. The professionals can attract everyone with timely assistance to retrieve any information from anywhere at any time. They must be aware of and utilize ICT facilities and tools in their day-to-day library activities and services in their respective libraries. Then only the professionals can shine and survive with multi-personality skills to handle the explosion of information in the academic and research environment.

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