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## USER ATTITUDE TOWARDS ICT: A STUDY ON PONDICHERRY UNIVERSITY LIBRARY USERS

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### ABSTRACT

The present study made an attempt to know the utilization of ICT among students and research scholars of Pondicherry University library. The researcher selected 808 samples randomly. The statistical test used are Chi square and TWO WAY ANOVA. The study revealed that students and research scholars are familiar with ICT products and its application. Result shows that there is a significant difference in mode of learning skill about ICT and also place of using ICT facilities based on demographic variables. Further it is inferred that there is a significant difference in respondents purpose of using ICT Facilities based on academic status. It is also found that majority of the respondent's used internet and E-mail services frequently. Majority of the research scholars used ICT facilities for research purpose and students used it for their study purpose.

**KEYWORDS:** Information Communication Technology, Pondicherry University Library, Internet and E-mail.

### I. INTRODUCTION

Information and communication technology usually called ICT is often used as an extended synonym for information technology (IT). But it is usually a more general term that stresses the role of unified communications and the integration of telecommunications intelligent building management systems and audio-visual systems in modern information technology. ICT consists of all technical means used to handle information and aid communication, including computer and network hardware, communication middleware as well as necessary software. In other words, ICT consists of IT as well as telephony, broadcast media, all types of audio and video processing and transmission, and network based control and monitoring functions. Information explosion had created a huge challenge to the libraries. But with tools which ICT provides, it is now very easy to work with this despite its huge volume. With ICT it is possible to give each and every individual equitable access to information a lot easier, quicker and in efficient way. A true democratic sense of information dissemination can be achieved with this technology. Not only does it deal with information exchange but information manipulation, calculation and such. When we say ICT, it means the use of computers, Internet, and telecommunications used for the effective information exchange. It involves working with different formats from plain texts to multimedia.

### II. REVIEW OF LITERATURE

Liao et al. (2007) conducted a comparative study of the information needs and information communication technology of international graduate students and American graduate students under title "Information-Technology Behaviour of International Graduate



Students vs. American Graduate Students: A User Study at Virginia Tech 2005". Study is based on the opinions collected through online survey.

**Singh and Satija, (2008)** executed a survey to find the information communication technology of teachers and research scientists working in ICAR institutions of Delhi and Punjab Agriculture University, Ludhiana. Study was titled "Information Technology Strategies of Agricultural Scientists Working in the ICAR Institutions in India". Results revealed that library and information centres were the most preferred sources to meet information requirements of agriculture scientists. Users depended heavily on the computerized information search facility. The working culture of those who need information, facilities available for technology information and knowledge about them, chances of getting the required information etc. affect the information communication technology of the users.

**Umar Lawal Bello (2017)** conducted a study on utilization of information and communication technology among undergraduate nursing students. A descriptive cross sectional design was used for the study where 504 fourth year students are selected. The data collected were analyzed using Statistical Package for Social Science (SPSS) version 20. The results shows that 80 percent of the surveyed students utilized ICT in performing their study assignments and research. Majority of the female students (79.0%) self reported themselves as good in computer skills while only one fifth (21.0%) of the male students rated themselves as good in computer skills. Therefore it is concluded that majority of the students had good ICT utilization with variation to residence and family income. Further it is recommended the university should ensure strict compliance with the rules of e-learning courses for the students and ensure proper application by each student.

### III. METHODOLOGY

The study attempt to investigate "utilization of ICT among students and research scholars of Pondicherry University library". The primary data was collected from the PG students and research scholars by using will structured questionnaire. The questionnaire distributed to the respondents of six schools of the Pondicherry University namely school of management, Ramanujan school of mathematical science, school of physical, chemical & applied sciences, school of life science, school of humanities and school of social sciences and informational studies. For this study 857 questionnaire distributed to the respondents, out of these 808 were received back and making the response rate is 94.28%. The collected data were analysed and presented as the findings of the study.

### IV. OBJECTIVES

The following objectives are formulated based on the above problem.

- ❖ To examine the respondent's mode of learning ICT skill based on demographic variables.
- ❖ To findout the respondent's place of using ICT facilities based on demographic variables.
- ❖ To know the respondent's frequency of use of modern ICT facilities.
- ❖ To identify the respondent's purpose of using ICT facilities based on academic status.

### V. HYPOTHESES

The following hypotheses are formulated based on the above objectives. They are:

- ✓ Respondents do not significantly differ in their mode of learning ICT skill based on demographic variables.
- ✓ Respondents do not significantly differ in their place of using ICT facilities based on demographic variables.
- ✓ Respondents do not significantly differ in their frequency of use of modern ICT facilities.
- ✓ Respondents do not significantly differ in their purpose of using ICT facilities based on academic status.

## VI. RESULT AND DISCUSSION

**Table 1**  
**Demographic Variables and Mode of Learning ICT Skill**

S.No.	Demographic variables	Trial and Error Method	Friends	IT Experts	Teaching Staff	Library Staff
<b>Academic Status</b>						
1.	PG students	475 (79.16%)	405 (67.5%)	284 (47.33%)	228 (38.0%)	113 (18.83%)
2.	Research Scholar	203 (97.59%)	188 (90.38%)	120 (57.69%)	164 (78.84%)	128 (61.53%)
	<b>Total</b>	<b>678</b> <b>(83.91%)</b>	<b>593</b> <b>(73.39%)</b>	<b>404</b> <b>(50.0%)</b>	<b>392</b> <b>(48.51%)</b>	<b>241</b> <b>(29.82%)</b>
<b>Name of the School</b>						
3.	School of Management	111 (71.61%)	128 (82.58%)	60 (38.70%)	66 (42.58%)	42 (27.09%)
4.	Ramanujan School of Mathematical Science	104 (73.23%)	90 (63.38%)	69 (48.59%)	51 (35.91%)	64 (45.07%)
5.	School of Physical Chemical & Applied Sciences	130 (96.29%)	118 (87.40%)	66 (48.89%)	82 (60.74%)	39 (28.89%)
6.	School of Life Sciences	116 (92.06%)	88 (69.84%)	75 (59.52%)	68 (53.96%)	34 (26.98%)
7.	School of Humanities	121 (96.8%)	79 (63.2%)	58 (46.4%)	54 (43.2%)	45 (36.0%)
8.	School of Social Sciences and Informational Studies	96 (76.8%)	90 (72.0%)	76 (60.8%)	71 (56.8%)	17 (13.6%)
	<b>Total</b>	<b>678</b> <b>(83.91%)</b>	<b>593</b> <b>(73.39%)</b>	<b>404</b> <b>(50.0%)</b>	<b>392</b> <b>(48.51%)</b>	<b>241</b> <b>(29.82%)</b>

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	227854	7	32550.57	17.96637	0.000818	2.35926
Columns	60460.6	4	15115.15	8.342845	0.000146	2.714076
Error	50729	28	1811.75			
Total	339043.6	39				

The above table exhibits that mode of learning ICT skills. Among 600 PG students the highest 79.16 percent of them learned ICT skill by trial and error method and the least 18.83 percent of them from library staff. But among the 208 research scholar, the highest 97.95 percent of them learned ICT skill by trial and error method.

Out of 808 total respondents's majority 83.91 percent of them by trail and error method and only 29.82 percent of them learned ICT skill from library staff.

It could be noted that more number of research scholars learned ICT skills from library staff when compared to PG students.

It is inferred from the ANOVA table that the calculated P-value is significant.  $P < 0.01$ . So the null hypothesis is rejected and alternate hypothesis is accepted. So it is concluded that there is a significant difference in demographic variables and mode of learning ICT skill.

**Table 2**  
**Place of Using ICT Facilities based on demographic variables**

S.No.	Demographic Variables	Home	Cyber café	Institution of Study/ Research	Total
<b>Academic status</b>					
1.	PG students	194 (32.33%)	125 (20.83%)	281 (46.83%)	600 (100.0%)
2.	Research Scholar	60 (28.84%)	48 (23.07%)	100 (48.07%)	208 (100.0%)
	<b>Total</b>	<b>254</b> <b>(31.43%)</b>	<b>173</b> <b>(21.41%)</b>	<b>381</b> <b>(47.15%)</b>	<b>808</b> <b>(100.0%)</b>
<b>Name of the school</b>					
3.	School of Management	47 (30.32%)	31 (20.0%)	77 (49.67%)	155 (100.0%)
4.	Ramanujan School of Mathematical Science	46 (32.39%)	31 (21.83%)	65 (45.77%)	142 (100.0%)
5.	School of Physical Chemical & Applied Sciences	40 (29.62%)	30 (22.22%)	65 (48.14%)	135 (100.0%)
6.	School of Life Sciences	42 (33.33%)	26 (20.63%)	58 (46.03%)	126 (100.0%)
7.	School of Humanities	39 (31.2%)	27 (21.6%)	59 (47.2%)	125 (100.0%)
8.	School of Social Sciences and Informational Studies	40 (32.0%)	28 (22.4%)	57 (45.6%)	125 (100.0%)
	<b>Total</b>	<b>254</b> <b>(31.43%)</b>	<b>173</b> <b>(21.41%)</b>	<b>381</b> <b>(47.15%)</b>	<b>808</b> <b>(100.0%)</b>

## ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	62124	7	8874.857	19.13568	0.000037	2.764199
Columns	10992.33	2	5496.167	11.85066	0.000974	3.738892
Error	6493	14	463.7857			
Total	79609.33	23				

Table 2 shows that place of using ICT facilities based on demographic variables. Among 600 PG students majority 46.83% of them used ICT facilities in their institution, whereas among 208 research scholars it is 48.07 percent. Out of 808 total respondents majority 47.15 percent of them in their institution, 21.41 percent in cyber café and 31.43 of them in their home.

It is inferred from the ANOVA table that the calculated P-value is significant.  $P < 0.01$ . So the null hypothesis is rejected and alternate hypothesis is accepted. So it is concluded that there is a significant difference in place of using ICT facilities based on demographic variables.

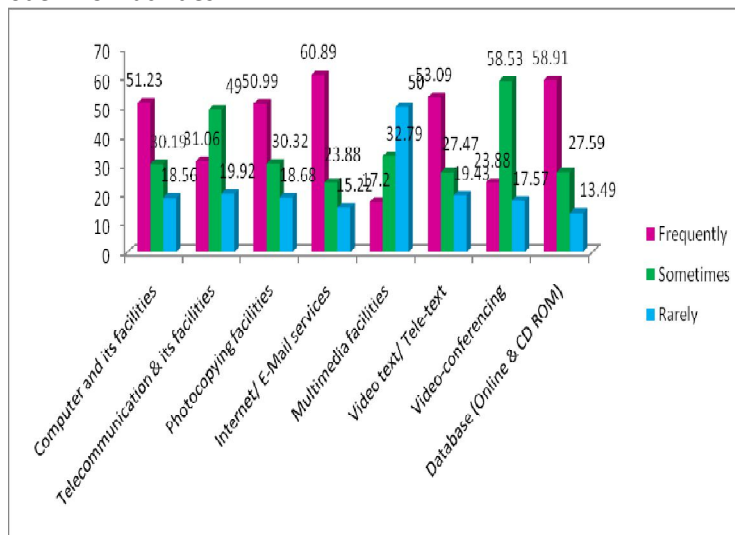
**Table 3**  
**Use of Modern ICT Facilities**

S.No.	Facilities	Frequency of usage			Total
		Frequently	Sometimes	Rarely	
1.	Computer and its facilities	414 (51.23%)	244 (30.19%)	150 (18.56%)	808 (100.0%)
2.	Telecommunication & its facilities	251 (31.06%)	396 (49.0%)	161 (19.92%)	808 (100.0%)
3.	Photocopying facilities	412 (50.99%)	245 (30.32%)	151 (18.68%)	808 (100.0%)
4.	Internet/ E-Mail services	492 (60.89%)	193 (23.88%)	123 (15.22%)	808 (100.0%)
5.	Multimedia facilities	139 (17.20%)	265 (32.79%)	404 (50.0%)	808 (100.0%)
6.	Video text/ Tele-text	429 (53.09%)	222 (27.47%)	157 (19.43%)	808 (100.0%)
7.	Video-conferencing	193 (23.88%)	473 (58.53%)	142 (17.57%)	808 (100.0%)
8.	Database (Online & CD ROM)	476 (58.91%)	223 (27.59%)	109 (13.49%)	808 (100.0%)

Calculated Chi-square Value	Degrees of Freedom	Probability Value
964.2	14	0.001

Table 3 shows that respondent’s use of modern ICT facilities. Out of 808 total respondents, the majority 60.89 percent of them used internet/E-mail services frequently. Whereas 58.53% of them used video conferencing sometimes only. It is also found that 50% of the respondents used multimedia facilities rarely.

It is inferred from the above chi-square test the calculated P-value is significant.  $P < 0.001$ . So the null hypothesis is rejected and alternate hypothesis is accepted. So it is concluded that there is a significant difference in use of modern ICT facilities.



**Figure:1 Use of Modern ICT Facilities**

**Table 4**  
**Purpose of Using ICT Facilities based on academic status**

S. No.	Academic Status	Purposes									
		Research	Study	Project work	Book Articles	Publication	Conference Presentation	Entertainment/ Leisure Time	Chat	Decision Making	Planning
1.	PG students	123 (20.5%)	587 (97.83%)	253 (42.16%)	0	64 (10.67%)	219 (36.5%)	284 (47.33%)	472 (78.67%)	101 (16.83%)	279 (46.5%)
2.	Research Scholar	204 (98.07%)	119 (57.21%)	0	0	194 (93.26%)	180 (86.53%)	62 (29.80%)	197 (94.71%)	195 (93.75%)	184 (88.46%)
	<b>Total</b>	<b>327 (40.47%)</b>	<b>706 (87.37%)</b>	<b>253 (31.31%)</b>	<b>0</b>	<b>258 (31.93%)</b>	<b>399 (49.38%)</b>	<b>346 (42.82%)</b>	<b>669 (82.79%)</b>	<b>296 (36.63%)</b>	<b>463 (57.30%)</b>

Calculated Chi-square Value	Degrees of Freedom	Probability Value
719.6	8	0.001

Table 4 shows that purpose of using ICT facilities based on academic status. Among 600 PG students the highest 97.83 percent of them used for study purpose. Whereas among 208 research scholar the highest 98.07 percent of them used ICT facilities for their research purpose. Out of 808 total respondents 87.37 percent of them used ICT facilities for the purpose of study, 57.30 percent of the respondents used for planning, 49.38 percent of them for conference presentation, 42.82 percent for entertainment and 40.47 percent used ICT facilities for research purpose.

It is inferred from the above chi-square test the calculated P-value is significant.  $P < 0.001$ . So the null hypothesis is rejected and alternate hypothesis is accepted. So it is concluded that there is a significant difference in purpose of using ICT Facilities based on academic status.

## VII. FINDINGS

Some of the findings are arrived based on the statistical analysis. They are:

- Result shows that there is a significant difference in demographic variables and mode of learning ICT skill. Also reveals that there is a significant difference in respondent's place of using ICT facilities based on demographic variables.
- Survey exhibits that there is a significant difference in respondent's use of modern ICT facilities. Further it is inferred that there is a significant difference in respondents purpose of using ICT Facilities based on academic status.

## VIII. CONCLUSION

The present study made an attempt to know the utilization of ICT among students and research scholars of Pondicherry University library. The researcher selected 808 samples randomly. Structured questionnaires are used to collect the primary data. Result shows that majority of the respondents learning ICT use skill by their self-learning methods, majority nearly 50 percent of the respondents depends their institutions for ICT based information. It is also found that majority of the respondents used internet and E-mail services frequently. Majority of the research scholars used ICT facility for research purpose and students used it for their study purpose.

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