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## RESEARCH ARTICLE

# IMPACT OF INFORMATION COMMUNICATION TECHNOLOGY (ICT) IN KNOWLEDGE SHARING BY THE SOCIAL SCIENCE STUDENTS AND RESEARCH SCHOLARS AT MADURAI KAMARAJ UNIVERSITY, MADURAI

Pitchaipandi, P.1 and Dr. Baskaran, C.2\*

<sup>1</sup>Research Scholar (FT), Dept. of Library & Information Science, Alagappa University, Karaikudi <sup>2</sup>Librarian & Research Supervisor, Alagappa University, Karaikudi

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# **ABSTRACT**

This study attempts Impact of Information Communication Technology (ICT) in Knowledge Sharing by the Social Science Students and Research Scholars at Madurai Kamaraj University, Madurai. The researcher selected a sample size of 173 students and research scholars by the random sampling method. The data required for the study was collected through a questionnaire. The findings of the study: 58.4% of the respondents are usage for ICT belong to the gender kind of male and (30.1%) respondents are belong to the age group of 18-20. (29.5%) respondents are stream of Arts and (42.8%) of the respondents Ph.D scholars, (63.6%) of respondents are Unmarried and (51.4%) of respondents are rural areas, 94 (54.3%) of respondents used for search engine for Google Chrome and (49.7%) of respondents Location of Access places for Digital library,(27.7%) of respondents Cell Phone/ Smart Phone use of ICT tools.(19.7%) of respondents using communication model of Mobile and (27.2%) using Audio/Video. 28.9% for Library provide for Internet facilities whereas (53.2%) purpose for Research study.

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#### INTRODUCTION

Information communication technologies are dramatically changing every aspect of information services, not least the personal communication between client and personal assistance traditionally provided in the form of reference service. Networked electronic information services that allow users to access library catalogues, databases and listed web resources, to download full- text documents and place requests for ILL from their desktop are replacing the personal service (Verma, 2005). Baskaran (2014) analysis from the visit for Alagappa University Library access in information resources shows that Google, Yahoo, Alta vista, hotpot, Lycos, Northern light, Ask Jeeves, Sify is most popular search engine for accessing journals and e-books. The users visit the library for purpose of to prepare Projects/Seminars/assignments, to refer journal articles, to browse database (Baskaran, 2014).

**Review of Literature:** Baskaran, C. (2018) the study descripted that the use of Social Network (SNS) and Medias by the research scholars in Alagappa University.

\*Corresponding author: Dr. Baskaran, C.

Librarian & Research Supervisor, Alagappa University, Karaikudi.

The study Particularly exposes several patterns of faculty of Science, Arts, Management, Education and such Disciplines of M. Phil and Ph.D fulltime research scholars are access SNs/Medias for research activities for Search world Information, sending photographs, receiving and sending research articles. There are many pros and cons while the scholars using these social media. In this article the author pointed the barrier which is faced by scholars (Baskaran, 2018). Binu, P. C., & Baskaran, C. (2017) the study the uses of electronic resources and services in Kerala state university library. The study was conducted in selected six state universities of post graduate students and research scholars. The study revealed that many of the scholars are using E-Journals, E-Books, E-Database, E-These and Dissertation etc., View-point of e-resources for research work, Project work, Preparing study Materials and write article, Preparing seminar/conference papers. 80.19% and 76.06% are using ejournals and e-thesis and dissertations for highly satisfied. In this article the investigator pointed level of user satisfaction (Binu, 2017). This study served based investigates the use of library ICT (Information and Communication Technology) facilities by the engineering faculty members in selected engineering colleges in tamilnadu. For research/study, finding relevant information, for career development, communication.

Internet, CD-ROM/Online database whereas OPAC, E-Journals, E-Books. (80%) of respondents purpose using ICT resources and services for engineering college libraries<sup>5</sup>.

### Objectives of the study

- To highlights the impact of ICT by the students and research scholars in Madurai Kamaraj University, Madurai.
- To identified different category of ICT tools.
- To observe the purpose of ICT resources and activities.
- To find out the location where access places for the ICT.
- To analyse mobile phone services in ICT.

#### **METHODOLOGY**

**Research type:** The study undertaken by the researcher has belongs to descriptive research study. The researcher has used survey method in this study.

Sample Size: The researcher has decided to collected data from the thirteen departments by namely "Economics, Physical Education/ Philosophy, Management/ Commerce, Sociology/Political Science, History/Geography, Library & Information Science, Journalism & Science Communication/ Communication, Fine Arts & Aesthetics" in Social science to proficient to draw presumption that will fully represent the information communication technology in knowledge sharing of the whole social science. It was certain to obtain data from the 200 respondents from each of the above 13 departments. The researcher collected data from first 200 students and research scholar she met in their concerned department on the day of her data collection work.

**Tools for data collection:** Questionnaire is the tool selected by the research for collecting data from the purposive sample. A simple but a observably with 12 questions was used as a tools.

Methods of data Collection: The data was collected from the purposive sampling method. The questionnaire was isolated to the Post graduate Students and Research scholars personally out of 200 questionnaire detached to the defendants the research was data to get back only 173 duly filled in questionnaire.

Data Analysis and Interpretations: The Research is concerned with the distribution of questionnaire to Impact of Information Communication Technology (ICT) in Knowledge Sharing by the Social Science Students and Research Scholars at Madurai Kamaraj University, Madurai. Out of 200 questionnaires distributed only 173 (87%) respondents participated of them study. 101 (58.4%) for male whereas 72 (41.6%) are female. It reveals that the majority of male are respondents respectively. Table I shows that more than half of the respondents belong to the category of Female 101 (58.38%) of the respondents Contribution of them study, Whereas 72 (41.62%) of the respondents belong to the category of Male. It was found that table II more than half of the respondents of the respondents 52 (30.1%) of the respondents 18-20.49 (28.3%) of the respondents to the category of age 21-23, followed by 40 (23.1%) of respondents category of age below 40.

**Table I: Gender wise Respondents** 

	S.No Gender		No. of Respondents	Percentage	
	1	Male	101	58.4	
	2	Female	72	41.6	
_	T	otal	173	100	

Table II: Age wise Respondents

S. No	Age Group	No. of Respondents	Percentage
1	21-25	52	30.1
2	26-30	49	28.3
3	31-35	32	18.5
4	Above -35	40	23.1
	Total	173	100

Table III expertise Department wise contribution of them participants highest (21.4%) Management/ Commerce Followed by (18.5%) contribution of them defendants History/Geography, (15.0%) Economics, (10.4%) Journalism & Science Communication/ Communication, whereas (9.8%) Physical education/ Philosophy moreover Library & Information Science, (9.2%) Sociology/Political Science along with (5.8%) Fine Arts & Aesthetics are contributions of them respondents respectively. Table IV shows the analysis of course wise respondents. It is indicated that nearly half of the respondents 42.8% were Ph.D scholars, followed by 26.0% of respondents were Post graduate second year students, 19.7% of the respondents were Post graduate first year students and besides 11.6% of the respondents are M. Phil scholars. Table V shows that Marital Status – wise respondents contributions of in this study, Majority of them respondents (67.6%) belong to category of Unmarried, Followed by (32.4%) of respondents belong to category of Married. Table VI shows the distribution of respondents by residing sector wise. Among the overall 173 respondents, 51.4% of the respondents belong to the category of Rural, followed by 48.6% of the respondents belong to category of Urban areas.

Table VII: show the chi-square analysis of frequency use of search engine by Gender- wise respondents. Among the 101 Male respondents, 59 (58.4%) use of search engines for Google Chrome, whereas 17 (16.8%) Yahoo, 10 (9.9%) of respondents using Alta Vista, 8 (7.9%) Msn search.com and 7 (6.9%) use of other search engines. Among the 72 Female respondents, 35 (48.6%) using Google Chrome, Followed by 35 (48.6%) respondents using 15 (20.8%), 9 (12.5%) Alta Vista, 8 (4.7%) Msn search.com and besides cited above there are other sources 5(2.9%) of respondents respectively. Testing hypothesis table value of X<sup>2</sup> for 4 degrees of freedom at 5% level of significance is 9.488. The calculated value of X<sup>2</sup> is higher than table value and hence the Null hypothesis is accepted and hence Research hypothesis is rejected. It is concluded that there is an association between the Gender and their frequency of using search engines. Table VIII demonstration the Chi-square analysis of frequency usage ICT based services by marital status -wise respondents. Among the 63 Married respondents, 8 (12.7%) use of ICT in Browsing Centre, whereas 18 (28.6%) usage of Digital library, 9 (14.3%) Smart class room, 11 respondents (17.5%) Hostel and 17 (27.0%) of respondents use of ICT in other places. Followed by among the 110 unmarried respondents 9 (8.2%) use of Browsing Centre, while 68 (39.3%) use of Digital library, 9 (5.2%) Smart class room, 11 (6.4%) Hostel and 13 (11.8%) of respondents usage for ICT in Other places.

Table III: Department-wise respondents

S. No	Department	No. of respondents	Percentage
1	Economics	26	15.0
2	Physical Education/ Philosophy	17	9.8
3	Management/ Commerce	37	21.4
4	Sociology/Political Science	16	9.2
5	History/Geography	32	18.5
6	Library & Information Science	17	9.8
7	Journalism & Science Communication/ Communication	18	10.4
8	Fine Arts & Aesthetics	10	5.8
Total		173	100

Table IV: Course- wise Distribution of Respondents

S.No	Course	No. of Respondents	Percentage
1	PG: I st year	34	19.7
2	PG: II nd year	45	26.0
3	M.Phil	20	11.6
4	Ph.D	74	42.8
	Total	173	100

Table V. Marital Status - wise Distribution of Respondents

S.No	Marital Status	No. of Respondents	Percentage	
1	Married	63	36.4	
2	Unmarried	110	63.6	
	Total	173	100	

Table VI. Residing Sector- wise Distribution of Respondents

S.No	Residing Sector	No. of Respondents	Percentage
1	Rural	89	51.4
2	Urban	84	48.6
Total		173	100

Table VII: Chi-Square analysis of using search engine by Gender -wise.

S.No	Gandar	Frequency (%)					
	Gender	Google Chrome	Yahoo	Alta Vista	Msn search.com	Others	Total
1	Male	59(58.4)	17(16.8)	10(9.9)	8(7.9)	7(6.9)	101 (58.4)
2	Female	35(48.6)	15(20.8)	9(12.5)	8(4.7)	5(2.9)	72(41.6)
Total		94(54.3)	32(18.5)	19(11.0)	16(9.2)	12(6.9)	173 (100)

Table VII. Testing hypotheses 1: chi-square analysis of using search engine by gender –wise respondents.

0	Е	(O-E)	$(O-E)^2$	$(O-E)^{2/E}$
59	54.9	4.1	16.81	0.3
17	18.7	-1.7	2.89	0.2
10	11.1	-1.1	1.21	0.1
8	9.3	-1.3	1.69	0.2
7	7.0	0	0	0
35	39.1	-4.1	16.81	0.4
15	13.3	1.7	2.89	0.2
9	7.9	1.1	1.21	0.2
8	6.7	1.3	1.69	0.3
5	5.0	0	0	0
$\sum [(O-E)^2$	2/E]=1.90			

Table VIII: Chi-square analysis Location of Access places for ICT by marital status-wise Respondents.

S. No	Marital	Frequency (	Frequency (%)					
	Status	Browsing	Digital library	Smart class	Hostel	Other	Total	
	Status	Centre	Digital library	room	Hostei	places		
1	Married	8(12.7)	18(28.6)	9(14.3)	11(17.5)	17(27.0)	63 (36.4)	
2	Un Married	9(8.2)	68(39.3)	9(5.2)	11(6.4)	13(11.8)	110(63.6)	
Total	•	17(9.8)	86(49.7)	18(10.4)	22(12.7)	30(17.3)	173(100)	

Table IX. Testing hypotheses 2: chi-square analysis location of access places for ict by marital status-wise respondents

О	E	(O-E)	(O-E)2	(O-E)2/E
8	641.1	-633.1	400815.6	625.2
18	126.7	-108.7	11815.69	93.3
9	605.5	-596.5	355812.3	587.6
11	495.4	-484.4	234643.4	473.6
17	363.3	-346.3	119923.7	330.1
9	1119.4	-1110.4	1232988	1101.5
68	221.3	-153.3	23500.89	106.2
9	1057.2	-1048.2	1098723	1039.3
11	865	-854	729316	843.1
13	634.3	-621.3	386013.7	608.6
			$\sum [(O-E)2/E] = 5803$	8.5

Table X: Frequency of usage for ICT tools.

S. No	ICT tools	No. of Respondents	Percentage
1	E-mail	43	24.9
2	Telephone	27	15.6
3	Cell phone/Smart phone	48	27.7
4	Computers	22	12.7
5	Messenger apps	33	19.1
	Total	173	100

Table XI: Chi-square analysis use of Mobile Phone for ICT services in Residing Sectors wise Respondents

S. No	Residing Sectors	ICT services in Mobile Phone						
		Voice Call	SMS/ Multimedia messages	Audio/ Video	GPRS/ Internet	FM Radio/ listening music	Recording Audio/Video Pictures	Total
1	Rural	15(16.9)	22(24.7)	23(25.8)	15(16.9)	6(6.7)	8(9.0)	89 (51.4)
2	Urban	13(15.5)	18(21.4)	24(28.6)	15(17.9)	6(7.1)	8(9.5)	84 (48.6)
Total		28(16.2)	40(23.1)	47(27.2)	30(17.3)	12(6.9)	16(9.2)	173

Table XII Testing hypotheses 3: chi-square analysis use of mobile phone for ict services in residing sectors wise respondents

0	Е	(O-E)	(O-E)2	(O-E)2/E	
15	549.9	-534.9	286118	520.3	
22	384.9	-362.9	131696.4	342.2	
23	327.6	-304.6	92781.2	283.2	
15	513.2	-498.2	248203.2	483.6	
6	1283.1	-1277.1	1630984	1271.1	
8	962.3	-954.3	910688.5	946.4	
13	519	-506	256036	493.3	
18	363.3	-345.3	119232.1	328.2	
24	309.2	-285.2	81339.0	263.1	
15	484.4	-469.4	220336.4	454.9	
6	1211	-1205	1452025	1199.0	
8	908.3	-900.3	810540.1	892.4	
		$\sum [(O-E)2/E] = 7477.7$			

Table XIII: Opinion on library provide for ICT services

S.No	Opinion	No. of. Respondents	Percentage
1	Multimedia services	18	10.4
2	Internet Facilities	50	28.9
3	CA	16	9.2
4	SDI	22	12.7
5	OPAC facilities	38	22.0
6	Electronic document delivery	29	16.8
Total	•	173	100

Table XIV: Chi-square analysis Purpose of ICT Skills and Services by Gender – Wise Respondents

		Purpose of ICT					
S. No	Gender	For Research/Study	For Communication	Finding relevant information	For career development	Other activities	Total
1	Male	52(51.5)	9(8.9)	20(19.8)	6(5.9)	14(13.9)	101 (58.4)
2	Female	40(55.6)	8(11.1)	12(16.7)	6(8.3)	6(8.3)	72 (41.6)
Total		92(53.2)	17(9.8)	32(18.5)	12(6.9)	20(11.6)	173 (100)

Table XV. Testing hypothesis 4:chi-square analysis purpose of ict skill by gender- wise respondents

О	Е	(O-E)	(O-E)2	(O-E)2/E	
52	189.9	-137.9	19016.4	100.1	
9	1027.8	-1018.8	1037953	1009.9	
20	546.0	-526	276676	506.7	
6	1456.1	-1450.1	2102790	1444.1	
14	873.7	-859.7	739084.1	845.9	
40	135.4	-95.4	9101.2	67.2	
8	732.7	-724.7	525190.1	716.8	
12	389.3	-377.3	142355.3	365.7	
6	1038	-1032	1065024	1026.0	
6	622.8	-616.8	380442.2	610.9	
$\sum [(O-E)2/E] = 6693.3$					

Testing the hypothesis that the Location of Access places for ICT by marital Respondents. Table value of  $X^2$  for 4 degrees of freedom at 5% level of significance is 9.488. The calculated value of X<sup>2</sup> is higher than this table value and hence the Null hypothesis is accepted and hence Research hypothesis is rejected. It is concluded that there is an association between the marital status and their frequency of Access places for ICT. Table X the study report of them respondents participated from usage for ICT tools (27.7%) Cell phone/Smart phone. Followed by 43 (24.9%) contributions of them participants using ICT tool in E-mail, (19.1%) of them respondents using Messenger apps, (15.6%) Telephone and finally (12.7%) Computers of them respondents respectively. Table XI shows that the chi-square analysis use of Mobile Phone for ICT services in Residing Sectors wise Respondents. Among the 89 Rural respondents 15 (16.9%) respondents use of Mobile in Voice Call, 22 (24.7%) respondents use of SMS/ Multimedia messages, 23 (25.8%) Audio/Video, 15 (16.9%) usage for GPRS/ Internet, 6 respondents (6.7%) FM Radio/ listening music, 8 (9.0%) respondents Recording Audio/Video Pictures. Among the 84 Urban respondents usage for 13 (15.5%) Voice Call, 18 (21.4%) use of SMS/ Multimedia messages, 24 (28.6%) Audio/Video, 15 (17.9%) usage for GPRS/ Internet, 6 (7.1%) FM Radio/ listening music, 8 (9.5%) Recording Audio/Video Pictures. Testing hypothesis that the use of mobile phone for ICT services in Residing Sectors wise Respondents. Table value of X<sup>2</sup> for 5 degrees of freedom at 5% level of significance is 11.071. The calculated value of  $X^2$ is higher than this table value and hence the Null hypothesis is rejected and hence Research hypothesis is accepted. It is concluded that there is no association between the Residing sector and their frequency use of Mobile Phone devices.

The respondents have in different ways (Table XIII) Majority of library provide for ICT services 50 (28.9%) Internet Facilities, Followed by 38 respondents (22.0%) OPAC facilities, 29 (16.8%) Electronic document delivery services, 22 (12.7%) SDI, 18 (10.4%) Multimedia services and 16 (9.2%) CA. Table: XIV indication the Chi-square analysis Purpose of Using ICT Skills and Services by Gender – Wise Respondents. Among the 101 Male respondents 52 (51.5) of respondents purpose of ICT in For Research/Study, whereas 9 (8.9%) respondents belong to For Communication, 20 (19.8%) respondents purpose of Finding relevant information, 6 (5.9%) For career development and 14 (13.9%) of respondents belong to other activities. Followed by 72 Female respondents, 40 (55.6%) purpose of For Research/Study, 8 (11.1%) respondents For Communication, 12 (16.7%) of user purpose Finding relevant information,6 (8.3%) For career development and 6 (8.3%) Other activities.

Testing hypothesis that the purpose of ICT skills by Genderwise Respondents. Table value of  $X^2$  for 4 degrees of freedom at 5% level of significance is 9.488. The calculated value of  $X^2$  is higher than this table value and hence the Null hypothesis is accepted and hence Research hypothesis is rejected. It is concluded that there is an association between the Gender and their frequency Purpose of ICT Skills.

#### **FINDINGS**

- Supreme of 58.4% of the respondents are usage for ICT belong to the gender kind of male and (30.1%) respondents are belong to the age group of 18-20.
- To identified that (21.4%) of them respondents department of Management/ Commerce and (42.8%) of the respondents Ph.D scholars.
- (63.6%) of respondents are Unmarried and (51.4%) of respondents are rural areas.
- 94 (54.3%) of respondents used for search engine for Google Chrome and (49.7%) of respondents Location of Access places for Digital library.
- (27.7%) of respondents Cell Phone/ Smart Phone use of ICT tools.
- (19.7%) of respondents using communication model of Mobile and (27.2%) using Audio/Video.
- 28.9% for Library provide for Internet facilities whereas (53.2%) purposes for this Research study.

#### Conclusion

This study explained that the Impact of Information Communication Technology (ICT) in Knowledge Sharing by the Social Science Students and Research Scholars at Madurai Kamaraj University, Madurai. Most of the 87% of respondent's use of ICT resources. Gender wise Respondents, Age wise Respondents, Location of Access places for ICT, Frequency of using model of communication, use of Mobile Phone for ICT services, library provide for ICT services, Purpose of ICT Skills and Services, The majority of the respondents were used ICT in educational learning, 94 (54.3%) usage for search engine on "Google Chrome", Further, Majority 86 (49.7%) of the access places for "Digital Library", and Mostly highest communication tools for Mobile Phone services "Audio/Video", Whereas 50 respondents opinion on Library Provide for Internet facilities. This study focused on the students and Research scholars need of the ICT skills and services in growth of educational learning.

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