

**Impact Of Ict Service On Study Or Research Work Through Selected University  
Teachers And Students With Special Reference To Uttar Pradesh**

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**ABSTRACT:**

Information and communication technology (ICT) has changed the way of libraries and information services are delivered around the world. The Internet has made information available to people all over the world. The rate of conversion of knowledge, information, and data into electronic format has risen substantially as a result of technological advancements. A university library can influence the educational environment by providing excellent services to a wide range of users. Here, the research highlighted the impact of ICT service on study or research work through selected university teachers and students with special reference to Uttar Pradesh.

**Keywords:** ICT, University, Teachers, Students, Uttar Pradesh.

**INTRODUCTION:**

A library is an important organisation that provides users with the information and knowledge they need on a worldwide scale . A library has a lot of value in higher education; it is the heart of any academic institute or university. "A university is a higher education institution, and the library is the beating heart of the learning community, offering a space for students, researchers, and professors to conduct research and develop their knowledge" (Bhatt, 2010). The popularity of any library is largely determined by the library's user services. It is a general truth that in current Information and Communication Technology (ICT) era, we cannot imagine running a library without the aid of computerization, and libraries cannot provide outstanding services without the aid of ICT . However, in comparison to affluent countries such as the United States, the United Kingdom, and Australia, most libraries lack ICT services. I chose this exciting topic to research in order to learn more about ICT applications and services in Uttar Pradesh university libraries .

This research is a survey of Uttar Pradesh university libraries. The survey aims to investigate ICT applications, tools, and usage, ICT-based services provided by libraries, the impact of ICT services on libraries, the importance of ICT, the complexity of ICT implementation, and user satisfaction with ICT, as well as examine the real-world situation of ICT in this state's university libraries .

### **METHODOLOGY:**

The study quoted about 1800 users of 06 university libraries of Uttar Pradesh, out of each nearly 100 will be teachers of all categories, and 100 research scholars of various subject fields, and 50 P.G & 50 graduates' student of different disciplines will be included. Besides, Scientific investigation involve careful and proper adoption of research design, use of standardized tools, and test, identifying adequate sample by using appropriate sampling techniques, sound procedures for collecting databank there after careful tabulation of the data and the use of appropriate statistical technique for analyzing the data. There are several survey techniques available for user study such as questionnaires, observation, interview and documentary technique. For the exact analysis of collected data, investigator has used Chi-square Test.

The study was limited to information communication technology-based library and information services in following six universities of Uttar Pradesh:

1. University of Allahabad (Central University) [UOA]
2. Banda University of Agriculture & Technology (State University) [BUAT]
3. University of Lucknow (State University) [UOL]
4. Shobhit Institute of Engineering and Technology (Deemed University) [SIET]
5. Sam Higginbottom Institute of Agriculture, Technology and Sciences (Deemed University) [SHUATS]
6. Integral University (Private University) [IGU]

### **ANALYSIS OF DATA AND RESULTS:**

**Table 1- ICT Services have affected study/research works (University of Allahabad) users' opinion:**

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S. No.	Statement	Respondent	Users Opinion			x <sup>2</sup> -value	p - value
			Partially	Agree	Not Agree		
1.	It has made easier to access study/research material globally.	U.G. Student	10(20.83%)	38(79.16)	0	37.84	<0.001
		P.G. Student	0	44(100%)	0		
		Researcher	28(29.78%)	66(70.21)	0		
		Teachers (70)	0	70(100%)	0		
2.	It has made easier to get reading/research material	U.G. Student	16(33.33%)	32(66.66)	0	1.46	<0.692
		P.G. Student	16(36.36%)	28(63.63)	0		
		Researcher	33(35.10%)	61(64.89)	0		
		Teachers (70)	30(42.85%)	40(57.14)	0		
3.	It provides the variety of reading materials	U.G. Student	6(12.5%)	42(87.5%)	0	14.26	<0.026
		P.G. Student	0	44(100%)	0		
		Researcher	23(24.46%)	71(75.53)	0		
		Teachers (70)	15(21.42%)	55(78.57)	0		
4.	It is very helpful to improve quality of work	U.G. Student	9(18.75%)	41(85.41)	0	10.29	<0.016
		P.G. Student	0	44(100%)	0		
		Researcher	19(20.21%)	75(79.78)	0		
		Teachers (70)	10(14.28%)	60(85.71)	0		
5.	Use of ICT is time saving process	U.G. Student	13(27.08%)	35(72.91)	0	15.68	<0.013
		P.G. Student	0	44(100%)	0		
		Researcher	23(24.46%)	71(75.53)	0		
		Teachers (70)	10(14.28%)	60(85.71)	0		
6.	ICT inspires new Innovation/ideas	U.G. Student	10(20.83%)	32(66.66)	6(12.5%)	25.31	<0.003
		P.G. Student	16(36.36%)	28(63.63)	0		
		Researcher	33(35.10%)	61(64.89)	0		
		Teachers (70)	20(28.57%)	30(42.85)	10(14.28)		

As per the Chi-Square test ( $\chi^2$ ), Association between Respondent and Grading of ICT service

by users in Integral University were found statistically significant except the services of E-books.

**ICT Services have affected study/research works (University of Allahabad):**

**Statement-1:** 'It has made easier to access study/research material globally'.

Table 1 shows that 20.83% UG Students & 29.78% Research Scholars are 'Partially

Agree' with the 'Statement-1', whereas 79.16% UG Students, 100% PG Students, 70.21% Research Scholars & 100% Faculty Members are 'Agree' with the 'Statement-1'.

**Statement-2:** 'It has made easier to get reading/research material'.

Table 1 shows that 33.33% UG Students, 36.36% PG Students, 35.10% Research Scholars & 42.85% Faculty Members are 'Partially Agree' with the 'Statement-2' whereas 66.66% UG Students, 63.63% PG Students, 64.89% Research Scholars & 57.14% Faculty Members are 'Agree' with the 'Statement-2'.

**Statement-3:** 'It provides the variety of reading materials'.

Table 1 shows that 12.5% UG Students, 24.46% Research Scholars & 21.42% Faculty Members are 'Partially Agree' with the 'Statement-3' whereas 87.5% UG Students, 100% PG Students, 75.53% Research Scholars & 78.57% Faculty Members are 'Agree' with the 'Statement-3'.

**Statement-4:** 'It is very helpful to improve quality of work'.

Table 1 shows that 18.75% UG Students, 20.21% Research Scholars & 14.28% Faculty Members are 'Partially Agree' with the 'Statement-4' whereas 85.41% UG Students, 100% PG Students, 79.78% Research Scholars & 85.71% Faculty Members are 'Agree' with the 'Statement-4'.

**Statement-5:** 'Use of ICT is time saving processes'.

Table 1 shows that 27.08% UG Students, 24.46% Research Scholars & 14.28% Faculty Members are 'Partially Agree' with the 'Statement-5' whereas 72.91% UG Students, 100% PG Students, 75.53% Research Scholars & 85.71% Faculty Members are 'Agree' with the 'Statement-5'.

**Statement-6:** 'ICT inspires new Innovation/ideas'.

Table 1 shows that 20.83% UG Students, 36.36% PG Students, 35.10% Research Scholars & 28.57% Faculty Members are 'Partially Agree' with the 'Statement-6' whereas 66.66% UG Students, 63.63% PG Students, 64.89% Research Scholars & 42.85% Faculty Members are 'Agree' with the 'Statement-6'. Besides, 12.5% UG Students & 14.28% Faculty Members are 'Not Agree' with the 'Statement-6'.

As per the Chi-Square test ( $\chi^2$ ), Association between Respondent and ICT Services have affected study/research works, users' opinion of University of Allahabad were found statistically significant except the statement no. 2-5.

**Table 2- ICT Services have affected study/research works (Banda University of Agriculture and Technology) users' opinion:**

S. No.	Statement	Respondent	Users Opinion			x <sup>2</sup> -value	p-value
			Partially Agree	Agree	Not Agree		
1.	It has made easier to access study/research material globally.	U.G. Student	9(19.57%)	37(80.4)	0	25.27	<0.001
		P.G.	14(29.79%)	33(70.2)	0		
		Researcher	20(21.51)	73(78.4)	0		
		Teachers (84)	0	84(100)	0		
2.	It has made easier to get reading/research material	U.G. Student	5(10.87%)	41(89.1)	0	0.782	<0.853
		P.G.	8(17.02)	39(82.9)	0		
		Researcher	14(15.05%)	79(84.9)	0		
		Teachers (84)	13(15.48)	71(84.5)	0		
3.	It provides the variety of reading materials	U.G. Student	0	46(100)	0	20.62	<0.001
		P.G.	0	47(100)	0		
		Researcher	0	93(100)	0		
		Teachers (84)	9(10.71%)	75(89.2)	0		
4.	It is very helpful to improve quality of work	U.G. Student	0	46(100)	0	-	-
		P.G.	0	47(100)	0		
		Researcher	0	93(100)	0		
		Teachers (84)	0	84(100)	0		
5.	Use of ICT is time saving process	U.G. Student	0	46(100)	0	-	-
		P.G.	0	47(100)	0		
		Researcher	0	93(100)	0		
		Teachers (84)	0	84(100)	0		
6.	ICT inspires new Innovation/ideas	U.G. Student	10(21.74%)	36(78.2)	0	25.14	<0.003
		P.G.	2(4.25%)	40(85.1)	5(10.64)		
		Researcher	3(3.23%)	86(92.4)	4(4.30)		
		Teachers (84)	17(20.24)	60(71.4)	7(8.33)		

**ICT Services have affected study/research works (Banda University of Agriculture and Technology):**

**Statement-1:** 'It has made easier to access study/research material globally'.

Table 2 shows that 19.57% UG Students, 29.79% PG Students & 21.51% Research Scholars are 'Partially Agree' with the 'Statement-1', whereas 80.43% UG Students, 70.21% PG Students, 78.49% Research Scholars & 100% Faculty Members are 'Agree'

with the 'Statement-1'.

**Statement-2:** 'It has made easier to get reading/research material'.

Table 2 shows that 10.87% UG Students, 17.02% PG Students, 15.05% Research Scholars & 15.48% Faculty Members are 'Partially Agree' with the 'Statement-2' whereas 89.13% UG Students, 82.90% PG Students, 84.95% Research Scholars & 84.52% Faculty Members are 'Agree' with the 'Statement-2'.

**Statement-3:** 'It provides the variety of reading materials.'

Table 2 shows that 10.71% Faculty Members are 'Partially Agree' with the 'Statement-3' whereas 100% UG Students, 100% PG Students, 100% Research Scholars & 89.29% Faculty Members are 'Agree' with the 'Statement-3'.

**Statement-4:** 'It is very helpful to improve quality of work'.

Table 2 shows 100% UG Students, 100% PG Students, 100% Research Scholars & 100% Faculty Members are 'Agree' with the 'Statement-4'.

**Statement-5:** 'Use of ICT is time saving processes.'

Table 4.22 shows that 100% UG Students, 100% PG Students, 100% Research Scholars & 100% Faculty Members are 'Agree' with the 'Statement-5'.

**Statement-6:** 'ICT inspires new Innovation/ideas'.

Table 2 shows that 21.74% UG Students, 4.25% PG Students, 3.23% Research Scholars & 20.24% Faculty Members are 'Partially Agree' with the 'Statement-6' whereas 78.26% UG Students, 85.11% PG Students, 92.47% Research Scholars & 71.43% Faculty Members are 'Agree' with the 'Statement-6'. Besides, 10.64% PG Students, 4.30% Research Scholars & 8.33% Faculty Members are 'Not Agree' with the 'Statement-6'.

As per the Chi-Square test ( $\chi^2$ ), Association between Respondent and ICT Services have affected study/research works, users' opinion of G.B. Pant University were found statistically significant except the statement no. 2.

**Table 3- ICT Services have affected study/research works (University of Lucknow) users' opinions:**

S. No.	Statement	Respondent	Users Opinion			x <sup>2</sup> - value	p - value
			Partially Agree	Agree	Not Agree		
1.	It has made easier to access study/research material globally.	U.G. Student	10(21.28%)	37(78.72%)	0	16.19	<0.010
		P.G. Student	7(15.56%)	38(84.44%)	0		
		Researcher (62)	0	62(100%)	0		
		Teachers (72)	5(6.95%)	67(93%)	0		
2.	It has made easier to get reading/research material	U.G. Student	15(31.92%)	32(68.08%)	0	31.11	<0.001
		P.G. Student	9(20%)	36(80%)	0		
		Researcher (62)	4(6.45%)	58(93.55%)	0		
		Teachers (72)	0	72(100%)	0		
3.	It provides the variety of reading materials	U.G. Student	6(12.77%)	41(87.23%)	0	12.9	<0.048
		P.G. Student	0	45(100%)	0		
		Researcher (62)	0	62(100%)	0		
		Teachers (72)	4(5.56%)	68(94.44%)	0		
4.	It is very helpful to improve quality of work	U.G. Student	8(17.02%)	39(82.98%)	0	31.59	<0.001
		P.G. Student	0	45(100%)	0		
		Researcher (62)	0	62(100%)	0		
		Teachers (72)	0	72(100%)	0		
5.	Use of ICT is time saving process	U.G. Student	5(10.64%)	42(89.30%)	0	19.47	<0.002
		P.G. Student	0	45(100%)	0		
		Researcher (62)	0	62(100%)	0		
		Teachers (72)	0	72(100%)	0		
6.	ICT inspires new Innovation/ideas	U.G. Student	5(10.64%)	39(82.96%)	3(6.38%)	27.38	<0.001
		P.G. Student	8(17.70%)	31(68.89%)	6(13.33%)		
		Researcher (62)	0	62(100%)	0		
		Teachers (72)	17(23.61%)	50(69.44%)	5(6.99%)		

**ICT Services have affected study/research works (University of Lucknow):**

**Statement-1:** 'It has made easier to access study/research material globally'.

Table 3 shows that 21.28% UG Students, 15.56% PG Students & 6.95% Faculty Members are 'Partially Agree' with the 'Statement-1', whereas 78.72% UG Students, 84.44% PG Students, 100% Research Scholars & 93% Faculty Members are 'Agree' with the 'Statement-1'.

**Statement-2:** 'It has made easier to get reading/research material'.

Table 3 shows that 31.92% UG Students, 20% PG Students & 6.45% Research Scholars are 'Partially Agree' with the 'Statement-2' whereas 68.08% UG Students, 80% PG Students, 93.55% Research Scholars & 100% Faculty Members are 'Agree' with the

‘Statement-2’.

**Statement-3:** ‘It provides the variety of reading materials’.

Table 3 shows that 12.77% UG Students & 5.56% Faculty Members are ‘Partially Agree’ with the ‘Statement-3’ whereas 87.23% UG Students, 100% PG Students, 100% Research Scholars & 94.44% Faculty Members are ‘Agree’ with the ‘Statement-3’.

**Statement-4:** ‘It is very helpful to improve quality of work’.

Table 3 shows that 17.02% UG Students are ‘Partially Agree’ with the ‘Statement-4’ whereas 82.98% UG Students, 100% PG Students, 100% Research Scholars & 100% Faculty Members are ‘Agree’ with the ‘Statement-4’.

**Statement-5:** ‘Use of ICT is time saving processes’.

Table 3 shows that 10.64% UG Students are ‘Partially Agree’ with the ‘Statement-5’ whereas 89.30% UG Students, 100% PG Students, 100% Research Scholars & 100% Faculty Members are ‘Agree’ with the ‘Statement-5’.

**Statement-6:** ‘ICT inspires new Innovation/ideas’.

Table 3 shows that 10.34% UG Students, 17.70% PG Students & 23.61% Faculty Members are ‘Partially Agree’ with the ‘Statement-6’ whereas 82.96% UG Students, 68.89% PG Students, 100% Research Scholars & 69.44% Faculty Members are ‘Agree’ with the ‘Statement-6’. Besides, 6.38% UG Students, 13.33% PG Students & 6.99% Faculty Members are ‘Not Agree’ with the ‘Statement-6’.

As per the Chi-Square test ( $\chi^2$ ), Association between Respondent and ICT Services have affected study/research works, users’ opinion of University of Lucknow were found statistically significant except the statement no. 3.

**Table 4- ICT Services have affected study/research works (Shobhit Institute of Engineering and Technology)**

**users’ opinion:**



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Sl. No.	Statement	Respondent	Users Opinion			x2-value	p - value
			Partially	Agree	Not		
1.	It has made easier to access study/research material globally.	U.G.	0	48(100)	0	42.35	<0.001
		P.G.	21(43.75%)	27(56.2)	0		
		Researcher	10(10.30)	87(89.6)	0		
		Teachers (84)	10(11.90)	74(88.1)	0		
2.	It has made easier to get reading/research material	U.G.	6(12.5%)	42(87.5)	0	53.05	<0.001
		P.G.	26(54.16)	22(45.8)	0		
		Researcher	13(13.40)	84(86.6)	0		
		Teachers (84)	5(5.95%)	79(94.0)	0		
3.	It provides the variety of reading materials	U.G.	3(6.25%)	45(93.7)	0	47.39	<0.001
		P.G.	20(41.66)	28(58.3)	0		
		Researcher	27(27.84)	70(72.1)	0		
		Teachers (84)	0	84(100)	0		
4.	It is very helpful to improve quality of work	U.G.	0	48(100)	0	75.66	<0.001
		P.G.	10(20.83%)	38(79.1)	0		
		Researcher	45(46.39)	52(53.6)	0		
		Teachers (84)	0	84(100)	0		
5.	Use of ICT is time saving process	U.G.	1(2.08%)	47(97.9)	0	16.53	<0.001
		P.G.	6(12.5%)	42(87.5)	0		
		Researcher	2(2.06)	95(97.9)	0		
		Teachers (84)	0	84(100)	0		
6.	ICT inspires new Innovation/ideas	U.G.	9(18.75%)	32(66.6)	7(14.58)	13.77	<0.032
		P.G.	11(22.91%)	27(56.2)	10(20.8)		
		Researcher	12(12.37)	80(82.4)	5(5.15)		
		Teachers (84)	13(15.47)	57(67.8)	14(16.6)		

**ICT Services have affected study/research works (Shobhit Institute of Engineering and Technology):**

**Statement-1:** 'It has made easier to access study/research material globally'.

Table 4 shows that 43.75% PG Students, 10.30% Research Scholars & 11.90% Faculty Members are 'Partially Agree' with the 'Statement-1', whereas 100% UG Students, 56.25% PG Students, 89.69% Research Scholars & 88.10% Faculty Members are 'Agree' with the 'Statement-1'.

**Statement-2:** 'It has made easier to get reading/research material'.

Table 4 shows that 12.5% UG Students, 54.16% PG Students, 13.40% Research Scholars & 5.95% Faculty Members are 'Partially Agree' with the 'Statement-2' whereas 87.5% UG Students, 45.83% PG Students, 86.60% Research Scholars & 94.04% Faculty Members are 'Agree' with the 'Statement-2'.

**Statement-3:** 'It provides the variety of reading materials'.

Table 4 shows that 6.25% UG Students, 41.66% PG Students & 27.84% Research Scholars are 'Partially Agree' with the 'Statement-3' whereas 93.75% UG Students, 58.33% PG Students, 72.16% Research Scholars & 100% Faculty Members are 'Agree' with the 'Statement-3'.

**Statement-4:** 'It is very helpful to improve quality of work'.

Table 4 shows that 20.83% PG Students & 46.39% Research Scholars are 'Partially Agree' with the 'Statement-4' whereas 100% UG Students, 79.16% PG Students, 53.61% Research Scholars & 100% Faculty Members are 'Agree' with the 'Statement-4'.

**Statement-5:** 'Use of ICT is time saving processes'.

Table 4 shows that 2.08% UG Students, 12.5% PG Students & 2.06% Research Scholars are 'Partially Agree' with the 'Statement-5' whereas 97.92% UG Students, 87.5% PG Students, 97.93% Research Scholars & 100% Faculty Members are 'Agree' with the 'Statement-5'.

**Statement-6:** 'ICT inspires new Innovation/ideas'.

Table 4 shows that 18.75% UG Students, 22.91% PG Students, 12.37% Research Scholars & 15.47% Faculty Members are 'Partially Agree' with the 'Statement-6'.

whereas 66.67% UG Students, 56.25% PG Students, 82.47% Research Scholars & 67.85% Faculty Members are 'Agree' with the 'Statement-6'. Besides, 14.58% UG Students, 20.83% PG Students, 5.15% Research Scholars & 16.66% Faculty Members are 'Not Agree' with the 'Statement-6'.

As per the Chi-Square test ( $\chi^2$ ), Association between Respondent and ICT Services have affected study/research works, users' opinion of Shobhit Institute of Engineering and Technology were found statistically significant except the statement no. 6.

**Table 5- ICT Services have affected study/research works**

Sl. No.	Statement	Respondent	Users Opinion			x <sup>2</sup> -value	p - value
			Partially	Agree	Not		
1.	It has made easier to access study/research material globally.	U.G. Student	12(24%)	38(76)	0	2.85	<0.416
		P.G.	10(20.84%)	38(79.16)	0		
		Researcher (90)	12(13.36)	78(86.67)	0		
		Teachers (92)	16(17.39)	76(82.61)	0		
2.	It has made easier to get reading/research material	U.G. Student	13(26%)	35(70)	2(4%)	89.66	<0.001
		P.G.	14(29.17%)	34(70.83)	0		
		Researcher (90)	17(18.89)	73(81.11)	0		
		Teachers (92)	73(79.35)	19(20.65)	0		
3.	It provides the variety of reading materials	U.G. Student	18(36%)	30(60)	2(4%)	23.09	<0.008
		P.G.	5(10.42%)	43(89.58)	0		
		Researcher (90)	15(16.67%)	75(83.33)	0		
		Teachers (92)	27(29.35)	65(70.65)	0		
4.	It is very helpful to improve quality of work	U.G. Student	20(40%)	28(56)	2(4%)	59.75	<0.001
		P.G.	2(4.16%)	46(95.84)	0		
		Researcher (90)	0	90(100)	0		
		Teachers (92)	15(16.30%)	77(83.70)	0		
5.	Use of ICT is time saving process	U.G. Student	18(36%)	28(56)	4(8%)	42.33	<0.001
		P.G.	2(4.16%)	46(95.84)	0		
		Researcher (90)	11(12.22)	79(87.78)	0		
		Teachers (92)	25(27.17)	67(72.83)	0		

6.	ICT inspires new Innovation/ideas	U.G. Student	18(36%)	30(60)	2(4%)	66.99	<0.001
		P.G.	2(4.16%)	46(95.84)	0		
		Researcher (90)	10(11.11%)	80(88.89)	0		
		Teachers (92)	19(20.65)	51(55.43)	22(23.91)		

(Sam Higginbottom Institute of Agriculture , Technology & Sciences) users opinion:

**ICT Services have effected study/research works (Sam Higginbottom Institute of Agriculture , Technology & Sciences):**

**Statement-1:** ‘It has made easier to access study/research material globally’.

Table 5 shows that 24% UG Students, 20.84% PG Students, 13.36% Research Scholars & 17.39% Faculty Members are ‘Partially Agree’ with the ‘Statement-1’, whereas 76% UG Students, 79.16% PG Students, 86.67% Research Scholars & 82.61% Faculty Members are ‘Agree’ with the ‘Statement-1’.

**Statement-2:** ‘It has made easier to get reading/research material’.

Table 5 shows that 26% UG Students, 29.17% PG Students, 18.89% Research Scholars & 79.35% Faculty Members are ‘Partially Agree’ with the ‘Statement-2’ whereas 70% UG Students, 70.83% PG Students, 81.11% Research Scholars & 20.65% Faculty Members are ‘Agree’ with the ‘Statement-2’. Besides, 4% UG Students are ‘Not Agree’ with ‘Statement-2’.

**Statement-3:** ‘It provides the variety of reading materials’.

Table 5 shows that 36% UG Students, 10.42% PG Students, 16.67% Research Scholars & 29.35% Faculty Members are ‘Partially Agree’ with the ‘Statement-3’ whereas 60% UG Students, 89.58% PG Students, 83.33% Research Scholars & 70.65% Faculty Members are ‘Agree’ with the ‘Statement-3’. Besides, 4% UG Students are ‘Not Agree’ with ‘Statement-3’.

**Statement-4:** ‘It is very helpful to improve quality of work’.

Table 5 shows that 40% UG Students, 4.16% PG Students & 16.30% Faculty Members are ‘Partially Agree’ with the ‘Statement-4’ whereas 56% UG Students, 95.84% PG Students, 100% Research Scholars & 83.70% Faculty Members are ‘Agree’ with the ‘Statement-4’. Besides, 4% UG Students are ‘Not Agree’ with ‘Statement-4’.

**Statement-5:** ‘Use of ICT is time saving processes.’

Table 5 shows that 36% UG Students, 4.16% PG Students, 12.22% Research Scholars & 27.17% Faculty Members are 'Partially Agree' with the 'Statement-5' whereas 56% UG Students, 95.84% PG Students, 87.78% Research Scholars & 72.83% Faculty Members are 'Agree' with the 'Statement-5'. Besides, 8% UG Students are 'Not Agree' with 'Statement-5'

**Statement-6:** 'ICT inspires new Innovation/ideas'.

Table 5 shows that 36% UG Students, 4.16% PG Students, 11.11% Research Scholars & 20.65% Faculty Members are 'Partially Agree' with the 'Statement-6' whereas 60% UG Students, 95.84% PG Students, 88.89% Research Scholars & 55.43% Faculty Members are 'Agree' with the 'Statement-6'. Besides, 4% UG Students, 23.91% Faculty Members are 'Not Agree' with the 'Statement-6'..

As per the Chi-Square test ( $\chi^2$ ), Association between Respondent and ICT Services have effected study/research works, users opinion of Sam Higginbottom Institute of Agriculture, Technology & Sciences were found statistically significant except the statement no. 1 & 3.

**Table 6- ICT Services have affected study/research works (Integral University) users' opinion:**

S. No.	Statement	Respondent	Users Opinion			x <sup>2</sup> -value	p-value
			Partially Agree	Agree	Not Agree		
1.	It has made easier to access study/research material globally.	U.G. Student (48)	29(60.42%)	16(33.33%)	3(6.25%)	29.47	<0.001
		P.G. Student (49)	13(26.53%)	36(73.47%)	0		
		Researcher (88)	40(45.45%)	48(54.55%)	0		
		Teachers (86)	31(36.05%)	55(63.95%)	0		
2.	It has made easier to get reading/research material	U.G. Student (48)	14(29.13%)	34(70.87%)	0	24.41	<0.004
		P.G. Student (49)	17(34.69%)	32(65.31%)	0		
		Researcher (88)	20(22.73%)	56(63.64%)	12(13.64%)		
		Teachers (86)	24(27.91%)	43(50%)	19(22.09%)		
3.	It provides the variety of reading materials	U.G. Student (48)	10(20.83%)	38(79.17%)	0	36.64	<0.001
		P.G. Student (49)	6(12.24%)	43(87.76%)	0		
		Researcher (88)	25(28.41%)	63(71.59%)	0		
		Teachers (86)	4(4.65%)	82(95.35%)	0		
4.	It is very helpful to improve quality of work	U.G. Student (48)	7(14.58%)	41(85.42%)	0	14.49	<0.003
		P.G. Student (49)	10(20.41%)	39(79.59%)	0		
		Researcher (88)	7(7.95%)	81(92.05%)	0		
		Teachers (86)	0	86(100%)	0		
5.	Use of ICT is time saving process	U.G. Student (48)	6(12.5%)	42(87.5%)	0	28.51	<0.001
		P.G. Student (49)	0	49(100%)	0		
		Researcher (88)	0	88(100%)	0		
		Teachers (86)	0	86(100%)	0		
6.	ICT inspires new Innovation/ideas	U.G. Student (48)	2(4.17%)	28(58.33%)	18(37.5%)	44.49	<0.001
		P.G. Student (49)	20(40.82%)	14(28.57%)	15(30.61%)		
		Researcher (88)	14(15.91%)	65(73.86%)	9(10.23%)		
		Teachers (86)	26(30.23%)	37(43.02%)	23(26.74%)		

**ICT Services have affected study/research works (Integral University):**

**Statement-1:** 'It has made easier to access study/research material globally'.

Table 6 shows that 60.42% UG Students, 26.53% PG Students, 45.45% Research Scholars & 36.05% Faculty Members are 'Partially Agree' with the 'Statement-1', whereas 33.33% UG Students, 73.47% PG Students, 54.55% Research Scholars & 63.95% Faculty Members are 'Agree' with the 'Statement- 1'. Besides, 8% UG Students are 'Not Agree' with 'Statement-1'

**Statement-2:** 'It has made easier to get reading/research material'.

Table 6 shows that 29.13% UG Students, 34.69% PG Students, 22.73% Research Scholars & 27.91% Faculty Members are 'Partially Agree' with the 'Statement-2' whereas 70.83% UG Students, 65.31% PG Students, 63.64% Research Scholars & 50% Faculty Members are 'Agree' with the 'Statement-2'. Besides, 13.64% Research Scholars & 22.09% Faculty Members are 'Not Agree' with 'Statement-2'.

**Statement-3:** 'It provides the variety of reading materials'.

Table 6 shows that 20.83% UG Students, 12.24% PG Students, 28.41% Research Scholars & 4.65% Faculty Members are 'Partially Agree' with the 'Statement-3' whereas 79.17% UG Students, 87.76% PG Students, 71.59% Research Scholars & 95.35% Faculty Members are 'Agree' with the 'Statement- 3'.

**Statement-4:** 'It is very helpful to improve quality of work'.

Table 6 shows that 14.58% UG Students, 20.41% PG Students & 7.95% Research Scholar are 'Partially Agree' with the 'Statement-4' whereas 85.42% UG Students, 79.59% PG Students, 92.05% Research Scholars & 100% Faculty Members are 'Agree' with the 'Statement-4'.

**Statement-5:** 'Use of ICT is time saving processes.

Table 6 shows that 12.5% UG Students are 'Partially Agree' with the 'Statement-5' whereas 87.5% UG Students, 100% PG Students, 100% Research Scholars & 100% Faculty Members are 'Agree' with the 'Statement-5'.

**Statement-6:** 'ICT inspires new Innovation/ideas'.

Table 6 shows that 4.17% UG Students, 40.82% PG Students, 15.91% Research Scholars & 30.23% Faculty Members are 'Partially Agree' with the 'Statement-6' whereas 58.33% UG Students, 28.57% PG Students, 73.86% Research Scholars & 43.02% Faculty Members are 'Agree' with the 'Statement-6'. Besides, 37.5% UG Students, 30.61% PG Students, 10.23% Research Scholars & 26.74% Faculty Members are 'Not Agree' with the 'Statement-6'.

As per the Chi-Square test ( $\chi^2$ ), Association between Respondent and ICT Services have affected study/research works, users' opinion of Integral University were found statistically significant.

**Findings:**

The data obtained from table no. 1 to 6 has clearly showed that majority of users have agreed that ICT services save their time to access desired information. ICT gives the information instantly to the users and its services plays significant role in saving the time of students.

**Discussion & Conclusion:**

ICT has become an integral part of human being's life directly or indirectly. Today life cannot be imagined without ICT. In this present era, all the fields which are related with human beings are associated with ICT whether it is Social Life, Health care, Professions and Education. It is evident that the incredible part of human beings is education and being to education the present civil society exists. Education has been the major contributor on transforming human's life from early man's era to present ICT era. The hub of education is university in human society where people can be skilled for their professional life, innovate new ideas along with education. University is the place where three major factors of students/scholars are directly associated which is Education, Health & Wealth and therefore, if anybody wants to know the quality of education in any state or in the country, the best place shall be university to find out the desired answers. "Library is the heart of an Institute/University" this is the sparkle line through which idea involved to know about the 'ICT based library and Information Services in University libraries of Uttar Pradesh'.

With this background, the study has opted 06 prominent university libraries of Uttar Pradesh for survey. These libraries are well established university libraries and all the universities have been playing very significant role in higher education of this state. Besides, study has tried to accommodate all kind of university in its survey such as Central University (UOA), State Universities (BUAT, UOL), Deemed Universities (SIET, SHUATS) and Private University (IGU).

The major motives behind this survey-based study is i) To explore the ICT infrastructure in the



university libraries of Uttar Pradesh, ii) To evaluate these ICT based services through users prospective, iii) To explore the problems in order to implement ICT in this state. While keeping this view in mind 06 objectives, 06 hypotheses were designed and tested; eventually 06 objectives and 05 hypotheses have been found true. Moreover, that data was discussed in details, observed, analysed and suggestion were made accordingly. The study has analysed problems towards implementation and maintenance of ICT applications and services, In this regard suggestions have been given. In addition to it, study has analysed e-contents/ e- reading materials problem in the university libraries and therefore a state level conceptual Consortia based subscription MODEL is suggested for the university libraries of Uttar Pradesh. Through this Consortium, all university libraries of Uttar Pradesh may provide International standard e-database to their users with minimum cost. Moreover this model may help to autonomous institutes/colleges, universities constituent institute/colleges and other important technical/ non-technical institute of the state.

Finally, survey explored the ICT infrastructure in the university libraries of Uttar Pradesh, utilization and evaluation of these ICT infrastructures through users prospective and problems faced by the LIS professionals as well as users. Furthermore, the survey clearly indicated that all the surveyed universities have good ICT infrastructure but shortage of LIS professionals and ICT skilled staff has been observed. In addition to it, financial crisis has also been noticed towards sustainability of ICT infrastructure. Since the world is being transforming from conventional to ICT era and the role of computers in education segment is being increased gradually and students of Uttar Pradesh also use all advanced technology however due to lack of availability of e-books in the university libraries, the inclination of users is more towards print/hard copy books. Nevertheless, it has been observed during this study that the keen interest towards available e-contents in the surveyed libraries, which has also been overlooked by the regular users, can easy take place through motivation and adequate guidance . It is also noticed that Institutional Repository services have not satisfactory therefore it is suggested that surveyed libraries may give more attention towards Institutional Repository .

Eventually, Universities libraries have been playing a very responsible role as knowledge information centre in this state and majority of students are merely depend on the libraries for their study materials. Gradually, ICT has been playing a vital role to fulfil the desired information of users in the surveyed libraries. However, the education, research and ICT extension are the mandatory activities area for these libraries which has been observed in this study .

In the last but not least, survey clearly indicated Uttar Pradesh university libraries have ICT infrastructures, users have been using all ICT services which provided by the university libraries in order to enhance their knowledge, taking help to perform their study/research works although some

improvement is required in the field of ICT. Librarians are playing significant role in order to sustain and provide ICT services to the users but in order achieving excellence in ICT application and services we must look in two directions one is to their users for adequate guidance, their needs, problem and priorities second one is to the world of information and ICT advancement for resolving current problems and provide best solutions. In addition to this, a third dimension is also very important towards ICT excellence in universities libraries of Uttar Pradesh that is role of organizing bodies. The task is challengeable but nothing is impossible if we decided to achieve it.

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