



# Utilization Pattern of Information and Communication Technology by the Under Graduate Agricultural Students of Rajasthan

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## ABSTRACT

The present study was conducted in S.K.N. Agriculture University, Jobner. There are four constituent colleges of S.K.N. Agriculture University, Jobner and out of these 4, only two colleges, namely S.K.N. College of Agriculture, Jobner (Jaipur) and College of Agriculture, Lalsot (Dausa) were selected purposely due to having sufficient ICT infrastructure for the use of agricultural students. A total of 105 respondents were selected using proportionate random sampling method. A pre-tested interview schedule was used to collect the data from the under graduate students. It was found that majority of the under graduate agricultural students in both the SKNCOA, Jobner and COA, Lalsot used mobile very frequently especially Whatsapp facility daily for 2 to 3 hours.

**Key Words:** Agriculture, Internet, Skills, Utilization, Students.

## INTRODUCTION

Information and communication technology (ICT) had brought about a revolution in every walk of today's life (Omotosho, 2015). It has become an integral part of education and its impact on teaching and learning is widely accepted (Malik, 2009). Information and Communication Technology (ICT) is a comprehensive concept and parallel concept with information technology (IT) that denotes not only a single unit of technology but an assemble of technologies like telecommunication equipment (Adeagbo, 2011), data processing equipment (Mofoluwaso, 2015), semi-conductors, consumer electronics etc. (Adeniran, 2013). The use of ICTs in education also shifts the learning approaches (Kumar, 2012). There is a common belief that the use of ICTs in education contributes to a more constructivist learning and an increase in activity and greater responsibility of students (Ndinoshiho, 2010). ICT has bonded a strong relationship between teachers and students in agriculture (Kumar, 2019). For instance, the National ICT survey in the Netherlands

shows that most primary school students use computers less than once a week and there are still many secondary school teachers who do not use ICT at all. Most often, they use computers for drill-and-practice and word processing (Olubanke, 2012). There are many ICT tools that are useful for education (Richter, 2011). Therefore, the study was undertaken to know about utilization pattern of information and communication technology by the under graduate agricultural students in Rajasthan.

## MATERIALS AND METHODS

There are four constituent colleges of S.K.N. Agriculture University, Jobner namely College of Agriculture, Jobner (Jaipur), College of Agriculture, Lalsot (Dausa), College of Agriculture, Fatehpur (Sikar), College of Agriculture, Kumher (Bharatpur). Out of these 4, only two colleges, S.K.N. College of Agriculture, Jobner and College of Agriculture, Lalsot, was selected purposely due to having sufficient ICT infrastructure for the use of agricultural students. A list of all

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**Table 1. Comparative experience of ICT use of under graduate agricultural students of SKNCOA, Jobner and COA, Lalsot (n=105)**

Sr. No.	Experience of ICT use	SKNCOA, Jobner (n <sub>1</sub> =74)			COA, Lalsot (n <sub>2</sub> =31)		
		F.	Per cent	Rank	F.	Per cent	Rank
1	Less than 6 months	9	12.16	II	0	0.00	IV
2	6 months to 1 year	6	6.10	IV	13	41.94	I
3	1 to 2 years	5	6.76	III	6	19.35	III
4	2 to 4 years	49	66.22	I	12	38.71	II
5	More than 4 years	5	6.76	III	0	0.00	IV

agriculture students studying in B.Sc. Hons. (Ag.) III year and B.Sc. Hons. (Ag.) IV year in both the colleges was collected from the student section of the respective colleges. At S.K.N College of Agriculture, Jobner in third year and fourth year combined there were 184 students (108 boys and 76 girls) whereas in College of Agriculture, Lalsot, (Dausa), there were 78 students (62 boys and 15 girls). By using proportionate random sampling method, a total of 105 respondents, 74 (43 boys and 31 girls) agricultural students from S.K.N College of Agriculture, Jobner (Jaipur) and 31 agriculture students (25 boys and 6 girls) from College of Agriculture, Lalsot, (Dausa) were selected for study purpose. A pre-tested interview schedule was used to collect the data from the under graduate students and analyzed using MS-Excel and SPSS 16.0.

## RESULTS AND DISCUSSION

### Experience clutched by under graduate agricultural students while using ICT.

The data regarding the perceived ICT competence of the under graduate agricultural students of whole SKNAU, Jobner has been presented in Table 1.

From the data (Table 1) it could be understood that from top to bottom ranking (I-IV), Rank I- more than two-third (66.22%) of the UG students of SKNCOA (Jobner) had an experience of 2-4 yr with ICT, whereas on the other hand, more than two-fifth (41.94%) of the UG students of COA, Lalsot, were freshly utilizing ICT less than 6 m, Rank-II, about

one-third (38.17%) of the UG students of COA, Lalsot has an experience of handling ICT for 2 to 4 yr, on the same, 12.16 per cent of the UG students of SKNCOA (Jobner), has used ICT for a period less than 6 m. Rank-III- about 19.35 per cent and 06.75 per cent of the UG students of COA, Lalsot and SKNCOA (Jobner) had a nurture experience of utilizing ICT for a period of 1 to 2 yr and Rank-IV- very few (06.10%) UG students of SKNCOA (Jobner) had a clutching experience for 6 to 1 yr period and interestingly it was found every student of COA, Lalsot in the study has an experience more than 6 yr, it was recorded 100.00 per cent of the respondents from COA, Lalsot had an experience less than 6 months. Overall, majority (58.09%) of the under graduate agricultural students were using the ICT for a period of 2 to 4 yr which was ranked first followed by 18.09 per cent from 6 month to 1 yr, 10.48 per cent from 1 to 2 yr, 08.57 per cent from less than 6 m and only 04.76 per cent under graduate agriculture students used ICT for more than 4 yr which were ranked second, third, fourth and fifth, respectively. It might be due the reason that students of SKNAU, Jobner were having more ICT tools facilities. Experience of ICT use was comparatively more of students of SKNCOA, Jobner than COA, Lalsot reason that students of SKNAU, Jobner attending more online classes and training programme. This showed that awareness regarding various ICT tools has been deeply rooted among students and were very much interested to

**Table 2. Comparative frequency of usage of ICT by under graduate agriculture students of SKNCOA, Jobner and COA, Lalsot n=105**

Sr. No	ICT services	SKNCOA, Jobner (n <sub>1</sub> =74)								COA, Lalsot (n <sub>2</sub> =31)							
		Daily (6)	Twice a week (5)	Once a week (4)	Once a month (3)	Once in six month (2)	Not at all (1)	MPS	Rank	Daily (6)	Twice a week (5)	Once a week (4)	Once in six month (3)	Once in six month (2)	Not at all (1)	MPS	Rank
1	Mobile	73 (98.65)	0 (0.00)	1 (1.35)	0 (0.00)	0 (0.00)	0 (0.00)	99.55	I	31 (100.0)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	100.0	I
2	Television	39 (52.70)	14 (18.92)	4 (5.40)	2 (2.70)	14 (18.92)	1 (1.35)	79.95	IV	22 (70.97)	4 (12.90)	0 (0.00)	0 (0.00)	5 (16.12)	0 (0.00)	87.09	V
3	F.M	12 (16.22)	31 (41.89)	4 (5.40)	0 (0.00)	0 (0.00)	27 (36.49)	60.81	VII	0 (0.00)	8 (25.80)	0 (0.00)	0 (0.00)	0 (0.00)	23 (74.19)	33.87	XI
4	Radio	14 (18.92)	25 (33.78)	3 (4.05)	4 (5.40)	1 (1.35)	27 (36.49)	59.00	VIII	0 (0.00)	8 (25.80)	0 (0.00)	0 (0.00)	0 (0.00)	23 (74.19)	36.02	X
5	Information kiosk/ CSC	14 (18.92)	2 (2.70)	14 (18.92)	14 (18.92)	8 (10.81)	22 (29.73)	51.80	XI	4 (12.90)	0 (0.00)	4 (12.90)	6 (19.35)	12 (38.70)	5 (16.12)	46.77	IX
6	ATM	0 (0.00)	11 (14.86)	21 (28.38)	35 (47.30)	3 (4.05)	4 (5.40)	57.20	IX	0 (0.00)	12 (38.70)	10 (32.25)	9 (29.03)	0 (0.00)	0 (0.00)	68.27	VI
7	Internet	64 (86.49)	4 (5.40)	2 (2.70)	2 (2.70)	2 (2.70)	0 (0.00)	95.04	II	28 (90.32)	3 (9.67)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	98.39	II
8	Camera	35 (47.30)	2 (2.70)	31 (41.89)	1 (1.35)	2 (2.70)	3 (4.05)	79.73	V	22 (70.97)	0 (0.00)	9 (29.03)	0 (0.00)	0 (0.00)	0 (0.00)	90.32	IV
9	Computer	57 (77.02)	3 (4.05)	7 (9.46)	1 (1.35)	2 (2.70)	4 (5.40)	89.18	III	27 (87.10)	3 (9.67)	1 (3.22)	0 (0.00)	0 (0.00)	0 (0.00)	96.24	III
10	e-Books	28 (37.84)	1 (1.35)	16 (21.62)	19 (25.67)	2 (2.70)	8 (10.81)	68.91	VI	9 (29.03)	0 (0.00)	4 (12.90)	18 (58.06)	0 (0.00)	0 (0.00)	66.66	VII
11	CD/DVD	14 (18.92)	0 (0.00)	25 (33.78)	10 (13.51)	7 (9.46)	18 (24.32)	55.40	X	4 (12.90)	0 (0.00)	16 (51.61)	0 (0.00)	6 (19.35)	5 (16.12)	56.45	VIII
	Over all							72.42								71.26	

**Table 3. Opinion about the use of ICT in learning by the under graduate Agriculture students.**

Sr. No.	ICT learning item	SKNCOA, Jobner (n <sub>1</sub> =74)			COA, Lalsot (n <sub>2</sub> =31)		
		F.	Per cent	Rank	F.	Per cent	Rank
1	Use of ICT have great impact on learning process	71	95.95	I	31	100.0	I
2	ICT accelerate learning process	67	90.54	III	29	93.54	III
3	Use of ICT improves my GPA	60	81.08	V	19	61.29	VII
4	Teacher should use ICT during teaching	69	93.24	II	28	90.32	IV
5	I feel fear from the use of ICT	20	27.03	XI	4	12.90	XIV
6	Our syllabus does not support in developing basic ICT skills	39	52.70	VIII	9	29.03	XI
7	Use of ICT for getting information is better than library	55	74.32	VI	26	83.87	V
8	I know how to use ICT but not interested in using it for learning	25	33.78	X	18	58.06	VIII
9	I think getting information from print material/books is better than using ICT	49	66.21	VII	20	64.51	VI
10	I cannot study without the use of ICT tools	49	66.21	VII	13	41.93	IX
11	Training in computers and ICTs skills is useful	66	89.19	IV	30	96.77	II
12	Computer and ICT skills are not needed in my Profession	16	21.62	XII	12	38.70	X
13	I really want to know about computer and ICT but don't have the time	13	17.57	XIII	6	19.35	XIII
14	Programs don't exist for such training in my college	37	50.00	IX	8	25.80	XII

adopt that in their studies. This finding supports the view expressed by Garhwal (2010), Moussa (2012) and Beniwal (2015).

### Frequency of usage of ICT by under graduate agricultural students

The data (Table 2) revealed that mobile (99.55 MPS) was the most used ICT tool by the under graduate agricultural students from SKNCOA, Jobner among different ICTs which was ranked first, whereas in COA, Lalsot mobile (100.00 MPS) was the most used ICT by the under graduate agricultural students among different ICT which was ranked first, whereas the least used ICT by the under graduate agricultural students of SKNCOA, Jobner was the Information kiosk/ Common Service

Centers (51.80 MPS) among different ICTs which was ranked last, in the same hand the least used ICT tool by the under graduate agricultural students of COA, Lalsot was F.M (33.87 MPS) among different ICTs which was ranked last. Mobile phones were the most ICT tools used by the students of both colleges because; mobiles are the most easily accessible and also a cheapest tool. Various educational activities like – online classes, texting, MS Office, banking, PDF etc. can be operated comfortably. Where many ICT tools can do only one or two tasks, on other hand, many tasks can be done simultaneously by the mobile phones.

Opinion about the use of ICT in learning by the under graduate Agriculture student's

## Utilization Pattern of Information and Communication Technology

The data regarding the Opinion about the use of ICT in learning of the under graduate Agriculture students of SKNCOA, Jobner and COA, Lalsot has been presented in Table 3.

The data presented (Table 3) revealed that among the different opinions the use of ICT have great impact on learning process, the most important opinion the use of ICT in learning given at top priority by both the SKNCOA, Jobner (95.95%) and COA, Lalsot (100.00%) under graduate Agriculture students and was first rank due to any problem related to studies, be it in any field, its solution can be found immediately with the help of the mobiles. Hence, it enhanced the learning ability of the students. The opinion Teacher should use ICT during teaching was the second most important opinion by the SKNCOA, Jobner under graduate agriculture students 93.24 per cent, whereas it was the fourth most important opinion by the COA, Lalsot under graduate agriculture students (90.32%). On the other hand, the opinion that I really want to know about computer and ICT but don't have the time was the least important opinion by the SKNCOA, Jobner 17.57 per cent and the opinion that I feel fear from the use of ICT was the least most important opinion by the COA, Lalsot 12.90 per cent under graduate Agriculture students and was assigned last rank.

### CONCLUSION

Majority of the under graduate agricultural students in both the SKNCOA, Jobner and COA, Lalsot used mobile very frequently, especially spent nearly 2 to 3 hr daily in Whatsapp, but have also used ICT for education purpose, mostly through Facebook, internet and e-resources, had a rich awareness of internet use and handling ICT. Majority of the under graduate agricultural students of SKNCOA, Jobner have experience from 2-4 yr, the most popular method of acquired the necessary skills to use internet was through learn by self, prefer hostel to access internet, search in education/academic activities area for utilize ICT, whereas

Majority of the COA, Lalsot have experience for a period of 6-12 m. Preponderance of the UG students of the SKN University had the opinion that use of ICT has great impact on learning process. ICT and mobile usage had deeply penetrated among students, it is like a double edged sword, the students had to be trained in the away for using ICT to enhance and empower them.

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