Frequency of Utilization ofInformation Communication Technology(ICT) Tools by KrishiVigyan Kendra Scientists of Rajasthan State, India

ABSTRACT: Information communication technology (ICT) is a multidimensional term for information technology (IT) that addresses the role of integrated communication and the integration of telecommunications (telephone lines and wireless signals) and computers as well as essential enterprise software, middleware, storage, communication which enable users to access, store, transmit and manipulate information. ICT's is emerging as an important tool for the progress of society. The new technology has significantly improved lifestyle and efficiency levels in all sectors of the economy. This enables the utility of information & communication technology to overcome physical distances and time gaps in communication. Rapid improvements in information technology have increased their cost and space requirements, speed and storage capacity in a short span of time with traditional communication materials such as posters, charts, leaflets, folders, bulletins, audio tapes, transparency, photographs, prepared slides, videotape etc. In simple terms, ICT is a set of techniques evolved to manage information and move it from one place to another. It has been observed that in this traditional system used to take a lot of time to convey the information given to the farmers and the information was not received correctly. The rapid development of information technology has given a new look to communication systems. Now connecting two computers across the country has become an easy task. Separate ICT projects have been initiated by government, NGO's and private companies. As a result, villages in many parts of the country have been connected through a wired network to eliminate the distance between rural and urban people.KrishiVigyan Kendra are established by Indian Council of Agricultural Research (ICAR) all over the country as an institutional innovation for application of agricultural science and technology on the farmer's field with the help of multidisciplinary team i.e. Senior Scientists and Subject Matter Specialists. Who give skill or knowledge oriented training to farmers in multidisciplinary areas like Horticulture, Animal Husbandry and Fisheries, Home Science Agriculture Extension, Agronomy, Plant Protection Entomology/Pathology and Agriculture Engineer.

KEYWORDS: Information Communication Technology (ICT), Frequency, KrishiVigyan Kendra (KVK) NGO's,(Non Government Organizations) Utilization

INTRODUCTION: Information communication technology is the cornerstone of agricultural development at this time. Information communication technology promotes the productivity, efficiency and stability of the agricultural sector. This new information system can add more population and more villagers in developing countries. In order to provide nutrition and salary to a large section, communication is a core issue in developing societies. Communication policies, techniques and strategies need to be revolutionized so that instead of making it privileged by rich people it can be made a fundamental right of poor people. Communication science comes as a profession, particularly in natural and agricultural

communication. It seeks to transform knowledge and skills about advanced agricultural technology with the aim of changing the existing agricultural practices of farmers to increase production in rural areas .KVK's under ICAR, SAU, and NGO is one of the premier institutes dedicated to the upliftment of rural agricultural research. As an institutional innovation, KVK has been set up by ICAR across the country for application of agro-science and technology, with the help of a multi-disciplinary team i.e. senior scientists and subject matter specialists in agriculture sector. Those who provide skills and knowledge training to farmers in areas like Horticulture, Animal Husbandry and Fisheries, Home Science, Agricultural Extension, Agricultural Science, Plant Protection Entomology / Pathology and Agricultural Engineer. The responsibility of KVK's scientists is to transfer recent technologies / information required for their work, including crop production, input supply, pest and disease control, crop harvesting etc so that farmers can get agricultural information quickly and effectively.

RESEARCH METHODOLOGY: The study was conducted in Rajasthan State of India. Rajasthan, a vast state comprises of thirty three districts and all were selected for the study.There are 44 KrishiVigyan Kendrain Rajasthan State also (33 districts) have variety of thus geographical characteristics and all KVK engaged in various extension activities and all were considered for the study.The population of study included all Senior Scientists and Head and Subject Matter Specialists of KrishiVigyan Kendraof all State Agricultural Universities (SAUs) Non Government Organizations (NGOs) and Indian Council of Agricultural Research (ICAR) of the State. All the staff members including of Subject Master Specialists (SMSs), Associate professor and Senior Scientists and Heads. The total sample comprised of 210 KrishiVigyan Kendra Scientists. The main focus of the study was to find out the current state of usage behaviour of KVK scientists regarding selected information communication technology tools.

RESULTS AND DISCUSSION-The study reveals that the frequency of utilization of ICT tools by scientists for the farmers the tool which is utilized maximum by the KVK scientist is Smart phone and Internet with ($\overline{X}$ = 5.00) and Rank-I overall. The website which is utilized maximum by the KVK scientist is www.kvk.icar.gov.in and www.atarijodhpur.in with ($\overline{X}$ = 4.89) and Rank-IV and V respectively. The Message App tool which is utilized maximum by the KVK scientist is WhatsApp with($\overline{X}$ = 5.00) and Rank-I in all the tools. The Agricultural App which is utilized maximum by the KVK scientist is YouTube with ($\overline{X}$ = 4.40) and Rank-III in all the tools.

Table 1:Frequency of utilization of ICT tools byKrishiVigyan Kendrascientists

Category	Frequency of ICT tools													
	Every day		2-3 times week		Once a week		Fortnightly		Rarely		Never			Rank
Common ICT Tools	F	%	F	%	F	%	F	%	F	%	F	%	($\overline{X}$)	
Computer	208	99.05	0	0.00	1	0.48	1	0.48	0	0.00	0	0.00	4.98	II
Laptop	151	71.90	43	20.48	10	4.76	1	0.48	5	2.38	0	0.00	4.59	XI

Smart Phone	210	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5.00	I
Telephone	118	56.19	27	12.85	4	1.90	10	4.76	11	5.24	40	19.04	3.52	XVII
Internet	210	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5.00	I
Agricultural Official Websites														
www.kvk.icar.gov. In	188	89.52	20	9.52	2	0.95	0	0.00	0	0.00	0	0.00	4.89	IV
www.atarijodhpur.in	188	89.52	15	7.14	7	3.33	0	0.00	0	0.00	0	0.00	4.86	V
www.icar.gov.in	159	75.71	44	20.95	7	3.33	0	0.00	0	0.00	0	0.00	4.72	VI
www.manage.gov.in	1	0.48	24	11.43	89	42.38	79	37.62	3	1.42	14	6.67	2.51	XXXIII
www.fao.org	3	1.43	28	13.33	82	39.04	68	32.38	4	1.90	25	11.90	2.44	XXXV
www.mpuat.ac.in	14	6.67	15	7.14	133	63.33	37	17.62	11	5.24	0	0.00	2.92	XXIV
www.raubikaner.org	11	5.24	15	7.14	119	56.67	41	19.52	15	7.14	9	4.28	2.70	XXIX
www.aujodhpur.ac.in	28	13.34	9	4.29	100	47.62	33	15.71	22	10.48	18	8.57	2.68	XXX
www.sknau.ac.in	29	13.81	7	3.33	108	51.43	40	19.05	7	3.33	19	9.05	2.78	XXV
www.rajuvas.org	13	6.19	13	6.19	130	61.90	27	12.86	8	3.81	19	9.05	2.71	XXVIII
www.agriculture.rajasthan.gov.in	103	49.05	61	29.05	25	11.90	18	8.57	0	0.00	3	1.43	4.14	XIV
Kisan Call Centre	41	19.52	22	10.48	18	8.57	12	5.71	12	5.71	105	50.00	1.82	XLIV
Information Kiosks	13	6.19	47	22.38	50	23.81	33	15.71	6	2.86	61	29.05	2.26	XL
E-chaupal	1	0.48	9	4.29	149	70.95	26	12.38	0	0.00	25	11.90	2.57	XXXI
E-mitra	5	2.38	35	16.67	112	53.33	31	14.76	3	1.43	24	11.43	2.70	XXIX
TV	166	79.05	23	10.95	11	5.24	0	0.00	10	4.76	0	0.00	4.60	X
Radio	116	55.24	18	8.57	9	4.29	22	10.48	7	3.33	38	18.10	3.48	XIX
Demonstration Models	46	21.90	95	45.24	51	24.29	15	7.14	3	1.43	0	0.00	3.79	XV
Digital Video Camera	4	1.90	116	55.24	36	17.14	38	18.10	11	5.24	5	2.38	3.23	XXII
e-newspaper	160	76.19	12	5.71	16	7.62	4	1.90	9	4.29	9	4.29	4.35	XIII
e-booklets	10	4.76	68	32.38	78	37.14	22	10.48	18	8.57	14	6.67	2.94	XXIII
Messenger App														
WhatsApp	210	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5.00	I
M Kisan App or KisanSuvidha	20	9.52	64	30.48	43	20.48	0	0.00	25	11.90	58	27.62	2.43	XXXVI
IQ App	5	2.38	0	0.00	2	0.95	0	0.00	3	1.43	200	95.23	0.01	LIII
KVK Sandesh App	32	15.23	26	12.38	2	0.95	11	5.24	25	11.90	114	54.28	1.50	XLV
Video Conferencing	1	0.48	1	0.48	59	28.10	124	59.05	20	9.52	5	2.38	2.16	XLI
e-books	1	0.48	32	15.24	117	55.71	40	19.05	7	3.33	13	6.19	2.72	XXVII
e-journals	7	3.33	29	13.81	105	50.00	55	26.19	7	3.33	7	3.33	2.78	XXV
e-agricultural magazines	10	4.76	91	43.33	61	29.05	40	19.05	7	3.33	1	0.48	3.26	XXI
Agriculture Information portals	154	73.33	37	17.62	13	6.19	5	2.38	1	0.48	0	0.00	4.61	IX
Agriculture App														
IFFCO Kisan App	151	71.90	23	10.95	31	14.76	2	0.95	1	0.48	2	0.95	4.50	XII
Agri Media Video App	8	3.81	22	10.48	86	40.95	15	7.14	9	4.29	70	33.33	2.02	XLIII
KisanYojana	14	6.67	35	16.67	103	49.05	2	0.95	6	2.86	50	23.81	2.52	XXXII
Farmer Bee- RML Farmers	0	0.00	14	6.67	19	9.05	21	10.00	2	0.95	154	73.33	0.75	XLVII
Farmer's Portal	186	88.57	8	3.81	6	2.86	2	0.95	0	0.00	8	3.81	4.69	VII
E-Nam	53	25.24	25	11.90	68	32.38	2	0.95	1	0.48	61	29.05	2.73	XXVI
KVK Mobile App	177	84.29	15	7.14	12	5.71	0	0.00	0	0.00	6	2.86	4.67	VIII
Agro Advisory and Weather Forecast	194	92.38	1	0.48	2	0.95	0	0.00	0	0.00	13	6.19	4.67	VIII
Crop Contingency Plan	10	4.76	6	2.86	108	51.43	52	24.76	1	0.48	33	15.71	2.40	XXXVII
RML Farmer – KrishiMitra	4	1.90	12	5.71	8	3.81	39	18.57	2	0.95	145	69.04	0.81	XLVI
PusaKrishi	68	32.38	21	10.00	112	53.33	2	0.95	1	0.48	6	2.86	3.64	XVI
Kheti- Badi	42	20.00	21	10.00	130	61.90	2	0.95	2	0.95	13	6.19	3.29	XX
KrishiGyan	55	26.19	22	10.48	122	58.10	3	1.43	1	0.48	7	3.33	3.50	XVIII
Crop Insurance	17	8.10	12	5.71	98	46.67	51	24.29	1	0.48	31	14.76	2.52	XXXII

Agri Market	17	8.10	11	5.24	89	42.38	59	28.10	1	0.48	33	15.71	2.45	XXXIV
App to gather crop information	8	3.80	10	4.76	76	36.19	71	33.81	1	0.48	44	20.95	2.14	XLII
Smart Farm	16	7.62	11	5.24	82	39.05	64	30.48	0	0.00	37	17.62	2.37	XXXVII I
Fasal Salah	18	8.57	5	2.38	111	52.85	20	9.52	0	0.00	56	26.67	2.30	XXXIX
Agriculture and Farming App	0	0.00	1	0.48	19	9.05	19	9.05	0	0.00	171	81.43	0.47	XLVIII
Agro connect	0	0.00	0	0.00	7	3.33	14	6.67	0	0.00	189	90.00	0.23	XLIX
Farm Key	0	0.00	0	0.00	0	0.00	7	3.33	0	0.00	203	96.67	0.07	LII
Agro Medix Agriculture App	0	0.00	0	0.00	0	0.00	7	3.33	0	0.00	203	96.67	0.07	LII
Mahadhan App	0	0.00	0	0.00	7	3.33	7	3.33	0	0.00	196	93.33	0.17	LI
My Agri Guru	0	0.00	6	2.86	7	3.33	0	0.00	0	0.00	197	93.81	0.21	L
Uzhawan	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	210	100.00	0.00	LIV
You-Tube	195	92.86	9	4.29	5	2.38	1	0.48	0	0.00	0	0.00	4.90	III

CONCLUSION: Thus it can be concluded that almost every day KVK scientists are using Smart Phone, Computer, You-Tube, agriculture official website www.kvk.icar.gov.in, www.atarijodhpur.in to update their technical knowledge. ICT tools like My Agri Guru, Mahadhan App, Agro Medics Agriculture App, and Farm Key App often did not used. The maximum use of ICT tools by the scientist was WhatsApp and Smart Phones so that agriculture related information could be obtained from time to time.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

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