

Original Research Article

<https://doi.org/10.20546/ijcmas.2020.901.287>

## ICTs Using Pattern of Women Farmers for Agricultural Information

Sunitha Nunavath<sup>1\*</sup>, Sarah Kamala<sup>2</sup> and R. Neela Rani<sup>1</sup>

<sup>1</sup>Department of Home science extension and communication management, College of Home Science, PJTSAU, Hyderabad, India

<sup>2</sup>EXTN-AICRP (Home Science), PJTSAU, Hyderabad, India

\*Corresponding author

### ABSTRACT

ICTs (Information and Communication Technology) usage in third world countries is playing a vital role for the enhancement of farmer's business towards agriculture. Recently, communication through ICTs is considered very important in enhancing farmers' access to better understand agricultural position. Farming communities appreciate ICTs as easy, fast and convenient way to communicate and get prompt answers of respective problems. Nowadays, the ICTs have generated an opportunity for the farmers specially to get the information about marketing and weather. Through this important technology, they directly keep in touch with market personals and offer their produce with reasonable prices. The use of mobile phones, televisions, radio, computer and internet also keeps them aware for weather forecast for agriculture input application like fertilizer and pesticides which might be affected by unforeseen disasters as communicated by metrological department. This device has given new direction and approach to farmers to communicate directly and share about recent advances with each other. The studies showed that ICTs have saved energy and time of farmers and ultimately improved their income. ICTs have provided an opportunity to the farmers to communicate directly with market brokers and customers for sell their product in good price. From the study, it was found that television is the most being popular means of communication among farm women used for dissemination of essential agricultural knowledge to them on a day to day basis.

#### Keywords

ICTs, Agricultural knowledge, Farm women, Information, Utilization

#### Article Info

**Accepted:**

22 December 2019

**Available Online:**

20 January 2020

### Introduction

The dissemination of information and communication technologies (ICTs) in developing countries provides much opportunity to transfer knowledge and information by private companies and government department. Last many years' mobile phone coverage has been spread fast in Asian, African and Latin American countries.

It was indicated that more than sixty per cent of the population of sub-Saharan Africa, Asia and Latin America had access to mobile phone coverage in 2009. In the past the adoption of the mobile phones was primarily by rich people residing in urban areas. Jain *et al.*, (2012) observed that the extent of the farm women's access to ICT depicted a direct relationship with farm size. Radio and TV is accessible to nearly one-third of women

farmers up to medium size farms while 4 out of 5 women farmers of large farms have access to ICT tools. Access to more modern means of ICT like phones and mobiles is less than 10 per cent for women having no land or very small farms while it increases to 67 per cent for large farm size women. Access to computers is virtually nil in all categories barring few cases (10 per cent each) among large farm size categories.

Kafura *et al.*, (2016) focused on exploring the extent of use of ICT as extension tool by the farmers and revealed that majority (81.0%) of the respondents use ICT tools at low extent and only 19.0 percent of the respondents use ICT tools at medium extent. High extent of use was not observed among the respondents. The purpose of selecting this study was mainly to explore the ICTs Using Pattern of Women farmers for Agricultural Information.

### **Materials and Methods**

The study was conducted in Maheswaram and Moinabad mandals of the Rangareddy district, Southern Dry Zone of Telangana. Based on the existence of high range of variability in the rainfall and temperature (since 40 years), the district mandals were selected. Accordingly, the blocks/Mandals selected were Maheswaram and Moinabad Mandals. From each of the selected taluks five villages were selected randomly.

By applying simple random sampling technique 120 respondents were selected for the study. The data collected through a detailed interview schedule employing personal interview method. The responses were scored, quantified, categorized and tabulated using statistical methods like frequencies, percentage, mean, standard deviation and correlation.

### **Results and Discussion**

The results of the present study were discussed, tabulated and presented below in detail

#### **General Information of Farm women**

Majority (53.33%) of the farm works are being done by women farmers falling in the age group of 18-50 years who are actively involved in farming in one or other way and had completed their high school education (31.67%) among which only 5.83 per cent of the farm women had completed their graduation and above level of education. Highest (86.67%) percentage of farm women were married. Utmost (84.17%) of the farm women were belonged to small families with less than three members with small and medium land holdings.

#### **Knowledge and Utilization of ICTs by Farm Women**

Knowledge and utilization of ICTs by farm women were questioned. This section deals with the knowledge and utilization of farm women based on ICTs i.e., availability, accessibility, awareness, uses and utilization. It also studied frequency, purpose, attitude and preference of farm women towards ICTs.

Data presented in Fig 1, clearly reveals that highest percentage (96.67%) of the farm women having television for watching as it was the cheapest and most common source of entertainment.

Next most available ICT hardware was mobile phone (78.33%) screening the day to day requirement of mobiles by all categories of people. Whereas lowest percentage (18.33%) of farm women were having CD/DVDs for storing data. This may be due to the fewer of network availability in the villages.

The findings of the study were in contrast with the study conducted by Paliwas and Maheshwari (2015) revealed that majority of the respondents had family income between Rs. 10,000 – 20,000, had ownership of TV, mobile phone and Newspaper. Major information sources used were by the respondent's neighbor, relatives, friends and TV.

It was clear from the Table 1, Cent per cent of the farm women were aware of calling to the person without internet followed by SMS (75%). When it comes to the mobiles with internet services awareness level were fine (58.33%) of farm women. YouTube (72.50%), Whats app (58.33%), Games/ movies/ songs (54.17%), Facebook (47.50%), and accessing different internet sites (42.50%) were most aware by the farm women and used options of ICTs evidencing the widespread use of the social media in the society. When it comes to the awareness part of computers and laptops with internet more than fifty percent (68.33%) per cent of farm women were aware of office documents/presentations but usage of the same was only 10 per cent and this may be as women were not involved in the office or job works.

Hence it can be concluded that majority of the farm women were aware of calling to the person without internet, and in usage of mobiles and laptops with internet facility were using for the social media apps like you tube, movies/songs/photos, office documents/presentations and social media.

With reference to the level of ICTs utilization, highest percentage (77.50%) of farm women were using television for watching news/movies/songs and lowest percentage (13.33%) were using CD/DVDs for storage purpose (Table 2.4). Bansal and Joshi (2018) reported in the study that majority of the farm women (96%) owned television set and 11 per

cent farm women owned radio. Television was used by 70 per cent farm women always while 26 per cent used it sometimes. While radio was not used by majority of farm women, 6 per cent farm women used it rarely and only 5 per cent farm women used it sometimes.

The findings of the study were in line with the study conducted by Kafura *et al.*, (2016) presented that majority (81.0%) of the respondents use ICT tools at low extent and only 19.0 per cent of the respondents use ICT tools at medium extent. High extent of use was not observed among the respondents.

From the distribution of Fig. 2, findings of the study revealed that only ten per cent of farm women were undergone for training related to ICTs to gain knowledge.

Table 3, refers to the frequency of usage of different ICT tools. Farm women were asked to report on a 4-point scale as always (4), sometimes (3), rarely (2) and never (1).

The results revealed that three-fourth per cent (76.67%) of farm women were always using television that it was the most common means of entertainment with varied range of programmes and serials being attracting the common women and only one-third per cent (12.50%) of farm women were using CD/DVDs.

The findings of the study were in line with the study conducted by Jain *et al.*, (2012) indicated that about one-fourth of the women farmers use radio, TV and phones on a daily basis while only one out of eight women viewed TV on weekly basis. The rest of the women did not use any means of ICT. The pattern suggested that TV being the most popular means of communication among farm women can be used for dissemination of essential agricultural knowledge to them on a day to day basis.

**Table.1** Percentage distribution of farm women according to their awareness & use of different ICT tools & services (N=120)

ICT tools and services		Awareness F (%)		Use F (%)	
		Yes	No	Yes	No
<b>Mobile without internet</b>	Calling	120 (100%)	--	105 (87.50)	15 (12.50)
	SMS	75 (62.50)	45 (37.50)	45 (37.50)	75 (62.50)
	Memory stick/ Memory card	62 (51.66)	58 (48.33)	38 (31.66)	82 (68.33)
<b>Mobile with internet</b>	What's app	70 (58.33)	50 (41.67)	33 (27.50)	87 (72.5)
	Facebook	57 (47.50)	63 (52.50)	15 (12.50)	105 (87.50)
	YouTube	87 (72.50)	33 (27.50)	33 (27.50)	87 (72.5)
	Games/ movies/ songs	65 (54.17)	55 (45.83)	30 (25.00)	90 (75.00)
	Accessing different internet sites (Ex.AgriApps,Shopping)	51 (42.50)	69 (57.50)	21 (17.50)	99 (82.50)
<b>Computer /laptop without internet</b>	Office documents/presentations etc.	80 (66.66)	40 (33.33)	15 (12.50)	105 (87.50)
	Movies/songs/photos	82 (68.33)	38 (31.66)	31 (25.83)	89 (74.16)
<b>Computer/laptop with internet</b>	Office documents/presentations etc.	63 (52.50)	57 (47.50)	12 (10.00)	108 (90.00)
	Social media	63 (52.50)	57 (47.50)	9 (7.50)	111 (92.50)
	Accessing different internet sites Ex.Google	26 (21.67)	94 (78.33)	9 (7.50)	111 (92.50)

**Table.2** Distribution of farm women by level of ICTs utilization (N=120)

ICTs Tools	Level of utilization		
	Regularly F (%)	Occasionally F (%)	Rarely F (%)
Television	93 (77.50)	19 (15.83)	8 (6.67)
Radio	30 (25.00)	48 (40.00)	42 (35.00)
Mobile	58 (48.33)	29 (24.17)	33 (27.50)
Computer	18 (15.00)	24 (20.00)	78 (65.00)
CD/DVDs	16 (13.33)	19 (15.83)	85 (70.83)
Internet	48 (40.00)	44 (36.67)	28 (23.33)

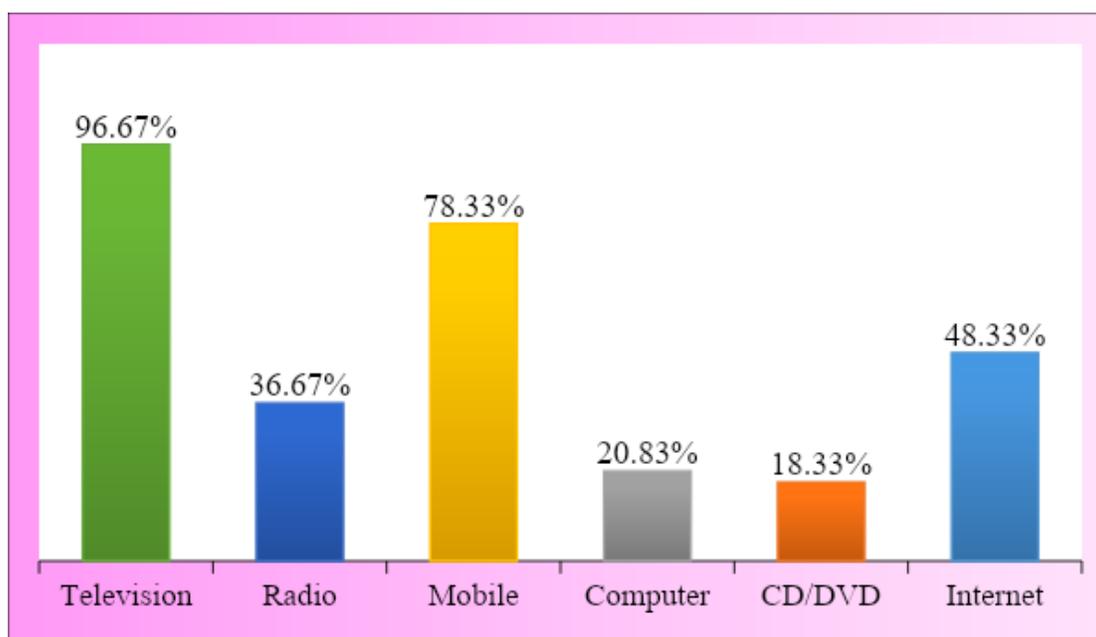
**Table.3** Distribution of Farm Women according to frequency of usage of ICT tools (N=120)

ICT tools	Frequency of usage			
	Always F (%)	Sometimes F (%)	Rarely F (%)	Never F (%)
Television	92 (76.67)	13 (10.83)	12 (10.00)	3 (2.50)
Radio	51 (42.50)	23 (19.17)	21 (17.50)	25 (20.83)
Mobile	62 (51.67)	26 (21.67)	13 (10.83)	19 (15.83)
Computer	16 (13.33)	18 (15.00)	22 (18.33)	64 (53.33)
CD/DVD	15 (12.50)	17 (14.17)	20 (16.67)	68 (56.67)
Internet	45 (37.50)	25 (20.83)	15 (12.50)	35 (29.17)

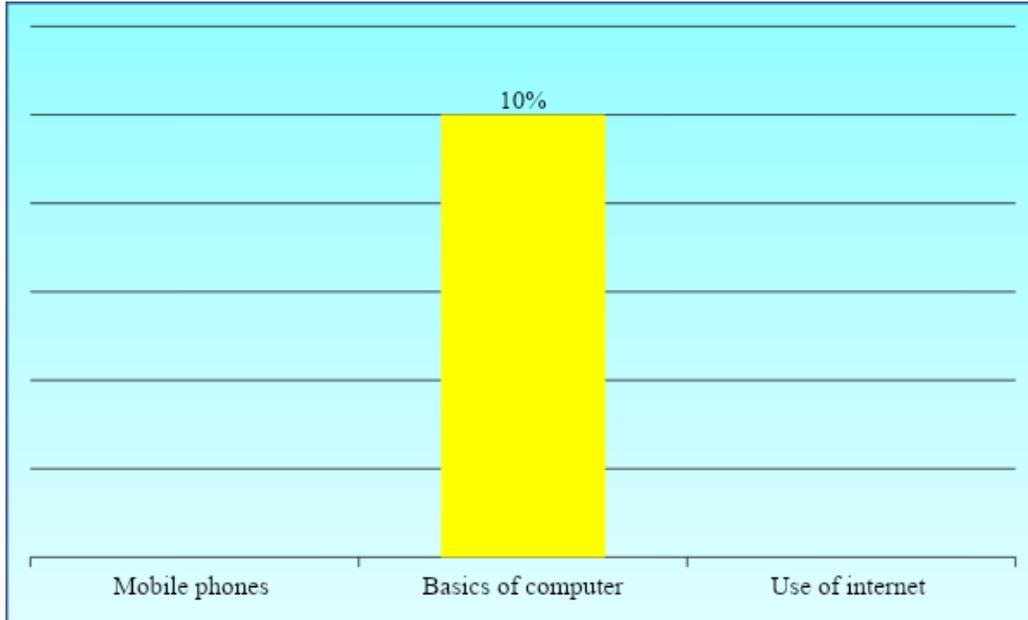
**Table.4** Distribution of Farm Women according to their purpose for using ICTs (N=120)

Variables	Education F (%)	Health F (%)	Business F (%)	Agriculture F (%)	Entertainment F (%)
Television	60 (50.00)	65 (54.16)	30 (25.00)	57 (47.50)	120 (100)
Radio	11 (9.16)	22 (18.33)	5 (4.16)	30 (25.00)	57 (47.50)
Mobile	48 (40.00)	58 (48.33)	25 (20.83)	32 (26.66)	90 (75.00)
Computer	22 (18.33)	15 (12.5)	12 (10.00)	5 (4.16)	18 (15.00)
CD/DVD	18 (15.00)	11 (9.16)	--	3 (2.50)	20 (16.66)
Internet	52 (43.33)	43 (35.83)	20 (16.66)	25 (20.83)	60 (50.00)

**Fig. 1** Availability of ICTs



**Fig.2** According to their related to ICTs and their undergone training



It was clear from the Table 4 that majority of farm women were using television for watching programmes for entertainment purpose (100%), followed by health purpose (54.16%), educational purpose (50%), agricultural purpose (47.50%) and for business purpose (25%) as television is the most viewed and had wide range of programmes being broadcasted among all other ICTs.

The investigation has proved that in India, majority of the agricultural activities were being done by farm women who were in the age group of 18 years to 50 years and are actively involved in farming activities. Twenty per cent of farm women had completed their high school education followed by intermediate while only negligible percentage (3.33%) of the farm women had completed their graduation and above level. Women were engaged in farming in one or other way showing the importance towards the family's earlier living style with holding medium level and small land holdings. Major information sources used by the respondents were neighbor, relatives, friends and TV. With reference to the level of ICTs utilization,

highest percentage of farm women were using television for watching news/movies/songs and lowest percentage were using CD/DVDs for storage purpose and this may be due to the fewer of network availability in the villages, three-fourth per cent of farm women were always using television that it is the most common means of entertainment with varied range of programmes and serials being attracting the common women and only one-third per cent of farm women were using CD/DVDs. TV is the most being popular means of communication among farm women used for dissemination of essential agricultural knowledge to them on a day to day basis. television for watching programmes for entertainment purpose followed by health purpose educational purpose among all the available ICTS by the farm women.

### References

- Jain, R., Ahuja, U.R and Anjani, K. 2012. ICTs and farm women: access, use and impact. *International journal of agricultural economics*. 67 (3): 385-394.

Kafura, R.A., Afrad, S.S and Proadhan, F.A. 2016. Use of ICT as extension tool by the farmers of Gazipur district in Bangladesh. *Indian research journal of extension education*. 16(2): 1-5.

Paliwal, D and Maheswari. 2015. Utilization

of information and communication technologies by farm women of Udaipur district, Rajasthan. P.hd Thesis. MPUAT, Udaipur. <http://krishikosh.egranth.ac.in/handle/1/5810025136>.

**How to cite this article:**

Sunitha Nunavath, Sarah Kamala and Neela Rani, R. 2020. ICTs Using Pattern of Women Farmers for Agricultural Information. *Int.J.Curr.Microbiol.App.Sci*. 9(01): 2524-2531. doi: <https://doi.org/10.20546/ijcmas.2020.901.287>