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### Identifying ICT based information providers in the erstwhile Karimnagar district

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#### Abstract

The present study was conducted to identify the agricultural information providers in the study area. ICT-based agriculture information providers play a pivotal role in disseminating crucial agricultural information to farmers through various digital platforms such as mobile phones, television, and SMS services. These providers serve as the conduits through which farmers access essential knowledge that can enhance their agricultural practices and improve yields. In the context of identifying ICT-based information providers, it's essential to understand the pattern through which farmers acquire information. By identifying information providers we can gain insights into the effectiveness and reach of different platforms in delivering agricultural information to farmers. The research was conducted in erstwhile Karimnagar district which consists of four districts at present 1. Jagtial 2. Karimnagar 3. Peddapalli and 4. Rajanna Sircilla, to identify the ICT based information providers to the farmers regarding agricultural information. For the research study 120 respondents were selected. Ex-post-facto research design was used. The sources of information providers are categorized into informal, formal, mass media and social media. Among informal sources, the majority of farmers (55.00%) receive information regularly from progressive farmers. Regarding formal sources, the majority of farmers (25.00%) obtain information regularly from agricultural officers. Mass media sources show that the majority of farmers (32.50%) receive information regularly from mobile phones, while among social media platforms, the majority of farmers (47.50%) receive information regularly from YouTube.

**Keywords:** ICT, agricultural information and information providers

#### 1. Introduction

Information and Communication Technology (ICT) has become a transformative force in modern agriculture, presenting numerous opportunities to enhance productivity, efficiency, and sustainability. Its integration marks a significant shift in global agricultural practices, with ICT offering unprecedented potential to revolutionize production, marketing, and management processes. Addressing the issues of agriculture in this millennium would depend entirely on the appropriate selection and use of new information and communication technologies in various rural areas to interact with and educate millions of farm families (Chattopadhyay, 2004) [3].

In the agricultural sector, ICT facilitates knowledge sharing among diverse networks, including researchers, exporters, extension services, and farmers. By connecting rural communities to the internet, ICT enables crucial information exchanges, granting access to valuable resources and empowering the creation of local content (Jayatilake *et al.*, 2008) [6]. Government agencies and university research departments have extensively investigated the role of ICT in supporting agricultural production systems. While proven

vital in technology transfer and dissemination of modern agricultural practices, many farmers have yet to fully exploit its potential (Jain *et al.*, 2010) [5]. ICT encompasses various communication devices and applications, spanning radio, television, cellular phones, computers, network hardware and software, satellite systems, and associated services like videoconferencing and distance learning (Nandeesh, 2016) [12]. The transformative impact of ICT extends across all aspects of human life, particularly in agriculture. Initiatives such as Kisan call centers, Gyandoot, Bhoomi project, Village knowledge centers, and AGMARKNET exemplify ICT models in Indian agriculture, revolutionizing service delivery methods. Initiatives from the Keralan government like Akshaya and e Krishi are noteworthy in this regard. The Maharashtra-implemented e-Choupal initiative has similarly produced superior outcomes.

Despite advancements, India ranks 131st in the ICT Global Index (IDI) for 2015, highlighting potential for further improvement (Hindu survey, December 1, 2015). ICT - based agriculture information providers utilize mobile phones, television, SMS services, and other ICT tools to deliver agricultural information to farmers. This pattern

reflects how farmers access information, either actively seeking it or as a result of their behavior. Measurement of this variable was conducted through a developed schedule for the study, assessing farmers' exposure or contact with various sources of farm information.

## 2. Materials and Methods

The study was conducted in 2023 in the state of Telangana using an ex-post facto research design. It was carried out in the former Karimnagar district of Telangana, with 120 respondents chosen through random selection. Four districts – 1. Jagtial 2. Karimnagar 3. Peddapalli and 4. Rajanna Sircilla that were once part of the Karimnagar district, were purposively selected for the study, as the researcher is from this region. One mandal was randomly selected from each district: Metpally mandal from Jagtial, Vemulawada mandal from Rajanna Sircilla, Julapalle mandal from Peddapalli, and Karimnagar mandal from Karimnagar. Three villages were randomly chosen from each mandal, making a total of twelve villages for the study. In each selected village, 10 farmers were randomly chosen, resulting in 120 respondents for the study. To identify agriculture information providers, a structured schedule was developed specifically for the study. The schedule contained 18 items (information sources) categorized into four sub headings namely informal sources, formal sources, mass media and social media. The level of information providers was assessed on a three-point continuum, with scores of 2, 1, and 0 representing regularly, occasionally, and never, respectively. This schedule serves as a tool to understand the frequency and intensity of farmers' engagement with various ICT-based information providers.

## 3. Results and Discussion

From the table 1 it was noticeable that the nature of receiving information by the farmers from different ICT based information providers are grouped under four different categories. The sources of information providers are mainly informal, formal, mass media, social media. There are 18 sub headings in the table under the sources of information.

The results show that in informal sources, the maximum respondents receive information regularly from progressive farmers (55.00%), followed by input dealers (25.00%), friends (15%), and relatives (7.5%). The respondents receive information occasionally from friends (57.50%) and relatives (57.50%) followed by input dealers (47.50%) and progressive farmers (40.00%). It was found that respondents never receive information from informal sources like relatives (35.00%), followed by friends (27.50%) and input dealers (27.50%) and progressive farmers (5.00%). The results were in accordance with the findings of Awan *et al.* (2019) [2], Mittal and Mehar (2013) [11] and Kumari and Kumari (2017) [9].

In formal sources, the one fourth respondents receive information regularly from agriculture officers (25.00%), followed by agriculture scientists from SAUs (10.00%), registered societies (5.00%), and co-operatives (4.17%). The respondents receive information occasionally from agriculture officers (50.00%), followed by co-operatives (49.17%), registered societies (42.50%) and agriculture scientists from SAUs (27.50%). It was found that

respondents never receive information from formal sources like NGOs (100%) because there are no active NGO's working as far as respondent's responses were concerned. The results were in accordance with the findings of Kumar and Sankara (2013) [8] and Mittal and Hariharan (2018) [10].

In mass media, the maximum respondents receive information regularly from mobile phones (32.50%), followed by television (30.00%), newspaper (17.50%), farm literature (5.00%) and none of them receive from radio. The respondents receive information occasionally from television (60.00%), followed by newspaper (57.50%), mobile phones (55.00%), farm literature (25.00%) and radio (5.00%). It was found that respondents never receive information from mass media sources like radio (95.00%), followed by farm literature (70.00%), newspaper (25.00%), mobile phones (12.50%) and television (10.00%). The findings were similar to the findings of Khan *et al.* (2022).

In social media, the maximum respondents receive information regularly from YouTube (47.5%), followed by WhatsApp (37.5%), internet (12.5%) and others (10%). The respondents receive information occasionally from YouTube (40%), followed by WhatsApp (35%), internet (25%) and others (20%). It was found that respondents never receive information from other modern ICT (70%), internet (62.5%), WhatsApp (27.5%) and YouTube (12.5%). The results were in line with Armstrong and Gandhi (2012) [1].

**Table 1:** ICT based information providers

Sl. No	Information sources	Regular		Occasional		Never	
		f	%	f	%	f	%
I	<b>Informal Sources</b>						
	a. Friends	18	15.00	69	57.50	33	27.50
	b. Relatives	9	7.50	69	57.50	42	35.00
	c. Input dealers	30	25.00	57	47.50	33	27.50
	d. Progressive Farmers	66	55.00	48	40.00	6	5.00
II	<b>Formal Sources</b>						
	e. Agri. Scientists from SAU's	12	10.00	33	27.50	75	62.50
	f. Agriculture Officers	30	25.00	60	50.00	30	25.00
	g. Registered societies	6	5.00	51	42.50	63	52.50
	h. NGO's	0	0.00	0	0.00	120	100.00
III	i. Co-operatives	5	4.17	59	49.17	56	46.67
	<b>Mass Media</b>						
	j. Radio	0	0.00	6	5.00	114	95.00
	k. Television	36	30.00	72	60.00	12	10.00
	l. Newspaper	21	17.50	69	57.50	30	25.00
	m. Farm Literature	6	5.00	30	25.00	84	70.00
IV	n. Mobile Phones	39	32.50	66	55.00	15	12.50
	<b>Social Media</b>						
	o. WhatsApp	45	37.50	42	35.00	33	27.50
	p. YouTube	57	47.50	48	40.00	15	12.50
	q. internet	15	12.50	30	25.00	75	62.50
	r. Other modern ICT (Twitter, Instagram, Facebook)	12	10.00	24	20.00	84	70.00

## 4. Conclusion

The study concluded that a significant proportion of the respondents receive information from progressive farmers, agricultural officers, social media sources like YouTube. Regulating information from sources, particularly social media, is essential to enhance the authenticity and credibility of the information. The use of Information and Communication Technology (ICT) to enhance knowledge

sharing and communication processes has become a crucial element in agricultural extension, with the goal of driving rural development and promoting agricultural growth.

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