



## RESEARCH ARTICLE

# Constraints Perceived by Paddy Farmers during Utilization of Agricultural Information Sources and Channels

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### ABSTRACT

In this era of information, very huge amounts of information are generated which transfers to farmers through various sources and channels. For that, Agriculture needs to be well-organized, with an effective national partnership programme infrastructure and a reliable integrated information delivery system. Two blocks were selected purposefully in the Khammam district of Telangana state. In each block, two villages were selected based on the maximum cultivation area under paddy and thirty respondents per village were selected proportionate randomly, comprising a total of 120 respondents as sample. The paddy producers identified usage of high advance demonstrations and a low ratio of farmers to extension professionals as important technical constraints. Giving paddy farmers loans and subsidy programmes for easy access to the internet, television, and mobile can help them in seeking information from different agricultural sources and channels. Additionally, by providing travel reimbursements for any programmes held far from them, they would have easy transportation without having to miss those and would experience an increase in paddy productivity.

**Keywords:***Constraints; Paddy; Utilization; Sources; Channels; Information*

## INTRODUCTION

The age of information explosion has arrived. Every second, a vast amount of information is generated, synthesized, and disseminated. The technology of information has transformed the transmission of information via new methods, such as the internet and e-mail data from any source (Dhayal *et al.*, 2014). Through, a portion of the planet could be made available. As a result of information technology, the world has changed. According to Matovelo (2008), the process of seeking, assessing, and using information is better sustained by mainstreaming it into the lifestyles of target groups, thereby internalizing the information-seeking activity to become self-sustaining. Several studies have shown that access to and use of information is critical in rural areas, just as it is anywhere else. Agricultural improvement will assist poverty reduction techniques and hence enhance people's livelihoods. Agricultural must be effectively organized, with a robust integrated information delivery system supported by effective national partnership programmes (Kalusopa, 2005). Small-scale farmers, including paddy growers, require information to improve agriculture. Marchionini (1995) emphasizes that in order to obtain information, people must change their state of knowledge.

Information is equally crucial as other inputs for increased productivity in any decision-making process. Agricultural information is important in all of the decisions that farmers make, from crop selection to market sales. The agricultural research institutes, state and national departments of agriculture, and agricultural non-governmental organizations (NGOs) are the primary suppliers of new agricultural information (Sandeep *et al.*, 2022). The extension system is working to disseminate developed agricultural information from the research system to the ultimate end consumers. Along with technological advancements in the sphere of information, the extension system updated itself in terms of information dissemination. Considering these facts, the present study Was undertaken with the specific objective to assess the "Constraints perceived by paddy farmers in the utilization of agricultural information sources and channels"

## MATERIAL AND METHODS

The present study was conducted in the Khammam district of Telangana state because it is one of the most paddy cultivated districts in Telangana state. There are 46 blocks in the Khammam district and out of these, two blocks were selected, namely Kusumanchi and Nelakondapally. In each block, two villages were selected based on the maximum area under cultivation. In the kusumanchi block, Kusumanchi and Jujulraopeta were selected and in the Nelakondapalli block, Nachepalli and Cherumadaram villages were selected. Proportionate random sampling was used for the current study. In every village, farmers were categorized into four categories *viz.*, marginal, small, medium, and big farmers, based on the operational land holding of the farmers. The total number of farmers in all categories of four villages was the population of this study. According to the proportion of each category in each village, thirty respondents from each village were selected randomly comprising 120 farmers as a sample for this study. The farmers were asked open-ended questions to give the constraints faced them during the utilization of

sources and channels. The responses given by them are classified into five categories viz., technical, economical, educational, operational, and infrastructural constraints. Frequency and percentage were the statistical tools for the current study.

## RESULTS AND DISCUSSION

### **1. Technology constraints**

A technology-related condition or event that prevents the information completely or partially from being utilized by the paddy farmers. It is important to acquire qualified, seasoned and professional staff for groups to operate well. They should be active enough to trace the new opportunities and make use of them for further improvement of farmers. For optimum utilization of the available sources and channels, a suitable working environment and facilities should be offered. According to the table.1, it is indicated that more than half (54.10%) of the respondents perceived “Less understanding of highly advanced demonstrations” as the major constraint during the utilization of agricultural information sources and channels. It was ranked first among all types of constraints faced by paddy farmers. This might be due to the fact that most of the respondents were not able to understand the technical language used by extension personnel. More than half of the respondents (53.30%) reported that “Less ratio of extension officers to farmers” in the research area. It was the second major constraint perceived by farmers. Due to this scarcity of information sources occurred for the paddy farmers when needed. This is completely in line with Aina (2006), Isinika, and M doe (2001) who stated that farmers virtually and physically never receive fresh information due to the shortage of Agricultural Extension Workers. Nearly half of the paddy farmers (48.30%) reported “Less space for agricultural-related information in newspapers”. Forty-eight percent of paddy farmers reported that there was “No package of practices according to region-specific”. There may be different weather conditions and the use of the same package of practices everywhere results in a loss of yield.

Nearly thirty-six per cent of paddy farmers reported that “Farmers’ associations lack good leadership”. Farmers' associations were regarded as reliable resources for learning about paddy farming. Farmers could have the chance to interact and talk about issues of shared interest. So, the lack of this resulted in less scope for the formation of association and usage of this particular method of the source. Around one-fourth of the paddy farmers reported “Low awareness of agricultural programmes”, “Unreachability of A.E.O.s” and “Lack of local language in articles and journals” which result in lower yields of paddy and these were the least perceived technical constraints. The average score obtained for technical constraints faced by paddy farmers was 45.90.

Table.1 Constraints perceived by the respondents during utilization of agricultural information sources and channels (n=120)

S.No.	Technical Constraints	Frequency	Percentage	Rank
1.	Unreachability of A.E.O.s	31	25.80	IXX
2.	Less ratio of Extension officers to farmers	64	53.30	II
3.	Less space for agri-related information in newspapers	58	48.30	III
4.	Low awareness of agricultural programmes	32	26.70	XVI
5.	Poor understanding of highly advanced demonstrations	65	54.10	I
6.	Lack of agricultural campaigns	42	35.00	X
7.	Farmers' associations lack good leadership	43	35.80	IX
8.	Untimely farm information	38	31.70	XIV
9.	No package of practices according to region-specific	57	48.00	IV
10.	Lack of local language in articles and journals	29	26.70	XVII
	<b>Mean</b>	<b>45.90</b>		

#### **Economic Constrains**

11.	More internet charges	39	32.50	XII
12.	Traveling cost	27	22.50	XX
13.	More cost towards mobile and television	22	18.30	XXIII
14.	More magazines/ books cost	24	20.00	XXII
	<b>Mean</b>	<b>28</b>		

#### **Infrastructural facilities**

15.	Lack of internet facilities	17	14.20	XXVII
16.	Irregular power supply during programmes	25	20.80	XXI
17.	Lack of T.V.	18	15.00	XXVI
18.	Lack of Mobile	07	5.80	XXIX
19.	Lack of library facilities	12	10.00	XXVIII
	<b>Mean</b>	<b>15.80</b>		

#### **Educational constraints**

20.	Low literacy rate of respondents	38	31.60	XV
21.	Lack of knowledge about extension personnel	45	38.00	VII

22.	Lack of time for accessing the information	32	26.70	XVII
23.	Lack of information about progressive farmers	20	16.70	XXV
<b>Mean</b>		<b>33.75</b>		

### **Operational constraints**

24.	More usage of the technical language in TV /Radio /Newspaper	20	16.70	XXV
25.	Poor communication ability of extension workers	40	33.30	XI
26.	Number of visits by the agricultural supervisors were comparatively low	45	37.50	VII
27.	Low persuasiveness of T.V. programmes	43	35.80	VIII
28.	Lack of teaching aids by extension officers	52	43.30	V
29.	Lack of coordination between the farmers and extension personnel	39	32.50	XIII
<b>Mean</b>		<b>39.80</b>		

## **2. Economic constraints**

An economic constraint involves external economic factors that affect farmer or farmer communities in reaching various agricultural communication sources and channels. Some of the paddy farmers were economically less stable, which do not allow them to buy costly television, mobile or internet packages, and agricultural magazines hindering them from accessing agricultural information sources and channels. In table.1, it is reported that thirty-nine per cent of the respondents were struggling for using internet facilities which prevent them from accessing paddy and agricultural-related information. More than one-third of paddy farmers reported that they were facing problems due to high internet charges which hinder them from accessing paddy information. More than one-fifth of paddy growers revealed more travelling costs when the agricultural programmes were arranged far away from them. One-fifth of the respondents revealed that more costs for buying agricultural magazines. Nearly one-fifth of the respondents perceived that more mobile and television costs, which avoid respondents from participating in virtually conducted programmes about paddy technologies. Lack of resources and high prices might sometimes make it difficult to get information. For instance, using information systems online and accessing the internet is expensive, as mentioned by Nicholas (1996). The average score obtained for economical constraints faced by paddy farmers was 28.00.

### 3. Infrastructural constraints

Infrastructural constraints are something that prevents the farmer from accessing information in an easy manner. Agricultural communication infrastructure provides a pathway for paddy farmers to share agricultural information about any technology demonstration, awareness programmes, and training programmes conducted by agricultural extension personnel. More than one-fifth of paddy growers perceived that “Irregular power supply during programmes”, which results in missing the order of events organized. It leads to misleading information by paddy growers. About, fifteen per cent of the respondents reported “Lack of internet facilities” and “Lack of T.V.” which keep them a bit away from new technologies compared with farmers who are having good internet and television facilities. Ten per cent of respondents reported that they were not having library facilities that help them to access agricultural information easily. People will have access to reading material, including that related to paddy and agricultural activities if the Public Library Service is eventually established throughout the nation. This will enable them to raise their literacy or education levels and, at long last, acquire agricultural knowledge. The average score obtained for infrastructural constraints faced by paddy farmers was 15.80.

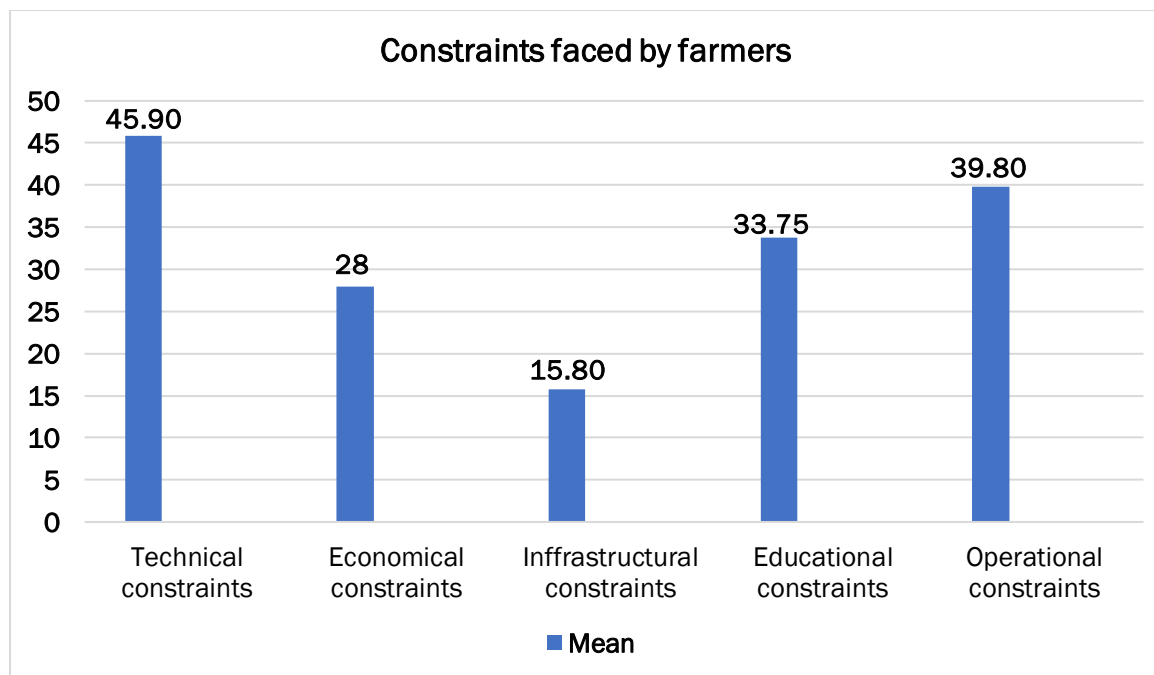


Figure 1. Constraints perceived by the respondents during the utilization of agricultural information sources and channels

### 4. Educational constraints

Educational constraints are mainly due to the low literacy level of the respondents which hinders them from accessing efficient sources and channels for acquiring knowledge of paddy cultivation. Paddy growers can read and comprehend the information in the media and use it to their advantage if they are educated. A person's perception of innovation before making a decision is also thought to be influenced by a number of factors, including their level of education. As a result, a lack of education prevents people from using and sharing agricultural information (M bwana, 1994). About one-third of respondents fell under the category of "Low literacy", causing a major barrier for them when the information was in literature viz., leaflets, articles, magazines, and other print materials. Thirty-eight per cent of paddy growers reported that they "Lack of knowledge about extension personnel" leading them to be less informative than literates about paddy farming. Nearly twenty-seven per cent of respondents reported that "Lack of time for accessing information" about paddy farming. According to respondents, this was mainly due to busy schedule at home carrying out different practices. Farmers in underdeveloped nations are overworked and have no time to seek information or learn to read even if education courses are accessible (Park 2007). The average score obtained for educational constraints faced by paddy farmers was 33.75.

### **5. Operational constraints**

Operational constraints mainly arise due to the inadequate performance of sources and channels in providing agricultural information to farmers. A few farmers receive agricultural extension services, according to Bilonkwamanagara (2008) and not all farmers are reached by agricultural supervisors. As a result, information on the newest agricultural technologies is not widely disseminated and in areas without extension agents, farmers are denied access to extension services. Nearly twenty per cent of paddy growers reported "More usage of technical language in Radio/ T.V./ Newspaper" which leads to a low understanding of agricultural information shared by these channels. This result in low adoption rates of newer paddy technologies. About one-third of respondents reported "Poor communication ability of extension workers", "Agriculture supervisors pay a very low number of visits to the farmer's field", "Low persuasiveness of T.V. programmes" and "Lack of coordination between the farmers & extension personnel" which results in low utilization of agricultural information sources and channels for obtaining paddy information. The average score obtained for operational constraints faced by paddy farmers was 39.80.

## **CONCLUSION**

Based on the findings it is clear that the use of highly advanced demonstrations and less ratio of farmer to extension personnel were major technical constraints perceived by the paddy growers. So, the use of farmer-friendly demonstrations and an increase in extension personnel can help the farmer

community in obtaining agricultural-related information. Paddy farmers face problems with high internet charges, high cost of mobile & television, and high traveling costs which hinders them from accessing agricultural information. Providing paddy farmers loans and subsidy programs for easy availing of internet, television, and mobile can help them in gaining agricultural information and by giving travel allowances during any programmes conducted far away from them would help them in easy transport without any absence and increase in productivity. Good coordination between extension personnel and paddy farmers could increase the rate of utilization of different sources and channels. An increase in the literacy rate of farmers could increase the usage of print media easily resulting in more awareness of paddy related programmes conducted by the department of agriculture Library facilities with non-technical language can increase the adoption rate of newer technologies and better utilization of agricultural information sources and channels.

### **Ethics statement**

Specific permits were not required for the above field studies because no human or animal subjects were involved in this research.

### **Consent for publication**

All the authors agreed to publish the content.

### **Competing interests**

There was no conflict of interest in the publication of this content.

### **Data availability**

All the data of this manuscript are included in the manuscript. No separate external data source is required. If anything is required from the manuscript, certainly, this will be extended by communicating with the corresponding author through corresponding official mail xxxxxxxx

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