



## FARMERS PERCEPTION ABOUT INTERACTIVE MULTIMEDIA COMPACT DISC (IMCD) IN TIRUVANNAMALAI DISTRICT OF TAMIL NADU, INDIA

**Kavaskar M\*., Kalidasan T., Vengatesan D. and Santha Govind**

Department of Agricultural Extension, Faculty of Agriculture,  
Annamalai University, Chidambaram, Tamil Nadu, India.

\*Corresponding author e-mail: kavasag@yahoo.co.in

### Abstract

Quick dissemination of technological information from agricultural research systems to the farmers and reporting of farmers' feedback to the research system has always been one of the critical inputs in transfer of agricultural technologies leading to increased production. At present the ratio of farmers to extension workers is very less. These issues have created the urgency to help and transfer the agricultural technologies to the poor farmers properly. The cost factor in face to face information dissemination at the right time and the difficulties in reaching the target audience have also created the urgency to introduce Information and Communication Technology (ICT). ICT play an important role in addressing these challenges and uplifting the livelihoods of the farmers. Among the various means for information and communication technologies available, Interactive multimedia compact disc (IMCD) is one of the most versatile audio visual medium of communication. It is very efficient, accurate, quick and somewhat cheaper in the field of disseminating the agricultural technologies from research system to the farmers. Considering its prime importance, newness and demand from the farmers, the farmer friendly Interactive Multimedia Compact Disc on organic farming practices in paddy was developed in Tamil language and tested the farmers perception of message component of IMCD. In this study was conducted in Tiruvannamalai district of Tamil Nadu with the sample size of 120 respondents. The results indicated that a vast majority (91.71.00 per cent) of farmers were satisfied with the message component of IMCD.

**Keywords :** Farmers perception, Transfer of technology, Message component, IMCD.

### Introduction

Farming community in India is normally endowed with fragmented land holdings, containing marginal and small sectors to the maximum. The affordability, accessibility and possibility to travel a long distance and to hunt the information is seldom possible. Presently, the traditional is transforming into hi-tech agriculture. The need for updated information is also essential for agricultural production and productivity, eventually resulting with lucrative yield and income to the farming community. To help to ensure this situation, it is essential to effectively communicate the useful agricultural technologies to the farmers. For this, they should also be able to access the expertise in the field of agriculture. Improved communication and access to agriculture information are directly related to social and economic development.

Among all the means of mass communication, multimedia is one of the most versatile audiovisual medium of communication (Brun & Mangstl, 2001). Multimedia instructional material allows the learner actually to see, hear and use the content to be learned (Roden, 1991). Interactive multimedia compact disc can be used as an effective tool for the transfer of technology (Senthikumar *et al.*, 2003). Multimedia communication is the representation, storage, retrieval and dissemination of machine processable information expressed in multimedia such as text, voice, image, audio and video. Multimedia tools are ideally suited to demonstrate complex and dynamic process that cannot be explained easily with conventional media and methods. Presentation of agricultural technology through Interactive Multimedia Compact Disc (IMCD) to the subjects could disseminate farm information and thereby used as an effective transfer of technology tool (Vanetha, 2013).

Interactive Multimedia package includes some combination of texts, graphics, still images, animation, video and audio. It has the capacity to deliver large amounts of materials in multiple forms, and to deliver them in an

integrated environment that allows users to control the reading and viewing experience (Randall Bass, 2015). The study is expected to contribute to the advancement of knowledge to farmers for enhanced adoption of organic farming practices. Feasibility of appropriate development and implementation of various ICTs for transfer of agricultural technologies were looked into and based on the research evidence, IMCD was considered as the most effective tool for quick dissemination of technologies.

### Materials and Methods

The research was conducted in Tiruvannamalai District. A sample size of 120 respondents cultivating paddy and those who had the ability to read and write Tamil were considered for the selection of respondents. It would be somewhat difficult task to select the literate farmers by following the normal procedure. Hence, snowball sampling technique and secondary source of information were used to identify the literate farmers available in these selected villages. In this study, snowball sampling was carried out to identify the paddy growing farmers with functional literacy. Besides, this the other sources like village administrative officials and farmers discussion group conveners of the study area were consulted to enlist the functional literate farmers in the study area.

According to Taneja (1989) perception is the process of understanding sensation or attaching meaning based on past experience to signs. It referred to the amount to which the receiver perceives correctness, usefulness and timeliness of the information communicated through the IMCD. The message component of IMCD was constructed with the help of extension scientists, computer experts and other related field personnel. To measure the perceived satisfaction of respondents on IMCD, a list of items relating to message component were prepared. These listed items were administered to the respondents. The individual farmer was asked to state on a two-point continuum as satisfied or not

satisfied with the statements in his hand. Simple percentage was calculated based on the frequency of respondents.

## Results and Discussion

In the present competitive era, information is being treated as the sixth and most important resource in addition to most traditional resources namely man, machine, money, material and time. Hence, a systematic process involving researchers and communication specialists is required to develop high quality media material and to design a rational distribution system which will ensure that information reaches the intended audience effectively. Hence, the degree of effectiveness of the developed IMCD was assessed based on the perception of the respondents. In this context,

perception was operationalized as the process by which one can be able to see, hear and understand things. Hence, it is assumed that greater the perception of IMCD as perceived by its viewers in terms of satisfaction derived from the various components of IMCD, greater would be the viewers' exposure and post-exposure activities.

### Farmers perceived satisfaction on message component of IMCD

A detailed analysis on message component of IMCD as perceived by the respondents are discussed in the Tables 1. Based on the scores obtained by the respondents, they were grouped into two categories viz., satisfied and not satisfied.

**Table 1 :** Distribution of respondents according to their perceived satisfaction on the message components of IMCD

(n=80)

Sl.No.	Items	Satisfied		Not satisfied	
		No.	Per cent	No.	Per cent
1	Introduction of subject	76	95.00	4	5.00
2	Accuracy of the message	74	92.50	6	7.50
3	Clarity of the message	78	97.50	2	2.50
4	Relevancy of the message	80	100.00	-	-
5	Understandability of the message	76	95.00	4	5.00
6	Completeness of the information	75	93.75	5	6.25
7	Logical presentation	78	97.50	2	2.50
8	Explanation on complex ideas	74	92.50	6	7.50
9	Reinforcement of key ideas	72	90.00	8	10.00
10	Practical utility of message	80	100.00	-	-
11	Use of video clippings	77	96.25	3	3.75
12	Use of illustrations	68	85.00	12	15.00
13	Use of tables	65	81.25	15	18.75
14	Details on economics of operations	62	77.50	18	22.50
15	Source of information	72	90.00	8	10.00
16	Summarizing the subject	67	83.75	13	16.25
<b>Mean percentage</b>		<b>91.71</b>		<b>8.29</b>	

### Introduction of subject

A vast Majority (95.00 per cent) of farmers were satisfied with the introduction of subject, while only a meagre percentage (5.00 per cent) of the respondents were not satisfied with the introduction of subject. This may due to the fact that the introduction of each and every sub-heading was prepared with appropriate visuals and accurate message. Further, the introduction was in such a way that the respondents were attracted towards viewing the IMCD and to visualize further into the sub-heads. Moreover, the introduction was presented in a logical and precise manner to attract the viewers.

### Accuracy of the message

Most (92.50 per cent) of the respondents were satisfied with the accuracy of message provided through IMCD. While, only 7.50 per cent of the respondents were not satisfied with the accuracy of the message. The prepared IMCD content was already subjected to valuation by several subject matter specialists and this may be the probable reason for the greater satisfaction expressed by most of the respondents.

### Clarity of the message

Almost all the respondents (97.50 per cent) were satisfied with the clarity of the message and only a meagre

percentage (2.50 per cent) of the respondents were not satisfied with the clarity of the message presented through IMCD. The use of appropriate visuals along with suitable text and voice would have enhanced the clarity of the message.

### Relevancy of the message

Cent per cent of the respondents were satisfied with the relevancy of the message. This might be due the comprehensive collection and presentation of the message in a coherent and logical manner. This might be the reason for their high level of satisfaction regarding the message relevancy.

### Understandability of the message

A vast Majority (95.00 per cent) of the respondents were satisfied with the understandability of the message. While, only a less percentage (5.00 per cent) of the respondents were not satisfied with the understandability of the message. This might be due to the fact that the IMCD contained sequential presentation of message in simple sentences and in local dialect. So, it was not difficult for them to understand the message delivered through this learning module. Further, the audio and video facility of IMCD might have enhanced the understandability of farmers. This may be the reason for their perceived satisfaction to a higher extent.

### **Completeness of the message**

More than three-fourth (93.75 per cent) of the farmers were satisfied with the completeness of the message and only 6.25 per cent of the respondents expressed that they were not satisfied with the completeness of the message given through IMCD. The learning module (IMCD) contained information on different methods of organic farming viz., compost preparation, bio-fertilizer application, bio-pesticide preparation etc., This might have enabled majority of the respondents to perceive the completeness of the information given through IMCD to a greater extent.

### **Logical presentation**

Nearly cent per cent (97.50 per cent) of the respondents were satisfied with the logical presentation of the content. Only a negligible percentage (2.50 per cent) of the respondents were not satisfied with the logical presentation of content. The message were tailored in a logical sequence providing the essential supporting voice, visuals and symbols in a step by step sequence, thus making the entire programme very much satisfied. This style of presentation might have increased their inquisitiveness to learn more about the organic farming practices. This may be the probable reason for their higher level of satisfaction.

### **Explanation of complex ideas**

A vast majority (92.50 per cent) of the respondents perceived explanation of complex ideas as satisfied. While, only 7.50 per cent of the respondents were not satisfied with the explanation of complex ideas relating to organic farming practices in rice. This was achieved because of usage of simple and brief sentences regarding the problem. Moreover, animated video clippings made the complex technical inputs into simple one through the use of demonstration mode.

### **Reinforcement of key ideas**

Most (90.00 per cent) of the respondents revealed that they were satisfied with the reinforcing of key ideas, while 10.00 per cent of the respondents rated as not satisfied with the reinforcing of key ideas. This might be due to the fact that some of the important points and key words were highlighted and hyperlinked with a specific colour (red). This would have enabled them to grasp the information within a very short time. So the understandability was more and quick with this type of reinforcement of key ideas.

### **Practical utility of the message**

Cent per cent of the respondents felt the practical utility of the message as satisfactory. The application of organic farming practices were very easy to prepare as well as to adopt in the field because of the availability of organic materials and cost effectiveness compared to the inorganic methods. This might have been the probable reason for their greater satisfaction over the practical utility.

### **Use of video clippings**

A vast majority (96.25 per cent) of the respondents felt that the video clippings used to present the organic farming practices in rice as satisfied, while only 3.75 per cent of the respondents expressed as not satisfied with the use of video clippings. This clearly showed the interest of the farmers to this media. This is because, for the first time they happened to see different organic farming methods in video presentation through IMCD. The video clipping breaks the

monotony and attracted their attention towards the subject. This may be the reason attributed for the high level of satisfaction among most of the respondents.

### **Use of illustrations**

Illustrations namely vermicompost, bio-fertilizer, different pest and disease management etc., were scanned and incorporated in IMCD. More than three-fourth (85.00 per cent) of the respondents expressed as satisfied with the use of illustrations, while nearly one-sixth (15.00 per cent) of the respondents were not satisfied with the use of illustrations. The illustrations used might have increased their level of understanding the technology in a right way. Hence, a greater appreciation was expressed in this regard.

### **Use of tables**

More than three-fourth (81.25 per cent) of the respondents revealed that they were satisfied with the use of tables, while, the remaining 18.75 per cent of the respondents felt that they were not satisfied with the use of tables. This is because of the difficulty expressed by the respondents to interpret and gather information from the tables. Hence, to promote better learning, use of tables may be avoided. This may be the reason for their dissatisfaction.

### **Details on economics of operations**

Majority (77.50 per cent) of the respondents were satisfied with the details provided on the economics of operations, while 22.50 per cent of the respondents were not satisfied with the details of economics of operations. Since the IMCD did not show the cost benefit ratio and the profitability due to adoption of organic farming practices. This may be the reason for the respondents dissatisfaction on this item.

### **Source of information**

90.00 per cent of the respondents revealed that they were satisfied with the source of information, while, only 10.00 per cent of the respondents were not satisfied with the information on input service. The programme concentrated on various aspects viz., organic input preparation and application, organic pest control methods, organic disease control methods and finally post harvest technologies. The availability and source of inputs was not mentioned for many of the organic practices. This might be the reason for their dissatisfaction.

### **Summarizing the subjects**

More than three-fourth (83.75 per cent) of the respondents perceived summarizing the subject as satisfied, while more than one-sixth (16.25 per cent) of the respondents expressed as not satisfied with the summarization of the subjects. The key points about a particular sub-heading was summarized only at the end of each main-heads. This may be the probable reason for the higher level of satisfaction with the majority of the respondents.

### **Conclusion**

The organizations and agencies concerned with agricultural development should be made to realize the potential of IMCDs for the speedy dissemination of information to farmers. Government agencies, NGOs and private entrepreneurs can commercialize such IMCDs by producing them in a cost-effective manner so as reach the unreached. In this study also suggested that information

kiosks should be installed in villages and the skilled trainers should give proper guidance to the farmers on the use of IMCD. User friendly software, graphic interfaces and pictorial information would encourage increased use of IT.

### References

- Brun, C. and Mangstl, C. (2001). Worldwide access to ICT: The digital divide In Dvirchow and Jvonbraun (eds.) villages in the future: Crops, Jobs and livelihood. Springer – Veriag, Berlin, 259-262.
- Randall, B. (2015). A brief guide to interactive multimedia and the study of the United States. Retrieved on 20.04.2020 from <http://faculty.georgetown.edu/bassr/multimedia.html>
- Roden, S. (1991). Multimedia: The future of training. *Multimedia Solutions*, 5(1):17-19.
- Senthilkumar, M.; Chandrakandan, K.; Padma, C. and Padma, S.R. (2003). Modern communication technologies for sustainable farming in globalize era. Paper Presented at National Seminar on “Responding to changes and challenges- New roles of agricultural extension” held at College of Agriculture, Nagpur.
- Taneja, R.P. (1989). *Directory of Education*, Anmol Publications, Ansari Road, New Delhi.
- Vanetha, K.P. (2013). Effectiveness of interactive multimedia compact disc and web page in knowledge gain and symbolic adoption among tribal farm women. *Indian Research Journal of Extension Education*, 13(1): 85-87.