



Research Article

ROLE OF MODERN MEDIA IN INFORMATION COMMUNICATION AMONG TRIBAL FARMERS FOR SCENTED RICE PRODUCTION TECHNOLOGY IN CHHATTISGARH

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Abstract: The Chhattisgarh state is considered as one of the centers of origin and evolution of rice and is blessed with enormous funds of rice variability. Being endowed with the most favorable climate, the state has an excellent agri-diversity, particularly for rice cultivars including scented cultivars. The demand for aromatic rice has dramatically increased over the past few years. Only, about less than 20 percent of the total rice area in Chhattisgarh has been covered by the fine and scented rice varieties. Most of such area belongs to tribal dominated northern and southern part of the state. In this perspective, this study was undertaken to assess the modern media utilization by scented rice growing tribal farmers and its role in their knowledge upgradation. The data was collected from 144 randomly selected scented rice growing tribal farmers from 12 villages identified from 4 blocks in Jashpur district using interview schedule by personal interview. The finding shows that the maximum scented rice growing farmers were oftenly using traditional sources like friends, relatives, progressive farmers etc. Modern media like internet, expert system etc were still found lacking in the area. Only, KCC and Kisan mobile advisory from KVK and state department of agriculture were utilized by some farmers regularly. Electronic media viz. TV and radio were popular in the area. About 19 percent respondents obtained the information from print media like Agricultural magazines and newspapers. The credibility was also found higher for traditional sources in comparison to modern, electronic and print media among the respondents. The impact of modern media in knowledge upgradation was found low may be due to less inclusion of scented rice technology in their communication. The study further suggested an integrated strategy for modern media blended with traditional sources for better information communication among the tribes.

Keywords: Scented rice, Information media, Credibility of media

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Introduction

The present era is the age of communication, different sources, media and channels are the essence of extension, which provides knowledge and information for rural people to modify behaviour in ways that provide sustainable benefits to them and to society. Now a way the importance of communication technologies in agriculture are very great and it plays important role and speeded the potential of extension personnel to reach the farmers. In our country farmers are exposed to formal/informal education through technological information sources such as mass media sources like electronic media, print media, kisan melas, exhibition, traditional media and interpersonal communication, trainings, results and methods demonstration, etc. Chhattisgarh accounts for two percent of India's population, of which about 43 percent represent scheduled castes and scheduled tribes, who live mostly in the nearly hilly areas in the north and south. Chhattisgarh state is considered as one of the centers of origin and evolution of rice and is blessed with enormous funds of rice variability. Being endowed with the most favorable climate, the state has an excellent agri-diversity, particularly for rice cultivars including scented cultivars. The demand for aromatic rice has dramatically increased over the past few years. Only, about less than 20 percent of the total rice area in Chhattisgarh has been covered by the fine and scented rice varieties. Most of such area belongs to tribal dominated northern and southern part of the state. In this perspective, this study was undertaken to assess the modern media utilization by scented rice growing tribal farmers and its role in their knowledge upgradation.

Objectives of The Study

To study various communication media and their role in communication of scented rice production technology.

Materials and Method

The present study was conducted in Jashpur district of Chhattisgarh. There are total eight blocks in Jashpur district, out of which, four blocks namely Duldula, Bagicha, Pharsabahal and Jashpur have been selected randomly. Three villages from each selected block were taken on the basis of information given by extension personnel of the particular block. Thus, total twelve villages were selected for the present investigation. For selection of respondents, a comprehensive list of scented rice growing farmers was prepared with the help of village sarpanch and agriculture extension personnel of respective village. Twelve respondents were randomly selected from each identified village. Thus, 144 scented rice growing farmers were selected as respondents for the study.

Results and Discussions

Source of information

Source of information includes both information sources from where the respondents are getting information and the credibility of information sources among the respondents.

The data regarding utilization of information sources for seeking the information about scented rice cultivation are presented in the [Table-1]. The findings revealed that in the study area, majority of the respondents (97.92%) had found information regarding scented rice cultivation from friends and relatives. The study also revealed that 96.53 percent of the respondents obtained the information from farmers' friends (Kisan Mitra). About 75 percent respondents obtained the information from progressive farmers, 58.33 percent of respondents obtained the information from neighbour.

Table-1 Distribution of the respondents according to utilization of the information source for seeking the information about Scented Rice cultivation

SN	Source of information	Use of source of information*							
		Often		Sometimes		Never		Total use of information	
		F	%	F	%	F	%	F	%
1	Progressive farmer	49	34.03	59	40.97	36	25.00	108	75.00
2	Neighbour	15	10.42	69	47.92	60	41.66	84	58.33
3	Friends & relatives	114	79.17	27	18.75	3	2.08	141	97.92
4	Village leader	30	20.84	39	27.08	75	52.08	69	47.92
5	Co-operative society	12	8.33	16	11.11	116	80.56	28	19.44
6	Agricultural magazines	0	0.00	28	19.44	116	80.56	28	19.44
7	Radio	0	0.00	36	25.00	108	75.00	36	25.00
8	TV	7	4.86	56	38.89	81	56.25	63	43.75
9	Kisan mela	0	0.00	58	40.28	86	59.72	58	40.28
10	Training	27	18.75	19	13.19	98	68.06	46	31.94
11	Farmers' visit	0	0.00	14	9.72	130	90.28	14	9.72
12	Kisan mitra	48	33.34	91	63.19	5	3.47	139	96.53
13	Newspaper	15	10.42	21	14.58	108	75.00	36	25.00

*Data are based on multiple responses, F = Frequency, % = Percentage

Table-2 Credibility of information sources for Scented Rice cultivation

SN	Source of information	Credibility of source of information			
		Full	Partial	Credibility Index	Rank
1	Progressive farmer	87	21	67.71	II
2	Neighbour	5	70	27.78	VI
3	Friends & relatives	138	2	96.53	I
4	Village leader	3	55	21.18	VII
5	Co-operative society	8	20	12.50	XI
6	Agricultural magazines	11	17	13.54	IX
7	Radio	2	34	13.19	X
8	TV	30	32	31.94	IV
9	Kisan Mela	23	34	27.78	VI
10	Training	38	8	29.17	V
11	Farmers' visit	6	8	6.94	XII
12	Kisan mitra	50	89	65.63	III
13	Newspaper	8	26	14.58	VIII

Table-3 Distribution of the respondents according to overall utilization of the information source for seeking the information about Scented Rice cultivation

SN	Category	Frequency	Percentage
1	Low level of utilization (Up to 5 sources)	23	15.97
2	Medium level of utilization (6 to 11 sources)	101	70.14
3	High level of utilization (Above 11 sources)	20	13.89

 $\bar{X} = 8$ S.D. = 2.712

Table-4 Distribution of the respondents according to utilization of localize sources and persons as the information source for seeking the information about Scented Rice cultivation

SN	Source of information	Use of source of information*							
		Often		Sometimes		Never		Total	
		F	%	F	%	F	%	F	%
1	Progressive farmers	49	34.03	59	40.97	36	25.00	108	75.00
2	Neighbour	15	10.42	69	47.92	60	41.66	84	58.33
3	Friends & relatives	114	79.17	27	18.75	3	2.08	141	97.92
4	Village leader	30	20.84	39	27.08	75	52.08	69	47.92
5	Co-operative society	12	8.33	16	11.11	116	80.56	28	19.44
6	Kisan mitra	48	33.34	91	63.19	5	3.47	139	96.53

*Data are based on multiple responses

Table-5 Distribution of the respondents according to obtain Institutional support for information communication for seeking the information about Scented Rice cultivation

SN	Source of information	Use of source of information*							
		Often		Sometimes		Never		Total use of information	
		F	%	F	%	F	%	F	%
1	Kisan mela	0	0.00	58	40.28	86	59.72	58	40.28
2	Training	27	18.75	19	13.19	98	68.06	46	31.94
3	Exposure visits	0	0.00	14	9.72	130	90.28	14	9.72

*Data are based on multiple responses

About 48 percent of the respondents obtained the information from village leaders, followed by about 43.75 percent of the respondents used T.V. as information source. About 40 percent were using kisan mela, 31.94 percent training, 25 percent news paper and radio as source of information. Also 19.44 percent respondents obtained the information from co-operative society and Agricultural magazines and 9.72 percent respondents used visit as source of information

regarding cultivation of scented rice varieties. The findings revealed that respondents obtained information often from friends and relatives and kisan mitra, while almost all the information sources were used sometimes by the respondents for seeking the information about scented rice cultivation. Hence for any communication in this regard socio-personal sources have to be addressed. These findings find support from the work of [1,5].

Table-6 Distribution of the respondents according to utilization of print media as the information source for seeking the information about Scented Rice cultivation

SN	Source of information	Use of source of information*							
		Often		Sometimes		Never		Total use of information	
		F	%	F	%	F	%	F	%
1	Agricultural magazines	0	0.00	28	19.44	116	80.56	28	19.44
2	Bulletins	0	0.00	3	2.08	141	97.92	3	2.08
3	Leaflets	0	0.00	1	0.69	143	99.31	1	0.69
4	Folders	0	0.00	1	0.69	143	99.31	1	0.69
5	Newspapers	15	10.42	21	14.58	108	75.00	36	25.00
6	Journals	0	0.00	2	1.39	142	98.61	2	1.39

*Data are based on multiple responses

Table-7 Distribution of the respondents according to utilization of electronic/modern media as the information source for seeking the information about Scented Rice cultivation

SN	Source of information	Use of source of information*							
		Often		Sometimes		Never		Total	
		F	%	F	%	F	%	F	%
1	Internet	0	0.00	3	2.08	141	97.92	3	2.08
2	Mobile contacts	31	21.53	56	38.89	57	39.58	87	60.42
3	KCC	9	6.25	17	11.81	118	81.94	26	18.05
4	KMA	12	8.33	9	6.25	123	85.42	21	14.58
5	Expert System	0	0.00	0	0.00	144	100.00	0	0.00
6	TV	7	4.86	56	38.89	81	56.25	63	43.75

*Data are based on multiple responses

Table-8 Distribution of the respondents according to utilization of electronic/modern media as the information source for seeking the information about Scented Rice cultivation

SN	Source of information	Use of source of information*							
		Often		Sometimes		Never		Total use of information	
		F	%	F	%	F	%	F	%
1	RAEO	49	34.03	59	40.97	36	25.00	108	75.00
2	ADO	1	0.69	26	18.06	117	81.25	27	18.75
3	SADO	21	14.59	37	25.69	86	59.72	58	40.28
4	SMS/ KVK	13	9.03	42	29.16	89	61.81	55	38.19
5	SCIENTISTS	6	4.17	29	20.14	109	75.69	35	24.31

*Data are based on multiple responses

Table-9 Distribution of the respondents according to utilization of overall information source for seeking the information about Scented Rice cultivation

SN	Source of information	Use of source of information*							
		Often		Sometimes		Never		Total use of information	
		F	%	F	%	F	%	F	%
1	Localize sources	104	72.22	37	25.70	3	2.08	141	97.92
2	Print Media	15	10.42	27	18.75	102	70.83	42	29.17
3	Institution support	27	18.75	40	27.78	77	53.47	67	46.53
4	Electronic media /modern media	41	28.47	53	36.81	50	34.72	94	65.28
5	Extension system	63	43.75	54	37.50	27	18.75	117	81.25

*Data are based on multiple responses

Table-10 Impact of modern media on knowledge upgradation of tribal farmers towards scented rice production technology, (n=94)

SN	Activities	Impact of modern media*							
		Low		Medium		High		Average	
		F	%	F	%	F	%	F	%
1	Field preparation	22	23.40	12	12.76	9	9.57	14	14.89
2	Varieties/Cultivars	13	13.82	18	19.15	61	64.89	31	32.98
3	Seed selection	17	18.08	23	24.46	37	39.36	26	27.66
4	Seed treatment	13	13.82	19	20.21	11	11.70	14	14.89
5	Sowing	21	22.34	15	15.96	8	8.51	15	15.96
6	Water management	14	14.89	28	29.79	15	15.96	19	20.21
7	Fertilizer/Manure	32	34.04	27	28.72	16	17.02	25	26.59
8	Insect management	25	26.59	19	20.21	41	43.61	28	29.79
9	Disease management	22	23.40	15	15.96	53	56.38	30	31.91
10	Rodent management	17	18.08	23	24.46	19	20.21	20	21.27
11	Harvesting	8	8.51	14	14.89	12	12.76	11	11.70
12	Storage management	11	11.70	25	26.59	37	39.36	24	25.53
13	Marketing	23	24.46	12	12.76	8	8.51	14	14.89

*Data are based on multiple responses

Credibility of information sources

The data regarding credibility of information sources regarding scented rice cultivation are presented in the [Table-2]. The findings revealed that in the study area, respondents were having highest credibility (96.53%) of friends and relatives for gaining information about scented rice cultivation. It was further found that the

credibility of progressive farmers (67.71%) and kisan mitra (65.63%) was also high. Credibility towards T.V. was 31.94 percent, 29.17 percent towards training, 27.78 percent towards neighbours and Kisan mela, and 21.18 percent towards village leaders. The credibility towards newspaper, Agricultural magazines, radio and co-operative society were 14.58 %, 13.54 %, 13.19 %, 12.50 % respectively.

The lowest credibility was found towards farmers' visit. The data on overall utilization of information sources by the respondents are presented in [Table-3]. The findings indicate that majority of the respondents (70.14%) had medium level of utilization, followed by 15.97 percent had low level of utilization, while 13.89 percent of the respondents had high level of utilization of information sources. The findings are in line with the findings of [2,3].

Localize sources and persons

The findings revealed about the localize sources and persons utilized by the respondents which are presented in the [Table-4].

The majority of the respondents (97.92%) used friends and relatives as the information sources followed by Kisan mitra (96.53%), Progressive farmers (75.00%) and neighbour (58.33%). The findings also stated that 47.92 percent of the respondents used Village leaders as the information sources and minimum about 19.44 percent of the respondent obtained the information about scented rice cultivation from the Co-operative society. These findings are supports by [4].

Institutional support for information communication

The respondents obtained information about the scented rice cultivation technology from the various institutions and the data presented in the [Table-5] indicate that.

The findings showed that maximum about 40.28 percent of the respondent obtained information from Kisan mela followed by Training (31.94%). It was also revealed that only about 9.72 percent of the respondent used Exposure visits as information source for scented rice cultivation. These findings are simulated with the observation of [6].

Print media

Print media are utilized by the respondents as information source. The presented data in the [Table-6] indicates that the study revealed that maximum about 25 percent of the respondents used newspaper as information source followed by Agricultural magazines (19.44%) and bulletins (2.08%). It was also revealed that about 1.39 percent of respondents used journals and only about 0.69 percent of the respondents used leaflet and folders for obtaining the information about scented rice cultivation which is negligible.

Electronic /Modern media

The findings about the utilization of electronic or modern media by the respondents to obtain information for scented rice cultivation technology as information source presented in [Table-7] indicates that majority of the respondents, about 60.42 percent used mobile contacts as information source followed by TV (43.75%), Kisan Call Center (18.05%).

It was also found that about 14.58 percent of the respondents obtain information from Kisan Mobile Advisory services and only 2.08 percent respondents used internet for obtaining information. The findings revealed that respondents were not familiar with Expert System, an information source and they didn't use it for obtaining information about scented rice cultivation technology.

Extension system

It is very important information source in the tribal areas because they can't get electronic facilities more. The findings show that majority (75%) of the respondents obtained information from RAEO (Rural Agricultural Extension Officer) followed by SADO (40.28%), SMS/KVK (38.19%).

It was also found that about 24.31 percent of the respondents obtain information from Agricultural scientists and about 18.75 percent of respondent used to obtain information from ADOs about scented rice cultivation technology presented in [Table-8].

Overall utilization of information sources

The data presented in [Table-9] indicates that maximum about 97.92 percent of the respondents used localize sources and persons followed by extension system (81.25%) as information source.

It was also found that about 65.28 percent of the respondent used electronic

media or modern media, about 46.53 percent used institutional support and about 29.17 percent of the respondents used print media for obtaining information.

Impact of modern media on knowledge upgradation of tribal farmers towards scented rice production technology

The impact of modern media on knowledge upgradation of tribal farmers towards scented rice production technology was presented in [Table-10]. The findings revealed that high impact of modern media was on the selection of varieties/cultivar followed by disease management, insect management and seed selection. In case of medium impact maximum impact shows water management followed by fertilizer/manure and storage management. On the other hand, in case of low impact, maximum impact shows by the fertilizer/manure, insect management and marketing activities.

It was also revealed that in on average maximum impact shows in selecting varieties/cultivars followed by disease management and very low average impact of modern media shows in harvesting practices.

Besides these the overall impact of modern media towards scented rice cultivation in difference activities presented in [Table-11] indicate that maximum impact shows in selection of varieties followed by disease management, insect-pest management and seed selection.

Table-11 Overall impact of modern media on knowledge upgradation of tribal farmers towards scented rice production technology, (n=94)

SN	Activities	Overall impact of modern media*	
		F	%
1	Field preparation	43	45.74
2	Varieties/Cultivars	92	97.87
3	Seed selection	77	81.91
4	Seed treatment	43	45.74
5	Sowing	44	46.81
6	Water management	57	60.64
7	Fertilizer/Manure	75	79.79
8	Insect management	85	90.42
9	Disease management	90	95.74
10	Rodent management	59	62.76
11	Harvesting	34	36.17
12	Storage management	73	77.65
13	Marketing	43	45.74

*Data are based on multiple responses

Preferred information source for communicating scented rice production technology

Table-12 Preferred information source for communicating scented rice production technology

SN	Preferred Information Sources
1	Friends and relatives
2	Kisan mitra
3	Progressive farmer
4	RAEO
5	Mobile contacts
6	Neighbour
7	Village leader
8	TV
9	SADO
10	Kisan mela
11	SMS/KVK
12	Training
13	Newspaper

The findings revealed about the preferred information that most preferred information source was friends and relative and the last preferred information source was newspaper which was showed in [Table-12].

Conclusion

From the above findings it can be concluded that the maximum scented rice growing farmers were oftenly using traditional sources like friends, relatives, progressive farmers etc. Modern media like internet, expert system etc were still found lacking in the area. Only, KCC and Kisan mobile advisory from KVK and state department of agriculture were utilized by some farmers regularly. Electronic media viz. TV and radio were popular in the area.

Application of research: The impact of modern media in knowledge upgradation was found low may be due to less inclusion of scented rice technology in their communication. The study further suggested an integrated strategy for modern media blended with traditional sources for better information communication among the tribes.

Research Category: Agricultural Extension

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Author statement: All authors read, reviewed, agreed and approved the final manuscript. Note-All authors agreed that- Written informed consent was obtained from all participants prior to publish / enrolment

Study area / Sample Collection: Jashpur district of Chhattisgarh

Cultivar / Variety / Breed name: Rice

Conflict of Interest: None declared

Ethical approval: This article does not contain any studies with human participants or animals performed by any of the authors.
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