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Research Article

COMMUNICATIONAL AND PSYCHOLOGICAL ATTRIBUTES OF FARMERS ENGAGED IN WET AND DRY SEASON RICE CULTIVATION IN CHHATTISGARH STATE-A SURVEY BASED ANALYSIS

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Abstract: The present study was undertaken in Chhattisgarh's plain agro-climatic zone of Chhattisgarh state during the year 2020. The rationale behind this study is to evaluate information pertaining to communicational and psychological characteristics of farmers engaged in wet and dry season rice cultivation. The investigation was conceded out in 18 villages chosen randomly from six blocks in three districts in the Chhattisgarh Plains Agro-Climatic Zone. The information was gathered through a personal interview with the use of an interview schedule. The information gathered was examined using appropriate statistical methodologies and tools. The majority of respondents Friends, neighbour and relatives were the main sources of information about rice farming. Highest credibility was found towards TV and progressive farmers and most of them used 1 to 2 mass media sources by watching / hearing agriculture related programmes on TV and Radio with low level of extension participation. Majority of the respondents had moderately favorable attitude towards modern agriculture, medium level of management orientation and medium level of innovativeness.

Keywords: *Communication, Psychology, Profile, Wet and Dry Season Rice Farming*

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Introduction

In India rice accounted 43.78 million hectares area coverage among all cereals and 118.43 million tonnes production with 2705 kg/ha productivity during 2019-20 (Directorate of economics & statistics, DAC & FW). The state is divided into three agro-ecological zones: the plains of Chhattisgarh, the plateau of Bastar, and the Northern hills of Surguja. This zone has a wide range of soil topography, rainfall intensity and distribution, irrigation, and agricultural production system adoption, resulting in a wide range of rice productivity in these areas. In Chhattisgarh, the absence of adequate rainfall and reliable irrigation water are major factors in the low cultivation of rabi or dry season rice. Modern agriculture necessitates a cutting-edge technology that applies scientific knowledge to farming in a methodical manner [1]. Higher earnings and lower poverty have been linked to the adoption of new agricultural technologies, as well as improved nutritional status, cheaper staple food prices, more work options, and earnings for landless labourer's [2].

Material and Methods

The present study was carried out in Chhattisgarh Plains Agro-Climatic Zone of Chhattisgarh State. On the basis of maximum area coverage of dry season rice cultivation, the three districts in the zone *i.e*., Janjgir-Champa, Dhamtari, and Raipur were undertaken for the study. Two blocks from each of the selected district were selected randomly for this investigation. In this way a total of 6 blocks were taken for this study, from each selected block, 3 villages were selected randomly for the selection of respondents and from each selected village, 15 farmers were selected randomly. In this way, a total of 270 farmers were considered as respondent to respond as per the interview schedule design for the study. The interview schedule was designed on the basis of objectives and independent and dependent variables considered for this investigation.

To facilitate the respondents, the interview schedule was framed in "Hindi". Each question was thoroughly examined and discussed with the experts before finalizing the interview schedule. Adequate precautions and care were taken into consideration to formulate the questions in a manner that they were well understood by the respondents and would find it easier to respond. Before using prepared interview schedule for collection of data it was pre-tested by 20 non-sample respondents and also checked its reliability and validity. On the basis of experience gained in pre-testing, the necessary modifications and suggestions were incorporated before giving a final touch to interview schedule. The collected data were analyzed with the help of suitable statistical methods like Frequency, Percentage, *etc*.

Result and Discussion

Communicational characteristics / Source of information

Source of information includes both information sources from where the respondents are getting information about rice cultivation in wet and dry seasons. The data regarding utilization of information sources for seeking the information about rice cultivation are presented in the [Table-1]. The finding reveals that in the study area, majority of the respondents (95.18%) were obtained information regarding rice cultivation from friends. The study also reveals that 89.62 per cent of the respondents obtained the information from neighbor, 77.77 per cent of respondents obtained information from RAEOs, 18.88 per cent obtained information from relative, 52.22 per cent obtained information from ADOs, 47.03 per cent obtained information from agriculture cooperative society, 41.85 per cent from agricultural scientist, 41.11 per cent from agricultural magazine, 29.26 per cent of them obtained information from rural leader, 19.62 per cent kisan call center, 11.85 per cent obtained information from internet. Only 7.11 per cent of them obtained information from progressive farmers).

Fig-1 Credibility index of different information sources used by respondents

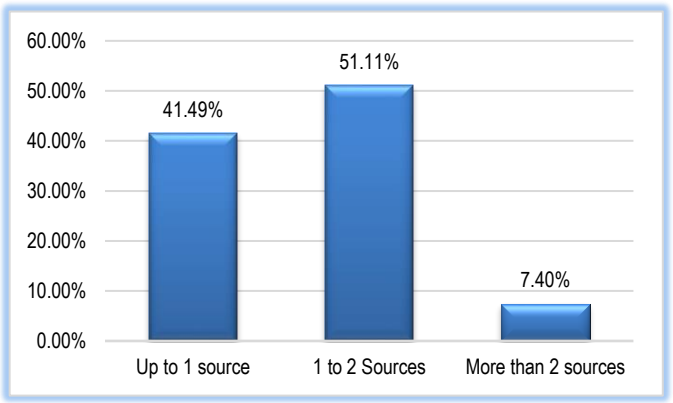

Fig-2 Mass media exposure of respondents

Credibility of information sources

The data regarding credibility of information sources are present in [Fig-1]. The data shows that among all the information sources television had highest credibility, followed by progressive farmers II rank, agricultural scientist III rank, RAEOs IV rank and agricultural magazine V rank. Kisan call centre, internet, friends, neighbor, agricultural cooperative society, relative, rural leader, ADOs and radio had VI, VII, VIII, IX, X, XI, XII, XII, and XIV rank respectively. It is clear from the data that television and progressive farmers are quite popular among all information sources used for obtained information regarding rice cultivation and having most credibility.

Table-1 *Distribution of respondents according to their source of information*

SN	Sources	Frequency*	Percentage
1	Friends	257	95.18
2	Neighbor	242	89.62
3	Relative	213	78.88
4	Progressive farmers	192	7.11
5	Rural Leader	79	29.26
6	RAEOs	210	77.77
7	ADOs	141	52.22
8	Agriculture cooperative society	127	47.03
9	Agricultural scientist	113	41.85
10	Agriculture magazine	111	41.11
11	Radio	45	16.66
12	Television	127	47.03
13	Kisan Call Center	53	19.62
14	Internet	32	11.85

**Data are based on multiple responses*

Table-2 *Distribution of respondents according to their involvement in extension activities*

SN	Activity	F	%
1	Demonstration in own field	52	19.25
2	Saw demonstration in nearby area	119	44.07
3	Discussion with extension worker	108	40.00
4	Participated in farmers day	70	25.92
5	Participated in extension meeting	87	32.22
6	Participated in KisanMela	123	45.55
7	Read extension publication	103	38.14
8	Watch and heard agriculture base programmes on TV and Radio	216	80.00
9	Visited at Agriculture college, Research Station and KVK	116	42.96

**Data are based on multiple responses*

Mass media exposure

The data regarding mass media exposure are presented in [Fig-2]. The finding indicates that most (51.11%) of the respondents used 1 to 2 mass media sources for obtained information regarding rice cultivation, followed by 41.49 per cent of the respondents used up to 1 source and only 7.40 per cent of respondents used more than 2 sources for obtained information about rice cultivation. These findings find supports from Ghosh, *et al*., (2008) [3] also observed that most of the respondents used 1 to 2 mass media sources.

Extension participation of the respondents

The information regarding participation of respondents in different extension activities also collected and tabulated in [Table-2]. The findings shows that majority (80.00%) of the respondents watched and heard agriculture based programmes on television and radio, followed by 45.55 per cent participated in kisan-mela, 44.07 per cent saw demonstration in own field, about 43 per cent visited at agriculture college, research station and KVK, 40 per cent had discussion with extension worker, 38.14 per cent read extension publication, 32.22 per cent participated in extension meeting, about 26 per cent participated in farmers day and 19.25 per cent said that demonstration conducted in own field. The data regarding overall level of extension participation are presented in [Table-3]. The finding indicates that about 42 per cent of the respondents had low level of overall extension participation, followed by 33.70 per cent had medium level of extension participation, 18.15 per cent had high level of extension participation. Only few respondents (6.30%) had not participated in any kind of extension activity. It is clear from the data that respondents had low participation in extension activities it may be due to their low interest or engagement of them in various farming activities. These findings find quite similarity from Bhosle, *et al*., (2002) [4] they also found that maximum number (53.33%) of respondents had medium to low extension participation in extension activities.

Table-3 *Distribution of respondents according to overall level of extension participation*

SN	Level	Frequency	Percentage
1	Nil	17	6.30
2	Low level of participation (Up to 3 score)	113	41.85
3	Medium level of participation (4 to 5 score)	91	33.70
4	High level of participation (Above 5 score)	49	18.15

Table-4 *Distribution of respondents according to their attitude towards modern agricultural practices*

SN	Level	Frequency	Percentage
1	Less favorable (Up to 20 score)	7	2.60
2	Moderately favorable (21 to 40 score)	205	75.93
3	Most favorable (Above 40 score)	58	21.47

Mean=33.97.6, S.D.= 5.17

Psychological characteristics

Attitudes towards modern agriculture

The data about attitude of respondents towards modern agriculture are presented in [Table-4]. The finding reveals that majority (75.93) of the respondents had moderately favorable attitude towards modern agricultural practices, followed by 21.47 per cent of them had most favorable attitude towards modern agricultural practices. Only 2.60 per cent of respondents had less favorable attitude towards modern agricultural practices in the study area. These results found support from Hossain (2006) [5] also noted that highest portion (67%) of respondents had moderately to most favorable attitude towards HYV of rice.

The reason of favorable attitude towards modern agricultural practices depends upon the farmer's awareness and availability of various inputs or factors of production, the study area is dominated quality rice production in the state and the KVKs and Agriculture University is functioning well in the research area.

Table-5 *Distribution of respondents according to their management orientation*

SN	Level	Frequency	Percentage
1	Low Management orientation (Up to 21 score)	49	18.15
2	Medium Management orientation (21 to 26 score)	178	65.92
3	High Management orientation (Above 26 score)	43	15.93

Mean=23.57.6, S.D.= 2.89

Table-6 *Distribution of respondents according to their level of innovativeness*

SN	Level	Frequency	Percentage
1	Low level of innovativeness (Up to 4 score)	39	14.44
2	Medium level of innovativeness (4 to 7 score)	163	60.38
3	High level of innovativeness (Above 7 score)	68	25.18

Mean=4.6, S.D.= 2.14

Management orientation

Management orientation is the degree to which individual farmers are oriented towards scientific management in rice cultivation. The information on management orientation is collected and tabulated in [Table-5]. The data shows that majority (65.92%) of the respondents had medium level of management orientation, followed by 15.93 per cent had high management orientation. The 18.15 per cent of them had low level of management orientation towards rice cultivation.

Innovativeness

Innovativeness in the study refers to readiness of farmers towards application and adoption of new ideas regarding rice cultivation. The data regarding innovativeness are presented in [Table-6]. The finding shows that maximum number (60.38%) of respondents had medium level of innovativeness, followed by 25.18 per cent of the respondents had high level of innovativeness. Only 14.44 per cent of respondents had low level of innovativeness.

Conclusion

It is concluded from the study that majority of the respondents used traditional information sources, but TV & Radio had maximum credibility among all sources. These findings indicate that there is still scope for popularizing the modern media sources in the study area. A strong and efficient information transfer strategy should be followed for providing information about modern practices of rice cultivation in both seasons by all the extension agencies. It is also noticed that most of the respondents had low to medium level of favorable attitude, innovativeness and management orientation. All the extension agencies worked in the study area is required to conduct result demonstration, field visit, success stories of progressive farmers and proper follow-up programme for bringing the desirable changes in the behavior of respondents.

Application of Research: This research is helps in assessing the information about the communicational and psychological characteristics of the farmers, engaged in rice cultivation and provides base for formation of various development programmes for rice growers in Chhattisgarh State.

Research Category: Post facto research

Abbreviations: RAEO's- Rural Agricultural Extension Officer's
ADO's- Agriculture Development Officer's
S.D.- Standard Deviation

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Study area / Sample Collection: Chhattisgarh Plains Agro-Climatic Zone of Chhattisgarh State

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.
Ethical Committee Approval Number: Nil

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