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Association Between Socio-Economic Characteristics and Information Seeking Behaviour of STRVs Growers of Odisha

Abhijeet Satpathy[1], B.P. Mohapatra[2] and Sasanka Lenka[3]

1 &3. Ph. D. Scholar, 2. Prof. & Head, Dept of Extension Education, CoA, O.U.A&T, Bhubaneswar, Odisha

Corresponding author e-mail : abhisanu12@gmail.com

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ABSTRACT

The study was conducted purposively in the state of Odisha with a view to analyze the relationship between socio-economic characteristics of STRVs (Stress Tolerant Rice Varieties) growers and their overall information seeking behaviour. The sample size covered 210 respondents from 3 districts & response was obtained from each individual respondent with the help of a structured interview schedule pretested with 10 per cent samples other than the respondents of the study. The findings of the study revealed that majority of the STRVs growers were middle-aged (53.82%) and 30.95 per cent had middle school education. The majority (50%) of respondents were having small land holding size, 29.05 per cent respondents were involved in Agriculture+ horticulture both, majority (45.24%) had 10 – 20 years of farming experience, 41.91 per cent of the respondents had annual income of Rs 50,001 to 1,00,000, majority (73.81%) had medium social participation and 59.05 per cent had medium extension participation. The detailed study of information seeking behaviour of the respondents showed that in case of Personal localite information sources own family members occupied the highest mean score 2.738 and ranked first followed by neighbour farmers having mean score 2.728, in personal cosmopolite sources krishak sathi occupied the highest mean score 2.219 and ranked first followed by VAW having mean score 2.133 and in case of impersonal cosmopolite mobile occupied the highest mean score 2.585 and ranked first. Education, family type, family size, land holding, experience, annual income, social participation and extension participation had a positive and significant association with the information seeking behaviour of respondents.

Key words*: *Stress-tolerant rice varieties (STRVs); STRVs growers, Information seeking behaviour of STRVs growers.

Rice in Odisha is now grown on an area of 3.88 million hectares and the production was 8.38 million tonnes during the year 2016-17 *(Agricultural statistics at a glance-2017)*. Majority times, the state experiences drought, flood and cyclone in a frequent interval. So, the production and productivity of rice grown in the state get affected during the monsoon under rainfed condition. In order to address the increased climate vagaries such as cyclones, whirlwinds, floods and droughts and to minimize the production losses, the supply of quality seeds of suitable varieties specific to the agro-climatic situation is inevitable. Strong and incessant technology backstopping is needed to resiliently respond to the adverse effects of climate change and sustain the productivity gains over the years. Government of Odisha has invested in Research for Development with the aim to upgrade the technology, create awareness, fast track dissemination and, enable adoption of an integrated suite of technical and institutional innovations that can meet the requirement of farmer's dependent on rice-based cropping systems.

International Rice Research Institute has been working in the state of Odisha since 2016-17, with the support of DAFE, to fulfill the mandate of achieving high and sustained system productivity with climate resilience, better income, risk reduction and equitable distribution of the gains from productivity growth among small and marginal famers, especially women. Bina dhan 11, CR 1009 sub 1 and Swarna sub 1 are some of the stress tolerant rice varieties developed by

IRRI and have distinct advantage of withstanding the stress conditions such as flood and drought over other varieties *(Annual report-2018, IRRI-Odisha project)*. *Stress-tolerant rice varieties* (STRVs) help farmers to mitigate the risk of abiotic stresses and assure a good harvest, hold immense potential. Keeping this in view, the following study was undertaken with the objective to determine the "association between socio-economic characteristics and information seeking behaviour of STRVs growers of Odisha".

METHODOLOGY

In this study, Ex-post-facto research design was used. This design is appropriate because the phenomenon has already occurred. The state of Odisha was selected purposively because there are increased climate vagaries such as cyclones, whirlwinds, floods and droughts in the state and STRVs can play a major role in increasing the production and productivity of rice in the state. The present study was conducted in three districts namely Puri, Kalahandi and Bhadrak randomly selected for the study. The districts contribute major share to the rice production of Odisha and are affected by various stresses frequently. The blocks, gram panchayats and villages were selected randomly and from 12 villages 210 respondents were selected through proportionate random sampling method. The study was conducted in Nimapada and Pipli blocks of Puri district, Kalampur and Bhawanipatna blocks of Kalahandi district and Bhandaripokhari and Dhamnagar blocks of Bhadrak district of Odisha. The primary data were collected through personal interview method with the help of pre-tested interview schedule, which was prepared on the basis of objectives of investigation and variables. The interview schedule was thoroughly discussed with the member of the advisory committee and their suggestions were incorporated. The statistical tests and procedures were used for analyzing the data with the help of statistical tools like mean, S.D., frequency, per centage and correlation were used for the analysis of data.

RESULTS AND DISCUSSION

Socio-economic profile of STRVs growers: It was from evident from Table 1 that total sample was dominated by 85.71 per cent of farmers and 14.29 per cent of farm women, majority (53.82%) of the STRVs growers belonged to the category of the middle-aged group, followed by old age group (34.76%) and only a few

Table 1. Socio- economic profile of STRVs growers

Traits	Category	No.	%
Gender	Male	180	85.71
	Female	30	14.29
Age	Young (Up to 30 years)	24	11.42
	Middle aged (30-50 years)	113	53.82
	Old (above 50 years)	73	34.76
Education	Illiterate	7	3.34
	Can read and write	20	9.52
	Primary school	62	29.52
	Middle school	65	30.95
	High school	47	22.38
	Graduate and above	9	4.29
Family type	Nuclear	94	44.77
	Joint	116	55.23
Family size (Members)	Small (<5)	124	59.06
	Medium (6-10)	76	36.18
	Large (>10)	10	4.76
Size of land holding	Marginal	82	39.05
	Small	105	50
	Semi- medium	19	9.04
	Medium	4	1.91
	Large	0	0
Occupation	Agriculture	47	22.38
	Agri.+ Horti.	61	29.05
	Agri.+ AH	41	19.53
	Agri.+ Mushroom	4	1.91
	Agriculture+ Fishery	3	1.42
	Agriculture+ Business	18	8.58
	Agriculture+ service	3	1.42
	Agriculture+ wage labour	33	15.71
Farming Experience	<10 years	28	13.33
	Above 10 - 20 years	95	45.24
	Above 20 - 30 years	71	33.81
	>30 years	16	7.62
Annual income	<50,000	83	39.52
	50,001 – 1,00,000	88	41.91
	> 1 Lakh	39	18.57
Social participation	Low	43	20.48
	Medium	155	73.81
	High	12	5.71
	Mean	11.53	
	S.D.	1.31	
Extension Participation	Low	58	27.62
	Medium	124	59.05
	High	28	13.33
	Mean	13.38	
	S.D.	2.84	

(11.42%) were in the young age group category. The data revealed that, majority (30.95%) belonged to middle school category followed by primary school (29.52%), high school (22.38%), can read and write (9.52%), graduate and above (4.29%) and only a few (3.34%) were illiterate. The data revealed that the majority of the STRVs growers (55.23%) belonged to joint family while the rest (44.77%) belonged to the nuclear family. Hence, the dominance of joint family system is there. It was observed that majority of STRVs growers (59.06%) belonged to small family size followed by 36.18 per cent of farmers had medium family and only 4.76 per cent farmers belonged to large family size.

It was also evident from the above table that 50% of the farmer belongs to small land holding category, followed by (39.05%) marginal land holding category, (9.04%) semi- medium land holding category, and only 1.91 per cent were belonging to large land holding category. It was clear that majority (29.05%) of STRVs growers possessed both agriculture+ horticulture as their occupation followed by Agriculture only (22.38%), agriculture + animal husbandry (19.53%), agriculture + wage labour (15.71%), agriculture + business (8.58%), agriculture + mushroom cultivation (1.91%) and agriculture+ service (1.42%) and agriculture+ fishery (1.42%) respectively.

It was observed from the above table that majority (45.24%) of STRVs growers were found to have above 10- up to 20 years of farming experience followed by 33.81 per cent having above 20- up to 30 years of farming experience and 13.33 per cent having up to 10 years of farming experience while only 7.62 per cent of STRVs growers were found to have more than 30 years of farming experience. The results showed that large number of respondents (41.91%) belonged to medium annual income category, followed by 39.52 per cent of them belonged to low annual income category. While, 18.57 per cent of them belonged to high annual income category.

The perusal of data indicates that 73.81 per cent of respondents had medium level of social participation followed by 20.48 per cent low and 5.71 per cent of high social participation, the mean score of social participation was 11.53 and S.D. was 1.31. The table also presents the data regarding extension participation of respondents. It was observed from the table that majority (59.05%) of the respondents had a medium extension participation followed by 27.62 per cent of low extension participation and 13.33 per cent of high extension participation, the mean score of extension participation was 13.38 and S.D. was 2.84. The findings were to most extent confirmative with the findings of *Sharma et al., (2016)* and *Samarpitha et al., (2016)*

Information seeking behaviour of STRVs growers: Table 2 showed that in case of Personal localite information sources own family members occupied the highest mean score 2.738 and ranked 1st, followed by neighbour farmers, progressive farmers, relative farmers, local input dealer and local leaders with mean scores of 2.728, 2.176, 2.7, 1.728, 1.114 and ranked 2nd, 3rd, 4th, 5th and 6th respectively in order of preference. Own family members got the highest preference by the respondents, because these sources are easily available to the farmers at the local level and they can easily gain information and share their ideas with them than any outsiders.

From the above Table 2, it is evident that in case of personal cosmopolite information sources krushak sathi occupied the highest mean score 2.219 and ranked 1st, followed by VAW, NGOs, AAO, VAS, AHO, SMS From KVKs, and input dealers of nearby town with mean scores of 2.133, 1.947, 1.695, 1.319, 1.285, 1.152, 1.085 and ranked 2nd, 3rd, 4th, 5th, 6th, 7th, and 8th respectively in order of their preference. The krushak sathi served as the most important source of information, the reason might be that these sources are easily accessible to the farmers and it is preferred by them to share their ideas with krushak sathi and get information regarding various issues than any other sources.

From the above Table 2, it was clear that in case of impersonal cosmopolite information sources Mobile phone occupied the highest mean score 2.585 and ranked 1st, followed by T.V., posters, newspapers, farm literatures (folders, leaflets, etc.), internet, film shows and radio with mean scores of 2.457, 2.223, 1.9, 1.790, 1.638, 1.361, 1.157 and ranked 2nd, 3rd, 4th, 5th, 6th, 7th, and 8th respectively in order of their preferences. The findings were to some extent confirmative with the findings of *Ghosh et al., (2022)*

It is clear from Table 3 that the majority 67.14 per cent of the respondents showed a medium level of information seeking behaviour followed by 19.05 per cent respondents having low level of information seeking behaviour and only 13.81 per cent of respondents showed low level of information

Table 2. Analysis of information seeking behaviour of the STRVs growers

Category	STRVs growers							
Personal Localite	Regular		Occasional		Never		MS	Rank
	No.	%	No.	%	No.	%		
Own family members	155	73.81	55	26.19	0	0	2.738	I
Neighbor farmers	153	72.86	57	27.14	0	0	2.728	II
Relative farmers	48	22.86	153	71.9	11	5.24	2.176	IV
Progressive farmer	150	71.43	57	27.15	3	1.42	2.7	III
Local leader	1	0.48	22	10.47	187	89.05	1.114	VI
Local input dealer	17	8.09	119	56.67	74	35.24	1.728	V
Personal Cosmopolite								
Krushak sathi	66	31.43	124	59.05	20	9.52	2.219	I
VAW	57	27.13	124	59.06	29	13.81	2.133	II
AAO	25	11.91	96	45.72	89	42.37	1.695	IV
AHO	7	3.34	46	21.89	157	74.77	1.285	VI
VAS	10	4.76	47	22.39	153	72.85	1.319	V
SMS from KVK	0	0	32	15.24	178	84.76	1.152	VII
NGOs	39	18.57	121	57.63	50	23.8	1.947	III
Input dealers	1	0.48	16	7.62	193	91.9	1.085	VIII
Impersonal cosmopolite								
Radio	3	1.43	27	12.86	180	85.71	1.157	VIII
Television	110	52.38	86	40.96	14	6.66	2.457	II
Newspaper	48	22.86	93	44.28	69	32.85	1.9	IV
Farm literature	23	10.95	120	57.14	67	31.91	1.790	V
Posters/ charts	56	26.66	145	69.05	9	4.29	2.223	III
Film shows	5	2.38	66	31.43	139	66.09	1.361	VII
Mobile	136	64.76	61	29.05	13	6.19	2.585	I
Internet	39	18.57	56	26.67	115	54.76	1.638	VI

Table 3. Distribution of respondents according to their overall information seeking behaviour

Categories (score value)	No.	%
Low (up to 37)	40	19.05
Medium (38-45)	141	67.14
High (45 and above)	29	13.81
Total	210	100
Mean = 41.14, S.D. = 4.29		

Table 4. Association of socio-economic characteristics with overall information seeking behaviour of the respondents

Variables	Information source
Gender	-.417**
Age	.007
Education	.468**
Family type	.148*
Family size	.154*
Land Holding	.430**
Occupation	-.172**
Experience	.118*
Annual income	.537**
Social participation	.188**
Extension participation	.579**

**Significant at the 0.01 level (2-tailed).
*Significant at the 0.05 level (2-tailed).

seeking behaviour.

Association of socio-economic characteristics with overall information seeking behaviour of the respondents : It was observed from Table 4 that education, family type, family size, land holding, experience, annual income, social participation and extension participation had a positive and significant association with the overall information seeking behaviour of respondents. Gender and occupation were negatively correlated with overall information seeking behaviour of respondents.

CONCLUSION

The study indicated that majority of the respondents belonged to the middle age group, had received middle school level education, having a small size of land holding, having medium social participation and extension participation, It was clear that in case of personal localite sources of information own family members occupied the highest mean score 2.738 and ranked 1st, in case of personal cosmopolite krushak sathi occupied the highest mean score 2.219 and ranked 1st and in case of impersonal cosmopolite sources mobile occupied the highest mean score 2.585 and ranked 1st whereas in case of overall information seeking behaviour the majority 67.14 per cent of the respondents showed a medium level of information seeking behaviour. Education, family type, family size, land holding, experience, annual income, social participation and extension participation had a positive and significant association with the information seeking behaviour of respondents. Gender and occupation were negatively correlated with overall information seeking behaviour of respondents. It is therefore recommended to lay emphasis on personal cosmopolite sources of information for better and faster outreach to the target farmers. This will be helpful in providing the correct and updated information to the farmers with accuracy and authenticity.

CONFLICTS OF INTEREST

The authors have no conflicts of interest.

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