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Personal Characteristics of Farmers Affecting the Information Seeking Behavior on Improved Agricultural Practices in Udaipur District Rajasthan, India

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ABSTRACT. *Farmers use different information sources and channels for seeking information on improved agricultural practices. The variability of knowledge acquired through different information sources and channels by the farmers depends on their personal characteristics i.e. age, education, family type, family size, farming experience and extension contacts. The objective of the study was to ascertain the association between information seeking behavior of farmers on improved agricultural practices and personal characteristics. Udaipur district of Rajastan, India was purposively selected for the study. Bhinder and Dhariyawad Panchayat Samities (each from non-tribal and tribal area) were selected. From each selected Panchayat samiti, three villages were chosen on the basis of area under cultivation of three important crops i.e. wheat, maize and gram. Respondents were selected randomly and total size of the sample was 120. Data were collected by using face-to-face interview method and analyzed by using chi-square test. It was found that personal characteristics such as type of family, size of family, age and farming experience were not associated with information seeking behavior of farmers on improved agricultural practices. However, size of land holding, level of education and extension contacts associated with information seeking behavior of farmers.*

INTRODUCTION

In the 21st century agriculture is being challenged as never before. Research and extension are two important factors of agricultural development. Considerable efforts have been made resulting in an appreciable increase in agricultural production; yet agricultural productivity is low compared to potential yields. This can be expressed in terms of the gap between the available knowledge and its information to the farming community. Farmers use many information sources and channels for seeking agricultural information on improved farm practices. The variability of knowledge acquired through different information sources and channels on improved farm practices by farmers depends on their personal characteristics. *i.e.* age, education, size of the family, type of the family, farming experience and extension contacts. The objective of the study is to ascertain the association between information seeking behavior of the farmers and personal characteristics.

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METHODS

Udaipur district of Southern Rajasthan was purposely selected for the study. Udaipur district comprising non - tribal and tribal *Panchyat samities* facilitated researcher to study both tribal and non tribal farmers. This district consists of four non-tribal area *Panchyat samithies* and one tribal area *panchayat Samiti*. Dhariyawad *Panchayat samiti* from tribal area and Bhinder *Panchayat samiti* from non- tribal area were selected on the basis of maximum area under cultivation of selected three key crops (maize, wheat and gram). Amarpura, Vana and Bansda were the selected three villages from non-tribal area *Panchayat samiti* for the study. Gadariyawas, Chittordia and Parel were the selected three tribal villages from the tribal area *panchayat samiti*. The selection procedure of villages was equal to selection procedure of *Panchayat samities* (maximum area under cultivation of selected three key crops,wheat, maize and gram).

A comprehensive list of all the farmers who cultivate defined three crop *i.e.* maize, wheat and gram was prepared with the help of Agriculture Supervisor and *Patwari* of each village. By employing simple random sampling technique, twenty farmers were selected from each village. The size of the total sample was 120 farmers. A comprehensive questionnaire was prepared and pretested with non sampled respondents and made slight modification according to the responses. Face-to-face interview method was adopted to collect information from the respondents. Data were analyzed by using chi-square test.

Measurement of indicators

Measurement of extension contacts

The extent of meeting with Agriculture Development Officers, Circle Agriculture Officers, Subject Matter Specialists, Sub Divisional Agriculture Officers, KVK Scientists, Agriculture Supervisors or any other extension workers working in the study area was considered as extension contacts of the respondent.

The frequency of contacts were categorized as never, once a year, once a month, once a fort night, once a week and scores were given as 0,1,2,3,4 respectively.

The total scores of the respondents ranged from 0 to 24. The sample mean ($\overline{X}$) and standard deviation (S.D.) were 4.46 and 2.26 respectively. Respondents were categorized into three groups considering mean and standard deviation as Low $< \overline{X}$ -S.D (score less than 2.2), Medium $\overline{X}$-S.D. to $\overline{X}$+S.D (score between 2.2 to 6.72) and High High $> \overline{X}$ + S.D (score more than 6.72) respectively.

Measurement of information seeking behavior

The information seeking behavior of the farmer on improved agricultural practices was related to exposure of number of sources and channels of agriculture information. The scoring procedure of information seeking behavior was done by adding one score for each source and channel used by respondents for information seeking. Then the total score was calculated to find out the information seeking behavior. After calculating the scores, the respondents were categorized into two groups considering mean score. The respondents who occupied scores below the mean were categorized as “Low information seeking behavior

group" and respondents occupied scores above the mean categorized as "High information seeking behavior group".

RESULTS AND DISCUSSION

To find out the association between selected independent variables (personal characteristics) *viz.*, age, education, family type, family size, farming experience, size of land holding, extension contacts and study variable *viz.*, information seeking behavior of respondent, the chi-square test was applied. The data regarding association between selected independent and study variables are presented in subsequent tables.

(a). Association between age and information seeking behavior of respondents on improved agricultural practices

Hypothesis:

$H_{0.1}$: There is no association between age and information seeking behavior of respondents on improved agricultural practices.

$H_{1.1}$: There is an association between age and information seeking behavior of respondents on improved agricultural practices.

Table 1. Association between age and information seeking behavior of respondents.

Age	Information seeking behavior		Total	Chi-square
	Low	High		
Young < $\overline{X}$-S.D	9 (47%)	10 (53%).	19	
Middle $\overline{X}$-S.D. to $\overline{X}$+S.D	46 (57%)	35 (43%)	81	2.09^{NS}
Old >$\overline{X}$+ S.D	14 ((70%)	6 (30%)	20	
Total	69 (57%)	51 (43%)	120	

Note: N.S: Not significant at P = 0.05.

Table 1 revealed that the calculated chi square value (2.09) was less than the tabulated value (5.99) at 2 degree of freedom and 5 per cent level of significance which was statistically not significant, so the null hypothesis ($H_{0.1}$) "There is no association between age and information seeking behavior of respondents on improved agricultural practices" was accepted. Thus, it could be concluded that age of the respondents had not affected their information seeking behavior on improved agricultural practices. This finding was in contradiction with the findings of Jha and Chauhan (1999) who found that age was directly related to the interpersonal communication behavior of dairy farmers.

(b) Association between education and information seeking behavior of the respondents on improved agricultural practices

Hypothesis:

$H_{0.2}$: There is no association between education and information seeking behavior of the respondents on improved farm practices.

$H_{1.2}$: There is an association between education and information seeking behavior of the respondents on improved farm practices.

Table 2. Association between education and information seeking behavior respondents on improved farm practices.

Level of education	Information seeking behavior		Total	Chi-square
	Low	High		
Illiterate	40 (89%)	5 (11%)	45	
Literate	15 (45%)	18 (55%)	33	30.14
Educated	14 (33%)	28 (67%)	42	
Total	69 (57%)	51 (43%)	120	

Note: Significant at P = 0.05.

The calculated chi-square value 30.14 was found to be significant and null hypotheses was rejected. Hence, the alternative hypothesis "There is association between level of education and information seeking behavior of the respondents on improved farm practices" was accepted.

It is generally believed that educated persons are more innovative in their outlook and more change prone. The level of education might have steered the respondents to expose more with sources and channels of agriculture information and it might have been reflected in the results of the study. The finding are in line with the findings of Rezvanfer and Uaisy (2003) who reported that education had significant relationship with information inputs of the farmers in Azerbijan district of Iran.

(c) Association between the family type and information seeking behavior of the respondents on improved agricultural practices

Hypotheses:

$H_{0.3:}$ There is no association between family type and information seeking behavior of respondents on improved farm practice.

$H_{1.3.}$ There is an association between family type and information seeking behavior of respondents on improved farm practices.

Table 3. Association between family type and information seeking behavior of the respondents.

Family type	Information seeking behavior		Total	Chi-square
	Low	High		
Joint(extended)	29 ((50%)	29 (50%)	58	
Nuclear	40 (65%)	22 (35%)	62	$X^2 = 2.58^{NS}$
Total	69 (58%)	51 (42%)	120	

Note: NS: Not significant at P = 0.05.

Calculated chi-square value 2.58 was less than the tabulated value 3.84. So, the null hypothesis "There is no association between type of the family of respondents and information seeking behavior on improved farm practices" was failed to reject. Thus, the data supported the proposition that "there is no association between family type of respondents and information seeking behavior on improved farm practices"

It can be concluded that type of family has nothing to do with the information seeking behavior of farmers on improved farm practices. This finding was in contradiction with the findings of Kumawat (2002), who reported that there was significant association between family type and utilization of the newspaper "*Apna Patra*" by the subscribers.

(d) Association between size of the family and information seeking behavior of the respondents on improved agricultural practices.

Hypothesis:

$H_{0.4:}$ There is no association between size of the family and information seeking behavior of the respondents on improved farm practices

$H_{1.4.}$ There is an association between size of the family and information seeking behavior of the respondents on improved farm practices.

Table 4. Association between family size and information seeking behavior of the respondents.

Size of family	Information seeking behavior		Total	Chi-square
	Low	High		
Less than 5 members (small family)	20 (53%)	18 (47%)	38	
5-10 members (medium family)	31 (60%)	21 (40%)	52	0.54^{NS}
More than 10 members (Large family)	18 (60%)	12 (40%)	30	
Total	69 (57%)	51 (43%)	120	

Note: NS: Not significant at P = 0.05.

Table 4 depicts that the calculated chi-square value (0.54) was less than the tabulated value (5.99) at 2 degree of freedom at 5 per cent level of significance, which was statistically not significant, so the null hypothesis "There is no association between size of the family and information seeking behavior of the respondents on improved agricultural practices" was failed to reject. Thus, it could be concluded that the size of the family of respondents had not affected their information seeking behavior on improved agricultural practices.

(e) Association between farming experience and information seeking behavior of the respondents on improved farm practices

Hypothesis:

$H_{0.5:}$ There is no association between the farming experience and information seeking behavior of the respondents on improved farm practices.

$H_{1.5.}$ There is an association between the farming experience and information seeking behavior of respondents on improved farm practices.

Table 5. Association between farming experience and information seeking behavior of respondents on improved farm practices.

Farming experience	Information seeking behavior		Total	Chi-square
	Low	High		
Less than years 10	19(56%)	15(44%)	34	
More than years 10	50(42%)	36(58%)	86	0.51^{NS}
Total	69(57%)	51(43%)	120	

Note: NS: Not significant at P = 0.05.

The calculated chi-square value (0.51) was found to be less than the tabulated chi-square value (3.84). Thus the null hypothesis ($H^{0.5}$) was failed to reject. This infers that farming experience was not significantly associated with information seeking behavior of respondents on improved farm practices.

(f) Association between size of land holding and information seeking behavior of the respondents

Hypothesis:

$H_{0.6.}$ There is no association between size of land holding and information seeking behavior of the respondents

$H_{1.6.}$ There is an association between size of land holding and information seeking behavior of the respondents

Table 6. Association between land size and information seeking behavior of respondents on improved farm practices.

Land size	Information seeking behavior		Total	Chi-square
	Low	High		
Less than 1 ha (Marginal)	48((83%)	10(17%)	58	
1-2 ha. (small)	12(52%)	11(48%)	23	34.32^{*}
More than 2 ha. (Large)	9 (23%)	30(77%)	39	
Total	69 (57%)	51(43%)	120	

Note: *Significant at P = 0.05.

The calculated chi-square value (34.42) was fond to be higher than the tabulated chi-square value (5.99) at 2 degree of freedom and 5 per cent level of significance. Thus, null hypotheses was rejected and alternative hypotheses “There is association between size of land holding and information seeking behavior of respondents” was accepted. Inference therefore, can be drawn that size of land holding of farmers was positively associated with

their information seeking behavior on improved agricultural practices. Large farmers normally expose to more sources and channels of agriculture information on improved farm practices for increasing the productivity of their comparatively large farming lands. This reason might have contributed towards the association of size of land holding and information seeking behavior of the respondents on improved farm practices.

These findings are in line with findings of Thamuli and Kakati (1999), who reported that farm size was positively and significantly correlated with utilization of different information sources among dairy farmers in progressive villages, while it was positively related and insignificantly correlated in non-progressive villages.

(g) Association between the extension contacts and information seeking behavior of the respondents on improved farm practices

Hypothesis:

$H_{0.7.}$ There is no association between extension contacts and information seeking behavior of the respondents on improved farm practices.

$H_{1.7.}$ There is an association between extension contacts and information seeking behavior of the respondents on improved farm practices

Table 7. Association between extension contacts and information seeking behavior of the respondents.

Extension contacts	Information seeking behavior		Total	Chi-square
	Low	High		
Low	19 (86%)	3 (14%)	22	
Medium	45 (60%)	30 (40%)	75	19.72*
High	5 (22%)	18 (78%)	23	
Total	69 (57%)	51 (43%)	120	

Note: *Significant at P = 0.05.

The calculated chi-square value (19.72) was higher than the tabulated chi-square value (5.99). Thus, the null hypothesis ($H_{0.9}$) was rejected and alternative hypothesis ($H^{1.9}$) was accepted. Thus, the data revealed that there was significant association between extension contacts and information seeking behavior of respondents on improved farm practices.

The higher extension oriented farmers try to get exposed more sources and channels of agriculture information for acquiring knowledge on improved farm practices and new agricultural technologies. This might have contributed positively toward association of extension contacts and information seeking behavior of the respondents.

CONCLUSIONS

The study provides essential information for identifying the information seeking behavior of various categories of farmers in actual field condition. The results of the study will be used to planners, researchers and extension workers as it will enable them to use right method, at right time in proper way which will lead to more adoption of improved agricultural practices by the ultimate users i.e. various categories of farmers. Personal characteristics like type of the family, size of the family and age are not associated with the information seeking behavior of farmers on improved farm practices. But personal characteristics like level of education, level of extension contacts and size of land holding are associated with the information seeking behavior of farmers on improved farm practices.

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