Original Research Article

Factors Influencing the Information Needs and Information Seeking Behaviours of Farmers with Reference to Climate Change Adaptation

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A B S T R A C T

The present study was conducted in Nalbari district of Assam, in the year 2021 with a view to study the information needs and information seeking behaviour of farmers. A purposive and random sampling technique was adopted to draw 120 respondents. The 4 villages under the APART project area have been selected for the study. 30 numbers of respondents from each villagers were selected randomly for the study. Data were collected by administering structured schedule. The study was conducted by calculating the coefficient of correlation between information needs and information seeking behaviour of farmers with 16 independent variables. Information need is the primary need to adapt with climate resilient technology for the farming community. Without any information about climate change farmers can't go for crop cultivation practices. So now a days information need about climate change is an essential criteria to cultivate crops in proper time. It was found that farming experience of farmers had a negative and significant relation with the information need. On the other hand annual income had positive significant relation with information need. Similarly the variable educational level, family type, farm size, management orientation, innovation proneness and economic motivation had shown a positive and highly significant relationship with the information need with reference to climate change adaptation. In the same time farmers' must have the seeking behaviour to take informations at proper time and through proper way. If the farmers are not interesting to take any information about climate change, they can't get any informations about farming activities related to climate change adaptation. The findings revealed that farming experience of farmers had a negative and significant relation with the information need. On the other hand annual income had positive significant relation with information need. Similarly the variable educational level, family type, farm size, management orientation, innovation proneness and economic motivation had shown a positive and highly significant relationship with the information need with reference to climate change adaptation. On the other hand institutional linkage, social participation, Innovation proneness and economic motivation of farmers had a positive and highly significant relation with information seeking behaviour. But the training exposure had a positive and significant relationship with the information seeking behaviour.

Introduction

The word 'information' refers to facts provided or learned about something or someone. According to the Oxford Advanced Learner's Dictionary (2011), information means something one wishes to know and need means necessity for a course of action arising from some facts and circumstances. Information reduces uncertainty and assist in decision making. It may exist as data in books, computers, peoples, files and thousands of other sources. These sources have to be considered simply as raw data until they are used to resolve uncertainties. What we often call information is often a random collection of data which does not become information until it is used by someone to achieve a specific purpose.

In agriculture environment, relevant and timely information helps farmers to take right decision to sustained growth of agriculture activity. Use of information in agriculture sector is enhancing farming productivity in a number of ways. Providing information on weather trends, best practice in farming, timely access to market information helps farmer make correct decisions about what crops to plants and where to sell their product and buy inputs.

Materials and Methods

The study was conducted in the 4 villages under APART Project of Nalbari district of Assam namely, Porakuchi, Sathamow, Arangamow and Budrukuchi. The project has been implemented in the district by the ARIAS society, Khanapara, Guwahati and Directorate of Research (Agri), AAU, Jorhat-13 since 2017-18. All these four villages were selected purposively for the study. From each of the villages 30 farmers were selected randomly. Thus a total 120 farmers/respondents constituted the sample of the study. Keeping in view the objectives of the study a set of 16 independent and dependent variables were selected after reviewing the relevant literature available to the investigator and in consultation with the social science experts of

Biswanath College of Agriculture, Assam Agricultural University, Biswanath Chariali-784176. To calculate the collected data, some statistical tools were selected. Those are discussing below in details. The collected data were coded, tabulated and analyzed in accordance with the objectives of the study by using appropriate statistical techniques. The statistical tools and techniques along with their uses are described in the following paragraphs.

Frequency distribution

It is a representation which displays the number of observations within a given interval.

Percentage

It is a fraction expressed with 100 as its denominator. It is used to any set of data for comparison.

Mean

It is the arithmetic average and was used to measure the type of the observation as a whole. The mean for all the readings were worked out as mentioned below.

Mean, $\overline{X} = \frac{\sum x}{n}$

where, $\overline{X}$ = Arithmetic mean

ΣX = Summation of item values

n = Number of item

Standard deviation

To find out the extent of variability shown by the variables, i.e., the dispersion of the variables around the mean, Standard deviation (SD) was used. It was worked out by using the formula mentioned below:

$$S.D. = \sqrt{\frac{\sum (x_i - \overline{x})^2}{n-1}}$$

Where, SD= Standard deviation

n = Total number of respondent

x_i = Variables of the study

$\bar{x}$ = Mean of the distribution

Simple correlation co-efficient

To find out the relationship between two given sets of scores, the Parson Product- Moment Correlation Co-efficient(r) was worked out by using the following formula (Welkowitz *et al.,* 1982).

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{NX^2 - (\sum X)^2 \left[N \sum Y^2 - (\sum Y)^2 \right]}}$$

Where,

r_{xy}= Correlation co-efficient between x & y variables

x = Original scores in variables x

y = Original scores in variables y

$\sum$ = "Summation of"

N = Total number of pairs of observations

t-test

In order to test the significance of observed correlation co-efficients, the students "t" ratio was found out by using the formula given below (Guilford and Fruchter, 1978).

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \quad \text{with (N-2) d.f}$$

Where,

r = Observed Correlation co-efficient

N = Number of Observation

d.f = Degree of Freedom

Results and Discussion

Relationship of selected independent variables with information need of farmers

The relationship between the selected independent variables and the dependent variable was found out with the help of Parson Product- Moment Correlation Co-efficient(r). The significance of observed correlation co-efficient was tested with the help of the students "t" ratio at 0.5 and 0.01 level of probability.

Table 1 presents the coefficient of correlation between information need of farmers and 16 independent variables. It is evident from the table that 7 independent variables, viz., Educational level, Family type, Farm size, Social participation, Management orientation, Innovation proneness and Economic motivation had significant positive relationship with the information need of farmers at 0.01 level of probability. While annual income showed significant positive relationship with the information need of farmers 0.05 level of probability, farming experience showed significant negative relationship with the information need of farmers at 0.05 level of probability.

Relationship of selected independent variables with information seeking behaviour of farmers

Table 2 presents the coefficient of correlation between information need of farmers and 16 independent variables. It is evident from the table that 3 independent variables, viz., Institutional linkage, Innovation proneness and Level of aspiration had significant positive relationship with the information seeking behaviour of farmers at 0.01 level of probability. The variable training exposure showed significant positive relationship with the information seeking behaviour of farmers 0.05 level of probability.

Table.1 Correlation co-efficient between information need and selected independent variables

Sl. No.	Independent Variables	Correlation coefficient	t-value
1.	Age	-0.102	-1.118
2.	Educational level	0.247**	2.768
3.	Family type	0.443**	5.367
4.	Family size	0.062	0.674
5.	Institutional linkage	0.064	0.696
6.	Training exposure	0.019	0.228
7.	Farm size	0.252**	2.828
8.	Annual income	0.230*	2.567
9.	Social participation	0.214**	2.689
10.	Farming experience	-0.087*	0.948
11.	Management orientation	0.366**	4.272
12.	Innovation proneness	0.262**	2.949
13.	Farm mechanization	-0.020	0.217
14.	Economic motivation	0.449**	5.458
15.	Level of aspiration	0.108	1.180
16.	Risk preference	0.142	1.55

Note: * indicates Significant at 5% level of probability ≥ 1.98 (118 d.f.)
** indicates Significant at 1% level of probability ≥ 2.61 (118 d.f.)

Table.2 Correlation co-efficient between information seeking behaviour and selected independent variables

Sl. No.	Independent Variables	Correlation coefficient	t-value
1.	Age	-0.143	-1.583
2.	Educational level	-0.024	-0.263
3.	Family type	-0.109	-1.19
4.	Family size	0.001	0.010
5.	Institutional linkage	0.239**	2.673
6.	Training exposure	0.179*	2.590
7.	Farm size	-0.119	-1.301
8.	Annual income	0.176	1.94
9.	Social participation	0.032	0.349
10.	Farming experience	-0.125	1.368
11.	Management orientation	-0.050	0.543
12.	Innovation proneness	0.278**	3.143
13.	Farm mechanization	0.156	1.715
14.	Economic motivation	0.017	0.184
15.	Level of aspiration	0.179**	1.986
16.	Risk preference	0.023	0.249

Note: * indicates Significant at 5% level of probability ≥ 1.98 (118 d.f)
** indicates Significant at 1% level of probability ≥ 2.61 (118 d.f)

Finding of correlation analysis indicated that 7 independent variables, viz., Educational level, Family type, Farm size, Social participation, Management orientation, Innovation proneness and

Economic motivation had significant positive relationship with the information need of farmers at 0.01 level of probability. While annual income showed significant positive relationship with the information need of farmers 0.05 level of probability, farming experience showed significant negative relationship with the information need of farmers at 0.05 level of probability. On the other hand, 3 independent variables, viz., Institutional linkage, Innovation proneness and Level of aspiration had significant positive relationship with the information seeking behaviour of farmers at 0.01 level of probability. The variable training exposure showed significant positive relationship with the information seeking behaviour of farmers 0.05 level of probability.

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