

International Journal of Statistics and Applied Mathematics

ISSN: 2456-1452
Maths 2024; SP-9(5): 236-238
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www.mathsjournal.com
Received: 10-08-2024
Accepted: 16-09-2024

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Correlates of adoption of groundnut cultivation technology

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Abstract

The present study on "Adoption of Production Technology of Groundnut by the Groundnut Growers" was conducted in Washim districts of Maharashtra state. The exploratory research design of social research was used. In all, 150 respondents were selected by random sampling method. The data were collected by personally interviewing the respondents with the help of structured interview schedule. The data collected were carefully examined, classified, quantified and tabulated. Frequencies, mean, standard deviation and coefficient of correlation were employed for interpreting the results. Majority i.e. 52.00 percent of the respondents had medium level of adoption of recommended cultivation practices of groundnut. In case of adoption, the findings revealed that characteristics such as source of information and risk orientation were having positively and highly significantly correlated with the adoption of recommended cultivation practices of groundnut. The variable such as education, land holding, area under groundnut cultivation, experience in groundnut cultivation, annual income, social participation, innovativeness, marketing orientation, knowledge were positively and significantly correlated with adoption of recommended cultivation practices of groundnut. Therefore, the null hypothesis was rejected for these variables. The variable such as age was having non-significant relationship with adoption towards recommended cultivation practices of groundnut. Therefore, the null hypothesis was accepted for these variables.

Keywords: Adoption, correlates, groundnut, variable

Introduction

Groundnut oil is expressed from the seed of *Arachis hypogaea* L., commonly known as groundnut, peanut, or earth nut, because the seed develops underground. The plant is a legume native to South America and was cultivated as early as 2000–3000 bc. Groundnut is cultivated in tropical, sub-tropical and warm temperate regions between 400N and 400S latitudes. Groundnut is one of the most demanding oilseed crops to have effect on Indian economy. In terms of acreage, production and economic value, these oilseed crops are second only to food grains. Groundnuts are nutritious and promote value-added industries in low-income countries especially for small scale farmers. In India, Groundnut is considered the "king of oilseeds". Groundnut is also called a wonder nut or poor man's almond. It is available throughout the year due to two-crop cycles, harvested in March and October. It is one of the most important foods and cash crops of our country. While being a valuable source of all the nutrients, it is a low-priced commodity. Farmers are heterogeneous with respect to various characteristics like age, education, land holding, area under groundnut, experience in groundnut cultivation, annual income, sources of information, social participation, innovativeness, marketing orientation, risk orientation and knowledge Hence, it is important to throw light on the socio-economic factors of the farmers which play a major role in diffusion and adoption process of the technology. Considering the above facts, the study was carried out with the specific objectives (i) to study the profile of groundnut growers and (ii) to study the relationship between selected characteristics of groundnut growers with their adoption.

Methodology

The present study was conducted in Washim district in Vidarbha region of Maharashtra state. An exploratory design of social research was used for present study aims to find the adoption

in groundnut growers. Out of six talukas, three talukas were purposively selected viz, Washim, Malegaon, Risod talukas from Washim district on the basis of maximum area under groundnut crop cultivation. Total 15 villages have been selected from the selected talukas on the basis of maximum

area. The object of present study was mainly to assess the adoption. Hence, 15 villages were selected purposively.

Results and Discussion

Table 1: Distribution of respondents according to their selected socio-economic characteristics (n=150)

Independent Variables	Category	Frequency	Percentage
Age	Young (Up to 35 yrs)	47	31.33
	Middle (36-50 yrs)	81	54.00
	Old (Above 50 yrs)	22	14.67
Education	Illiterate (No formal schooling)	00	Nil
	Primary School (1-4th standards)	04	02.67
	Middle School (5-7th)	12	08.00
	Secondary School (8-10th)	59	39.33
	Higher Secondary (11-12th)	46	30.67
	College (above 12th)	29	19.33
Land Holding (ha)	Marginal (Up to 1.00)	10	06.67
	Small (1.01 to 2.00)	51	34.00
	Semi-medium (2.01 to 4.00)	71	47.33
	Medium (4.01 to 10.00)	13	08.67
	Large (Above 10.00)	05	03.33
Area under groundnut (ha)	Marginal (Up to 1.00)	54	36.00
	Small (1.01 to 2.00)	67	44.67
	Semi-medium (2.01 to 4.00)	29	19.33
	Medium (4.01 to 10.00)	00	Nil
Experience in groundnut cultivation	Low (Up to 8 years)	46	30.67
	Medium (8.1 to 14 years)	79	52.66
	High (Above 14 years)	25	16.67
Annual Income (Rs)	Up to Rs. 1,40,000	09	06.00
	Rs. 1,40,001 to Rs. 2,30,000	38	25.33
	Rs. 2,30,001 to Rs. 3,20,000	62	41.33
	Rs. 3,20,001 to Rs. 4,10,000	28	18.67
	Above Rs. 4,10,000	13	08.67
Sources of information	Low (up to 8.97)	18	12.00
	Medium (8.98 to 16.29)	107	71.33
	High (Above 16.29)	25	16.67
Social participation	Low (Up to 0.17)	38	25.33
	Medium (0.18 to 2.53)	71	47.33
	High (Above 2.53)	41	27.34
Innovativeness	Low (Up to 10.35)	29	19.33
	Medium (10.36 to 14.81)	90	60.00
	High (Above 14.81)	31	20.67
Marketing orientation	Low (up to 15.91)	12	08.00
	Medium (15.92 to 23.25)	114	76.00
	High (Above 23.25)	24	16.00
Risk orientation	Low (Up to 15.81)	19	12.67
	Medium (15.82 to 23.27)	107	71.33
	High (Above 23.27)	24	16.00
Knowledge	Low (Up to 33.33)	19	12.67
	Medium (33.33 to 66.66)	72	48.00
	High (Above 66.66)	59	39.33
Dependent Variable			
Adoption of recommended cultivation practices of groundnut	Low (Up to 33.33)	24	16.00
	Medium (33.33 to 66.66)	78	52.00
	High (Above 66.66)	48	32.00

Distribution of respondents based on selected socioeconomic characteristics (Independent variables) and adoption level (Dependent variable) and dependent variable is presented in Table 1. From Table 1, it is depicted that majority (54.00%) of the respondents were in middle age group followed by 14.67 percent of them were in old age group. Age is a significant factor which determines the extent of knowledge gained, involvement in different enterprises and adoption of improved practices.

Many (39.33%) of the respondents were educated up to secondary school level. The percentage of respondents educated up to higher secondary school was 30.67 percent. The size of holding is an important factor for determining the economic status of a person as well as level of involvement in farming. 47.33 percent of the respondents were observed in semi- medium category of land holding. Majority (44.67%) of the respondents put 1.01 to 2.00 ha area under groundnut crop followed by 36.00 percent of respondents put upto 1 ha area under groundnut crop and

19.33 percent respondents put 2.01 to 4.00 ha area under groundnut crop.

Higher percentages (52.66%) of respondents had medium level of farming experience i.e. 8.1 to 14 years. The annual income was found between Rs. 2,30,001 to Rs. 3,20,000 for majority (41.33%) of the respondents. 71.33 percent of respondents belonged to medium category of use of information sources. Majority (47.33%) of the respondents were belonged to medium category of social participation, followed by 27.34 percent of the respondents were belonged to high category of social participation. Majority (60.00%) of the respondents were belonged to medium category of innovativeness. 76.00 percent of groundnut growers had medium level of marketing orientation. Majority (71.33%) of the respondents were belonged to medium level of risk orientation.

The majority (48.00%) of the respondents had medium level of knowledge about recommended cultivation practices of groundnut, whereas 39.33 percent of the respondents had high level knowledge about recommended cultivation practices of groundnut. The majority (52.00%) of the respondents had medium level of adoption of recommended cultivation practices of groundnut, whereas 32.00 percent of the respondents had high level adoption of recommended cultivation practices of groundnut. Majority (52.00%) of the respondents had medium level of adoption of recommended cultivation practices of groundnut, whereas 32.00 percent of the respondents had high level adoption of recommended cultivation practices of groundnut.

Table 2: Coefficient of correlation of selected characteristics of the respondents with their adoption

Sr. No.	Characteristics	Coefficient of correlation 'r' value
1	Age	0.0857NS
2	Education	0.1888*
3	Land Holding	0.1625*
4	Area under groundnut cultivation	0.1716*
5	Experience in groundnut cultivation	0.1623*
6	Annual income	0.1717*
7	Sources of information	0.2124**
8	Social participation	0.1757*
9	Innovativeness	0.1613*
10	Marketing orientation	0.1656*
11	Risk orientation	0.2376**
12	Knowledge	0.1748*

NS: Non-significant

** : Significant at 0.01 level of probability

* : Significant at 0.05 level of probability

It can be seen from the Table 2 - that among the selected variables such as source of information and risk orientation were having positively and highly significantly correlated with the adoption of recommended cultivation practices of groundnut. The variable such as education, land holding, area under groundnut cultivation, experience in groundnut cultivation, annual income, social participation, innovativeness, marketing orientation, knowledge were positively and significantly correlated with adoption of recommended cultivation practices of groundnut. Therefore, the null hypothesis was rejected for these variables. The variable such as age was having non-significant relationship with adoption towards recommended cultivation practices of groundnut. Therefore, the null hypothesis was accepted for these variables.

Conclusion

From the study, it can be concluded that the socio-economic variables are the underlying factors that influence adoption of a technology. The findings in regard with this study revealed that majority of respondents exhibited medium level of knowledge about recommended cultivation practices of groundnut. Adoption of recommended cultivation practices of groundnut were observed in medium level. It is revealed that with respect soil to groundnut cultivation, majority of the respondents (63.33%) had complete adoption about soil and sowing. As concerned to plant protection measures, higher proportion of (45.67%) respondents possessed non adoption of recommended practices of plant protection which includes pest control and disease control.

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