

ASSOCIATION BETWEEN SELECTED CHARACTERISTICS OF THE FARMER AND AGRICULTURAL DIVERSIFICATION

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ABSTRACT

In relation to agricultural development, “diversification” is probably one of the most frequently used terms in the recent decade. Traditionally, diversification was used more in the context of a subsistence kind of farming, wherein farmers grown many crops on their field. The household level food security as also risk was an important consideration in diversification. In the recent decade, diversification is increasingly being used to describe increase in area under high value crops. Total 160 respondents were selected from sixteen villages belongs to Dhanera, Deesa, Vadgam and Lakhani talukas of Banaskantha district of Gujarat state. Independent and dependent variables were measured with the help of scales/technique/index development by previous researchers with some modification. The data were collected by personal contact method with help of structured interview schedule and data were coded, classified, tabulated and analyzed in the light of objectives. The appropriate statistical methods were used for analysis of data. The result found that majority of the diversified farmers belonged to middle to old age group and obtained high school education with annual income up to ₹4,00,000 and having medium to large land holding, had medium to high information seeking behavior; risk orientation and management efficiency with favorable to more favorable attitude towards agricultural diversification, had medium to high cropping intensity and used both canal and well and both tube well and canal as a sources of irrigation. Out of ten variables total six variables viz., education, Family income, size of land holding, risk orientation, Management efficiency and cropping intensity had positive and highly significant relationship with agricultural diversification. Information seeking behavior and attitude towards agricultural diversification had positive and significant relationship with agricultural diversification.

Keywords : agricultural diversification, diversified farmers. management efficiency

INTRODUCTION

Agricultural diversification is slowly picking up momentum in favor of high value food commodities primarily to enhancement of income rather than the traditional concept of risk management (Saran *et al.*, 2015). The nature of diversification differs across regions due to existence of wide heterogeneity in agro-climatic and socio-economic environments (Patel *et al.*, 2021). It was considered interesting to delineate the key regions and sub-sectors of agriculture where diversification was catching up fast. Crops, livestock, horticulture and forestry constitute the core sectors of agriculture. The crop sector is the principal income-generating source in agriculture followed by the livestock sector. It is depicted a steady diversification herewith replacement of food-grain crops with nonfood-grain crops. Several non-food-grain crops such as fruits, vegetables, and medicines have substituted mainly coarse cereals in the farmers’ business for higher income.

Crop diversification is intended to give a wider choice in the production of a variety of crops in a given area so as to expand production related activities on various crops and also to lessen risk. Crop diversification in India is generally viewed as a shift from traditionally grown less remunerative crops to more remunerative crops, governmental policies and thrust on some crops over a given time, market infrastructure development and certain other price related supports, low volume high-value crops, higher profitability and also the resilience/stability in production and soil problems.

OBJECTIVES

- (1) To study the selected characteristics of respondents
- (2) To find out the relationship between selected characteristics of the farmer and agricultural diversification

METHODOLOGY

The present study was confirmed to “Ex-post Facto” research design as the independent variables were already operated in the study area. The multistage sampling technique was used for select a representative sample of respondents for present investigation. The present investigation was carried out in Banaskantha district of Gujarat state among the 14 talukas of Banaskantha district four talukas viz., Dhanera, Deesa, Vadgam and Lakhani were randomly selected for the study. Four villages were randomly selected from each selected taluka. Thus, total 16 villages were selected. The proportionate random sample size was drawn from each village by multiplying the total number of farmers of each village to 40 (desired sample for each taluka) and divided by total number of farmers of the respective taluka. In this

way 40 respondents were selected from each taluka. Thus, the sample size for the study comprised of 160 respondents. The data were collected by personal contact method with help of structured interview schedule. Independents variable were measured with the help of scales/technique/index development by previous researchers with some modification. The relationship was worked out by using the correlation coefficient (r).

RESULTS AND DISCUSSION

I Selected characteristics of respondents

The data regarding characteristics of the farmers were classified into five groups, viz., personal, socio-economic, communicational, psychological and situational characteristics analyzed and presented in the Table.1

Table 1 : Selected characteristics of the Respondents

(n=160)

No.	Selected characteristics of the respondents		Frequency	Percent
(A)	Personal Characteristics			
1	Age	Young age (up to 35 years)	32	20.00
		Middle age (36 to 50 years)	88	55.00
		Old age (above 50 years)	40	25.00
2	Education	Illiterate	08	05.00
		Functionally literate	03	01.87
		Primary school (1 st to 8 th std)	16	10.00
		Middle school (9 th to 10 th std)	37	23.13
		High school (11 th to 12 th std)	64	40.00
		Under-Graduate and Post-Graduate (UG/PG)	32	20.00
(B)	Socio-economic Characteristics			
3	Annual income	Up to ₹1,00,000	10	06.25
		₹1,00,001 to ₹2,00,000	12	07.50
		₹2,00,001 to ₹3,00,000	21	13.12
		₹3,00,001 to ₹4,00,000	24	15.00
		₹4,00,001 to ₹5,00,000	42	26.25
		Above ₹5,00,000	51	31.88
4	Land holding	Marginal (upto 1.00 ha.)	17	10.62
		Small (1.01 to 2.00 ha.)	28	17.50
		Medium (2.01 to 4.00 ha.)	64	40.00
		Large (above 4.00 ha)	51	31.88
(C)	Communicational Characteristics			
5	Information seeking behavior	Low information seeking behavior (< 40.50 score)	27	16.87
		Medium information seeking behavior (≥ 40.50 to < 53.50 score)	96	60.00
		High information seeking behavior (≥ 53.50 score)	37	23.13
		Mean=47.00		S.D. = 6.50

No.	Selected characteristics of the respondents		Frequency	Percent
(D)	Psychological Characteristics			
6	Risk orientation	Low level of risk orientation (< 16.06 score)	32	20.00
		Medium level of risk orientation (≥ 16.06 to < 22.08 score)	88	55.00
		High level of risk orientation (≥ 22.08 score)	40	25.00
		Mean=19.07	S.D.= 3.01	
7	Management efficiency	Lower management efficiency (<44.80 score)	26	16.24
		Medium management efficiency (≥44.80 to < 59.20 score)	97	60.63
		Higher management efficiency (≥59.20 score)	37	23.13
		Mean=52.00	S.D.=07.20	
8	Attitude of farmers towards agricultural diversification	Less favorable attitude (<38.30 score)	21	13.12
		Favorable attitude (≥ 38.30 to < 65.70 score)	104	65.00
		More favorable attitude (≥65.70 score)	35	21.88
		Mean=52.00	S.D.=13.70	
(E)	Situational characteristics			
9	Cropping intensity	100 per cent	21	13.13
		200 per cent	107	66.87
		300 per cent	32	20.00
10	Irrigation source	Only well	20	12.50
		Only canal	24	15.00
		Only tube well	33	20.62
		Both canal and well	42	26.26
		Both tube well and canal	41	25.62

The data presented in Table.1 indicates that more than half (55.00 per cent) of the respondents were belongs to

middle age group, had high school level of education (40.00 per cent), nearly three fifth (58.13 per cent) had more than ₹4,00,000 annual income, had medium to large size of land holding (71.88 per cent), were medium information seeking behavior (60.00 per cent), had medium level of risk orientation (55.00 per cent), were medium management efficiency (60.63 per cent), had Favorable attitude toward agricultural diversification (65.00 per cent), more than two third (66.87 per cent) of the respondents had 200 per cent cropping intensity and irrigation sources were well, tube well and canal.

II. Association between selected characteristics of the farmer and agricultural

Diversification

The relationship between respondents' profile which includes ten variables viz; age, education, family income, size of land holding, information seeking behavior, risk orientation, management efficiency, attitude towards agricultural diversification, cropping intensity and irrigation source, were worked out with the help of coefficient of correlation and findings are presented in Table 2.

The data manifested in Table 2 reveal that education of respondents ('r'=0.4478**), family income ('r'=0.3303**), land holding ('r'=0.2098**), risk orientation ('r'=0.3350**), management efficiency ('r'=0.5570**) and cropping intensity ('r'=0.2103**) were found to have positive and highly significant correlation with agricultural diversification. Whereas, information seeking behavior ('r'=0.2010*) and attitude towards agricultural diversification ('r'=0.1983*)

was found to be positive and significantly correlated with agricultural diversification.

Table 2 : Relationship between farmers' profile and agricultural diversification (n = 160)

Sr. No.	Independent variables	Correlation Coefficient ('r' Value)
I	Personal characteristics :	
	X ₁ Age	-0.0416 ^{NS}
	X ₂ Education	0.4478**
II	Economic characteristics :	
	X ₃ Family income	0.3303**
	X ₄ Size land holding	0.2098**
III	Communication characteristics:	
	X ₅ Information seeking behavior	0.2010*
IV	Psychological Characteristics :	
	X ₆ Risk orientation	0.3350**
	X ₇ Management efficiency	0.5570**
	X ₈ Attitude towards agricultural Diversification	0.1983*
V	Situational variable	
	X ₉ Cropping intensity	0.2103**
	X ₁₀ Irrigation source	-0.1020 ^{NS}

NS = Non-Significant,

*Significant at 5 per cent level of significance

** Significant at 1 per cent level of significance

However, age ('r' = -0.0416), and irrigation source ('r' = -0.1020) were found to have negative and non-significant correlation with agricultural diversification.

The findings are similar with Shehrawat and Singh *et al.*, (2012) and Rai (2015).

CONCLUSION

It can be concluded from above finding that

majority of the diversified farmers belonged to middle to old age group and obtained high school education with annual income up to ₹4,00,000 and having medium to large land holding, had medium to high information seeking behavior, risk orientation and management efficiency with favorable to more favorable attitude towards agricultural diversification, had medium to high cropping intensity and used both canal and well and both tube well and canal as a sources of irrigation. In case of association, out of ten variables total six variables viz., education, family income, size of land holding, risk orientation, management efficiency and cropping intensity had positive and highly significant relationship with agricultural diversification. The age and Irrigation source had negative and non-significant relationship with agricultural diversification. Information seeking behavior and attitude towards agricultural diversification had positive and significant relationship with agricultural diversification.

CONFLICT OF INTEREST

The authors of the paper declare no conflict of interest

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