Relationship between Profile of the Maize Growers and their Socio-Techno-Economic Changes

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ABSTRACT

The present investigation was undertaken in Dahod district which comes under the jurisdiction of Anand Agricultural University, Anand. This district is comprised of eight talukas. Out of these, three talukas namely Dahod, Zalod and Limkheda was purposively selected for the study as they have maximum number of farmer interest groups (FIGs) than other talukas. Total 8 FIGS were randomly selected from eight village of each talukas. Thus, total 24 FIGs were selected from 24 villages. From each FIGs of village, five farmers were randomly selected. Hence, total 120 farmers were selected and were interviewed with a structural pre-tested Gujarati version interview schedule with a aim to study the socio-personal, economic, psychological and communicational characteristics of the maize growers and their relationship with their socio-techno-economic changes. Majority (77.50 per cent) of the maize growers were medium to high level of socio-techno-economic changes. Then we can conclude that this result show the positive consequences of ATMA project on FIGs of maize growers. The independent variables like education, social participation, size of land holding, occupation, economic motivation, scientific orientation, market intelligence, innovativeness, knowledge of maize cultivation technology, mass media exposure and extension participation had positive and highly significant correlation with socio-techno-economic changes of maize growers except age.

Keywords: *Socio-techno-economic change, Maize growers*

INTRODUCTION

ATMA is a society of key stakeholders involved in agricultural activities for sustainable agricultural development in the district. It is a focal point for integrating research and extension activities and decentralizing day-to-day management of the public Agricultural Technology System (ATS). It is a registered society responsible for technology dissemination at the district level. As a society, it would be able to receive and expend project funds, entering into contracts and agreements and maintaining revolving accounts that can be used to collect fees and thereby recovering operating cost. Farmer Interest Groups (FIGs) are a new model of learning and innovation for farmers despite the remarkable benefits that farmers have gained by joining these groups, their

sustainability is a major concern of extension bodies, relevant organizations and farmers. Examine the roles of extension officers in supporting farmers to set up and run their interest groups. Inspite of the challenges that each group faced during the development phase, these groups shared factors that contributed to success. There can be 10-20 members in one group.

Therefore, it was considered necessary to find out whether there is any relationship between maize growers socio-personal, economic, psychological and communicational factors with their socio-techno-economic changes due to ATMA project. Therefore to know the consequences study was conducted with following objectives: 1. study the socio-techno-economic changes of maize growers 2. on know the

relationship between profile of the maize growers and their socio-techno-economic changes.

METHODOLOGY

The present investigation was undertaken in Dahod district which comes under the jurisdiction of Anand Agricultural University, Anand. This district is comprised of eight talukas. Out of these, three talukas namely Dahod, Zalod and Limkheda was purposively selected for the study as they have maximum number of farmer interest groups (FIGs) than other talukas. Total eight FIGS were randomly selected from eight village of each talukas. Thus, total 24 FIGs were selected from 24 villages. From each FIGs of village, five farmers were randomly selected. Hence, total 120 farmers were selected and were interviewed with a structural pre-tested Gujarati version interview schedule with a aim to study the socio-personal, economic, psychological and communicational characteristics of the maize growers and their relationship with their socio-techno-economic changes. Analysis was done on the basis of 120 maize growers. A structure schedule was developed to measure the dependent variable socio-techno-economic changes. The data were collected with the help of structural interview schedule. The collected data were classified, tabulated and analyzed in order to make the findings meaningful. The statistical measures such as percentage, mean score, standard deviation and co-efficient of correlation were used.

RESULTS AND DISCUSSION

Level of socio-techno economic change

Socio-techno-economic Changes are the changes that occur to an individual or a social system as a result of adoption or rejection of an innovation. It is the assessment of changes in terms of socio-techno-economic change aspect. In this study the resultant changes occurred among the maize growers as a result of adoption of maize production technology in the form of socio-techno-economic changes have been taken into account as consequences of ATMA project. The socio-techno-economic changes was measured in terms of eleven aspects namely- change in house hold possession, change in farm machinery, change in saving and investment, change in food habits, change in clothing pattern, change in housing condition, change in self-sufficiency, change in cropping intensity and crop production, change in annual income, change in land use and change in irrigated area.

Table 1: Distribution of the maize growers according to their level of socio-techno-economic changes.

n = 120

Sr. No.	Level of socio-techno-economic changes	No.	Per cent
1	Low (below 41.87 score)	27	22.50
2	Medium (between 41.87 to 80.25 score)	69	57.50
3	High (above 80.25 score)	24	20.00

Mean= 61.06   S.D. = 19.19

From the Table 1 data indicated that majority (57.50 per cent) of maize growers had medium level of socio-techno-economic changes whereas 22.50 and 20.00 per cent had low and high level of socio-techno-economic changes respectively.

Thus, we can say that a good majority (77.50 per cent) of the maize growers were medium to high level of socio-techno-economic changes. Then we can conclude that this result show the positive consequences of ATMA project on FIGs of maize growers.

Relationship of socio-techno-economic changes of maize growers and their profile

Table 2: Relationship between the profile of maize growers and their socio-techno-economic changes.

n = 120

Sr. No.	Independent Variables	Correlation-Coefficient ('r' value)
1	Age	-0.1294 **NS**
2	Education	0.2590**
3	Social participation	0.2424**
4	Occupation	0.2029**
5	Size of land holding	0.1864*
6	Economic motivation	0.3188**
7	Scientific orientation	0.3536**
8	Market intelligence	0.3002**
9	Innovativeness	0.2289**
10	Knowledge regarding to maize cultivation technology	0.2079**
11	Mass media exposure	0.2847**
12	Extension participation	0.2272**

NS = non significant at 0.05 level

* = significant at 0.05 level ** = significant at 0.01 level

In order to determine the relationship between the personal, social and economic characteristics of the maize

growers with their socio-techno-economic changes. It could be observed from the above table that out of the 12 variables, one variable age had a negative and non-significant correlation with their socio-techno-economic changes and rest eleven variables had positive and significant relationship with their socio-techno-economic changes. This was determined and tested with help of Karl Pearson's coefficient correlation test and results obtained is presented in Table 2 and depicted in Figure 1.

The independent variables like education, social participation, size of land holding, occupation, economic motivation, scientific orientation, market intelligence,

innovativeness, knowledge of maize cultivation technology, mass media exposure and extension participation had positive and highly significant correlation with socio-techno-economic changes of maize growers. The variables like age shows negative but non-significant relationship with socio-techno-economic changes of maize growers. The negatively non-significant association between age and socio-techno-economic changes indicates that the young and old aged beneficiary farmers were similar in their economic consequences. This might be fact that younger generation could pick up farmers' experience and farming knowledge by exposing themselves to the technically sound innovations.
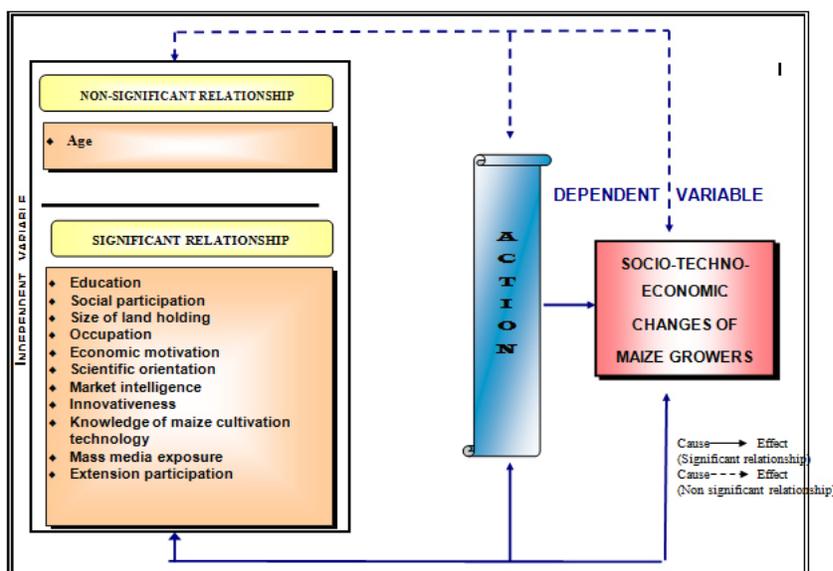

Fig. 1 : Empirical model showing influence of independent variables on dependent variable

CONCLUSION

Majority (77.50 per cent) of the maize growers were medium to high level of socio-techno-economic changes. Then we can conclude that this result showed the positive consequences of ATMA project on FIGs of maize growers. The independent variables like education, social participation, size of land holding, occupation, economic motivation, scientific orientation, market intelligence, innovativeness, knowledge of maize cultivation technology, mass media exposure and extension participation had positive and highly significant correlation with socio-techno-economic changes of maize growers expect age.

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