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Association of Profile of the Farmers of Adopted village with the Direct and Indirect Changes in Guntur District

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ABSTRACT

The present study was formulated during the year 2015 in Guntur district of Andhra Pradesh, with a sample of 60 respondents from adopted village were selected by proportionate random sampling method. Results revealed that out of selected fourteen independent variables, twelve variables had showed positive and significant relationship with direct and indirect changes of adopted village. While observing regression values, it was acknowledged that the variables viz., age, farming experience, extension contact and market orientation were found to be positively significant at 0.01 level of probability. Whereas, occupation, training received and mass media exposure were found to be positively significant at 0.05 level of probability. Whereas, in case of indirect changes independent variables such as training received and extension contact were found to be positively significant at 0.01level of probability and independent variables like mass media exposure and achievement motivation found to be positively significant at 0.05 level of probability.

Key words : Association, Direct changes, Profile, Adopted Village, Village Adoption Programme.

The University, suo-moto, has ordered for the adoption of one village by each of the major and medium research stations and all colleges, with effect from kharif 1998, with following broad objectives to improve the productivity of important crops of the village by adopting technologies recommended by the scientists of the University, to improve the overall economic status of the farmers and farm women, through technological interventions and farming systems approach, to conduct on-farm research and refine technology and to conduct Front Line Demonstrations, adaptive trials etc. Since last 16 years, Village Adoption Programme (VAP) has been vigorously conducting several technological demonstrations directly in farmers' fields with active participation of farmers to trigger the various innovations and applications in agriculture and its related fields. Today VAP plays a First Line Extension role-A linkage between research and the field in augmenting the socio-economic conditions of farmers and farmwomen. The productivity of agricultural technology at farmer's level can be enhanced through innovative and appropriate technological advancements/ interventions, complemented with institutional support in both direct as well as indirect means.

Direct changes are the changes that occur in a immediate response to an innovation but indirect changes are the changes that occur as a result of the direct gains of innovation. Considering the above facts in view, the present study was formulated to know the extent to which the VAP has brought desirable changes among farming community in terms of direct and indirect changes and their association.

MATERIAL AND METHODS:

The investigation was carried out during the year 2014 in Guntur district of Andhra Pradesh by adopting ex-post facto research design duly following the proportionate random sampling has taken up in adopted village, appikatla of bapatla mandal. A sample of 60 respondents selected from adopted village. The data was collected through well structured interview schedule, which was coded ,tabulated and analysed in computer and presented in tables to make the findings meaningful and easily understandable.

Direct and Indirect changes were taken as dependent variables. Direct changes like increase in yield, increase in income, change in knowledge, increase in adoption and Indirect consequences like change in the use of high yielding varieties, pesticide & fertilizers application, nutritional education & health habits, self confidence, decision making ability, communication

behaviour, economic status, socio-political participation and reduce cost of cultivation etc. that the respondents experienced as a result of participation in the Village Adoption Programme activities.

Fourteen selected independent variables *viz.,* age, education, land holding, material possession, annual income, occupation, farming experience, training received, extension contact, innovativeness, social participation, mass media exposure, market orientation and achievement motivation were selected as independent variables. The data were statistically analysed to workout correlation coefficient and multiple linear regression coefficients to draw the meaningful inferences.

RESULTS AND DISCUSSION

From the Table 1, it was observed that almost all the computed 'r' values of independent variables such as education, farming experience, extension contact, mass media exposure and market orientation in their relationship with direct changes undergone by the farmers of adopted village were found to be positively significant at 0.01 level of probability and independent variables like material possession, annual income, occupation, training received, innovativeness, social participation and achievement motivation in their relationship with direct changes found to be positively significant at 0.05 level of probability. Similar results were reported by Raj Kumar *et al.* (2014) and Nayak *et al.* (2014). Whereas, the independent variables like age and land holding found to be non- significant in their relationship with direct changes. This result was in agreement with the results of Balu Naik *et al.* (2010) and Sravan Kumar *et al.* (2013). Whereas, in case of indirect changes that almost all the computed 'r' values of independent variables such as material possession, annual income, training received, extension contact, market orientation and achievement motivation were found to be positively significant at 0.01 level of probability and independent variables like education, occupation, farming experience, innovativeness, social participation and mass media exposure found to be positively significant at 0.05 level of probability. This result was inconformity with the result of Joseph Kumar (2006). Whereas, the independent variables like age and land holding found to be non-significant. This result was in agreement with the result of Ramesh Babu (2004) and Manoj (2008).

From the Table 2, revealed that all the fourteen variables put together explained the variance in the direct changes to the extent of 75.60 per cent undergone by the farmers of adopted village. Independent variables like age, occupation, farming experience, training received, extension contact mass media exposure and market orientation contributed significantly to the direct changes undergone by the farmers of the adopted village.

The profile characteristics namely age, farming experience, extension contact and market orientation were found to be positively significant at 0.01 level of probability. Whereas, occupation and training received and mass media exposure were found to be positively significant at 0.05 level of probability.

From the Table 3, indicated that all the fourteen independent variables put together contributed for 72.30 per cent of variation in the indirect changes undergone by the farmers of adopted village. Independent variables like training received, extension contact, mass media exposure and achievement motivation contributed significantly to the indirect changes undergone by the farmers of adopted village.

The independent variables like training received and extension contact of farmers had contributed significantly at 0.01 level of probability and variables like mass media exposure and achievement motivation of farmers had contributed significantly at 0.05 level of probability towards the variation in the indirect changes leaving other variables non-significant. It could be concluded from the findings that only training received, extension contact, mass media exposure and achievement motivation of farmers had contributed significantly to the prediction of indirect changes.

CONCLUSIONS

From the above findings it is concluded that magnitude of correlation of all the variables with direct and indirect changes is as high as in adopted village. It was also acknowledged from the study that the regression coefficient values of age, occupation, farming experience, training received, extension contact, mass media exposure and market orientation contributed positive and significant association with direct changes in adopted village. Whereas, regression coefficient values training received, extension contact, mass media exposure and achievement motivation contributed positive and

Table l. Relationship between selected independent variables of adopted village farmers and their direct changes. n=60

S. No	Independent variables	Adopted village	
		'r' values	
		Direct changes	Indirect changes
1	Age	0.180 NS	0.134 NS
2	Education	0.316**	0.265*
3	Land Holding	0.015 NS	0.021NS
4	Material Possession	0.223*	0.301**
5	Annual Income	0.246*	0.320**
6	Occupation	0.251*	0.280*
7	Farming Experience	0.323**	0.298*
8	Training Received	0.240*	0.389**
9	Extension Contact	0.358**	0.406**
10	Innovativeness	0.251*	0.245*
11	Social Participation	0.216*	0.289*
12	Mass Media Exposure	0.307**	0.261*
13	Market Orientation	0.425**	0.327**
14	Achievement Motivation	0.219*	0.319**

** = 1% level of significance NS = Non Significant * = 5% level of significance

Table 2. Multiple Linear Regression analysis of selected independent variables with direct changes of farmers in the adopted village n=60

S. No	Independent variables	Regression coefficient	Standard error	't' value
1	Age	0.463	0.078	3.468**
2	Education	0.109	0.478	0.811NS
3	Land Holding	-0.087	1.415	-0.950NS
4	Material Possession	0.112	0.110	1.227 NS
5	Annual Income	0.151	1.022	1.612NS
6	Occupation	0.330	0.674	2.970*
7	Farming Experience	0.638	0.908	5.028**
8	Training Received	0.304	1.038	2.935*
9	Extension Contact	0.371	0.709	3.134**
10	Innovativeness	-0.077	0.285	-0.870 NS
11	Social Participation	0.186	0.335	1.665 NS
12	Mass Media Exposure	0.11.	0.179	1.189*
13	Market Orientation	0.617	0.866	4.254**
14	Achievement Motivation	0.136	0.301	1.393 NS

a = 20.961 $R^2 = 0.756$

** = 1% level of significance NS = Non Significant

* = 5% level of significance

$Y = 20.961 + 0.463^{**}x_1 + 0.109x_2 - 0.087x_3 + 0.112x_4 + 0.151x_5 + 0.330^{*}x_6 + 0.638^{**}x_7 + 0.304^{*}x_8 + 0.371^{**}x_9 - 0.77x_{10} + 0.186x_{11} + 0.110x_{12} + 0.617^{**}x_{13} + 0.136x_{14}$

Table 3. Multiple Linear Regression analysis of selected independent variables with indirect changes of farmers in the adopted village (n=60)

S. No	Independent variables	Regression coefficient	Standard error	't' value
1	Age	-0.106	0.110	-1.083 NS
2	Education	0.103	0.164	1.001 NS
3	Land Holding	-0.180	0.360	-1.744 NS
4	Material Possession	0.079	0.303	0.750 NS
5	Annual Income	0.130	0.411	1.248 NS
6	Occupation	0.082	0.238	0.725 NS
7	Farming Experience	0.160	0.325	1.230 NS
8	Training Received	0.369	0.214	3.719**
9	Extension Contact	0.417	0.204	4.225**
10	Innovativeness	0.040	0.109	0.384 NS
11	Social Participation	0.101	0.021	0.145 NS
12	Mass Media Exposure	0.332	0.145	2.888*
13	Market Orientation	0.141	0.145	1.386 NS
14	Achievement Motivation	0.271	0.102	2.849*

a = 18.350 $R^2 = 0.723$ ** = 1% level of significance NS = Non Significant
* = 5% level of significance

$Y = 18.350 - 0.106x_1 + 0.103x_2 - 0.180x_3 + 0.079x_4 + 0.130x_5 + 0.082x_6 + 0.160x_7 + 0.369^{**}x_8 + 0.417^{**}x_9 + 0.040x_{10} - 0.101x_{11} + 0.332^{*}x_{12} + 0.141x_{13} + 0.271^{*}x_{14}$

significant association with indirect changes in adopted village. If any farmer wants to be a successful farmer, essentially he must have those attributes to adopt any innovative technologies. Hence it is a good sign that VAP has been doing an enormous role in bringing new ideal technologies and motivating farmers to improve personal and socio-economic conditions and facilitating adoption of innovative technologies. To maintain its stand, Village Adoption Programme need to give further due importance for the other attributes along with the above significant attributes with suitable changes by the staff to promote desirable changes in a consistent manner among the farming community in years to come.

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