

RELATIONSHIP OF SELECTED FACTORS WITH THE ADOPTION BEHAVIOUR OF FARMERS OF INTENSIVE PADDY DEVELOPMENT, COCONUT PACKAGE AND PEPPER PACKAGE AREAS OF KERALA

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The Intensive Paddy Development Programme was started in 1971 in Kerala for increasing paddy production by organizing cultivation on 'Ela' basis. Later, similar programmes were started for coconut and pepper. The success of these programmes can be studied by measuring the rate of adoption, knowledge and attitude of farmers in the programme areas. This study was undertaken to study the adoption behaviour of farmers and the factors related with it in these programme areas.

Materials and Methods

From the list of Intensive Paddy Development Units, in the randomly selected district Calicut, two units viz., Chelannur and Koorur were selected by random method. Similarly, two coconut package units and one pepper package unit were selected by random process.

From the list of paddy, coconut and pepper growers of the respective selected package units, 60 paddy growers, 60 coconut growers and 30 pepper growers were selected by random process who formed the respondents of this study.

The scalogram technique was adopted to measure attitude in this study. Based on the judgement of the experts at the College of Agriculture, Vellayani, four positive and two negative statements which had homogeneous content were selected. The unidimensionality of the selected six statements was verified by calculating coefficient of reproducibility of Guttman as explained by Edwards (1957). The responses of the respondents to these six statements were obtained in a five point Likert format ranging from strongly agree to strongly disagree. Scores of 5, 4, 3, 2 and 1 respectively were assigned to the five categories for positive statements which were reversed for the negative statements. The scores obtained by each respondent for the six statements were summated to obtain total score.

Knowledge on programme and knowledge on improved agricultural practices were measured separately by knowledge tests which had items of average difficulty. A score of '1' was given to each correct answer and '0' score to wrong answer. To obtain the knowledge score the scores obtained by a respondent for all the items were added up.

Programme participation was measured by measuring the extent of participation of the respondents in the different identified activities of the programme. Respondents were asked to indicate their participation by 'yes' or 'no'. A score of '1' was given for 'yes' and '0' for 'no'. Total participation score was obtained by adding up the scores obtained by each individual.

The 'adoption quotient' used by Singh and Singh (1974) was adopted in this study to measure adoption.

$$\text{Adoption quotient} = \frac{\sum e/p}{N} \times 100,$$

where \sum = Summation
 e extent of adoption of each practice.
 p potentiality of adoption of each practice.
 N Total number of practices.

To find out the relationship of adoption with knowledge, attitude and participation, an inter-correlation analysis was worked out for the three package programmes separately.

Results and Discussion

The correlation matrix in respect to IPD, CP & PP programmes are presented in Tables 1, 2 and 3 respectively.

Table 1
Correlation matrix in the case of IPD programme

Adoption	Knowledge on programme	Knowledge on improved practices	Participation	Attitude
—	0.6465**	0.8139**	0.8199**	0.7355**
	—	0.5546**	0.6263**	0.5130**
			0.7094**	0.6480**
			—	0.7588**

** Significant at 0.01 level.

Table 2
Correlation matrix in the case of CP programme

Adoption	Knowledge on programme	Knowledge on improved practices	Participation	Attitude
—	0.5438**	0.7873**	0.6690**	0.5327**
	—	0.6375**	0.6620**	0.5246**
			0.6805**	0.6169**
			—	0.5695**

** Significant at 0.01 level.

Table 3
Correlation matrix in the case of PP programme

Adoption	Knowledge on programme	Knowledge on improved practices	Participation	Attitude
—	-0.2913	0.8975**	0.8775**	0.7371*
	—	-0.0976	-0.1345	-0.0758
		—	0.9056**	0.7745**
			—	0.7199**

** Significant at 0.01 level.

The results of this study presented in the above tables revealed that all the four factors viz., knowledge of programme, knowledge on improved practices, participation, and attitude had significant contribution on the adoption behaviour of farmers of IPD and CP areas. Inter-correlations between pairs of these factors were also significant. The knowledge of the programme resulted in better participation which created a favourable attitude and increased the knowledge which ultimately resulted in adoption. But in the PP areas, knowledge of programme had insignificant negative correlation with adoption. This is due to the fact that irrespective of adoption rate all respondents in PP areas had high knowledge about the programme. The findings of this study were in confirmity with the studies of Majumdar and Majumdar (1967), Singh and Singh (1970) and Prasad (1978) who found significant influence of programme knowledge, attitude and knowledge on improved practices with adoption behaviour of farmers.

Summary

The results of this study revealed that in the case of both Intensive Paddy Development and Coconut Package Programmes the four factors viz., knowledge on programme, knowledge on improved practices, programme participation and attitude had significant influence on adoption behaviour of farmers. In the case of Pepper Package areas, all the above factors except programme knowledge had significant contribution on adoption behaviour of pepper growers.

സംഗ്രഹം

ഐ. പി. ഡി., കോക്കനട്ട് പാക്കേജ് എന്നീ പദ്ധതി പ്രദേശത്തുള്ള കർഷകരിലുള്ള പദ്ധതിയെ സംബന്ധിച്ച അറിവ്, ആധുനിക കാർഷിക രീതികളെ കുറിച്ചുള്ള അറിവ്, പദ്ധതിയിലുള്ള പങ്കാളിത്വം, അഭിഭാവം എന്നീ നാല് ഘടകങ്ങൾക്കും കർഷകന്റെ ആധുനിക കൃഷിരീതിയുടെ *reerooniajifotwro* സ്വഭാവത്തിൽ സ്വാധീനമുണ്ട്. എന്നാൽ പെപ്പർ പാക്കേജിലെ കർഷകരിൽ പദ്ധതിയെ കുറിച്ചുള്ള അറിവ് ഒഴികെയുള്ള മറ്റ് മൂന്ന് ഘടകങ്ങൾക്കും കർഷകന്റെ അനുവർത്തന സ്വഭാവത്തിൽ സ്വാധീനമുള്ളതായി കാണുന്നു.

References

- Edwards, A. L. 1957. *Technique of Attitude Scale Construction*, Appleton Century Crofts, INC.. New York.
- Majumdar, A. K., and Majumdar, P. K. 1967. Adoption and some psychological characteristics of farmers. *Indian. J. Extn. Edn.* 3, 138-142.
- Pathak, S., and Dargan, K. S. 1971. Impact of package programme works on jute growers and their reactions to different improved practices of jute cultivation. *Indian. J. Extn. Edn.* 7, 21-28.
- Prasad, R. M. 1978. A study on farmers functional literacy programme M. Sc. (Ag.) thesis, Kerala Agricultural University
- Singh, S. N. and Singh. K. N. 1970. A multivariable analysis of adoption behaviour of farmers. *Indian. J. Extn. Edn.* 6, 39-44.
- Singh, K. M. P., and Singh, R. P. 1974. Impact of national demonstration in the adoption of high yielding varieties of wheat. *Indian. J. Extn. Edn.* 10, 65-67.