

# A STUDY ON THE ASSESSMENT OF FACTORS INFLUENCING THE EXTENT OF ADOPTION ON SRI TECHNOLOGY BY THE PADDY FARMERS OF CUDDALORE DISTRICT IN TAMIL NADU

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## Abstract

This paper aimed to study the assessment of factors influencing the socio economic and psychological characteristics of the SRI farmers with their adoption level of recommended technologies .The study was conducted in cuddalore district of Tamil Nadu. A sample size of 300 respondents was selected using proportionate random sampling method. An ex-post facto research design was adopted for the study. The data were collected by using a well-structured interview schedule. The objective of the study was to identify the relationship between various personal, socio-psychological characteristics of the paddy farmers and their extent of adoption level on SRI technology. The study revealed that among the eighteen independent variables, eight variables of them showed a positive and significant association with dependent variable, extent of adoption. This paper will helps to identify the factors involved in improving the extent of adoption level of the SRI farmers.

**Key words:** Adoption, SRI technology, Paddy farmers.

## Introduction

The System of Rice Intensification (SRI), developed by Fr.Henri de laulanie during eighties in Madagascar, offers opportunities for improving rice production in a variety of situations around the world (Uphoff *et. al.*, 2002), SRI was promoted under the “Integrated Cereal Development Programme -Rice” Extension services in India today have large number of professional extension workers at national, state, district, block and village level. Several programmes to help farmers to adopt the new technologies are in operation throughout the country. Still there exists a wide gap

between the technology available at the research level and its adoption at farmers level, particularly in SRI practices. An attempt has been made to study the relationship between various personal, socio-psychological characteristics of the paddy farmers and their extent of adoption on SRI technology.

## Methodology

The present study was taken up in cuddalore district of Tamil Nadu. Cuddalore district consists of thirteen blocks namely, Cuddalore, Kurinjipadi, Panruti, Annagramam, Parangipettai, Bhuvanagiri, Keerapalayam, Kattumannarkoil, Kumaratchi, Vridhachalam, Kammapuram, Mangalur and Nallur. All the thirteen blocks of the district were selected for the study. A sample size of 300 was considered for the study. The respondents were selected from the thirteen blocks by proportionate random sampling procedure. The data were collected with the help of well structured and pre tested interview schedule.

## Findings and discussion

### Correlation between socio-economic and psychological characteristics of respondents and extent of adoption of SRI technology

In order to assess the relationship between socio-economic and psychological characteristics of respondents and their extent of adoption, zero order correlation was employed and the results are presented in Table 1.

**Table-1. Correlation between socio-economic and psychological characteristics of SRI respondents and adoption level on SRI technology**

(n=300)

Var. No.	Variables	'r' value
X1	Age	0.048NS
X2	Educational status	0.132*
X3	Occupational status	- 0.047NS
X4	Annual income	0.103NS
X5	Experience in rice cultivation	0.161**
X6	Farm size	- 0.027NS

X7	Social participation	0.071NS
X8	Innovativeness	0.111NS
X9	Information source utilisation	0.158**
X10	Farm power possession	0.061NS
X11	Extension agency contact	0.048NS
X12	Mass media exposure	0.117*
X13	Training programmes attended	0.062NS
X14	Risk orientation	0.137*
X15	Scientific orientation	0.149**
X16	Economic motivation	0.122*
X17	Information sharing behavior	0.169**
X18	Decision making pattern	- 0.057NS

\*\* - Significant at 0.01 per cent level of probability

\* - Significant at 0.05 per cent level of probability

NS- Non-significant

The results in Table 1 exhibited that out of eighteen variables studied only eight variables *viz.*, educational status ( $X_2$ ) mass media exposure ( $X_{12}$ ), risk orientation ( $X_{14}$ ), scientific orientation ( $X_{15}$ ), experience in paddy cultivation ( $X_5$ ), information source utilisation ( $X_9$ ), information sharing behaviour ( $X_{17}$ ) and economic motivation ( $X_{16}$ ) were found to have significant and positive relationship with extent of adoption. Among the significant variables, experience in rice cultivation, information source utilisation, scientific orientation and information sharing behaviour were found to be significant at one per cent level of probability. The remaining variables *viz.*, educational status, mass media exposure, risk orientation and economic motivation were significant at five per cent level of probability. All the other variables were found to be non-significant.

Educational status revealed a positive and significant relationship with adoption. This may be due to the reason that education facilitates acquisition and understanding of new SRI technologies. It is quite possible that educated persons would have been more enthusiastic in collecting and understanding technologies faster and it might have enabled adoption. This finding is in line with the findings of Punitha (2005).

Experience in rice cultivation was positively and significantly related to adoption of SRI technology. It is obvious that farmers with more years of farming experience would have received more exposure from various sources. The findings is contradictory to the findings of Santhi (2006).

There was a positive and significant relationship between information source utilization and extent of adoption of respondents. It is natural that the respondents with high information source utilization would have got more opportunities to acquire information about SRI technology. This might have enabled them to increase their extent of adoption of SRI technology to a greater extent. This finding is in line with the findings of Jeyalakshmi (2008).

Mass media exposure was positively and significantly related to adoption of SRI technology. Moreover, the farmers who frequently use the mass media sources would be able to get up-to-date knowledge on the recommended technologies. This knowledge would have enabled them to adopt the technologies.

Risk orientation showed a positive and significant relationship with extent of adoption among respondents. Adoption of SRI technology involves some risk. When the risk orientation of the farmer is high, they might tend to be more innovative and try to adopt farm technologies. This is in conformity with the findings of earlier studies of Jeyalakshmi (2008).

Scientific orientation was found to have positive and highly significant relationship with extent of adoption. A farmer having a high level of scientific orientation generally takes more interest in innovative farm technologies and tries to experiment the worth of such technologies in their field. SRI technology being an innovative practice will thus be more acceptable to those farmers with high level of scientific orientation. This could be the reason for positive and significant relationship between the scientific orientation of the respondents and adoption of recommended SRI practices. This is in conformity with the findings of earlier studies by Ganguly (2002) and Jeyalakshmi (2008).

It could be seen that the variable, economic motivation showed a positive and significant relationship with adoption level. Respondents with high degree of economic motivation would have the tendency to acquire precise and complete information about the recommended SRI technology, thereby resulting in higher adoption. This finding derives support form the findings of Janakirani (2004) and Jeyalakshmi (2008).

Information sharing behaviour showed a positive relationship with extent of adoption. When information sharing increases, the extent of adoption also increases because information gained during reinforcement leads to adopt the new technology. This finding is in line with the findings of Punitha (2005).

The remaining variables namely, age, occupational status, annual income, farm size, social participation, innovativeness, farm power possession, extension agency contact, training attended, economic motivation and decision making pattern were not found significantly related to extent of adoption.

## Conclusion

Though the farmers are confined with the traditional method of paddy cultivation, they expressed interest in knowing about the SRI technologies. This paves way to study the factors which helps in influencing the adoption level of the farmers. It may be concluded that among eighteen variables studied only eight variables viz., educational status ( $X_2$ ) mass media exposure ( $X_{12}$ ), risk orientation ( $X_{14}$ ), scientific orientation ( $X_{15}$ ), experience in paddy cultivation ( $X_5$ ), information source utilisation ( $X_9$ ), information sharing behaviour ( $X_{17}$ ) and economic motivation ( $X_{16}$ ) were found to have significant and positive relationship with extent of adoption. These eight variables were considered to be the crucial variables influencing the adoption level of respondents in paddy cultivation and it enable them to go for higher adoption.

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