# RELATIONSHIP BETWEEN SOCIO-ECONOMIC AND PSYCHOLOGICAL CHARACTERISTICS OF THE PADDY GROWERS WITH THEIR EXTENT OF ADOPTION OF RECOMMENDED PADDY CULTIVATION TECHNOLOGIES

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## Abstract

Paddy is one of the world's largest cereal crops and providing the caloric need for millions of people. It is grown under diverse agro-climatic conditions. Agriculture is the dominant occupation of the people of Manipur and also rice is the stable food in this State. Paddy is commonly grown in a traditional way by majority of the farmers in Manipur. So, they were not much aware of the paddy farming technologies. Keeping this point in mind, this research study was undertaken to analyse the relationship between socio-economic and psychological characteristics of the paddy growers with their extent of adoption of recommended paddy cultivation technologies. The study was conducted in Kakching block of Thoubal District in Manipur State with a sample size of 120 paddy growers were selected through proportionate random sampling from six villages in the Kakching block. This study revealed that out of fourteen independent variables, eight variables viz., educational status, experience in paddy farming, extension agency contact, mass media exposure, information seeking behaviour, innovativeness, scientific orientation, and risk orientation were found to have significant and positive relationship with their extent adoption of recommended paddy cultivation technologies.

*Keywords***:** Relationship, Characteristics, Extent of adoption, Paddy growers.

## Introduction

Paddy is one of the most important food crops of India. It occupies a prominent place in Indian agriculture. As a stable food it provides the basis for food security, employment opportunity and income for rural people (Nzigiyimana Augustin, 2011). India is the second largest producer and consumer of paddy in the world. India is also the fourth largest exporter of paddy in the world (Kasula Sekhara and Devarajulu, 2019). The by-products of rice viz. rice straws are used as animal fodder, in brick kilns and paper and packaging industries. Rice straws are also used by biomass power plants for electricity generation and can also be used for preparation of compost (Anjoo Yumnam *et al.,* 2017).

In India, paddy is cultivated in an area of 43.79 million hectares producing 112.91 million tons with a productivity of 2578 kg/ha (Agricultural Statistics at a glance, 2018). In Manipur, paddy is cultivated in an area of about 236.71 thousand hectares with an average productivity of 2.57 tonnes/hectare in 2017-18. In Manipur, paddy is grown in all the districts because rice is the fundamental staple food for the people of the State. Jhum cultivation or shifting cultivation and terrace farming of paddy is followed in the hilly districts of the State.

In food grains, Thoubal district is producing 72.18 thousand tonnes of paddy in 2012-13 accounting for about 17 % of the total paddy production in Manipur. The valley is fertile and the topography of the district provides good opportunity for irrigation, natural as well as artificial. The Kakching belt which provides more than 50% of the total

paddy exports of the district may be rightly termed as the 'Rice Basket of Manipur' (Santosh Singh and Bera 2017).

The productivity level of rice is low in India compared to the productivity levels of many countries in the world. The improved paddy technologies could be adapted to increase the productivity in the country. Keeping this point in mind, this research study was undertaken to analyse the relationship between socio-economic and psychological characteristics of the paddy growers with their extent of adoption of recommended paddy cultivation technologies.

## Materials and Methods

The study was conducted in Kakching block of Thoubal District in Manipur State. A sample of 120 paddy farmers was selected through proportionate random sampling from six villages in the Kakching block. Data collection was made from the selected respondents with the help of a well-structured and pre-tested schedule through personal interview. Zero order correlation was used for analysing and interpreting the data and results are tabulated.

## Results and Discussion

**Correlation between socio-economic and psychological characteristics of respondents and extent of adoption of recommended paddy cultivation technologies.**

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 :** Zero order correlation co-efficient of characteristics of paddy growers with their extent of adoption.

| Variable number | Independent variables | Correlation co-efficient 'r' value |
|---|---|---|
| X1 | Age | 0.079 NS |
| X2 | Educational status | 0.276 ** |
| X3 | Farm size | 0.130 NS |
| X4 | Experience in paddy farming | 0.189* |
| X5 | Annual income | 0.086 NS |
| X6 | Social participation | 0.009 NS |
| X7 | Extension agency contact | 0.237 * |
| X8 | Mass media exposure | 0.189* |
| X9 | Information seeking behaviour | 0.183* |
| X10 | Innovativeness | 0.269** |
| X11 | Scientific orientation | 0.238* |
| X12 | Economic motivation | 0.125 NS |
| X13 | Risk orientation | 0.198 * |
| X14 | Decision-making pattern | 0.026 NS |

| ** | - | Significant at 0.01 per cent level |
|---|---|---|
| * | - | Significant at 0.05 per cent level |
| NS | - | Non- Significant |

The results in Table 1 exhibited that out of fourteen variables studied only eight variables viz., educational status, experience in paddy farming, extension agency contact, mass media exposure, information seeking behavior, innovativeness, scientific orientation, and risk orientation were found to have significant and positive relationship with extent of adoption. Among the significant variables, educational status and innovativeness were found to be significant at one per cent level of probability. The remaining variables viz., experience in paddy farming, extension agency contact, mass media exposure, information seeking behavior, scientific orientation and risk orientation were significant at five per cent level of probability. All the other variables were found to be non-significant with the extent of adoption.

Educational status revealed a positive and significant relationship with adoption. This might be due to the reason that education facilitates acquisition and understanding of recommended paddy 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 Balakrishnan (2010).

Farming experience in paddy cultivation was found to be positively significant with the extent of adoption. The greater experience in paddy cultivation would have helped them to acquire complete knowledge and required skills on recommended technologies and this in turn would have enabled them to adopt recommended technologies. This finding is in line with the findings of Rajivgandhi (2010).

There was a positive and significant relationship between information seeking behavior and extent of adoption of respondents. It is natural that the respondents with high information seeking behavior would have got more opportunities to acquire information about recommended paddy technologies. This might have enabled them to increase their extent of adoption of recommended paddy technologies to a greater extent. This finding is in line with the findings of Balakrishnan (2010).

Extension agency contact was found to have positive and significant relationship with the adoption. Due to the frequent contact with extension agency, the respondents might have come to understand the utility of recommended paddy technologies and this might have motivated them to adopt the recommended paddy technologies. This finding is in line with the findings of Dhanasekaran (2007).

Mass media exposure was positively and significantly related to adoption of recommended paddy technologies. Moreover, the farmers who frequently used 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. This finding is in line with the findings of Praveen Babu (2014).

Innovativeness showed a positive and highly significant relationship with adoption. Medium level of innovativeness of respondents might have motivated them to seek and adopt newer technologies. This would have helped the respondents in adopting recommended cultivation practices. This finding derives support from Rajivgandhi (2010).

Scientific orientation showed a positive and significant relationship with adoption. The respondents with better scientific orientation may have positive orientation towards scientific techniques and be receptive for gaining information. This condition would have led them to acquire more knowledge. This finding is in line with the findings of Selvakumar (2011).

The remaining variables namely age, farm size, annual income, social participation, economic motivation and decision-making pattern were not found significantly related to extent of adoption.

## Conclusion

This study revealed that out of fourteen independent variables, eight variables viz., educational status, experience in paddy farming, extension agency contact, mass media exposure, information seeking behavior, innovativeness, scientific orientation, and risk orientation were found to have significant and positive relationship with their extent of adoption of recommended paddy cultivation technologies. Hence, the extension workers in the State Department of Agriculture to consider these variables while organizing and

implementing extension programmes in relation to paddy cultivation.

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