

Determinants of Farmers' Perceptions towards the Adoption of New Farming Techniques in Paddy Production in Sri Lanka

Sudu Dewage Dinesh Dhananjaya Karunathil, Aruppillai Thayaparan

Abstract

The aim of this study is to identify and analyse the demographic, farming and other characteristics that influencing the perceptions of farmers to adopt new agricultural technologies in paddy sector evidence from Divulapitiya region in Sri Lanka. For this purpose, simple random sampling technique was used to select hundred farmers from three main paddy producing areas in the above region for the period of 2015. Primary data related to farmers' perceptions and the characteristics of demographic, farming and others such as attitudes of the farmers towards risk and availability of market information were collected through a structured questionnaire. Dependent variable is the adoption of farmers' perceptions which has the ranges between zero to one and farmers' age and education, size of cultivated land, ownership of land, farming experience, attitudes of the farmers towards the risk and availability of market information were treated as explanatory variables. The collected data were analysed using different econometrics techniques such as frequency analysis, chi – square test, Tobit model and marginal effects. Frequency results of farmers' perceptions to adopt new types of technologies indicates that, nearly 6% of the farmers not adopting any type of technologies while, 35% of them adopting any three types of technologies. Only 17% of them was adopting all four types of technologies in paddy cultivation in Divulapitiya area. Empirical results of Tobit model reveal that the farmers' adoption decisions were significantly influenced by all the above characteristics and the marginal effects shows that the farmers who have more educational knowledge interested nearly 15% of more probability to adopt new techniques while the farmers who are prefers to avoid the risk interested almost 7% of less likely to adopt them in their cultivation. Findings of this study highlight the relevance of networks that promote farmer-to-farmer interactions in the circulation of new technologies and also it is important to policy makers to endorse paddy cultivation with expertise knowledge in the applications of new farming techniques in paddy cultivation in the Divulapitiya, Sri Lanka.

Keywords: Demographic and farming characteristics, perceptions of farmers, Tobit model, Marginal effects.