Introduction

Today, natural hazards are important issues in front of policy makers as well as farmers across the globe because extreme events and climate disasters can have devastating impacts on agriculture. Farmers, especially, those depending on rain-fed agriculture, are extremely vulnerable to these risks. Nowadays, there is a significant surge in natural hazards due to changes in climate. Farmers usually have few options for risk management and their coping strategies tend to be inefficient and fail to fully mitigate these threats when they suffer a catastrophe. Agricultural insurance is an efficient risk transfer tool. Unlike developed countries, where agricultural products were often insured, the coverage of agricultural insurance was still very low in Iran before 2000. To overcome problems and gaps in traditional crop insurance programs in developed countries, alternative solutions are therefore urgently needed. Insurance products exhibit some potential in this regard (Skees et al. 1999). To test if agricultural insurance (AI) could offer an appropriate approach for sharing and mitigating weather risk in rural Iran. Before designing an AI product and preparing its sales to farmers, it is crucial to understand what these farmers and their householders’ desires are so that the AI product can be tailored to fit their needs. This paper focuses on the demand analysis for AI with this goal, 220 households located in FARS province were surveyed.

Material and methods

This study was a descriptive-correlation research, carried out in 2013 in Fars province. This study was an applied research, which was carried out by survey method. Demand Assessment (DA) data was collected via survey using Demand Assessment Questionnaires (DAQ), which included 45 questions and was developed through a series of consultation sessions. Questions covered basic information of respondents, the actual and perceived risks faced by these households (HHs), coping mechanisms currently used, farmers’ ability to pay (ATP) and their willingness to pay (WTP) for AI, average HH’s access to credit and their current agricultural production practices, etc. 220 respondents were selected using cluster sampling method. Cronbach’s alpha was used to measure reliability of the index that its extent was 0.80 and showed that mentioned variable has high reliability. Data were analyzed using Statistical Package for the Social Sciences (SPSS). Descriptive and inferential statistics were used to analyze the collected data. Logit model was used to analyze data.

Result and Discussion

Survey data were assessed and findings are shown as below frostbite, hail, and storm were identified as three major risks for HH’s agriculture production; the key coping strategies to crop loss were seeking employment elsewhere, or reduce consumption, sell livestock, used HH savings, It means that they usually shoulder risks by themselves. Few farmers turn to agriculture insurance for risks sharing and transfer. Most farmers show interest in AI. Generally, Households, who are more familiar with insurance, or whose losses are higher due to drought, or who show more trust in the accuracy of local weather forecasts, are more inclined to express interest in AI with the quite low correlation coefficient, while statistically significant. It hints that there are potential demands for AI among farmers. However, methodologies deserve further development so as to provide more reliable assessment of the relationships between the willingness to pay and the abovementioned three factors. It is illustrated to some degree that farmers with higher weather risks have higher demand for AI product. To enhance farmers’ understanding of how insurance functions and to improve the accuracy of weather forecast may increase farmers’ interest in AI.
Keywords: agricultural insurance; demand analysis; risk; coping mechanisms, Fars province.