
Identification of Effective Psychological Factors on the Application of Crop Production Risk Management Strategies

Case Study: Wheat Farmers of Bonab County

Vakil Heidari Sareban^{a1}, Ali Majnoony Tootakhaneh^b, Mojtaba Mofareh- Bonab^c

^a Department of Geography and Planning, University of Mohaghegh Ardabili, Ardabil, IRAN.

^b Department of Art and Architecture, University of Bonab, Bonab, IRAN.

^c Department of Art and Architecture, University of Bonab, Bonab, IRAN.

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1. Introduction

East Azerbaijan province is one of disaster-prone provinces of the country and each year the occurrence of potential risks of atmospheric phenomena is not unexpected. However, the lack of sufficient information and knowledge of farmers in the field of risk management strategies in agricultural production process has multiplied the losses incurred to farmers. Thus, the existence of a wide range of production risk and the importance of the agricultural sector in East Azerbaijan Province and the necessity of paying attention to the capacities and psychological capabilities of farmers in this context, made this study to seek to answer the following fundamental questions:

How much is the extent of using crop production risk management strategies in wheat production among wheat farmers of Bonab County and what factors are affecting it?

What are the suggested strategies to enhance risk management approach among wheat farmers?

2. The Study Area

Bonab County is one of the poles of wheat farming in East Azerbaijan Province with one district, three sub districts and 29 inhabited villages with a total population of 49902.

3. Method and Materials

The research method was descriptive, correlational, analytic and casual. Data collection was done using a questionnaire that was developed according to the objectives of the study. The statistical population of this research was 5695 wheat farmer, and 400 of them were chosen as the sample population according to the Krejcie and Morgan table using the simple sampling method. The face validity of the questionnaire was confirmed by a panel of experts. The pilot study was done with 50 questionnaires and using the data

obtained and Cronbach alpha, the reliability of the questionnaire varies between 0.87 to 0.89. The application of crop production risk management strategies among wheat farmers of Bonab County is considered as the dependent variable in this research. In order to investigate the strategies of agricultural production, multiple-choice answers were used (none, very low, low, medium, high and very high) and the answers were weighted from zero to five and finally, the results were investigated using Spearman correlation test and Nord diagnostic analysis.

3. Results and Discussion

To classify the wheat farmers on the basis of the level of implementing crop production risk management strategies, the sum of responses was calculated and according to the number of questions and the value of responses, the range of people's scores was determined from 0 to 55. The subjects with score of 0 to 12 were placed in group of very low application, 12 to 24 in group of low application, 24 to 36 in group of medium application, 36 to 48 in group of high application and 48 to 60 in group of very high application.

In order to determine the relationship between the dependent variables of the research and the variable of the crop production risk management strategies, Spearman's correlation coefficient was used. According to the results, there is a significant relationship between the variables of ingenuity and creativity, optimism and certainty in job, effect, meaningfulness, resilience, hopefulness, optimism, the ability to make decisions, self-efficacy, self-determination, competency, ability to solve problems, responsibility, flexibility to adapt to changing environment and taking risk with the variable of the level of application of crop production risk management strategies with confidence level of 99 percent. Also the results of analytical detection showed that the independent variables of self-reliance, influence, meaningfulness, resilience, hopefulness, the use of opportunities, self-efficacy, self-determination and competency are the most important independent variables, affecting the level of implementing risk management strategies by wheat farmers. The remaining independent variables are excluded from the model.

4. Conclusion

One of the most important challenges facing agricultural production is the fragile nature of these products, which has led to great losses for farmers and villagers. In this regard, farmers and agricultural producers are faced with a kind of disbelief and uncertainty in production that disclaims the motivation of trying from them.

According to the results of the research, training courses should be held in rural areas to enhance the index of life quality by promotion of psychological capital.

Also it is recommended that the government support smallholders by taking economic, educational and technological policies to promote the use of financial risk management strategies and their marketing besides increasing motivation among them.

Finally, it is recommended for the planners and authorities to consider the necessity and importance of education as a main approach to increase the skills of wheat farmers for risk management by considering their educational needs and demands.

Key words: Crop production strategies, Risk management, Bonab County.

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