Encouraging farmers' response to climate change induced water stress through norm activation model among Iranian farmers

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Statement of the problem

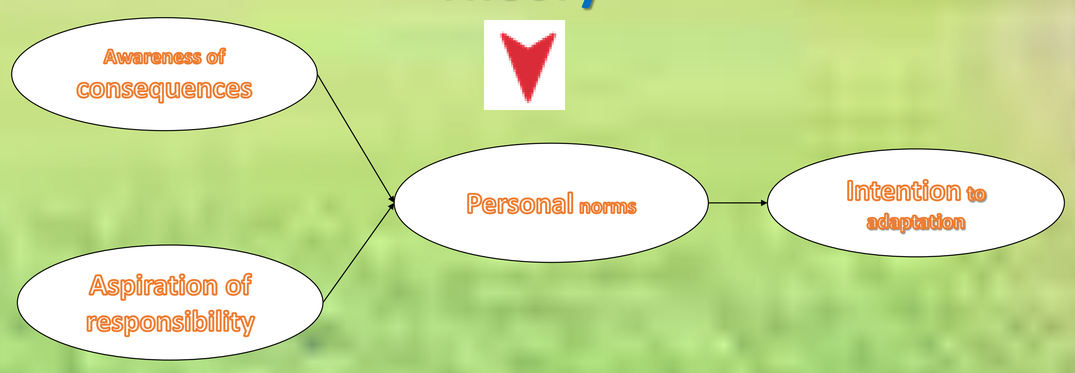
Adaptation to climate change is a key step for ensuring that food security and diversity of the food system. Adaptation strategies in farm level involve modifying farming practice, and water management practices. However, many farmers in developing countries still continue with traditional farming methods for various reasons and are not interested in implementing adaptive innovations strategies in their farms.

Encouraging and directing farmers to use these strategies is a key factor to ensure food security and achieve sustainable development. The first step is to understanding current farmer perception and behavior.

Aim

This research aimed to examine factors affecting farmers' behavioral intention to adapt in Khuzestan Province, in southwest Iran.

Theory



Norm activation model (NAM: Schwartz, 1977)

Materials and methods

Target Group ➤ **Iranian farmers: (n=250)**

Data collection ➤ **Paper-based Questionnaire**

Data analysis ➤ **Structural equation modeling**

Software ➤ **AMOS**

Results

Table 1 shows the correlation and discriminant validity of the constructs.

Table 1. Correlation between constructs and discriminant validity

	Awareness of consequences	Aspiration responsibility	Personal norm	Intention
Awareness of consequences	**0.825**			
Aspiration responsibility	0.012	**0.815**		
Personal norm	0.172	0.28	**0.799**	
intention	0.24	0.183	0.5	**0.923**

Structural equation modelling

- **Structural equation modelling (SEM) shows an excellent fit of the NAM model to the data with moderate explained variance of intention.**
- **Based on the model fit indices the measurement and structural models of the research have a good fit.**
- **The variance in behavioral intention explained through the NAM amounts to 33 %.**
- **The results suggest that adaptation intention is influenced directly by personal norms (β=.575, P=.000).**
- **Aspiration and responsibility (β=.294, P=.000) and awareness of consequences of water scarcity (β=.186, P=.014) are two determinants of personal norm.**

Conclusion/ highlights

Farmers' personal norms could be activated by becoming aware about negative consequences of climate change such as economic and income problems, conflict between farmers, and health problems as well as through feeling responsibility for the consequences.

It is more probable that farmers will be intended to do an adaptation strategy, when they feel they have a moral obligation to adapt.

These results have broad policy implications that are intelligible to adaptation planning and development, notably through the amplification of personal or moral norms..