

How does social capital promote adaptive behavior among Iranian farmers?

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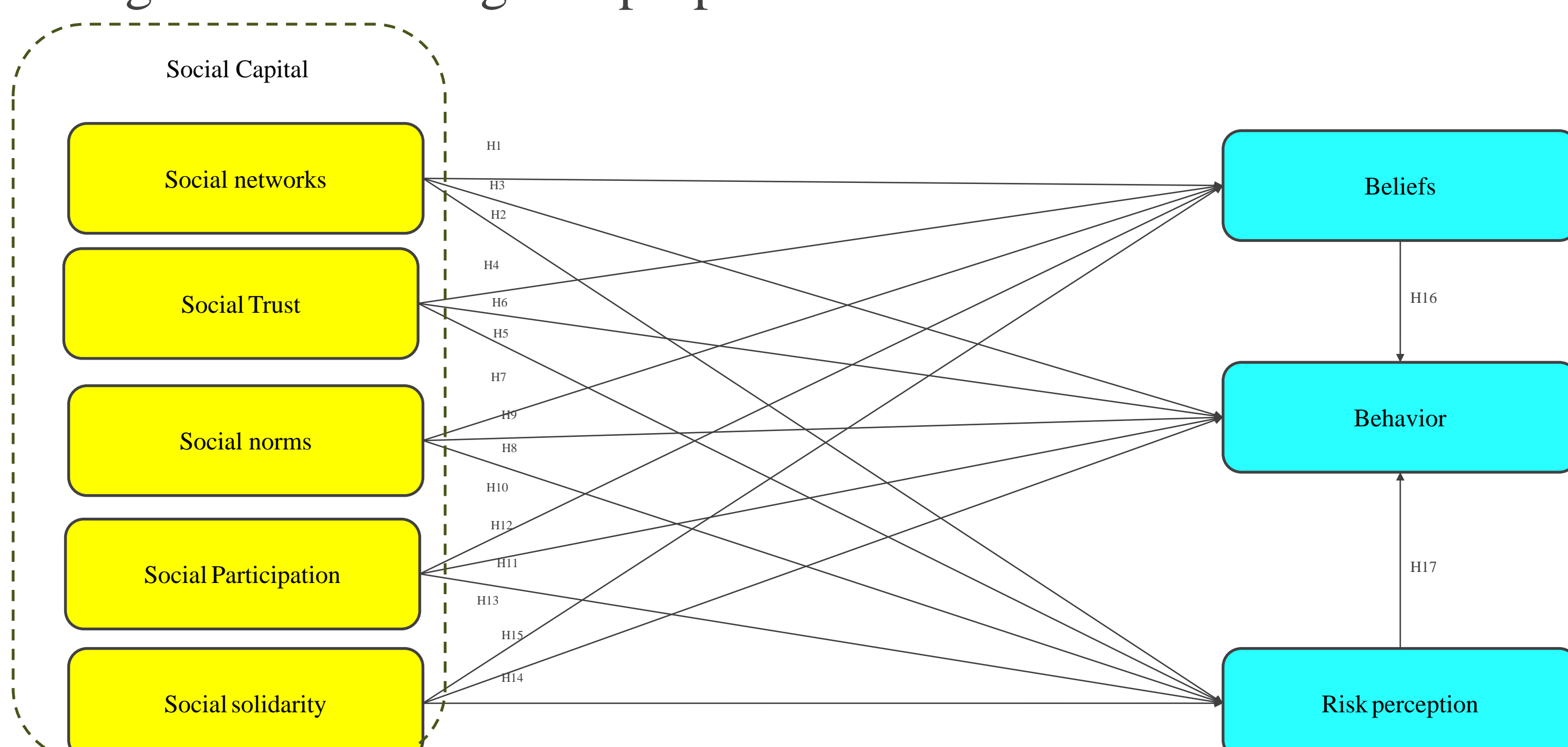
Introduction

- ❖ Climate variability is a crucial ecological and social challenge that we face in the 21st century and has already caused severe and irreversible damage to development. The agriculture sector is one of the first systems to be influenced by climate change due to its direct dependence on climatic conditions such as temperature and precipitation.
- ❖ Adaptation to climate change and its effects is a complementary response to reducing vulnerability in particular agriculture-based economies . Some adaptation strategies of farmers include using highly resistant-cultivars, protecting soils, modifying planting schedules, integrating trees on property, increasing fertilization, buying insurance for agricultural products, and improving field irrigation . However, farmers face many problems in selecting the best-fitting strategies for their lands because the choice of adaptation behaviors is influenced by a multifaceted set of
 - ❖ subjective and objective factors. Such factors take the shape of:
 - ✓ demographic and economic drivers
 - ✓ resources, services, and technologies drivers,
 - ✓ institutional and political drivers,
 - ✓ socio-cultural drivers
 - ✓ and finally cognitive and psychological drivers.

As Greene (2018) contends, most research on adaptation strategies tends to focus on objective drivers, including personal characteristics and economic, resource and technology, and formal and political drivers. As a result, subjective drivers such as cognitive and psychological factors and socio-cultural values in adapting to climate variabilities are neglected more often than not.

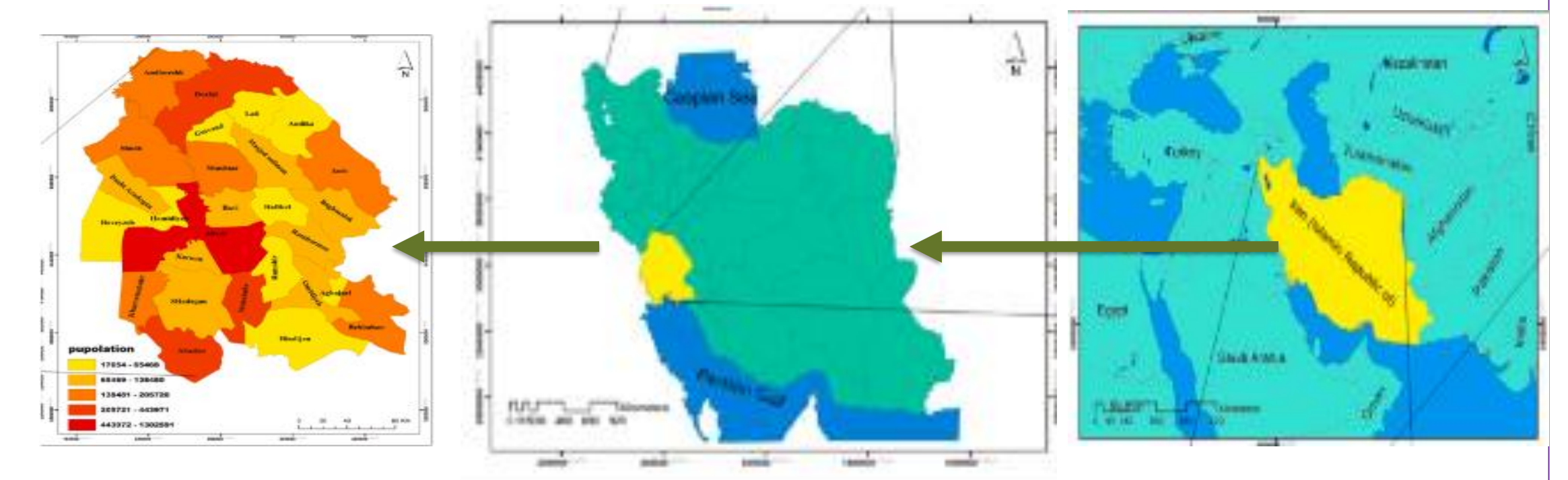
Background

Choosing adaptation tactics has become a significant strategy for farmers to reduce environmental threats, decrease the susceptibility of the socio-ecological system, and accomplish development aims. Adaptation to climate change is a dynamic social process (Adger, 2001). In addition to objective drivers, such as socio-demographic characteristics, location conditions, and access to politics, the previous research showed that the selection of climate change adaptation strategies for farmers is also influenced by objective drivers, especially social capital. Therefore, in this research, the effect of social capital on the adaptation behavior of farmers to climate change was investigated. According to a proposed model:



Methodology

The current study considers how social networks, norms, participation, trust, and solidarity (as aspects of social capital) may explain climate change adaptive behaviour among Iranian farmers. Survey data (employing a questionnaire) were collected from 250 farmers randomly selected in Susangerd city, within Khuzestan, Iran. An integrated model combining social capital, beliefs on climate change, and risk perceptions are used.



Results and Recommendations

- ❖ Results of structural equation modeling show that the proposed integrated model explained 69% of the variance in adaptation behavior and 66% and 40% of the variances in risk perception and climate beliefs.
- ❖ Such results demonstrate the robustness of the model in predicting adaptation strategies. Based on the findings, social solidarity and climate beliefs were the most effective predictors of risk perception, while farmers' social networks were the most important predictors of behavior.
- ❖ This study, by confirming the importance of social capital on the farmers' beliefs, risk understanding, and adaptation behavior, offers suggestions for fostering and implementing more practical adaptation strategies.