

論文名：  
Title of Doctoral Thesis:

Sustainable Regional Development through Entrepreneurship and Social Innovation:  
Empirical Analysis on a *Haor* Region of Bangladesh

新潟大学大学院自然科学研究科  
氏名 SOHEL RANA

---

(以下要約を記入する)

Sustainable regional development is a dynamic process that involves multi-sectoral approach to the economic and social development of a region. Each region has its own unique characteristics of natural and human resources, level of technological development, institutional structure, values and ethics. In order to achieve sustainable development, the following aspects such as economic efficiency, socialization and environmental protection must be considered broadly at the same time. The main purpose of the study is to assess the role of entrepreneurship and social innovation for socio-cultural changes and farmers' performance in disaster risk management at community level towards sustainable regional development in a less favored *haor* region of Bangladesh. The study targeted a rural *haor* area of Kishoreganj district of Bangladesh.

In order to reach the purpose of this study, following hypotheses are set for verification, based on the literature review of existing research and the current situation and characteristics of the *haor* region of Bangladesh. The hypotheses are: "Social and cultural changes through the development of entrepreneurship is necessary for the sustainable regional development (H1)"; "Common interest group (CIG) is an effective approach to empower women through socio-political transformation (H2)"; and "Farmers' performance in disaster risk management at community level is determined by their socio-economic attributes, social capital, and access to local institutions (H3)". To verify the above hypotheses, we introduced both qualitative method such as (Trajectory Equifinality Modeling) and quantitative method such as (Structural Equation Modeling) based on the results of case studies on local entrepreneurs, the interview and focus group discussion with different stakeholders, and the questionnaire survey of farm households.

We obtained the following conclusions from the empirical analysis. First, the results from TEM analysis based on three male and three female cases clarified that social capital is important for each case of entrepreneurship development although the quality of social capital varies among the different groups due to their socio-political

backgrounds. Furthermore, the female cases IV showed the evidence of changes in the cognition toward women's role in the family and community as compared to the cases of male entrepreneurs. Therefore, socio-cultural and political changes in the relationships between men and women, as well as among the same sexuality are necessary (H1 was supported).

Secondly, the CIG approach created a platform for the rural farming communities to get access to the local institutions through the accumulation of social capital. In addition, the rural women of farming households are officially recognized as female farmers through the CIG approach although the entrepreneurial development of women farmers is still limited in the region. Therefore, the region is supposed to have started its first step toward socio-political transformation through the CIG approach, although "CIG is an effective approach to empower women through socio-political transformation" (H2) was insufficiently verified in the research.

Thirdly, based on the results of authors' designated questionnaire survey (face-to-face interview) targeting the farmers of Itna union in Kishoreganj district of Bangladesh, the SEM analytical results clarified that there are multi causal relationships among the factors affecting farmers' performance in disaster risk management (DRM), in which, the factors of gender, poverty, social capital and farmers' attitudes toward technology and training are important in the *haor* area of Bangladesh. Therefore, "Farmers' performance in disaster risk management at community level is determined by their socio-economic attributes, social capital, and access to local institutions" (H3) has been verified.

Our policy implications drawn from the analytical results suggest to have DRM policies to consider poverty issue from a different lens and to pay attention to the investment in innovation and entrepreneurship in order to realize a sustainable regional development. Specifically, it is necessary to have the strategies to empower women by providing them official license to operate farm machinery and creating a safe environment for them to work outside. In addition, structural change in the financial system introducing financial cooperatives in rural areas for local entrepreneurs (both women and men) to get access to finance is critical necessary for innovation creation and sustainable development. In other words, economic growth without socio-cultural and political transformation may create new problems and conflicts in a less favored *haor* region. However, it is necessary to recognize that the causes of poverty are strongly route-dependent in rural areas including the existence of gender discrimination and a low trust to government officials.