Effects of interregional agri-food clusters under different competitions on regional economy: Usage of two-regional CGE model for Green Tea Cluster in Japan‡

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Abstract

The purpose of this study is to evaluate effects of interregional agri-food clusters under different competitions on regional economy by use of two-regional computable general equilibrium (CGE) model. Many foods are in production linkage between farmers who yield in agricultural products as low materials and processed food manufacture who produce final goods, like wine, dairy products and so on. Linkage between agriculture and related food industries service industries has been recognized as a key to economic development in rural area. Some foods are produced in same area, others are put into interregional production.

In Japan, many agri-food clusters have been formed. The green tea cluster targeted in this study has constructed self-organized relationship between tea leaves farmers and tea manufacturing. In this study, I focus on two prefectures, Mie and Kyoto. Mie prefecture is the third largest tea leaves production and one of intermediate suppliers to green tea manufacture outside of Mie prefecture. Kyoto is one of regions where demand intermediate from other prefectures, produce higher quality green tea and have own strong brand. Recently, Mie prefecture has attempted to increase value-added inner area, for example it has defined own green tea brand.

There are several literatures on these clusters, which are interested in mechanisms in each cluster. Although it is very important to indicate components, each function and network in clusters, I think that we also need to evaluate effects on agri-food clusters and regional economy. Akune (2011) indicated that effects due to increase TFP at both tea leaves production and green tea manufacture in Mie prefecture, as a simulation scenario, was much more than each TFP growth by two regional, Mie and Kyoto. It was especially prominent in effects on tea leaves production in Mie prefecture. However, Akune (2011) assumed both clusters under perfect competition. Although green tea made in Kyoto is treated differentiated product, one in Mie is not differentiated in markets. It shows tea manufacture in Kyoto are under imperfect competition and it in Mie are under perfect competition. Therefore, I indicate effects of interregional agri-food clusters under different competitions on each regional economy by use of two-regional CGE model.

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