【企画セッション】 第2報告（福井紳也） 要旨

The agglomerations of Knowledge-Intensive Business Services and Headquarters

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1．背景と目的

In the last few decades, the business service sector in developed economies including Japan has enormously expanded (Ministry of Economy, Trade and Industry 2002). Business service sector is important for Japanese economic performance (Ministry of Economy, Trade and Industry 2017).

We focus on the Knowledge-Intensive Business Service (KIBS) sector in Japan. We observe large agglomerations of KIBS in large cities such as Tokyo and Osaka. The main customers for KIBS is thought to be headquarters (HQs). We take "home market effect" (HME), which is firstly presented in Krugman (1980) and Helpman and Krugman (1985), as a cause for agglomeration in KIBS and verify the HME in KIBS. The industry produces more than share of consumers in that country or city, so that the industry will become exporter. This is the HME. There are no studies which focus on the HME of KIBS, to the best of our knowledge.

We will also explore whether the agglomeration force of HQs is due to the agglomeration of KIBS or not. If the city shows strong agglomeration of KIBS, then HQs, main demander for KIBS, is likely to agglomerate.

We list the hypotheses in this paper as follows;

1. Agglomeration of Knowledge-Intensive Business Service (KIBS) sector in larger cities occurs due to the HME.

2.Tthe agglomeration force of HQs is due to the agglomeration of KIBS.

２．分析方法

To test the hypotheses, we use econometric method based on the theory of new economic geography.

To see a cause for agglomeration in KIBS, we use the equation below, which is proposed by Davis and Weinstein (1996, 1999, 2003). Equation below is derived from the theory of HME.

$$y_r^k = \alpha + \beta_1 SHARE_r^k + \beta_2 IDIODEM_r^k + \varepsilon_r^k, \quad (1)$$

where y_r^k is the production (sales) of each KIBS k in the region r, $SHARE_r^k = \frac{y_R^k}{y_R} y_r$, and $IDIODEM_r^k = \left(\frac{D_r^k}{D_r} - \frac{D_R^k}{D_R}\right) y_r$, $y_R^k = \sum_r y_r^k$, $y_R = \sum_k y_R^k$, $y_r = \sum_k y_r^k$, D is demand and D_r^k is the demand of each KIBS in the region r, $D_r = \sum_k D_r^k$, $D_R^k = \sum_r D_r^k$, and $D_R = \sum_k D_R^k$.

From the theory, if $\beta_2 > 1$, then HME exists. We prepare panel data set and estimation is conducted with within estimator using instrumental variables.

To verify whether the agglomeration of HQs is due to KIBS or not, building on Duranton and Puga (2005), we use relatively simple reduced form. We utilize more elaborate method Spatial Generalized Moment method (Kelejian and Prucha (1999). Kapoor et al. (2007)) to test the causality.

３．結果

As a result, specially, "Scientific research" and "Professional services" show clear HME with significant value. Additionally, we could find that the agglomeration force of HQs is due to the agglomeration of professional services.

４．考察

We have two policy implications from our analysis. Driving force of Japanese economy is the development of core cities such as Tokyo and Osaka, and their neighboring cities. And in these cities, KIBSs are strongly agglomerated and have HME in some sectors. Thus, the Japanese economic performance is highly dependent on the KIBS. Especially, "Scientific research" and "Professional services," are key sectors. Secondly, the sustained growth of "Professional services" sector is important for the activity of HQs and for the large cities' economy.

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