

Panel Data Analysis of the Development of Japanese Broadband: Case of FTTH based on the Prefectural Data

Yuji Akematsu

Research Fellow of the Japan Society for the Promotion of Science
Graduate School of Applied Informatics, University of Hyogo

Abstract

Japan has taken a worldwide lead in FTTH, with 11.3 million subscribers at the end of 2007. Japan has been the first country to experience this transformation. This paper analyzes the factors facilitating Japanese FTTH. Factors promoting Japanese broadband can be summarized as follows: (1) deregulations by the government; (2) competition among carriers; and (3) technical development. In previous research, we already analyzed how these factors effected Japanese ADSL promotion, with the panel data of subscribers on four major carriers (Akematsu [2008]). Different from the case of ADSL, however, FTTH has its own scope and issues. A big difference is regarding competition in the FTTH market, that is, basically carriers have to deploy optical fiber to single houses or condominiums by themselves, since there was no line sharing like ADSL. Therefore, NTT locals, which have own networks and facilities of FTTH, have competitive advantages and are gradually increasing their shares. Due to the number of related data, this paper does not adopt the data of carriers, but the prefectural panel data of subscribers, and analyzes the factors facilitating Japanese FTTH development, especially focuses on how subscribers migrate from ADSL to FTTH.

Keywords: FTTH, broadband, migration, competitive assessment, panel data analysis

JEL Classifications: L96, L11, L25