

**An Analysis of the Impacts of the Designated Manager System on the
Demand for Private Music Concerts:
A Comparison Stochastic Frontier Model with Fixed-effects Model**

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ABSTRACT

In decentralized countries like the U.S. and Japan, there are a lot of systems where the main points are defined by the central government and the details are specified by each local government. This paper attempts to allow the demand function to having a time varying an individual effect, by using a stochastic inefficiency model. The panel data analysis via a demand function with a stochastic inefficiency term enables the measurement of the total impact of a system where the main points are defined by central government and the details are specified by each local government.

The Designated Manager System (DMS) introduced in 2006 is one of the systems where the main points are defined by the central government and the details are defined by local governments. This paper focuses on the impact of the DMS on the demand for private music concerts. This study assumes that the public sector will try to provide music concerts to complement private music concerts, so that public cultural expenditure will not lead to any crowding-out effects. In other words, public cultural expenditure will not cause audiences to shift away from private concerts.

The analysis is conducted using a demand function, where the demand for private music concerts is defined as concert attendance. Fixed-effects and stochastic frontier estimates of the demand function are obtained and compared. Data from the Private Music Live Entertainment 2000-2008 (*Pia* Research Institute, White Paper on *Live Entertainment*) is used.

In this case, a comparison of the models' log likelihoods suggests that the stochastic frontier model is more suitable than the fixed-effects model. The estimation results support the existence of crowding-in rather than crowding-out effects.

Keywords: designated manager system, public hall, demand function, stochastic frontier analysis, fixed-effects model

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