論文題目　　Method for Introducing Multiple Distance Variables in Hedonic Analysis and Its Application to Real Estate Price Analysis

（ヘドニック分析における複数の距離変数の導入方法と不動産価格分析への適用）

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In urban context, urban nodes that are considered as the amenity or hazard facilities will affect house price and rents. One of the classic evaluations on this topic is hedonic pricing method. In classic hedonic analysis, distance variables that are measured from each urban landmark will be employed for the analysis. However, the effects from distances to these urban nodes on house prices sometimes do not represent the true price of the household. Distance variables that have been measured on the same urban area are suffering problems such as spatial multicollinearity, which is usually presented in regression result as magnitude variance and mean value. Also, this unstable element will lead the analysis result ill, so in the past years, hedonic pricing method is becoming unpopular for the blemish lead from multiple variables. In this research, I provided an estimation system to identify and choose the data with less bias, also a specific sampling method on locating the sample area to avoid the spatial multicollinerity problems in two and three distance variable's case in the analysis of urban real estate. The data of Tokyo area is used to confirm the sampling theory. The result showed positive reaction, and supported the recommendation that have been made in the ideal model stage. A good sampling scheme could ensure the analysis model more applicable and simplified. This research will be a meaningful reference for the multiple distance variables in hedonic regression and the urban real estate analysis.