中文摘要

本研究運用資料包絡分析（Data Envelopment Analysis, DEA）之動態差額基礎衡量方法（Dynamic Slack-Based Measure Approach, DSBM），分別以規模報酬固定（Constant Returns to Scale, CRS）及規模報酬變動（Variable Returns to Scale, VRS）兩模式，依據交通部觀光局行政資訊系統提供的統計資料，探討 2015 年至 2017 年臺灣地區 22 縣市中之 18 縣市民宿產業的跨年度動態相對經營效率，並與傳統資料包絡分析法衡量之結果進行比較。本研究選用（1）總出租客房數、(2）裝修及設備支出，以及（3）經營人數等 3 項為「投入」項目；再以（1）住宿人數、(2）客房住用數、(3）客房收入、(4）餐飲收入，以及（5）其他收入等 5 項為「產出」項目；另以平均房價為跨期結轉（Carry-Over）項目。研究結果顯示，規模報酬變動之投入導向的 DSBM 模式可得最高經營效率；規模報酬固定之產出導向的 DSBM 具有最高鑑別力。18 縣市以桃園市與苗栗縣之民宿業者營運效率最高。整體民宿業者在 2015 年至 2017 年的三年中以 2016 年經營效率最高。此外，本研究並進一步探討模式與縣市、縣市與年度，以及年度與模式之民宿業者經營效率的關係。最後，本研究並對如何正確衡量臺灣地區各縣市民宿產業相對經營效率提供建議。

關鍵詞：臺灣地區民宿、資料包絡分析、動態差額基礎衡量法、相對經營效率

Abstract

In this study, we uses Dynamic Slack-Based Measure Approach (DSBM) which is an extension of Data Envelopment Analysis (DEA) to measure the dynamic relative operating efficiency of Bed and Breakfasts（BNB）industry in Taiwan's Counties and Cities in 2015 through 2017. The input items include total number of rented rooms, renovation and equipment expenditure, and the number of people in operation. The output items include the number of guests, the number of rooms occupied, rent revenue, food and beverage revenue, and other revenue. The average of accommodation fee is the only "Carry-Over" item. Firstly, Input-oriented Constant returns-to-scale (DSBM-IC) model, Input-oriented Variable returns-to-scale (DSBM-IV) model, Output-oriented Constant returns-to-scale (DSBM-OC) model, and Output-oriented Variable returns-to-scale (DSBM-OV) model are used to manipulate the data collected by the Administrative Information System of the Tourism Bureau. Secondly, the efficiency measured by DSBM compare with traditional DEA models. The results show that DSBM-IV has the highest operational efficiency; DSBM-OC model has the highest discriminative power. BNB in Taoyuan City and Miaoli County have the highest operational efficiency. 2016 is the year with the highest operational efficiency. In addition, this study further explores the relationship between models and counties or cities, that between counties or cities and years, and that between years and models. Finally, we provide suggestions on how to measure more accurately for the relative operating efficiency of BNB industry in Taiwan.

Keywords: BNB industry in Taiwan, Data envelopment analysis, Dynamic slack-based measure approach, Relative operational efficiency