

## Applying Economic Methods on Analyzing Hostel Industry

Chiang-Ming Chen\* and Chia-Yu Yeh

Associate Professor, Department of Economics, National Chi Nan University, Taiwan

Economic methods are widely used to analyze the behavioral issues such as consumption and production of goods and services. However, most of economic analyses are addressed on the demand and supply of goods, but not services. Since the hospitality industry mainly contains service issues, numerical analysis with service indexes can provide important information to management of the industrial organizations. Chen and Lin have used the number of housekeeping staff per room and the number of food and beverage (F and B) staff per floor area as the proxy of room service quality and F&B service quality respectively to investigate the relationship between the service quality and profitability in hotel business [1]. Their results show that there is a non-linear relationship between F&B service quality and hotel profitability, while the room service quality effect is not significant. Lin and Chen (forthcoming) also investigate the relationship between service quality and market structure to reveal the dominated strategy of service quality depended on the market concentration of hotel scales [2]. As can be seen, adopting service science into the industrial economics can provide a practical vision on analyzing hotel industry.

Chen and Chang also apply the methods of labor economics on the hotel industry [3]. The traditional view of labor demand addresses on the derived demand. However, in hotel industry, increasing the number of staffs can increase the service quality, generating the increasing customers and revenues. On the other hand, the increased revenue can also derive the labor demand so that the problem of endogeneity arises as investigating the relationship between room revenue and labor demand. Their study show that with the endogeneity treatment on the labor demand model, the number of staffs distributed to room services to increase revenues can be 6.6 times of difference from the traditional method.

From the industrial economic point of views, the tourism industry is highly affected by the market fluctuations. The problem of uncertain guest arrivals has been discussed in the yield management. Different from traditional hotel research, Chen and Chang take account of the uncertain demand as the factor of market fluctuation and find that hotels tend to expand their product variety as the uncertain demand is high [4]. Also, Chen and Yeh find that the demand uncertainty can increase the likelihood of hotel failures [5]. On the other hand, assuming that uncertain demand takes the form of output price uncertainty, Chen and Lin find that demand uncertainty lead to an increase in hotel capacity [6]. Chen and Lin conclude that price instability decreases hotel capacity when volatile demand makes the hotel industry vulnerable to price instability [7].

While concerning the diversification strategy, the concept of comparative advantage can be applied. The F&B service in hotels are becoming the major revenues generated, especially for the hotels with a more profitable F&B operation than room operation in metropolitan area [8]. The banquet services for wedding, conference, and exhibitions are also getting important for the hotel business. Qu H et al. (2002) also find that hotels with total revenue generated mostly from F and B service tends to have higher growth in profit margin, but also suffer a higher instability, compared to the hotels with revenue mainly from room services [9].

As considering the advertisement strategy, Chen and Lin [7] detect

that highly advertised products are mostly charged with higher prices and serve as an entry barrier which leads to a more concentrated market [10]. They find that the advertisement affects room revenues through the increases of room price, but not through the increased quantity of demand. Based on the concept of comparative advantage, local hotel operators would choose to join an international chain if the perceived improvement in cost efficiency from such a decision is greater than staying with the status quo. Accordingly, whether hotels' perceived improvements in cost efficiency are positively associated with joining the international chain can be revealed.

The management issues of hotels are not only about the operation strategies, but also include the policy effects. The hotel management is very sensitive with labor policies. For example, we can the work time effect with Difference-in-difference (DID) method. The introduction of the five-day work week in Taiwan constitutes a natural experiment with treatment and control groups. The treatment group is defined by hotels consisting of domestic guests while the control group is defined by hotels consisting of foreign guests. He finds that the implementation of the five-day work week system in 2001 accounted for a significant increase in hotel demand. The finding also implies the negative influence of work time on travel demand.

The examples of above studies point out some directions on the hotel research. With the base of economic methods, there are many different issues between hotels and other industries, which can be addressed on for the future research. As the meantime, the expansion of economic framework on the hospitality industry can also build up the economic theories with more comprehensive applications.

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\*Corresponding author: Chiang-Ming Chen, Associate Professor, Department of Economics, National Chi Nan University, Taiwan, E-mail: [ming@ncnu.edu.tw](mailto:ming@ncnu.edu.tw)

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