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Market structure and profitability in the international tourist hotel industry

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Abstract

This paper adopts Hsiao (1986) panel data techniques, with metropolitan-level panel data from Taiwan, to examine how the market structures of various related service markets and hotels' locations affect hotels' profitability. The empirical results indicate that: (1) market concentration in rooms could significantly improve international tourist hotels' profitability, while concentration in the food and beverage markets have positive but insignificant effects, and (2) the locations of the international tourist hotels significantly affect their profitability.

Keywords: International tourist hotel; Market concentration; Profitability

1. Introduction

The purpose of this paper is to examine the relationships among market structures of various related service markets, hotels' locations and international tourist hotels' (ITHs') profitability.

Since the 1930s, Mason (1939, 1949), Bain (1951, 1956) and numerous scholars have developed the structure-conduct-performance (SCP) industrial organization paradigm. The SCP paradigm argues that a high seller concentration creates an environment facilitating collusive behavior among firms, and firms in highly concentrated markets should earn positive economic profits (Bain, 1951). Therefore, there exists a positive relationship between market concentration and profitability.

Lots of inter-industry studies have been done since then. Most of the inter-industry studies supported the positive relationship between concentration and profitability for instance, Bain, (1951, 1956) and Weiss (1974). Weiss (1974) particularly explored 46 studies in the 1970s and found that 42 of them support the positive relationship. After Weiss (1974), some scholars extended the inter-industry studies toward other countries. For example, Neumann et al. (1979, 1985) studied West Germany; Caves and Uekusa (1976) examined Japan. They found a positive relationship between concentration and profitability. However, Porter (1976), Connolly and Hirschey (1984) and Hirschey (1985) provided contradictory evidences with United States data. They showed a negative relationship between concentration and profitability.

Intra-industry studies, especially for service sectors, have not been done until more recently. Attention has been given to service industries, including the banking industry (Bourke, 1989; Molyneux and Thornton, 1992; Goldberg and Rai, 1996; Chirwa, 2003), the insurance industry (Chidambaran et al., 1997; Bajtelsmit and Bouzouita, 1998), etc.

Despite previous research on the concentration and profitability relationship in the past, the hotel industry has not received sufficient attention. A recent paper was written by Davies (1999) who investigated the UK hotel sector. With a panel of 36 hotels over the period 1989–1994, his empirical result indicated that market

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concentration negatively affected hotels' profitability, which contradicts the argument of SCP paradigm.

Nevertheless, two issues demand further studies. First, Davies (1999) took data on "total" sales revenues to calculate market concentration indexes. During the early history of hotels, hotels were just places to sleep. In that case, market concentration indices based on hotels' "total" sales revenues might have been good measurements of market structures faced by hotels. However, today's hotels provide various services, including rooms, food, beverage, swimming pools, etc. That means today's hotels compete in various services markets, and hence Davies's (1999) approach might not be appropriate. Second, Davies (1999) focused primarily on tracing the effects of hotel-specific factors on their profitability. He failed to detect the effects of hotels' locations, while location is a very important factor for a hotel's success (Lundberg et al., 1995). Therefore, the purpose of this paper is to examine the effects of market structures of various international tourist hotels (ITH)-related service markets and ITHs' locations on the ITHs' profitability.

In the Taiwanese ITH industry, the ITHs mainly compete in two markets, a rooms market and a food and beverage (mainly for banquets and conferences) market. Not surprisingly, the two major operating revenues account for more than 80% of the ITHs' total revenues. This paper measures the market structures of the two markets separately, and then examines how market structures affect ITHs' profitability. Using Hsiao's (1986) panel data techniques, this paper also examines how the ITHs' locations affect profitability. The original relevant data by metropolitan areas, i.e. Taipei, Taichung, and Kaohsiung, from 1989 to 2000 was obtained from the Tourism Bureau, Ministry of Transportation and Communications.

It is commonly believed that investment in, and expansion of, the hotel industries are important for developing tourism industries and stimulating economies. Because of the economic impacts, government, entrepreneurs and consumer associations play all kinds of roles to intervene in the development of hotel industries.

The paper is organized as follows: Section 2 provides the background information of the international tourist hotel industry in Taiwan. It then examines how market structures and ITHs' locations affect ITHs' profitability in section 3. Section 4 provides the concluding remarks.

2. The ITH industry in Taiwan

According to Taiwan's Tourism Bureau's report, by the end of year 2002, there were 87 tourist hotels with a total of 21,763 rooms in Taiwan. The tourist hotels are classified into international tourist hotels and regular

Table 1
Major operating revenues of ITHs in Taipei area, 1989–2000 (US$)

Year	No. of ITHs	Rooms	Food and beverage
1989	22	236,625,411	192,631,502
1990	25	229,040,541	202,506,211
1991	25	225,287,694	243,486,722
1992	25	236,265,943	280,930,339
1993	25	211,382,439	291,672,998
1994	26	240,187,430	336,794,888
1995	25	256,450,906	354,262,736
1996	25	265,904,012	359,452,740
1997	25	270,326,880	363,027,278
1998	25	233,802,654	305,184,831
1999	25	242,568,187	328,080,273
2000	25	273,687,324	361,988,732

Source:

1. The original data of ITHs ' major operating revenues (in NT dollar terms) is available from the Tourism Bureau, Ministry of Transportation and Communications, "International Tourist Hotel Operation Analysis Report (Taiwan Area)," 1989–2000 various editions.
2. The data of annual average exchange rates between the NT dollar and the US dollar are available from the Central Bank of China website.

tourist hotels according to the quantity and quality of facilities, management and service procedures, etc. The international tourist hotels commonly have larger space and offer more deluxe services than regular tourist hotels. Besides the rooms, the international tourist hotels also provide food, beverage, swimming pools, banqueting rooms, conference rooms, health clubs, gift shops and various recreational facilities. Among these 87 tourist hotels, 62 of them are international tourist hotels with a total of 18,790 rooms, and the other 25 are regular tourist hotels with only 2,973 rooms.

This paper shall focus on the international tourist hotels located in three major metropolitan areas, i.e. Taipei, Taichung and Kaohsiung, from 1989 to 2000. The total number of ITHs in the three metropolitan areas and their operating revenues from rooms and food and beverage of the ITHs are reported in Tables 1–3. The two major operating revenues account for more than 80% of the ITHs' total revenues. The tables show that in all three metropolitan areas, the share of food and beverage in total revenues outweighs that of rooms after 1991.[1] This is quite different from the performance of hotels in other Asian countries, for example in China, Hong Kong, Indonesia, Malaysia and Singapore (Cook and Day, 2001). The only exception is Japan. Second,

[1]In Taichung area and Kaohsiung area, the share of food and beverage in total revenues outweighs that of rooms in 1989. However, in both Taichung area and Kaohsiung area, the share of rooms in total revenues outweighs that of food and beverage in 1990. The share of food and beverage in total revenues outweighs that of rooms after 1991 in all three metropolitan areas.