Price determinants of sharing economy based accommodation rental: A study of listings from 33 cities on Airbnb.com

Dan Wang\textsuperscript{a,}*, Juan L. Nicolau\textsuperscript{b}

\textsuperscript{a} School of Hotel and Tourism Management, The Hong Kong Polytechnic University, 17 Science Museum Road, TST East, Kowloon, Hong Kong
\textsuperscript{b} Department of Marketing, Faculty of Economics, University of Alicante, P.O. Box 99, 03080 Alicante, Spain

**Abstract**

The advent of the “sharing economy” challenges not only the business of hotel industry but also the theories and models based on the conventional hotel industry. A key dimension of the hospitality industry is pricing. The aim of this study is to identify the price determinants of sharing economy based accommodation offers in the digital marketplace. Specifically, a sample of 180,533 accommodation rental offers in 33 cities listed on Airbnb.com is investigated using ordinary least squares and quantile regression analysis. Twenty-five explanatory variables in five categories (host attributes, site and property attributes, amenities and services, rental rules, and online review ratings) are explored for the intricacies of the relationships between pricing and its determinants.

© 2017 Elsevier Ltd. All rights reserved.

1. Introduction

In recent years, a new business model known as the “sharing economy” has emerged in the accommodation sector of the tourism and hospitality industry (Gansky, 2010; Sundararajan, 2013). Airbnb has pioneered the use of this business model to connect people who own idle accommodation assets (such as empty rooms or apartments) with those who need temporary accommodation (such as tourists) via digital marketplaces (Botsman and Rogers, 2011; Zervas et al., 2016). The exponential growth of sharing economy based accommodation rental has been attributed to the provision of a wide range of prices and property features, as well as a more diversified experience than that of conventional hotel accommodation (Guttentag, 2015; Tussyadiah and Pesonen, 2015; Wang et al., 2016). Recognizing the challenges and opportunities brought by the sharing economy based business model, scholars and industry practitioners have investigated the effects of sharing economy based accommodation rental on the hotel industry (Zervas et al., 2016); on tourists’ accommodation experiences and behavior (Chen, 2012; Shengkui et al., 2013; Tussyadiah and Zach, 2015; Zervas et al., 2015). Studies of the morality of such unconventional accommodation rental as a form of alternative tourism have also been conducted (Molz, 2012, 2013; Steylaerts and Dubhghaill, 2012).

Pricing is widely acknowledged to be one of the most critical factors determining the long-term success of the accommodation industry (Hung et al., 2010). Many studies have been conducted on pricing strategies in the hospitality industry from both the demand side (Becerra et al., 2013; Chen and Rothchild, 2010; Espinet et al., 2003; Hung et al., 2010; Lee and Jang, 2012; Saló et al., 2014; Schamel, 2012; Thrane, 2007; Yang et al., 2016; Zhang et al., 2011) and the supply side (Heo and Hyun, 2015; Lee, 2011; Masiero et al., 2015). Previous researchers have helped to improve practices in the hospitality industry by identifying the determinants of hotel-room rates, the factors influencing hotel guests’ willingness to pay, and the effects of different pricing strategies on customers’ perceptions and satisfaction (Hung et al., 2010). However, only a few researchers have investigated the factors determining the price of sharing economy based accommodation (Gutt and Herrmann, 2015; Li et al., 2015).

With the growth of a supplier community for sharing economy based accommodation rental, examination of the pricing of this unconventional accommodation offers important insights for stakeholders into the means of improving their profits and developing their business. More attention should be paid to stakeholders’ interests when the contribution of the sharing economy to society is non-negligible (Heo, 2016). In addition, research on the determinants of sharing economy based accommodation pricing is important due to the limited generalizability of existing studies of hotel price determinants to the context of the sharing economy.
Many price indicators used in the conventional hospitality industry, such as star ratings and corporate affiliation, are unsuited to accommodation offers in the sharing economy, of which the majority are personal assets used for residential purposes (Guttentag, 2015). Therefore, a series of new price indicators associated with sharing economy based accommodation has been identified, such as host characteristics (Gutt and Herrmann, 2015; Li et al., 2015), special amenities, and certain diversified accommodation characteristics. In addition, due to the distinctive characteristics of sharing economy accommodation services, particularly the availability of idle assets and non-professional business owners (Botsman and Rogers, 2010), it is useful to reexamine the influence of determinants relevant to the conventional hospitality industry. For example, the effects of location on price are unclear, as the location of a sharing economy rental is not predetermined by the supplier.

The purpose of this study is to identify the price determinants of sharing economy based accommodation offers in the digital marketplace (specifically Airbnb.com). A sample of 180,533 accommodation rental offers from 33 cities listed on Airbnb.com is examined. Ordinary least squares (OLS) analysis and quantile regression (QR) analysis are used to investigate price determinants in five categories: host attributes, site and property attributes, amenities and services, rental rules, and online review ratings. The findings have important implications for the design of pricing-suggestion systems for sharing economy based accommodation service providers, such as the price-recommendation tool recently launched by Airbnb.

2. Literature review

2.1. Sharing economy based accommodation rental & its price determinants

The sharing economy is a socio-economic system that coordinates “the peer-to-peer-based activity of obtaining, giving, or sharing the access to goods and services” through “community-based online services” (Hamari et al., 2015). The sharing economy is the result of technological and socio-economic progression (Belk, 2014; Botsman and Rogers, 2010). The rapid development of information and communication technologies, both hardware (e.g., smartphones and iPads) and software (e.g., Web 2.0 applications), has enabled users to generate their own content, share information, collaborate, and conduct transactions via online platforms/marketplaces (Kaplan and Haenlein, 2010). Meanwhile, the economic and societal pressure caused by global economic recession has made people more careful about their spending (Bostman and Rogers, 2011; Gansky, 2011). The sharing economy provides an alternative means of resource distribution and consumption (Lamberton and Rose, 2012). Therefore, sharing economy based business models have been rapidly adopted in a variety of areas, such as the rental of owned assets (Airbnb.com for accommodation and RelayRides.com for cars), general purpose freelance labor provision (e.g., oDesk.com and Fiverr.com), and peer-to-peer asset sales (e.g., Etsy.com) (Sundararajan, 2014).

Sharing economy based accommodation rental business has experienced phenomenal growth due to high tourist demand (Guttentag, 2015; Heo, 2016; Karlsson and Dolnicar, 2016; Tussyadiah and Pesonen, 2015). Such accommodation is made available in digital marketplaces (e.g., Airbnb.com, 9flats.com, and HomeAway.com) by individuals who own the right to use the space provided (Guttentag, 2015; Heo, 2016). The types of accommodation offered vary from private rooms to castles (Wortham, 2011). Some hosts continue to reside in their properties alongside renters; some are temporarily absent; and others run permanent rental businesses (Guttentag, 2015). Tourists report multiple benefits of sharing economy based accommodation rental, such as cost reduction (the main benefit) and the opportunity for cultural exchange and social interaction with their hosts (who may be local residents) (Balck and Cracau, 2015; Guttentag, 2015; Quinby and Gasdia, 2014). Airbnb.com, “a trusted community marketplace for people to list, discover, and book unique accommodation around the world” (About us – Airbnb, n.d.), is the leading platform for sharing economy based accommodation rental business. Founded in 2008 by Brian Chesky and Joe Gebbia, Airbnb.com offers more than 500,000 listings in 33,000 cities and 192 countries (CrunchBase.com, retrieved on May 11, 2016). The company made $900 million in revenue in 2015, and has a market value of $24 billion (Kokalitcheva, 2015).

Most existing studies investigate social and psychological aspects of the sharing economy based accommodation phenomenon, such as the motivation of consumers (e.g., Guttentag, 2015; Möhlmann, 2015; Tussyadiah and Pesonen, 2015) and hosts (Ert et al., 2016; Karlsson and Dolnicar, 2016; Li et al., 2015; Tussyadiah, 2016). A few working papers have been written on the economic effects of sharing economy based accommodation services (Fang et al., 2016; Gutt and Herrmann, 2015; Ikkala and Lampinen, 2014; Kakkar et al., 2016; Li et al., 2015; Païrolero, 2016; Tang & Sangani, n.d.; Zervas et al., 2015). The findings indicate that hosts who offer accommodation to rent on Airbnb.com usually charge higher prices if their accommodation has received high star ratings (Gutt and Herrmann, 2015; Ikkala and Lampinen, 2014). Li et al. (2015) provides empirical evidence from the New York City market that professional hosts (listing multiple properties) earn significantly more than non-professional hosts (listing only one property). Tang and Sangani (n.d.) identify a relationship between location and listing price based on San Francisco Airbnb listings. Kakar et al. (2016) measure the influence of information on hosts’ racial background on Airbnb listing prices in San Francisco. Païrolero (2016) explores the effects of Airbnb on the housing market of Washington DC. These studies have initiated the efforts to examine the factors determining the price of sharing economy based accommodation. However, these studies were mainly developed from the dataset from one city and with limited independent variables for a certain aspect such as host characteristics or location. Such research design constrains the understanding of the price determinants for sharing accommodation rentals. In our view, a global model that controls geographical locations and describes the price determinants in different cities over the world is more capable to reflect the market situation. Assuming that the listed prices on the Airbnb are acceptable prices in the market for tourists from all over the world, the global model reflects the association of price and price determinants in the state of market equilibrium. Furthermore, it can be more accurately reveal the effects of price determinants by examining the multiple determinants such as host attributes, site and property attributes, amenities and services, rental rules, and online review ratings in one model.

Though only a few studies being identified for price determinants of sharing economy based accommodation rentals, a large number of studies have been conducted for hotel price determinants, which provides a reference point to design our study and compare findings to reveal the differences of two kinds of accommodation rentals in terms of price determinants. In the following section, relevant studies of hotel price determinants are reviewed.

2.2. Hotel price determinants

Since the early 1990s, several studies have been conducted to identify the factors determining the price of hotel accommodation. The hotel price determinants identified fall into five categories: site-specific characteristics, quality-signaling factors, hotel services and amenities, accommodation specification, and external market
دریافت فوری
متن کامل مقاله

<table>
<thead>
<tr>
<th>امکان دانلود نسخه تمام متن مقالات انگلیسی</th>
<th>✓</th>
</tr>
</thead>
<tbody>
<tr>
<td>امکان دانلود نسخه ترجمه شده مقالات</td>
<td>✓</td>
</tr>
<tr>
<td>پذیرش سفارش ترجمه تخصصی</td>
<td>✓</td>
</tr>
<tr>
<td>امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله</td>
<td>✓</td>
</tr>
<tr>
<td>امکان دانلود رایگان ۲ صفحه اول هر مقاله</td>
<td>✓</td>
</tr>
<tr>
<td>امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب</td>
<td>✓</td>
</tr>
<tr>
<td>دانلود فوری مقاله پس از پرداخت آنلاین</td>
<td>✓</td>
</tr>
<tr>
<td>پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات</td>
<td>✓</td>
</tr>
</tbody>
</table>