Be a "Superhost": The importance of badge systems for peer-to-peer rental accommodations

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HIGHLIGHTS

- This study mainly focuses on the gamification design developed by Airbnb, which awards a "Superhost" badge to hosts.
- "Superhost" becomes who receive good reviews, which impacts accommodation's review volume and ratings.
- A negative binomial model and a Tobit model with different independent and controlled set of variables was employed.
- Accommodations rewarded with the "Superhost" badge are more likely to receive reviews and higher ratings.
- Guests are willing to pay more for "Superhost" accommodations.

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ABSTRACT

Many sharing-economy websites like Airbnb that offer vacation-rental options for travelers are very popular. However, few studies targeting the vacation-rental industry have investigated online reviews. To narrow this gap, this study focuses mainly on the gamification design developed by Airbnb that awards a "Superhost" badge to hosts who receive good reviews and observes how this can impact an accommodation's review volume and ratings. All available information regarding Airbnb accommodation offered in Hong Kong was retrieved from Airbnb's website. We then constructed a negative binomial model and a Tobit model with different independent variables and controlled a set of variables relating to accommodation characteristics. The results show that an accommodation with the "Superhost" badge is more likely to receive reviews and higher ratings. In addition, guests are willing to spend more on "Superhost" accommodations. Based on our findings, we present implications for research and host practice.

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1. Introduction

In the e-commerce era, online reviews are increasingly important for consumers as well as various kinds of corporations. For consumers, peer evaluations are useful sources of information about products that reduce uncertainty when making purchase decisions (Zhu & Zhang, 2010). The valence of online reviews, always shown as a digitized rating, provides consumers with a direct means to filter target products. Of course, most consumers tend to pay more attention to products with more positive ratings since their quality is affirmed and praised by fellow consumers (Hudson, Roth, Madden, & Hudson, 2015; Yeoh, Othman, & Ahmad, 2013; Yoo, Kim, & Sanders, 2015). Thus, both the volume and the valence of online reviews are critical for product and service suppliers and can boost their online sales (Chevalier & Mayzlin, 2006; Ye, Law, & Gu, 2009). The volume of online reviews is associated with the popularity of a product, and a product with more reviews will attract the attention of more potential customers (Zhang, Zhang, Wang, Law, & Li, 2013). By contrast, review valence decides potential customers' impressions or evaluations of the product after they start to look into it. In other words, consumers tend to pay more attention to "popular" products that are shown with more reviews, while they make their final purchase decisions based on

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the rating distribution of those target products (Litvin, Goldsmith, & Pan, 2008; Sparks & Browning, 2011).

Hotels are the traditional accommodation choice for travelers. However, the emergence of the concept called the "sharing economy" has provided another option: peer-to-peer vacation-rental accommodation, a trend that has become increasingly popular in recent years (Wang & Hung, 2015). Such accommodation has many advantages over traditional hotels. One is price (here and in the following used synonymously for room rate). The average price of accommodation provided by peer-to-peer websites such as Airbnb is lower than that of hotels in most cities (Permalink, 2013). Moreover, unlike standard hotels, this new kind of accommodation can offer travelers different experiences since different houses have their own distinct facilities and styles. The company's official website describes Airbnb as a community facilitating the rental of unique places to stay offered by local hosts in 190 + countries.

Peer-to-peer rental websites such as HomeAway, HouseTrip, FlipKey, and Airbnb provide platforms for both travelers and owners to share resources and information. They allow owners to post information about their available rooms, apartments, and houses, and thus earn extra income, while they offer travelers a means to select satisfactory accommodation for trips (Fang, Ye, & Law, 2016). Travelers can obtain information about accommodations from two main sources. One is the basic information on the website posted by owners and comprising details such as facilities, prices, and photos to help them picture the accommodation; the other source is reviews posted by previous users. The latter seems to be more important since it reflects real experiences and is thus perceived to be more credible (Ayeh, Au, & Law, 2013; Zhu & Zhang, 2010). However, the number of online reviews of peer-to-peer accommodation rental websites is not huge, as these websites have been up and running for a short time and, in addition, the tourist capacities for each accommodation are limited. Another important aspect of reviews posted on such websites is their uneven distribution. We retrieved all available data on Hong Kong accommodations and reviews from the Airbnb website in August 2015. At that time, 3820 listings for accommodations in Hong Kong were posted on Airbnb. The most popular had attracted 154 reviews, while 2039 offers had not received any reviews. How to attract more reviews and reduce uneven distribution are critical questions for owners, especially those whose accommodations have received few or no reviews.

A common practice used by online review websites such as TripAdvisor to motivate user engagement and encourage reviews is to gamify their design (Li, Huang, & Cavusoglu, 2012). In such a model, users are rewarded with badges or higher status in the online community in return for voluntary contributions such as posting reviews. This design provides multiple intrinsic motivations for users to share their knowledge (Cavusoglu, Li, & Huang, 2015). Airbnb uses another kind of badge system, the "Superhost" badge, designed not for users or travelers but for accommodation owners (see Fig. 1). Owners must make continual contributions to the community, such as to inquiry from potential guests quickly, in order to obtain and keep this badge, which gives them higher status within the Airbnb community of owners. This system is intended to motivate the engagement of product or service providers and thus differs from the gamification design considered by previous studies.

The "Superhost" qualification is automatically evaluated every three months, and owners must satisfy the following conditions to obtain and keep the badge: (a) they should receive at least ten bookings in a year; (b) they must respond to their guests quickly and maintain at least a 90% response rate; (c) they should satisfy most of their guests and obtain more than 80% five-star ratings; (d) they rarely conceal confirmed reservations (Airbnb, 2016a). Therefore, to obtain and keep this badge, owners must devote more energy to their listings. For example, they must cautiously screen their guests to avoid concealing reservations and unnecessary negative feedback. They must also improve facilities and service quality continually in order to satisfy guests and respond to their reviews quickly. But what are the direct benefits of this badge, and is it worth it for owners to make the efforts described above to earn and keep it? What effects can this badge system have on promoting their online performance? As noted above, two characteristics of online reviews, review volume and valence, are always linked with online sales. Accordingly, this study considered how Airbnb's "Superhost" badge system could influence guests' review posting and rating behavior.

Below, we first summarize two streams of research in the literature, including online reviews and gamification designs. Then we present several hypotheses relating to the research questions. Next, we present the data collection method, the variables, and the empirical models used, followed by the results and implications. Finally, the limitations are discussed at the end of the paper.

2. Literature review

This study intends to integrate two focuses of the literature: online reviews and gamification design. The ever-growing numbers of users and reviews in online travel communities attract a great deal of attention from scholars in the tourism industry. The mainstream of these studies can be classified as comprising two directions: Some focus on the quantitative characteristics of online reviews, such as their volume and valence, while others focus on textual or qualitative characteristics of review content based on text-mining technology. Since the purpose of this study is to observe how Airbnb's badge system influences the review volume and valence of accommodation, we summarize only tourism literature focusing on the volume and valence of online reviews.

2.1. Tourism literature on review volume and valence

The number of reviews is a highly significant factor and has been proven to be closely associated with hotel or tourism attraction performance (Xie, Chen, & Wu, 2016; Xie, Zhang, & Zhang, 2014; Yacouel & Fleischer, 2012). Some researchers, such as Ye et al. (2009), have even treated this factor as a proxy for hotel online sales and investigated its determinants. We summarize the influence of review volume on consumers' purchase decisions from two aspects. First, as an information source, one of the basic functions of online reviews is to provide information to consumers who have little prior knowledge about the products or services (Vermeulen & Seegers, 2009). Thus, the number of reviews determines how much information consumers can obtain. Consumers are unlikely to choose a hotel or tourism attraction with insufficient reviews since they have no way to reduce uncertainty from peer evaluations; therefore, a lack of reviews negatively influences online sales (Sotiriadis & van Zyl, 2013). Second, the volume of reviews also represents the popularity of a product (Zhang et al., 2013). More consumers will be aware of popular products (Godes & Mayzlin, 2004), and they tend to be more interested in products with more reviews since the quality of such products has been experienced and evaluated by a large number of their peers. This is an example of multitude-following mentality (Zhang, Ye, Law, & Li, 2010).

Review valence is another critical factor and represents mainly the sentiment of consumer evaluations (Schuckert, Liu, & Law, 2015). This factor is always measured by consumers' online ratings and is linked closely to other concepts, such as consumer satisfaction or the valence of electronic word of mouth (Xie et al., 2014; Liang, Schuckert, & Law, 2016). Review valence influences consumers' subsequent purchase decisions and online sales by sharing and