The antecedents of customer satisfaction and dissatisfaction toward various types of hotels: A text mining approach

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A B S T R A C T

Customers' online reviews play an important role in generating electronic word of mouth; these reviews serve as an online communication tool that highly influences consumers' demand for hotels. Using latent semantic analysis, which is a text mining approach, we analyze online customer reviews of hotels. We find that the determinants that create either customer satisfaction or dissatisfaction toward hotels are different and are specific to particular types of hotels, including full-service hotels, limited-service hotels, suite hotels with food and beverage, and suite hotels without food and beverage. Our study provides a clue for hoteliers to enhance customer satisfaction and alleviate customer dissatisfaction by improving service and satisfying the customers' needs for the different types of hotels the hoteliers own.

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1. Introduction

Online booking and reviewing are becoming more popular for customers with the rapid development of information technology. Customers often post reviews, recommendations, or opinions on websites after staying in a hotel. These reviews act as electronic word of mouth, which can be defined as all the informal communication directed at customers through Internet-based technology that is related to the usage or characteristics of special products and services or their providers (Litvin et al., 2008). Compared with traditional word of mouth, electronic word of mouth has a wider reach and creates faster interactions; therefore, it has a much greater effect on influencing demand (Cantallops and Salvi, 2014).

Positive reviews show customers' satisfaction with their experience while negative reviews express dissatisfaction. These written reviews describe customers' experience staying in the hotel and show their opinions toward the hotel and their corresponding staying experience. Written reviews are more informative, and therefore reflect customer satisfaction or dissatisfaction in a more detailed manner than customer ratings, which are usually the numbers evaluated by customers with the range from 1 to 10 toward some specific aspect of the hotel services or overall staying expe-

rience. Identifying the type and importance of factors that lead to customer satisfaction and dissatisfaction in written reviews is the first step for hoteliers utilizing electronic word of mouth to generate more demand and improve their financial performance (Sparks and Browning, 2011). However, research comparing the type of determinants that create customer satisfaction and dissatisfaction and ranking their importance in leading customer satisfaction or dissatisfaction is rare.

Another phenomenon that may need to be given more attention is that opening a certain type of hotel, such as a full-service hotel, limited-service hotel, suite hotel with food and beverage, or a suite hotel without food and beverage is an essential strategy that influences a hotel's production, service operations, facilities, and target market segments (Kim et al., 2013b). Different types of hotels have different core products and services (Tanford et al., 2012). Customers rank the importance of each service dimension differently because they have varying perceptions, expectations, and preferences for each type of hotel. However, little research explores the moderating effect of hotel type on customers' perception (Kim et al., 2013b).

The objective of this study is to find out and compare the determinants of customer satisfaction and dissatisfaction toward various types of hotels. Our comparisons are based on three perspectives. First, because the absence of some key aspects of hotel service causes customer dissatisfaction, they are necessary for satisfaction to occur but not sufficient in themselves to cause markedly higher

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levels of satisfaction (Gu and Ryan, 2008); therefore, we want to compare the determinants of customer satisfaction and dissatisfaction for each type of hotel. Hence, the first research question is the following: For each type of hotel, are the types of determinants that create customer satisfaction and dissatisfaction the same? Second, once the determinants are identified, we want to compare their importance in leading to customer satisfaction or dissatisfaction. Therefore, the second research question is this: For each type of hotel, which determinant plays the most important role with regards to customer satisfaction or dissatisfaction? Third, we want to compare both the type and the importance ranking of the determinants of customer satisfaction or dissatisfaction toward various types of hotels. Therefore, the third research question is: Are the type and importance ranking of the factors that lead to customer satisfaction or dissatisfaction toward various types of hotels the same?

The main contributions of our study lie in the fact that this is one of the first papers to identify and compare both the type and importance ranking of the determinants of customer satisfaction and dissatisfaction among hotel types. In our study, we will use latent semantic analysis (LSA), a text mining technique, to explore the determinants of customer satisfaction and dissatisfaction toward hotels. LSA provides a more objective approach for analysis of the contexts of reviews because of its mathematical characteristics.

The rest of our paper is organized as follows: Section Two reviews the related literature; Section Three develops the hypothesis; Section Four introduces our research method; Section Five analyzes the data and summarizes the results; Section Six engages in related discussions based on data analytics results; Section Seven discusses the theoretical and managerial implications; and Section Eight provides conclusions and future extensions.

2. Literature review

2.1. Customer satisfaction toward hotels

Customer satisfaction can be defined as an evaluation based on a comparison between customers' experiences and their initial expectations (Aurier and Evrard, 1998). The customer satisfaction index is one effective way to measure customer satisfaction in the hotel context (Deng et al., 2013). Customer satisfaction plays an important role in enhancing a hotel's demand, which leads to improved financial performance (Sun and Kim, 2013) and higher efficiency (Assaf and Magnini, 2012).

Many key factors lead to customer satisfaction. Gu and Ryan (2008) found seven elements that positively influence customers' overall satisfaction: bed comfort, cleanliness of bathroom facilities, size of room and condition of facilities, location and accessibility, quality of food and drink, ancillary service, and staff performance. Similarly, Ren et al. (2016) summarized the sources of customer satisfaction into four dimensions: tangible and sensorial experience, staff performance, aesthetic perception, and location. Besides the core attributes and services offered by hotels, some incidental actions can also lead to customer satisfaction, including corporate social responsibility practices (Lee and Heo, 2009) and sustainable practices (Xu and Gursoy, 2015a), which shows that the operating strategy of a hotel is "doing good to do well" (Garay and Font, 2012).

2.2. Customer dissatisfaction toward hotels

Fewer studies discuss customer dissatisfaction toward hotels compared with satisfaction. However, a discussion about factors leading to customer dissatisfaction is important because they are different than those that lead to customer satisfaction (Gu and Ryan, 2008). Among the few studies that examine dissatisfaction, insecu-

rity (Choi and Chu, 2001), unmet expectations, and service quality (Su, 2004) are some of the factors leading to customer dissatisfaction.

Dissatisfaction with tourist services may be influenced by the emotions of anger and regret (Sánchez-García and Currás-Pérez, 2011), and may lead to negative consequences, such as complaint behavior and negative electronic word-of-mouth communication (Cheng et al., 2005). Besides, unsatisfied customers tend to leave their current hotel for another hotel, and they tend to voice their dissatisfaction to release tension, obtain sympathy from others, and receive restitution (Szymanski and Henard, 2001). Retaining customers and encouraging them to return is essential to a hotel's performance because the cost of retaining customers is only one-fifth that of searching for new customers (Hart et al., 1990). Thus, identifying the source of customer dissatisfaction is the first step to alleviating it. The next step is to implement service recovery strategies that will improve services and customer loyalty (Craighead et al., 2004).

2.3. Electronic word of mouth toward hotels

Word of mouth can be defined as volitional post-purchase communication by customers (Dickinger and Basu, 1994). When this communication takes the form of online reviews, recommendations, and opinions, these are referred to as electronic word of mouth (eWOM) (Cantallops and Salvi, 2014). With the increased popularity of online booking, online customer reviews and the corresponding effect of eWOM are greatly influential in generating demand for a hotel due to the number of Internet users (Kim et al., 2009) and the frequent interaction (Cantallops and Salvi, 2014).

Positive online reviews show customer satisfaction with the hotels (Xie et al., 2014). These positive reviews generate quality eWOM and serve to increase online bookings for the hotels (Torres et al., 2015) by enhancing the hotel's reputation (Ye et al., 2009) and customers' trust of the hotel (Kim et al., 2009). Negative eWOM discourage a customer from booking a room at a particular hotel (Zhang et al., 2010). Thus, exploring customers' perceptions through online reviews and utilizing eWOM is essential for hoteliers to attract customers (Wen, 2009) and enhance their hotel's financial performance (Sun and Kim, 2013).

3. Hypothesis development

According to the expectation-disconfirmation model, which describes individual cognitive processes, customer satisfaction and dissatisfaction are measured based on the comparison of their expectations with the actual perceptions of the service performed. When the services meet or exceed their expectations, customers are satisfied; otherwise, customers are dissatisfied (Oliver, 1980).

During the customer's booking process, the absence of certain factors can generate dissatisfaction, but their presence alone is insufficient to create higher levels of satisfaction because these factors are expected and do not have the ability to generate high levels of satisfaction (Saleh and Ryan, 1992). Based on the preceding discussion, this study proposes the following proposition:

Hypothesis 1. For each type of hotel, the determinants of customer satisfaction and dissatisfaction toward the specific type of hotel are different.

The importance of each determinant in directing customer satisfaction and dissatisfaction may be different. Multi-attribute theory emphasizes the evaluation distinctions of attributes for their