Understanding important hotel attributes from the consumer perspective over time

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ABSTRACT

Consumers consider various product attributes when they evaluate products. Researchers and practitioners have used multi-attribute models to understand which product attributes are important for consumers. However, in those models, product attributes are limited and are determined by researchers at the time of the inquiry. In this study, using a longitudinal study of hotel reviews over 6 years, the top 30 important hotel attributes from the perspective of consumers are identified and examined as to how the importance of these hotel attributes has changed over time. Our findings show that staff is the most important attribute with a positive effect on ratings at all times and that other attributes show consistent positive (negative) effects with small changes of importance over the years. Our study provides managerial implications of what attributes hotel managers need to maintain or improve for customer satisfaction.

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1. Introduction

When consumers make purchase decisions, they evaluate products by considering many product attributes. For example, when consumers book a hotel, they may consider price, hotel stars, location, etc. To promote consumer purchase and enhance satisfaction, it is important to determine what product attributes consumers evaluate and how important to satisfaction each of these attributes is. However, American Customer Satisfaction Index recently reported that the average of customer satisfaction in the hotel industry is still below the superior customer satisfaction level (Vanamburg, 2016). It indicates that the hotel industry needs to investigate more accurate evaluation on attributes that influence consumers' satisfaction. The investigation is critical because there has been a gap between the perceptions of hotel service providers and consumers (Nasution and Mavondo, 2008; Tsang and Qu, 2000). Therefore, it is worth identifying attributes and relationships between attributes and consumer satisfaction to improve customer satisfaction.

Product reviews can provide a wealth of information to hotel managers regarding important elements of customers' evaluations of their experiences (Zhang and Verma, 2017). According to the TripAdvisor research, 77% of travelers usually or always refer to online reviews before choosing a hotel and 53% would not make a hotel reservation until they read online reviews (TripAdvisor, 2014). However, research on product reviews has used numeric ratings only (e.g., Xie et al., 2014) or has not fully explored text reviews. For example, Zhang and Verma (2017) identified words frequently mentioned in positive and negative reviews but did not investigate how much these words were related to review ratings regarding consumer experiences.

In addition, it is possible that consumer needs and interests change over time. For example, free WiFi has become more important as consumers constantly use their mobile devices. Competition in the hotel industry is becoming fierce, and thus hotels should perhaps shift their focus on attributes over time to cater to consumers' changing needs and to compete with other hotel providers (Min et al., 2002). However, research on the trend of product attributes in reviews is even less explored in this dynamically changing environment. These gaps of utilizing product reviews limit our understanding of consumer evaluations and possible appropriate actions for managers.

This study aims to investigate hotel attributes in relation to consumer satisfaction and the trend of the relationship over years. We have two research questions to address:

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RQ1. From the perspective of consumers, what are important hotel attributes that determine review ratings?

RQ2. Does the importance of the hotel attributes that impact review ratings change over time?

To address these questions, we utilize online hotel reviews from 2011 to 2016 on the TripAdvisor website, a third party review provider in which customers who stayed at the hotels left numeric ratings and text reviews. First, we identify all the attributes customers mentioned in the text reviews and then choose the top 30 attributes that affect customer ratings the most. Last, by examining the relationships between customer ratings and these attributes by year, we determine whether the importance of these attributes has changed.

Our paper contributes in two ways. First, methodologically, we show how researchers and firms can identify attributes and determine their importance on ratings by utilizing product reviews. This approach can determine numerous product attributes from the perspective of customers, and the longitudinal data enable tracking the trend of important attributes over time. Second, the substantive contribution is that we provide hotel managers with attribute management guidelines. Hotel managers can maintain the hotel attributes with which consumers are satisfied, such as view, space, service, modern style, and quietness, and improve the hotel attributes with which consumers are dissatisfied, such as Internet/WiFi, wall, reservation, and room, to enhance service quality and customer satisfaction.

2. Literature review

2.1. Hotel attributes

Once consumers take into consideration particular hotels, hotel attributes will determine their final choices. Thus, it is essential for hotel managers to understand hotel attributes that are closely related to customer satisfaction. Researchers have determined that decisive hotel attributes for consumers to evaluate quality include price, hotel environment, cleanliness, service, attractiveness, relaxation opportunities, loyalty program, guest experience, promotions, amenities, conventions, green program, hotel image, and hotel reputation (Ananth et al., 1992; Cadotte and Turgeon, 1988; King et al., 2014; Teixeira and Kornfeld, 2013). Tsaur and Tzeng (1996) emphasized that when customers seek lodging, they first consider accommodation conditions (e.g., a comfortable and quiet room) and then service quality factors; the researchers also ranked the attributes that are related to customer satisfaction with hotel service quality.

Despite the importance of understanding focal attributes, substantial previous studies found that the attributes hotel managers focused on were different from the attributes that consumers actually considered important. Coyle and Dale (1993) found that decoration, facilities, and cleanliness were less important to consumers than what hotel managers thought. Furthermore, competitive staff was a more important attribute to hotel managers than to consumers. Tsang and Qu (2000) found that managers overestimated consumers' expectations in terms of some attributes regarding hotel service delivery, such as cleanliness/quietness/security of room, attractive decoration/furnishings of room/lobby, and comfortable mattress and pillow. On the other hand, managers underestimated consumers' expectations in terms of attributes such as availability of year-round swimming pool and hotel staff with multilingual skills. Possible reasons for these discrepancies are self-assured hotel management (Coyle and Dale, 1993; Saleh and Ryan, 1991; Tsang and Qu, 2000), insufficient contact with consumers and inaccurate assessment of consumers' needs (Coyle and Dale, 1993), and poor communication (Nasution and Mavondo, 2008). Even though the average of hotel industry customers' satisfaction has been increased over time, it is still under the superior customer satisfaction level (Vanamburg, 2016), suggesting improvement for customer satisfaction toward hotels. Accurate assessment of consumers' needs will contribute to hotel managers' better understanding of their customers, resulting in improvement of customer satisfaction and hotel performance.

2.2. Attribute evaluation

To evaluate important product/service attributes that determine consumer evaluation, literature has suggested two main approaches: compositional approaches (e.g., Fishbein's (1976) expectancy-value theory) and decompositional approaches (e.g., conjoint analysis method). Unlike compositional approaches, which are common in analyzing an existing decision process, decompositional approaches are useful to redesign the consumer decision process for reassessing important product attributes (Sweeney et al., 1978). Conjoint analysis, popularized in marketing literature (Anderson and Bettencourt, 1993; Green and Srinivasan, 1990), is a technique to identify the degree of importance of multi-attributes of a product or service by gathering consumers' preferences for a set of attribute combination profiles and to predict consumers' preferences for new profiles (Oppewal and Vriens, 2000). Our approach, similar to conjoint analysis, examines the relationship between ratings that represent consumer satisfaction and hotel attributes. The merits of our approach, compared to conjoint analysis, are that we deal with consumer evaluation based on a large volume of actual transactions and the attributes are determined by consumers, not by researchers.

Another important topic in evaluating attributes is the possible change in attribute importance over time. Flint et al. (1997) proposed that changes in consumers' evaluations of the value received and/or changes in what they expected from attributes could influence the level of disconfirmation consumers perceive and, thus, change satisfaction levels. They believed that it would be helpful for firms to understand how consumers' perceptions of value change, which would improve competition and customer retention. Bolton and Drew (1991) found that a service change could influence individual customers' ratings of the components of service quality, and, eventually, individual customer ratings could be used to predict the effects of the service change in the long run. Min and Min (2006) claimed that understanding the dynamic trend of important hotel attributes is a fundamental way to maintain consumer retention in the long run. Min et al. (2002) conducted a study to capture changes from the consumer perspective in terms of important hotel service attributes over time. For example, the degree of importance of courtesy of employees, handling of complaints, and convenience of reservation were much greater in 1995 compared to what they were in 2000, but price and hotel/tour guide were more important in 2000 than they were in 1995. We examine the change of attribute importance to understand consumer needs over time, another merit of our approach compared to conjoint analysis that only considers data at the time of the research.

2.3. Online reviews

Online reviews are accessible instantly for a great number of consumers who search for others' opinions about products and services (King et al., 2014). Moreover, a strong stream of online reviews provides real-time information for people to continuously collect, which is not possible for questionnaires or surveys (Zhang and Verma, 2017). Research has found that online reviews have an impact on customer attitudes such as willingness to pay (Pavlou and Dimoka, 2006) and trust and loyalty to a product