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# How hotel managers decide to discount room rates: A conjoint analysis

Seung Hyun Lee

*School of Hospitality Leadership, East Carolina University, RW305 Rivers Building, Greenville, NC 27858-4353, United States*

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ABSTRACT

Hoteliers face a paradox in managing the differences between actual and expected demand in their daily operations. While making adjustments in pricing, management takes control of identifying a problem, collecting/interpreting information, and finally making a choice whether or not to discount. The role management plays in influencing the pattern of shifting demand in relation to room rates needs to be addressed. The purpose of this study was to explore how discount choices are made by hotel managers and to investigate the role of human judgment based on contextual factors in the decision-making process. A conjoint analysis was used to examine the discount decision-making process. Findings suggest that time (i.e. booking window) is perceived as the critical determining factor that leads managers to make discount choices associated with poor performance.



## 1. Introduction

In the lodging industry, discounting room rates is essential to remaining competitive. While no one wants to offer discounts, many hoteliers encounter situations that force them to discount their rates. To cope efficiently with this dynamic environment and competitive market, hoteliers cannot afford to neglect discounting as a competitive option (Hanks et al., 2002; Kimes, 2009; Croes and Semrad, 2012).

The market mechanism could contain considerable "noise" induced by inconsistencies in time, perishability, and changes in demand. Pricing is based on forecasting, and hoteliers face a paradox in managing the differences between actual and expected demand in their daily operations. If hotels can forecast demand precisely for a particular arrival date, then they can sell all available rooms at the initial set rate. However, hotels often face an unpredictable and uncertain business environment that makes it difficult for them to forecast demand and set optimal room rates (Phillips, 1999). Hotels set their initial room rates in advance based on the expected demand on a specific date. Inconsistencies in time occur, however, because the manager has to manage prices today while relying on the future projected demand.

The distance between the present and the future demand is exacerbated by the perishable nature of hotel products. Hotels deal with a finite horizon for selling rooms before an arrival date (Ghalia and Wang, 2000). In addition, demand for each room changes constantly and is often segmented according to different customer groups, each with different price elasticity and profitability, which makes forecasting even more uncertain and challenging for hotel managers (Dutta et al., 2003). Hence, the gap between expected and actual performance may be quite large.

Given the difficulty and uncertainty in forecasting demand, hotels face discrepancies between their expected and actual demand. Each time this discrepancy exists, hotels incur losses in revenue. In such situations, management is required to make constant adjustments in rates. Thus, in order to fill rooms that remain unsold unexpectedly, hotels are forced to lower their room rates (Croes and Semrad, 2012; Kalnins, 2006).

Hotel managers monitor their reservation activity and change room rates constantly, either through markdowns or markups, in response to the actual demand that emerges from the dynamic nature of the lodging market. While making adjustments in pricing, management takes control of identifying a problem, collecting/interpreting information, and finally making a choice whether or not to discount.

Academic studies that have examined how the process of discounting actually works are scarce, which limits the ability of both scholars and practitioners to gather appropriate information and make strategic pricing decisions. Thus, analyzing the choices that management makes in operations enhances the understanding of discounting in the lodging industry. The discounting process not only involves choices that management makes but also considers interactions with the internal and external environments.

*E-mail address:* leese14@ecu.edu

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Knowing certain choices and situations with regard to the discounted rate will assist hoteliers in maximizing revenue by not offering discounts in certain cases when they are not crucial.

This study has attempted to provide an overall picture of how management reads and interprets indicators, allows for adjusted prices, and subsequently acts upon them. The purpose of this study was two-fold: (1) to explore how discount choices are made by hotel managers and (2) to investigate the role of human judgment based on contextual factors in the decision-making process.

## 2. Literature review

### 2.1. Revenue management

Revenue management (RM) is considered an essential instrument, as it divides customers into different segments based on their purchase intentions and then allocates capacity to those different segments at the appropriate time (Jauncey et al., 1995; Kimes, 1989; Kimes and Wirtz, 2003).

In the lodging industry, the RM decision-making system involves two decision-related functions: strategic and operational. In the long term, strategic pricing decisions are based on market segmentation and overall pricing policies (Jones, 1999). At the strategic level, RM is used to form market segmentation criteria, establish target occupancies for different market segments, and determine decisions about what prices to offer and what reservations to accept (Jones and Lockwood, 1998). The notion of discounting is already embedded in forecasting at the strategic level. Examples of strategic decisions include discount packages designed to target price-sensitive consumers. After the distinguishing feature of a market segment is defined, hotels set appropriate discounts for designated groups, such as seniors. Such discounts are planned and offered to those consumers who would not otherwise purchase the product. In strategic decision-making, discount decisions take place in conjunction with sophisticated forecasting. In fact, management has little to do with pricing at the strategic level.

On the other hand, short-term operational decisions are associated with the daily operations and the implementation of pricing techniques (Jones, 1999). Therefore, managing a discrepancy between actual and expected demand requires the application of a price change that adjusts forecasted levels of demand to actual demand. For example, Ghalia and Wang (2000) illustrated a situation in which a convention that was previously held at a hotel for several consecutive years moved to a different location. The hotel's computer system still shows high demand during the convention period, and the analytical RM system had not caught up with the new level of demand during the short-term horizon until actual bookings began to accumulate in the reservation system.

Another example is related to weather. Hotels expect to have nice weather over the weekend and reserve rooms for last-minute reservations. If cold weather comes unexpectedly that weekend, room rates need to be adjusted in the short term according to this external factor. With the knowledge that a convention will not be held at the hotel in a given year or last-minute reservations will not being made due to cold weather, some adjustments need to be made manually to respond to the lower-than-expected actual demand for rooms.

### 2.2. Roles of human judgment in pricing decisions

Pricing decisions in the lodging industry take human judgment into consideration. Cross et al. (2009) viewed hotel pricing as subjective and stated, "Central revenue management and brand strategists will recommend price guidelines to the individual properties, [but] it is often still the province of the individual hotel to make the final call" (p. 66). Variation exists, depending on how management at each institution makes pricing decisions during the daily operation and implementation of pricing techniques. Managers determine when to restrict the availability of rooms, as well as when to sell rooms cheaply in order to maximize returns (Lee-Ross and Johns, 1997). Changes in price and the allocation of room products in response to demand reflect management's ability to make an intelligent use of its fixed capacity. Correspondingly, the way information is presented on the RM software interface has a significant influence on the decisions that the managers ultimately make (Schwartz and Cohen, 2004). Managers' decisions are influenced by information, but at the same time, the ways the information is gathered, interpreted, and analyzed are influenced by the managers. Hence, the role management plays in influencing the pattern of shifting demand in relation to room rates needs to be addressed.

### 2.3. Conjoint analysis

Conjoint analysis has gained popularity recently as a tool to address research problems in the lodging industry. Several studies have been conducted in the context of hospitality education to determine the important technical skill sets perceived by students, faculty, and industry professionals (Ruetzler et al., 2014); perceptions of professionalism (Ruetzler et al., 2011); and favorable interview presentation attributes (Ruetzler et al., 2012). In the context of restaurants, the following factors have been explored: customers' perceptions of the value of their experience and the pricing implications of such assessments at upscale dining establishments (Adhikari et al., 2013) and the relative importance of restaurant service attributes from the perspectives of visually impaired customers (de Faria et al., 2012). Other conjoint studies in relation to the lodging industry have probed the preferences of spa-goers (Kucukusta and Guillet, 2014), wine selection attributes (Bernabéu et al., 2012), and Chinese leisure travelers' preferences about airfare rate restrictions (Guillet and Xu, 2013).

In particular, in the hotel setting, the preferences of Chinese leisure travelers were measured using conjoint analysis with regard to rate fences (Guillet et al., 2014a), rate restrictions under the joint influence of room rates and rate fences (Guillet et al., 2014b), green guest room attributes (Millar and Baloglu, 2011), and resort fee preferences (Repetti et al., 2015).

While these conjoint studies have focused primarily on customers' preferences, limited studies exist on managements' decision-making processes. Managers prefer certain attributes to others and make choices based on their preferred methods of gathering information. In its ability to address complex decision-making processes, conjoint analysis techniques enable the researcher to quantify the relative underlying value that people consciously or unconsciously place on each attribute in the decision-making process (Louviere, 1988; Orme, 2010). As a result, a conjoint analysis was used to examine the discount decision-making process.

### 2.4. Information attributes

The lodging industry faces an uncertain business environment due to the actions of market structures, information asymmetries, and institutional conditions. To reduce or eliminate uncertainty, managers engage in information search activities and make strategic decisions based on the information gathered (March and Simon, 1958; Olsen et al., 2008). However, the process of gathering information can leave managers overwhelmed by too much information (Olsen et al., 2008). Thus, decision makers simplify the decision process by selecting information that is most relevant to their organization. Eventually, they develop patterns that parse complex