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Influences of consumer characteristics on fairness perceptions of revenue management pricing in the hotel industry

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ABSTRACT

Fairness perceptions play an important role in customers' behavior, and this study explores which consumer characteristics influence fairness perceptions of revenue management (RM) pricing in the hotel context. To examine such differentiating characteristics, the study conducts a logit analysis by comparing two groups: one group of customers who consider hotels' RM practices to be fair and the other group considers the practices to be unfair. The findings provide an opportunity for hotel managers to identify customers' particular characteristics that affect customer's perceptions of the fairness of hotels' RM pricing practices.

1. Introduction

Revenue management (RM, hereafter), also known as yield management, refers to selling perishable service products to the most profitable mix of customers to maximize revenue (Cross, 1997). The airline industry was the initial implementer of RM, and subsequently has had wide acceptance among capacity-constrained service industries to maximize revenue by effectively managing demand and capacity (Weatherford and Bodily, 1992). RM has become an indispensable strategic instrument in the hospitality industry; for example, the hotel industry routinely uses RM to maximize profits by obtaining revenues from rooms that would otherwise be unsold (Choi and Mattila, 2004).

RM aims to maximize revenues by charging premium prices when demand is high and lowering prices to stimulate demand when demand is low. RM involves several operational processes, such as segmenting customers, setting prices and rate fences, and controlling capacity to maximize the revenue generated from fixed capacity (Kimes, 1989). Among others, pricing policy is a key element of RM in the hospitality industry. However, consumers may possibly perceive such RM practices as unfair because RM results in a variety of rates for what appears to be identical facilities (Choi and Mattila, 2005).

Perceptions of price fairness play an important role in customer satisfaction and subsequent behavior (Oliver and Swan, 1989; Bei and Chiao, 2001). Extreme reactions occur when consumers feel they have been unfairly treated, especially when the company provides no valid alternative (Seiders and Berry, 1998). For example, people may sanction a business by avoiding repeat custom, by spreading negative word-of-mouth recommendations, or even by using violence (Bougie et al., 2003). Research by Kahneman et al. (1986) showed that consumers are even willing to disadvantage themselves to punish a seller who, they perceived, acted unfairly. Shoemaker (2003) argued that RM can have an adverse effect on customers' perceptions of the service company, resulting in destroyed customer loyalty. If consumers perceive RM as an unfair policy, consumers' negative perceptions lead to decreased customer satisfaction and consequently to a worsening of the company's economic success (Lindenmeier and Tscheulin, 2008).

Considering the importance of perceived fairness, an essential understanding is the major factors influencing customers' fairness perceptions of RM pricing among hospitality companies that implement and use RM techniques. However, research, especially in service industry contexts (Bolton and Alba, 2006) of this topic has been sparse until recently (Homburg et al., 2005; Xia et al., 2004). Previous research has considered price fairness evaluations in reference to past prices and price increases (Bolton and Alba, 2006; Homburg et al., 2005), and mainly in a context of physical goods (Martín-Ruiz and ondán-Cataluña, 2008). The purpose of the current study, therefore, is to explore consumers' fairness perceptions toward RM practices in the hotel industry. In particular, the study examines how consumers' characteristics relate to fairness perceptions of RM pricing. The study performs a logistic regression to identify different consumers' characteristics between two groups, that is, those with perceptions of fairness and those with perceptions of unfairness.

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This study provides two main contributions to the revenue management literature. First, the study examines effects of various demographic characteristics (i.e., age, income, gender, and education) along with two important factors (i.e., frequency of use and price consciousness) on consumers' perceptions of fairness of RM practices. Different from previous studies, such as Beldona and Namasivayam (2006), this study includes all six factors in the model and simultaneously examines them together. By doing so, this study identifies partial effects of each factor while controlling for other factors. Second, this study performs a logistic regression analysis to accomplish the proposed goals. As Xia et al. (2004) argued, price unfairness is a different concept from price fairness, and price fairness may not be an issue until consumers perceive prices to be unfair. Therefore, logistic regression analysis has been selected as an appropriate method, as opposed to choosing regression analysis with the dependent variable as a continuous variable.

For the analysis, this study also uses three different data subsets based on the degree of fair/unfairness perception. By performing the logistic regression analysis for the three groups, some characteristics cause extreme unfairness perceptions and others do not. These findings would not have been apparent if the analysis were only a regression analysis with a continuous dependent variable. Next, the study reviews the relevant literature and describes the methodology. Hypotheses and results follow, and conclusions complete the study.

2. Literature review

2.1. Fairness perceptions of pricing

Fairness perception is the judgment of whether or not customers accept an outcome and/or a transaction process to be reasonable, acceptable, and just (Bolton et al., 2003). Investigation into fairness perceptions has evolved from early work involving social exchange (Gielissen et al., 2008). Adams' (1963) interest was in equity as the principle for distributive fairness from an exchange perspective and focused on how individuals assess social exchange relationships. Thibaut and Walker (1975) distinguished between distributive and procedural fairness. Distributive fairness relates to the allocation of a just outcome, and procedural fairness relates to procedures to solve the problem (Collie et al., 2002). Several studies suggested that various factors influence people's perceptions of fairness. For example, researchers have considered procedures to be fair when they follow, in a consistent and unbiased fashion, certain structural guidelines, such as marketing decisions (Leventhal et al., 1980). In addition, Bies and Moag (1986) referred to interactional justice, which is the individual's perception of the quality of treatment experienced from implemented policies and procedures. Thus, interactional fairness concerns the procedural nature of a customer's treatment during the exchange (Blodgett et al., 1997; Clemmer and Schneider, 1996). Fehr and Schmidt (1999) suggested that an individual is inequity averse when perceiving outcomes to be inequitable which results in dislike. The point is the nature of individuals' measurements or perceptions of the fairness of outcomes, procedures, and treatment. Blodgett et al. (1997) found that fairness perceptions play an important role in customers' reactions to a service including re-patronage and negative word-of-mouth intent, and Campbell's study (1999) showed that perceived unfairness has a negative influence on customers' shopping behavior.

Several researchers have recently addressed the fairness perceptions of price (e.g., Campbell, 1999; Bolton et al., 2003; Vaidyanathan and Aggarwal, 2003; Xia et al., 2004). Price fairness refers to a judgment of perceived fairness by a consumer regarding a seller's price (Haws and Bearden, 2006). In marketing literature, fairness perceptions of price have had extensive study as a measure of price acceptability (Campbell, 1999; Maxwell, 2002). To assess the fairness of a price, customers often access internalized reference prices, such as the last price paid, and/or externalized reference prices, such as the price most frequently paid, market prices, and/or posted prices.

Kahneman et al. (1986) were among the first economists to identify the antecedents and consequences of price fairness. Dodds et al. (1991) demonstrated the logical relationship between an objective price and the perceived acceptability of that price. The relationship is an inverse proportion in that the higher the actual price, the lower the perceived acceptability. The information of how a price has been determined has a significant effect on perceptions of pricing fairness, and consequently, willingness to purchase (Maxwell, 2002). Fairness perception of price is, apparently, an important part for sustaining customer satisfaction, loyalty, and long-term profitability (Noone et al., 2003). Company reputation, motives, and previous consumer satisfaction appear to affect consumers' perceptions of the fairness of price increases (Campbell, 1999; Homburg et al., 2005). Recently, Diller (2008) attempted to incorporate the various aspects of fair price research into one conceptual model based on a review of "fair pricing" in the literature. The proposed fair price model includes seven components: distributive fairness, price honesty, price reliability, consistent behavior, personal respect and regard for the partner, fair dealing, and the right of influence and co-determination (Diller, 2008).

All individuals, however, are heterogeneous, and each individual perceives identical things or the same situations differently. Until now, most studies of price fairness focused on the situational or contextual components of price fairness and the relationship between buyers and sellers. Most prior research examined price fairness at the transaction level, and the influences of individual differences regarding price fairness perceptions have received little attention. Xia et al. (2004) summarized empirical findings on price fairness and suggested that researchers need to focus on more generic influences (e.g., social norms, consumer knowledge, and individual characteristics) on price fairness. Therefore, understanding consumers' characteristics in reaction to RM pricing is the focus of the current study.

2.2. Fairness perceptions of RM pricing in the hospitality industry

RM practices have the potential to maximize revenue as long as consumers perceive RM as a fair policy (Kimes, 2002). In the hospitality literature, several researchers have been interested in fairness perceptions of RM pricing, and Table 1 provides a summary of such relevant studies.

Kimes (1994) found that RM practices have the perceptions of being fair if information on varying pricing options is available; substantial discounts accompany reasonable restrictions, and services, perceived as different, have different prices. Kimes and Wirtz (2003a) studied the fairness perceptions of six RM practices in the golf industry and they examined perceived fairness of RM in the restaurant industry (Kimes and Wirtz, 2002, 2003b). Their results suggest that RM pricing in the form of coupons, time-of-day pricing, and lunch/dinner pricing have the perceptions of being fair. Choi and Mattila (2005) found that consumers who receive no information think the process is unfair, and limited information has little effect on fairness perceptions. In addition, Choi and Mattila (2004) examined the moderating effect of information about hotels' room pricing structures offered to consumers at the time of reservations on the perceived fairness of RM pricing.

Choi and Mattila (2006) found that a greater number of American consumers perceived variable pricing practices to be fair than do their Korean counterparts. Beldona and Namasivayam (2006) examined gender differences in relation to perceived price fairness