HOTEL OVERBOOKING: THE EFFECT OF OVERCOMPENSATION ON CUSTOMERS’ REACTIONS TO DENIED SERVICE

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Overbooking represents an important strategy for many service providers that apply revenue management. Although the objective is to overbook such that no customers are denied service, denials may result when the customer no-show rate is lower than expected. Research has shown that denied service can increase customer complaining behavior, and decrease customer satisfaction and spending behavior. Therefore, it behooves the service provider to put a service recovery strategy in place that will minimize the likelihood of these negative outcomes. This study investigates, in the context of denied service due to hotel overbooking, the role of overcompensation (type and amount) in shaping customers’ reactions to the service failure/recovery experience. Results suggest that cash-based overcompensation will yield significantly higher satisfaction ratings than voucher-based overcompensation or normal compensation alone, although the relationship between cash-based overcompensation and satisfaction is not linear. Additionally, overcompensation, regardless of type or amount, does not significantly influence customer repatronage intentions over and above normal compensation alone.

KEYWORDS: revenue management; overbooking; overcompensation; customer satisfaction; repatronage intentions; hotels

INTRODUCTION

Revenue management has been applied across a number of service industries, including the airline (B. C. Smith, Leimkuhler, & Darrow, 1992), hotel (Hanks, Robert, & Noland, 1992; Kimes, 1989), car rental (Carroll & Grimes, 1995; Geraghty & Johnson, 1997), and cruise line industries. More recently, revenue management practices have also been associated with broadcasting (Secomandi, Abbott, Atam, & Boyd, 2002), restaurants (Kimes, Chase, Choi, Lee, & Ngonzi, 1998), golf course operations (Kimes, 2000), and utilities and the health care industry (Secomandi et al., 2002). The goal of revenue management is to maximize revenue using demand-based pricing and duration controls (Kimes & Chase, 1998). A variable pricing structure allows for the use of discounted rates to stimulate demand for inventory that would otherwise go unsold, whereas the
application of duration controls is focused toward maximizing revenue across all time periods rather than during high demand periods alone.

There are a number of tools that service providers can use to control the duration of customer use of a given service, including the use of penalties, service guarantees, forecasting, and process redesign (see Kimes & Chase, 1998, for a comprehensive discussion of these, and other, duration control tools). Techniques for managing arrival uncertainty also fall within the domain of duration control tools. For example, deposits and credit card guarantees are typically used by hotels and car rental companies to discourage customer no-show activity. Overbooking also plays a pivotal role in managing arrival uncertainty. Airlines often sell more tickets than there are seats on an aircraft, and hotels sell more guest rooms than are available, in an attempt to protect against the lost revenue associated with customer cancellations and no-shows (Wangenheim & Bayón, 2007).

Although the objective is to overbook such that no customers are denied service, denials (e.g., being “bumped” off a flight or “walked” to another hotel) can result when there are fewer customer no-shows than expected. From a customer perspective, denied service as a result of overbooking can be regarded as a service failure (Wangenheim & Bayón, 2007). Compensation can, and does, constitute one of the key service recovery attributes that a firm can employ when this type of service failure occurs (A. K. Smith, Bolton, & Wagner, 1999). Unlike the airline industry where federal law dictates the amount of compensation to be given to customers in the event that they are involuntarily bumped off a flight, there are no federal laws governing compensation for walks in the hotel industry (Perkins, 1998). Therefore, it is the responsibility of the hotel operator to determine the type, and amount, of compensation to award the walked guest.

Although the standard “best practice” employed by hotel organizations is to provide the walked guest with a free night’s accommodation in a comparable hotel, transportation, and a telephone call (Salomon 2000), there is evidence that hotels will go beyond this norm, offering additional compensation in an effort to placate the disgruntled guest (e.g., a free night on a future stay, bonus reward program points, a cash amount; DeKay, Yates, & Toh, 2004; Salomon, 2000). This raises an important question: Will the offer of additional compensation yield returns to the hotel organization in terms of customer satisfaction and repatronage intentions?

Previous research across a number of service- and product-related contexts has shown that compensation following service failure is positively related to satisfaction (e.g., Goodwin & Ross, 1989; Hocutt, Chakraborty, & Mowen, 1997; Ruyter & Wetzels, 2000; Sundaram, Jurowski, & Webster, 1997), repurchase (e.g., Goodwin & Ross, 1989; Hoffman, Kelley, & Rotalsky, 1995; Hoffman, Kelley, & Soulage, 1995; Mack, Mueller, Crotts, & Broderick, 2000; Sparks & McColl-Kennedy, 2001; Webster & Sundaram, 1998) and word-of-mouth activity (e.g., Blodgett, Wakefield, & Barnes, 1995; Gilly & Hansen, 1985; Richins, 1983). Although the literature supports some compensation (including partial) being better than no compensation (e.g., Conlon & Murray, 1996; Goodwin & Ross, 1989; Mount & Mattila, 2000), there appears to be no
consensus regarding the optimal type, or amount, of compensation to be given in the event of service failure (Davidow, 2003).

In this study, we investigate, in the context of denied service due to hotel overbooking, the role of overcompensation in determining customer reaction to service failure/recovery experiences. We define overcompensation as any additional compensation, over and above normal compensation, that is offered to the walked customer. Given that there are no federal regulations governing compensation for walks in the hotel industry, we draw on the standard practice employed by leading hotel chains (Salomon, 2000) and define normal compensation as consisting of a free night’s accommodation in a comparable hotel, transportation, and a telephone call.

The specific objective of the study is to examine the impact of two dimensions of overcompensation, type (cash based or voucher based) and amount (i.e., dollar value), on customer satisfaction with the service failure/recovery experience and repatronage intentions. Cash- and voucher-based overcompensations represent two key types of overcompensation currently used by hotel organizations to manage denied service experiences (DeKay et al., 2004; Salomon, 2000). They differ along a number of dimensions, including timing, certainty, and flexibility. Thus, their potential differential impact on customer reaction to denied service merits examination. We are also interested in the level, or amount, of overcompensation required to placate the walked customer. In other words, is the sky the limit or is a point reached at which there is no benefit to be gained in terms of customer satisfaction and repatronage intentions from providing above-normal compensation? Exploration of these issues provides an opportunity to add to the literature on service failure/recovery experiences by addressing the, still ambiguous, role of overcompensation in driving customer satisfaction and behavioral intentions (Davidow, 2003). From a managerial perspective, we seek to provide insights that will guide overbooking policy decisions for hospitality organizations.

The structure of this article is as follows. First, we review the literature relevant to our research hypotheses. We then present a description of our research methodology and empirical results. We conclude with a discussion and managerial implications.

**BACKGROUND LITERATURE**

**Customer Reaction to Denied Service**

Overbooking has the longest research history of any of the components of the revenue management problem (McGill & van Ryzin, 1999). Much of the research in this domain has focused on methods for establishing optimal overbooking levels (see, e.g., Alstrup, Boas, Madsen, & Vidal, 1986; Belobaba, 1987; Brumelle & McGill, 1989; Ladany, 1976, 1977; Lambert, Lambert, & Cullen, 1989; Lefever, 1988; Liberman & Yechiali, 1977, 1978; Littlewood, 1972; Rothstein, 1974; Toh & DeKay, 2002; Williams, 1977). Although a number of studies have examined customers’ reactions to revenue management practices,
particularly in relation to pricing (see, e.g., Choi & Mattila, 2004; Kimes, 1994; Kimes & Wirtz, 2003; Noone & Mattila, 2009; Wirtz & Kimes, 2007), research on customers’ reactions to the overbooking component of revenue management is relatively scarce.

In the context of airline overbooking, a positive relationship between denied boarding and customer complaints has been demonstrated (Dresner & Xu, 1995). Denied boarding has also been shown to negatively affect customer satisfaction (Lindenmeier & Tscheulin, 2008). However, a study by Suzuki (2004) revealed that denied boarding does not affect passengers’ subsequent carrier choice. Wangenheim and Bayón (2007) investigated the long-term behavioral and monetary effects of airline responses to overbooking (i.e., upgrades, downgrades, and denied service). They found that where airline customers experienced downgrades and denied service, their number of transactions with the airline was significantly reduced. However, customers who received an upgrade exhibited only weak positive responses. McCollough (2000) reported a similar finding in relation to upgrades in the context of hotel overbooking. “Superb recovery” (i.e., being upgraded to a suite at no additional charge when the reserved economy room was unavailable) failed to yield higher customer satisfaction ratings than when the customer received the reserved economy room. In fact, in the case of unstable recovery (i.e., where the customer believed that the recovery was unstable and unlikely to recur), customer satisfaction ratings were actually lower. McCollough (2000) also found that, depending on the consumers’ failure and recovery attributions, superior recovery may have an adverse impact on consumers’ service quality attitudes. Meanwhile, Gilly and Hansen (1985) evaluated three levels of compensation where a hotel could not honor a customer’s reservation: underbenefit (no room is available and nothing is done), equity (arrangements are made for comparable facilities at another location), and overbenefit (arrangements are made for comparable facilities at another location, in addition to a complimentary dinner and a free weekend at the hotel chain). They found that those who received the overbenefiting option were significantly more likely to be satisfied, stay at the hotel again, and recommend the hotel to their friends. Investigating explanation as a service recovery strategy, Sparks and Fredline (2007) demonstrated, in the context of denied service due to hotel overbooking, that referential explanations were associated with higher levels of satisfaction and loyalty than justifications.

Although the aforementioned studies provide insights into the impact of denied service and various recovery strategies (e.g., upgrades, explanation) on important outcome variables (e.g., customer satisfaction), none of them, with the exception of Gilly and Hansen (1985) directly addresses the role of compensation in shaping customers’ reactions to denied service. Although the findings of Gilly and Hansen (1985) suggest that more compensation is better, studies in the broader marketing literature in relation to the impact of overcompensation on customer reaction to service failures have yielded conflicting findings, calling into question the notion that “more is better” (Davidow, 2003). In the following section, we review these studies and develop the hypotheses to be tested in the current study.
Hypotheses Development

Studies that have examined the impact of overcompensation on customers’ reactions to service failures have reported inconsistent results (Davidow, 2003). For example, when Boshoff (1997) tested three levels of redress in an airline context (missed connecting flight because of delay)—apology, apology and refund of expenses, and apology and refund of expenses plus an additional free airline ticket—he found that the higher the level of compensation, the more satisfied consumers were. In the context of a dry cleaning problem, Megehee (1994) found that satisfaction was positively related to the level of compensation received, with compensation ranging from $2.50 (50% of the $5 drycleaner charge for clothing that was still stained after cleaning) to $15 (300% of the $5 charge). However, she also found that those respondents who received $5 in compensation (i.e., the exact amount of the error as redress) had a greater intention to use the service again than those receiving greater amounts of compensation. Garrett (1999) tested three levels of compensation in the context of consumer goods: according to current company policy (i.e., a coupon approximately equal to the product’s average retail value for each unit of product that the consumer bought [retail price range of products was from $2 to $5]), twice as much, and three times as much, as current company policy. Above-normal compensation was not found to increase repatronage, word-of-mouth activity, or satisfaction.

In a similar vein, Mack et al. (2000) concluded, based on their study of service failures in the restaurant industry, that overspending on recovery efforts is not necessarily called for, and organizations should beware of overkill strategies, or “giving away the house.”

Not only do the aforementioned studies call into question the optimal level, or dollar amount, of overcompensation to provide customers in the event of service failure, but also none of them address the potential effect of overcompensation type on customers’ reactions to overcompensation. In other words, overcompensation was limited to a single type, thus negating examination of the potential differential effect that compensation type may have on customer reaction to overcompensation. For example, Garrett (1999) used coupons toward future purchases of company products. Similarly, Gilly and Hansen (1985) operationalized overbenefit in terms of complimentary product that required future consumption of hotel services. Megehee (1994) also used coupons as the form of compensation in her study, although, in that context, she also examined the timing of the compensation (application to current cleaning transaction or future cleaning transactions). She found that timing of the recovery response did not affect satisfaction. However, she also noted that this may be a much more important factor in other service contexts and called for further research in the domain.

Overcompensation type and customer satisfaction. Mental accounting suggests that people represent consumption in terms of topical accounts (Kahneman & Tversky, 1984) and that a consumption experience can be construed as an account where consumers track the losses (costs) and gains (benefits) accruing
from the service. Mental accounting principles suggest that a service failure, such as being denied service, constitutes a large loss, whereas service recovery efforts represent the gain offered to the consumer to offset the loss incurred (A. K. Smith et al., 1999). Here, we propose that when overcompensation is used to offset the loss associated with denied service, its impact on customer satisfaction with the service failure/recovery experience, over and above the satisfaction derived from a normal level of compensation, depends on the compensation type. Specifically, we propose that cash-based overcompensation represents a greater benefit to the consumer than voucher-based overcompensation. As a result, cash-based overcompensation is more likely than voucher-based overcompensation to exert a larger positive effect on customer satisfaction than normal levels of compensation alone.

Differences in the timing, certainty, and flexibility associated with the two compensation types provide the basis for this argument. First, a key factor differentiating cash- and voucher-based compensation is the time at which the benefits are received. Cash-based compensation is received at the time of service failure, whereas the benefits associated with vouchers are typically received at a later date. It has been shown that rewards that are more immediate (e.g., price discounts) are preferred over delayed rewards (e.g., frequent shopper points; Zhang, Krishna, & Dhar, 2000). Additionally, it has been proposed, in the context of price promotions, that the timing of a given type of promotion (e.g., money off at-point-of-sale for current purchase vs. coupon toward future use of the product or service) will affect the way consumers encode the savings (Folkes & Wheat, 1995), with immediate savings resulting in lower price expectations than delayed savings. For example, the savings associated with a postponed gain such as a rebate will be discounted because it does not occur at the time that the purchase is made. Equally, we suggest that a postponed gain such as voucher-based compensation will be discounted because it cannot be used at the time of purchase, whereas cash-based compensation represents an immediate benefit that the consumer can use. The notion that gains are discounted in time (Mowen & Mowen, 1991) fits with the economic principle of the time value of money, that is, the value of outcomes is discounted or diminished in response to increases in temporal distance from those outcomes (Mehrez, & Sinuany-Stern, 1983; Ross, Westerfield, & Jordan, 2006).

A related factor that we propose influences the amount of benefit that consumers attribute to the two compensation types is the uncertainty associated with receiving the benefit. The very fact that the benefits associated with a voucher are not received at the time of purchase but at a later date may lead to some uncertainty about their ever being received. If the benefits are tentative, consumers may be inclined to segregate them from the loss that they have incurred, in turn resulting in less of an impact on their satisfaction with the service failure/recovery experience (Klein & Oglethorpe, 1987). Although there is a risk that a voucher will go unused, and thus the benefit may not be received, cash represents a “guaranteed” benefit, with no risk of going unused. It, therefore, represents a more positive benefit in the service experience mental account. Flexibility, in
terms of how the benefit is used, may also affect the perceived amount of benefit associated with different compensation types (Campbell & Diamond, 1990). With cash-based compensation, there are no restrictions in terms of how the compensation is used by the consumer. For example, consumers may choose to apply the cash amount toward the future use of the given product or service. Equally, they may decide to apply the cash to a completely unrelated purchase that they perceive provides them with greater utility. Voucher-based compensation, on the other hand, provides a lesser degree of flexibility as it is tied to future consumption of the product or service. As a result, it may not provide the same degree of utility to the consumer as a more flexible form of compensation.

In sum, we posit that, because of the characteristics associated with cash-based compensation in terms of timing, certainty, and flexibility, cash-based overcompensation will generate significantly greater satisfaction levels than normal compensation alone. Voucher-based compensation, given that it is delayed in nature and is associated with a great degree of uncertainty and inflexibility, is much less likely to add as significantly to the benefit column of the service experience mental account as cash-based overcompensation. Therefore, we hypothesize as follows:

**Hypothesis 1:** The impact of overcompensation on customer satisfaction with the service failure/recovery experience is influenced by the type of additional compensation offered to the consumer. Cash-based overcompensation will result in significantly higher satisfaction ratings than normal compensation. Cash-based overcompensation will also exert a significantly greater impact on satisfaction with the service failure/recovery experience than voucher-based overcompensation.

**Overcompensation and customer satisfaction: How much is enough?** While we are proposing that cash-based overcompensation will yield the greatest impact on satisfaction with the service failure/recovery experience, the question remains as to whether the relationship between cash-based overcompensation and satisfaction is strictly positive. In other words, is there a point at which overcompensation will have no effect? Garrett (1999) suggests that a potential reason for the insignificant results that his study yielded with respect to the effect of above-normal compensation on customer satisfaction, repatronage, and word-of-mouth activity is that the impact of compensation on complaining consumers has different effects in specific zones along the continuum of possible compensation values. That is, complaining consumers may become progressively more satisfied with compensation offers up until the “price paid” point (i.e., reimbursement equal to 100% of the price paid by the consumer). Beyond that point, increased amounts of compensation may not significantly affect complaining consumers. Similarly, Davidow (2003) proposes that once reasonable compensation levels have been reached, compensation may cease to be as important a variable in determining postcomplaint consumer behavior. He suggests that this might be considered a type of needs hierarchy, below a certain level of which compensation is necessary to cover expenses and replacement.
Once that level is reached, compensation may not be as critical to postcomplaint customer behavior.

Drawing on the notion of a needs hierarchy, we propose that, when consumers are denied service as a result of overbooking, cash-based overcompensation will increase customer satisfaction but only up to a point. In other words, there is a threshold, beyond which additional compensation has no effect on satisfaction. Once consumers perceive that they have received adequate compensation to counteract the potential financial and nonfinancial (e.g., inconvenience, disappointment) costs associated with being denied service, they start attending to other needs. As a result, further compensating the consumer to satisfy a need that has already been met will not provide additional utility. Consequently, the impact on customer satisfaction will be negligible. The law of diminishing marginal utility can also be applied in this context. This law states that the perceived value of, or satisfaction gained from, a commodity or service declines with each additional unit acquired or consumed. In other words, there is a certain threshold of satisfaction and the consumer will no longer receive the same pleasure from consumption once that threshold is crossed (Dermanov & Eklof, 2001).

We hypothesize, therefore

*Hypothesis 2:* The relationship of cash-based overcompensation with satisfaction with the service failure/recovery experience is not strictly positive. Specifically, cash-based overcompensation will yield increases in customer satisfaction over and above normal compensation but only up to a certain point.

*Overcompensation and repatronage intentions.* Keaveney (1995) identified core service failures, service encounter failures, and failed employee responses to service failures as three of the main causal variables of customer-switching behaviors in service industries. Therefore, although customer satisfaction represents a key outcome variable on which a firm’s response to service failure can be evaluated, the potential impact of service failure and recovery efforts on customer repatronage should not be overlooked. Here we propose that, when voucher-based overcompensation is received by the consumer, his or her likelihood to repatronize the service firm will be significantly higher than under normal compensation or cash-based overcompensation conditions. Returning to mental accounting principles, although the characteristics associated with cash-based overcompensation may drive greater satisfaction with the service failure/recovery experience than normal compensation or voucher-based overcompensation, the characteristics of voucher-based overcompensation lend themselves to the greatest likelihood of repatronage. Specifically, given that voucher-based compensation is tied to repurchase, we suggest that the consumer will avail of the opportunity to redeem the voucher in an attempt to balance out the loss of the service failure, that is, add to the benefit column of his or her mental account for the service failure/recovery experience. This behavior is consistent with the notion that the consumer feels that he or she “deserves” the benefit that can be derived from redeeming the voucher, and that he or she seeks to restore equity.
following service failure by doing so (A. K. Smith et al., 1999; Walster, Berscheid, & Walster, 1973). We also suggest that the amount (i.e., dollar value) of voucher-based overcompensation will be positively related to repatronage intentions. In other words, the larger the voucher amount, the greater the incentive to repatronize the service firm as a means of restoring equity to the service exchange. Therefore, we hypothesize the following:

*Hypothesis 3a:* Voucher-based overcompensation will lead to significantly higher repurchase intentions than normal compensation or cash-based overcompensation.

*Hypothesis 3b:* The amount of voucher-based overcompensation is positively related to repurchase intentions.

**METHOD**

**Study Design and Participants**

Given our interest in the effectiveness of overcompensation (i.e., type and amount) in shaping customer satisfaction and repatronage intentions relative to “normal” compensation (i.e., the standard “best practice” employed by hotel organizations), compensation was manipulated at seven levels. These included normal compensation (a free night’s accommodation in a comparable hotel, transportation, and a telephone call), normal plus cash-based overcompensation (with three amounts of cash-based overcompensation tested: $100, $200, and $400), and normal plus voucher-based overcompensation (with three amounts of voucher-based overcompensation tested: $100, $200, and $400). In each compensation condition, a room rate of $200 was given as the rate that participants had been due to pay for their reserved room. Therefore, the overcompensation conditions (both cash-based and voucher-based) represent total compensation values equivalent to 150% (normal plus $100 overcompensation), 200% (normal plus $200 overcompensation), and 300% (normal plus $400 overcompensation) of the reserved room rate ($200) that is being “paid” for participants under the normal compensation condition at the alternative hotel. When determining the range, and number, of overcompensation amounts to test in this study, several criteria were taken into account. First, we sought a range of compensation values that would be sufficiently large to enable detection of a differential effect of compensation amounts on outcomes variables while also remaining realistic in terms of the amount of compensation that consumers might reasonably expect to receive if walked from a hotel. In terms of the number of overcompensation amounts, we determined that three levels (per compensation type) would keep the number of conditions tested in the study to a manageable level.

Participants were randomly assigned to one of seven scenarios, each reflecting one of the seven compensation conditions. Participants were recruited at four different locations: two hotels (n = 66; n = 64), an airport (n = 60), and a metropolitan city shopping area with a high concentration of hotels (n = 22). Of the respondents (n = 212), 52.8% (n = 112) were female and the age range was...
19 to 83 years of age (mean = 40). There were an approximately equal number of respondents in each of the seven conditions.

**Procedure**

The first part of the scenario was identical across all experimental conditions. Participants were told that they had travelled to a major U.S. city for a one-night leisure break at a four-star hotel and had guaranteed their reservation ($200 room rate) by credit card. The $200 room rate was based on actual rates, sourced from the websites of four-star hotels at major U.S. city locations for a one-night stay request. To ensure that respondent responses in terms of repatronage intentions would not be unduly influenced by dependence on return to a given hotel and location, participants were informed that the hotel was part of hotel chain that had hotels in every state across the United States. Participants were then told that they were informed on arrival at the hotel that it was overbooked and that accommodation would be provided for them in a nearby, comparable four-star hotel. Finally, participants were told that they received an apology for the situation and that the arrangements for relocation were finalized within 5 minutes of their arrival at the front desk of the hotel.

In the second part of the scenario, respondents were provided with the compensation information corresponding to their experimental condition.

**Measures**

Satisfaction with the service failure/recovery experience was measured using a 3-item, 7-point bipolar scale anchored by very dissatisfied and very satisfied (Cronbach’s α = .92; Garrett, 1999; A. K. Smith et al., 1999; Wirtz & Mattila, 2004). Given that we allowed in the scenarios for the specific hotel where the service failure/recovery experience occurred to be part of a U.S. hotel chain, we measured repatronage intentions for the hotel itself and the hotel chain using a 2-item, 7-point Likert-type scale anchored by very strongly disagree and very strongly agree (hotel: r = .75; hotel chain: r = .85; Blodgett, Hill, & Tax, 1997). This allowed us to examine the differential effect, if any, of the service failure/recovery experience on return intentions for the hotel property where it actually occurred versus the hotel chain that property belongs to. Because of their potential to influence customers’ reactions to the service failure/recovery experience, two control variables were included in our analyses: perceived inconvenience of relocation to an alternative hotel (adapted from Frankel, 1981, and Seo, 2005) and expected quality of the alternative hotel. Both variables were measured using a two-item, 7-point Likert-type scale anchored by very strongly disagree and very strongly agree (perceived inconvenience of relocation: r = .65; expected quality of alternative hotel: r = .70).

We used a number of manipulation checks to ensure that the respondents interpreted the compensation conditions as intended. Participants were asked if the hotel offered them compensation for being moved to the alternative hotel (yes/no response) and to describe the compensation that they were offered. We
also used a single-item, 7-point Likert-type scale (anchored by *very strongly disagree* and *very strongly agree*) and an open-ended question regarding the dollar value of the additional compensation offered by the hotel to ensure that the overcompensation conditions were interpreted as expected. Finally, realism of the scenarios was measured using a single-item, 7-point Likert-type scale anchored by *very strongly disagree* and *very strongly agree*. See Table 1 for scale items.

### Table 1
**Scale Items**

<table>
<thead>
<tr>
<th>Satisfaction with the service failure/recovery experience</th>
</tr>
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<tbody>
<tr>
<td>How satisfied are you with the hotel’s handling of the problem?</td>
</tr>
<tr>
<td>Given your experience with this hotel, how satisfied are you with the amount of compensation you received?</td>
</tr>
<tr>
<td>How do you feel about the hotel on this particular occasion?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Repatronage intentions*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowing what I do now, if I had to do it all over again, I would not stay at this hotel (hotel chain).</td>
</tr>
<tr>
<td>Because of what happened, I would never stay with this hotel (hotel chain) again.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perceived inconvenience of relocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having to move to another hotel caused me great inconvenience.</td>
</tr>
<tr>
<td>It did not bother me to have to move to another hotel.*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected quality of the alternative hotel</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel that I will receive the same level of service at the alternative hotel as I would have received at this hotel.</td>
</tr>
<tr>
<td>I feel that the quality of my stay at the alternative hotel will be superior to the quality of the stay I would have experienced at this hotel.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manipulation checks</th>
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</thead>
<tbody>
<tr>
<td>Additional compensation:</td>
</tr>
<tr>
<td>To benefit from the additional compensation that the hotel is offering me, I would have to stay in this hotel or another hotel in the same hotel chain in the future.</td>
</tr>
</tbody>
</table>

* Reverse coded.

**DATA ANALYSIS**

**Manipulation Checks**

All respondents indicated that they were offered compensation for being moved to the alternative hotel and correctly described the compensation that they were offered. For those respondents in the overcompensation conditions, all of them correctly identified the dollar value of the additional compensation they were offered by the hotel. As expected, respondents in the cash-based overcompensation conditions exhibited significantly lower ratings than those in the voucher-based overcompensation conditions on the scale relating to the necessity of a future hotel stay to benefit from the additional compensation being offered (mean ratings of 2.2 and 5.6 for cash- and voucher-based overcompensations, respectively, $t = -11.83, p < .001$). Taken together, these results indicate that our manipulation for compensation was effective. Finally, a mean
rating of 5.6, with no significant difference between the compensation conditions ($F = 1.46, p > .1$), was achieved when respondents were asked to rate the realism of the scenario presented to them, lending external validity to the study.

**Results**

We used analysis of covariance (ANCOVA) with expected quality of the alternative hotel and relocation inconvenience as covariates to test our hypotheses. The cell means by compensation condition for satisfaction with the service failure/recovery experience and repatronage intentions are shown in Table 2.

<table>
<thead>
<tr>
<th>Compensation Condition</th>
<th>Satisfaction</th>
<th>Repatronage Intentions (Hotel)</th>
<th>Repatronage Intentions (Hotel Chain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>4.70</td>
<td>3.75</td>
<td>4.57</td>
</tr>
<tr>
<td>Cash-based overcompensation (overall)</td>
<td>5.76</td>
<td>3.86</td>
<td>4.52</td>
</tr>
<tr>
<td>$100 cash-based overcompensation</td>
<td>5.40</td>
<td>3.32</td>
<td>4.02</td>
</tr>
<tr>
<td>$200 cash-based overcompensation</td>
<td>5.93</td>
<td>3.93</td>
<td>4.55</td>
</tr>
<tr>
<td>$400 cash-based overcompensation</td>
<td>5.95</td>
<td>4.34</td>
<td>4.98</td>
</tr>
<tr>
<td>Voucher-based overcompensation (overall)</td>
<td>5.18</td>
<td>4.16</td>
<td>4.74</td>
</tr>
<tr>
<td>$100 voucher-based overcompensation</td>
<td>4.73</td>
<td>3.84</td>
<td>4.42</td>
</tr>
<tr>
<td>$200 voucher-based overcompensation</td>
<td>5.13</td>
<td>4.14</td>
<td>4.73</td>
</tr>
<tr>
<td>$400 voucher-based overcompensation</td>
<td>5.66</td>
<td>4.50</td>
<td>5.06</td>
</tr>
</tbody>
</table>

**NOTE:** 1 = lowest level of satisfaction and repatronage intentions; 7 = highest level of satisfaction and repatronage intentions.
voucher-based overcompensation condition ($M = 5.18; p < .01$). This supports Hypothesis 1.4

Compensation, with four levels (normal compensation and the three cash-based overcompensation conditions), was then used as the independent variable to test Hypothesis 2 regarding the nature of the relationship between cash-based compensation and satisfaction. The results are provided in Table 4. Of the two control variables, only relocation inconvenience had a significant impact on satisfaction with the service failure/recovery experience ($F = 28.46; p < .001$). As expected, the main effect for compensation was significant ($F = 5.95, p < .005$). The mean satisfaction ratings for the $200 cash-based overcompensation condition ($M = 5.93$) and $400 cash-based overcompensation condition ($M = 5.95$) were significantly higher than the mean satisfaction rating for the normal compensation condition ($M = 4.70$); the $100 cash-based overcompensation condition ($M = 5.40$) was not (Tukey’s honestly significant difference [HSD]: at the .05 level). Furthermore, the mean satisfaction ratings for the $200 and $400 cash-based overcompensation conditions were not significantly different (Tukey’s HSD: at the .05 level). These results provide support for Hypothesis 2, suggesting that, within the range of the compensation amounts tested, cash-based overcompensation yields increases in customer satisfaction over and above normal compensation but only up to a certain point.

We used the collapsed cash- and voucher-based overcompensation conditions to test Hypothesis 3a (impact of overcompensation on repurchase intentions), resulting in compensation, with three levels (normal compensation, cash-based overcompensation, and voucher-based overcompensation), being used as the independent variable in two ANCOVAs: one with intentions to repatronize the hotel and the other with intentions to repatronize the hotel chain as the dependent variable. The results are provided in Table 5. Of the two control variables, only relocation inconvenience had a significant impact on repatronage intentions (hotel: $F = 51.76, p < .001$; hotel chain: $F = 31.82, p < .001$). The main effect for compensation was insignificant (hotel: $F = 1.90, p > .1$; hotel chain:
Although repatronage intentions were at their highest in the voucher-based overcompensation condition (hotel: $M = 4.16$; hotel chain: $M = 4.74$), they were not significantly higher than those in the normal compensation (hotel: $M = 3.75$; hotel chain: $M = 4.57$) or cash-based overcompensation (hotel: $M = 3.86$; hotel chain: $M = 4.52$) conditions. Thus, Hypothesis 3a is not supported. An ANCOVA, using three compensation levels ($100$, $200$, and $400$ voucher-based overcompensation), indicated no significant differences in return intentions across the voucher-based overcompensation amounts (hotel: $F = 0.16, p > .1$; hotel chain: $F = 0.25, p > .1$; Table 6). Therefore, Hypothesis 3b is not supported.
Follow-up regression analyses were conducted, one with intent to repatronize the hotel and the other with intent to repatronize the hotel chain as the dependent variable. Satisfaction with the service failure/recovery experience was entered as the predictor variable. Satisfaction had a direct significant effect on return intentions: hotel—\( F(1, 210) = 39.18, p < .001; R^2 = .14, \text{adjusted } R^2 = .14; \beta = .45, t = 4.48, p < .001 \); hotel chain—\( F(1, 210) = 33.25, p < .001; R^2 = .12, \text{adjusted } R^2 = .12; \beta = .44, t = 4.26, p < .001 \).

**DISCUSSION**

The objective of this study was to examine, in the context of denied service due to hotel overbooking, the role of overcompensation in determining customer reaction to service failure/recovery experiences. We extend the literature by investigating the impact of overcompensation type on customer satisfaction and repatronage intentions. We found that the impact of overcompensation on customer satisfaction with the service failure/recovery experience is influenced by the type of additional compensation offered to the consumer. Specifically, cash-based overcompensation results in significantly higher satisfaction ratings than normal compensation or voucher-based compensation. This finding is consistent with the notion that people represent consumption in terms of topical accounts (Kahneman & Tversky, 1984), and in line with mental accounting principles, a service failure such as being denied service constitutes a large loss, whereas service recovery efforts represent the gain offered to the consumer to offset the loss incurred (A. K. Smith et al., 1999). Cash-based overcompensation,

<table>
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<th>Source of Variation</th>
<th>( df )</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>( F )</th>
<th>( p )</th>
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<td>Expected quality of alternative hotel</td>
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<td>.65</td>
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<td>2285.00</td>
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</table>

NOTE: ANCOVA = analysis of covariance.

\(^a\) Three levels: $100 voucher-based overcompensation, $200 voucher-based overcompensation, and $400 voucher-based overcompensation.
because of the immediate, guaranteed, and flexible nature of the benefit received, offers more benefit than normal compensation alone to offset the loss of being denied service. Additionally, because voucher-based overcompensation constitutes a delayed, nonguaranteed, and inflexible benefit, this form of overcompensation does not add as significantly to the benefit column of the mental account as cash-based overcompensation.

Furthermore, although prior studies have empirically examined the impact of overcompensation amount on customer satisfaction with service failure/recovery experiences (Garrett, 1999; Megehee, 1994), conflicting findings call into question the notion that “more is better” (Davidow, 2003). This study’s findings suggest that although cash-based overcompensation results in the greatest level of satisfaction with the service failure/recovery experience, the relationship between cash-based overcompensation and satisfaction is not linear. Specifically, we found that within the range of compensation amounts tested, cash-based overcompensation yields increases in customer satisfaction over and above normal compensation but only up to a certain point. This finding lends support to the idea of a needs hierarchy (Davidow, 2003). Once the consumer has received sufficient compensation to counteract the costs, both financial and nonfinancial, associated with being denied service, he or she starts attending to other needs. Further compensating him or her to satisfy a need that has already been met will not provide additional utility and, therefore, the impact on customer satisfaction will be negligible.

Although, overall, cash-based overcompensation yielded higher satisfaction ratings than normal compensation or voucher-based overcompensation, we found that voucher-based overcompensation can yield a significantly higher level of satisfaction than normal compensation alone if the overcompensation amount is sufficiently large. That said, we found that a lower amount of cash-based overcompensation, 100% less in terms of dollar value (i.e., $200 cash based vs. $400 voucher based, overcompensation), is required to exert a greater impact on mean satisfaction ratings.

Given the positive relationship between service failures and customer-switching behaviors (Keaveney, 1995), this study also examined the impact of overcompensation type and amount on repatronage intentions. The hypothesis regarding the association of voucher-based overcompensation with significantly higher repatronage intentions than normal compensation or cash-based overcompensation was not supported. Furthermore, the hypothesized difference in repatronage intentions across the voucher-based overcompensation amounts was not supported. Regardless of compensation type, or amount, repatronage intentions were relatively low for the hotel where the overbooking experience occurred (overall mean = 3.92), increasing somewhat in relation to the hotel chain (overall mean = 4.61). It may be that since we examined the role of overcompensation in the context of a quick resolution, courteous apology, and explanation, the presence of these additional service recovery attributes may have diminished the impact of compensation on customers’ postrecovery responses. This is consistent with Wirtz and Mattila (2004) who found that apology and speed of
recovery had a significant direct effect on repurchase intent whereas compensation did not. However, although we found no direct relationship between compensation type and repatronage intentions, the results of the regression analyses indicate that, consistent with prior research, satisfaction with the service failure/recovery experience has a significant effect on repatronage intentions (e.g., A. K. Smith & Bolton, 1998). This suggests that employment of compensation strategies that drive greater satisfaction with the service failure/recovery experience is more likely to enhance repatronage intentions.

MANAGERIAL IMPLICATIONS

Overbooking represents an important strategy for many service providers that apply revenue management, particularly those in the airline, car rental, and hotel industries. Although the objective is to overbook such that no customers are denied service, denials may result when the customer no-show rate is lower than expected. Research has shown that denied service due to overbooking can increase customer complaining behavior (Dresner & Xu, 1995), and decrease customer satisfaction (Lindenmeier & Tscheulin, 2008) and spending behavior (Wangenheim & Bayón, 2007). Therefore, the impetus is on the service provider to put an appropriate service recovery strategy in place to negate, or at least minimize the likelihood of, these negative behaviors. Although there are a number of service recovery attributes that can be employed as part of a service recovery strategy, including compensation, apology, initiation, and response speed (A. K. Smith et al., 1999), this study examined, in the context of denied service due to hotel overbooking, the role of overcompensation in shaping customers’ satisfaction with the service failure/recovery experience and their repatronage intentions.

The study’s findings suggest that to maximize customer satisfaction with the service failure/recovery experience, hotel operators should go beyond normal compensation (i.e., standard hotel industry “best practice”) and offer customers additional cash-based compensation when denied service. Based on the overcompensation amounts examined in this study, our results suggest that in addition to covering the reserved room rate at an alternative hotel (i.e., normal compensation), hotel operators may have to go as high as 100% above the value of reserved room rate in cash-based overcompensation to exert a significantly greater impact on customer satisfaction than normal compensation alone. Furthermore, our results suggest that by going beyond that level of overcompensation, hotel operators are unlikely to gain significant increases in customer satisfaction. In other words, within the range of compensation amounts tested, there is a point beyond which more is not better. Hotel operators need to be cognizant of this when assigning resources to service recovery efforts.

Furthermore, although cash-based overcompensation has a significantly greater impact on satisfaction than voucher-based overcompensation overall, voucher-based overcompensation can yield a significantly higher level of satisfaction than normal compensation alone if the overcompensation amount is sufficiently
large. Although we found that a lower amount of cash-based overcompensation, 100% less in terms of dollar value, is required to exert a greater impact on mean satisfaction ratings than voucher-based compensation, hotel operators need to consider the actual cost associated with both types of overcompensation. For example, would it actually cost the hotel operator less to offer the customer a $400-value voucher (assuming it is redeemed) than $200 in cash? From a practical perspective, the financial outlay associated with the two types of overcompensation has to be assessed. In other words, what is the impact on bottom line profit?5

Additionally, although it may be perceived that voucher-based overcompensation is the most effective form of overcompensation to employ as a means of encouraging repeat custom following a denied service experience, this study’s findings suggest that voucher-based compensation (irrespective of dollar value) does nothing more than normal or cash-based to increase repatronage intent. In fact, given that satisfaction with the service failure/recovery experience was found to have a direct positive effect on repatronage intentions, what really matters is employing those overcompensation strategies that will have the greatest positive impact on customer satisfaction.

Finally, our findings indicate that customers’ perceptions of relocation inconvenience have a significant impact on satisfaction with the service failure/recovery experience. Given that, and the nature of the relationship of satisfaction with repatronage intentions, it would behoove hotel operators to endeavor to minimize the amount of inconvenience that customers are subjected to when being walked. For example, proximity of the alternative hotel, speed of relocation, and relocation assistance need to be considered when putting a walk strategy in place. Selection of an alternative hotel property that is truly comparable in terms of service quality is another important consideration in terms walk strategy development.

**LIMITATIONS AND FUTURE RESEARCH DIRECTIONS**

This research has a number of limitations that can be addressed in future work. First, this study was limited to one service industry. Further research in other service environments where (a) the revenue management practice of overbooking is employed and (b) there are no federal laws governing compensation for walks, for example, restaurants and golf course operations, is needed to establish the generalizability of our findings. Second, although there are a number of advantages associated with employing an experimental approach to examine customer reaction to service failure/recovery experiences, not least ethical considerations and the managerial undesirability of actually imposing service failures on customers (A. K. Smith et al., 1999), alternative research methodologies that enable access to actual emotions experienced by the consumer following the service failure/recovery experience could be employed in future studies. For example, given that hotel companies sometimes go beyond industry best practice by providing some customers with additional benefits when denied
service (DeKay et al., 2004; Salomon, 2000), a survey approach targeting a cross-section of customers who have actually experienced denied service but have received different levels of compensation may provide an opportunity to gain additional insights. Third, in terms of dollar value, three levels of overcompensation were examined in this study. It would be interesting to build on the study’s findings by more precisely estimating the plateau within the range of dollar values tested. Future research could also examine the nature of the overcompensation amount–customer satisfaction relationship beyond the range of monetary amounts tested in this study.

Future work can also build on the findings of the present study in a number of ways. The moderating effect of a number of variables on customer reaction to type and/or amount of overcompensation offered in response to denied service could be tested. These include prior customer experience with the hotel and/or hotel chain, purpose of the hotel stay (e.g., a guest may react very differently to the denied service experience when the purpose of stay is business as opposed to leisure as examined in this study), and the time of day at which the walk takes place (e.g., being walked later, rather than earlier, in the day may be resented much more by the guest). The effect of customer affective commitment on customer reaction to overcompensation also merits examination. Mattila (2004) demonstrated that consumers’ affective commitment moderates their responses to service failures. Building on this, it would be beneficial to examine the impact of consumers’ affective commitment on the relationship of overcompensation (type and amount) with postrecovery satisfaction and loyalty. Additionally, given that previous research in consumer behavior has shown that stability attribution for service failure influences customers’ behavioral responses (Folkes, Koletsky, & Graham, 1987), future research could explore the role of attributions in customers’ reactions to overcompensation. The effect of overcompensation on customers’ perceptions of distributive justice and other outcome variables (e.g., word-of-mouth behavior) also merits examination.

While this study examined customer reaction to overcompensation in the context of involuntary walks, future research could examine the role of overcompensation, both type and amount, in the context of voluntary “walks” (i.e., management anticipates having to walk guests so guests checking in earlier in the day are asked to accept a walk voluntarily). Finally, this study examined the role of overcompensation in the context of a quick resolution, courteous apology, and explanation. Research that bundles overcompensation with different levels of these service recovery attributes may yield insights into the “best” (i.e., most satisfying) solutions for customers in response to denied service experiences.

NOTES

1. Although not debated here, we acknowledge that many service providers will still overbook when there is a “no-refund” policy in place (i.e., there is no loss of revenue for the provider because of a no-show).
2. It should be noted that in the case of hotels, factors such as guest overstays and unexpected maintenance problems can also lead to an oversell situation.

3. Although the focus of this article is denied service due to overbooking, we acknowledge that overbooking may not always lead to denied service. For example, if oversold on standard rooms, hotels will typically upgrade guests to a superior room type (e.g., a suite) if available. In the less ideal situation, where a hotel is oversold in a superior room category, management may decide to downgrade a guest to a lower standard of room rather than have to walk the guest.

4. Although cash-based overcompensation yielded significantly higher satisfaction ratings than normal compensation or voucher-based overcompensation, the relatively high satisfaction rating observed for the $400 voucher-based overcompensation condition ($M = 5.66$) prompted further analyses in an effort to gain greater insight into the differential impact of voucher-based overcompensation and normal compensation on satisfaction with the service failure/recovery experience. We conducted a follow-up ANCOVA with compensation, at four levels (normal compensation and the three voucher-based overcompensation conditions) as the independent variable. The main effect for compensation was marginally significant ($F = 2.49, p < .1$). Post hoc analyses indicated that the $400 voucher-based overcompensation condition yielded a significantly higher satisfaction rating than the normal compensation condition (Tukey’s HSD: at the .05 level).

5. While a comprehensive discussion of the costs of denied service for the hotel is beyond the scope of this study, we acknowledge that the actual cost of walking a guest can be affected by booking type. Consider, for example, a nonrefundable reservation via a merchant model-based online intermediary: If the management refunds what the guest paid to the Internet booking agent and provides a room at another hotel, walks are doubly expensive for the hotel, whereas the outcome for the guest is essentially the same as it would be for a guest who has a guaranteed reservation.

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