Pricing strategies to maximize revenues in the lodging industry

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Abstract

Price-ending strategies may be utilized by hotels to signal value or quality. The current study presents that there is a directional relationship between room rates and price-ending strategies. It demonstrates that as average room rates decrease, the price-ending strategies change from whole dollar practice to dollar and cents practice. Results from the qualitative investigation were compared with the room rates from the Internet for 10 US cities. Based on this study, an innovative pricing strategy is presented with a potential gain of $251 million dollars by conservative estimations (nearly $555 million if estimated liberally) annually for the hotel industry in the USA. These potential sales are about 0.54% of revenues and 3.9% of industry-wide pre-tax profits. Further studies in consumer acceptance of the recommended pricing strategy are suggested.

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1. Introduction

The purpose of this inquiry is to examine pricing strategies in the hotel industry so as to maximize revenues. A hotel may attempt to achieve a number of objectives when pricing their guestrooms. These objectives may include the following: optimize/
maximize profitability; maximize revenues; differentiate the product in the marketplace; increase or decrease the pace at which rooms are being sold; increase market-share of a specific brand; achieve a targeted contribution margin per room sold; and communicate price–value relationship of the product to the consumer. Whatever be the motivation, the price at which a hotel attempts to sell their guestrooms will undoubtedly send a message to the consumer. Current research focuses upon two price-ending strategies, commonly utilized in retail settings, to determine if they are utilized in the hotel industry. In the retail industry, these strategies are utilized to send messages about the inherent quality and value attributes of the products.

Previous research indicates that price endings may be utilized to send specific signals to consumers regarding the value or quality of a product. Through an analysis of hotel pricing on the Internet, coupled with qualitative interviews with hotel operators, this inquiry attempts to determine whether a relationship might exist between the message that hotel operators intend to communicate with consumers utilizing price and the price-ending strategies they adopt. Specifically, the factors that are considered by hotels in setting room rates are explored as well as how these factors impact the price-ending strategies utilized and whether the hotels consider the impact of these price-ending strategies on consumer perceptions. Finally, a price-ending strategy is proposed that can contribute significantly to the profitability of the hotel industry.

2. Significance of the study

The price-ending strategy utilized by a hotel can significantly impact the profitability of a hotel operation. Any additional guestroom rate that is earned from a price-ending strategy that increases the average daily rate (ADR) at which a room is sold contributes directly to the profitability of the hotel since no additional expense, with the exception of commission expense should the room be sold through a commissionable third-party, is incurred by the hotel simply because a higher room rate is charged to the consumer. For example, if a 300-room hotel is running 65% annual occupancy and a $1.00 per room night increase can be achieved in the ADR due to a change in price-ending strategy, this change in price-ending strategy will add $71,175 in additional profitability to the hotel’s earnings before interest, taxes, depreciation and amortization (EBITDA), the most common measure of hotel profitability from operations. If an operator has multiple hotels in their portfolio, the increase in profitability to the company as a whole can be dramatic.

This research will also serve as a foundation for additional inquiries into the effectiveness of various price-ending strategies. Once an understanding of the intentions of hotels is established and price-ending strategies are analyzed, researchers may want to then evaluate how various price-ending strategies are perceived by consumers. This may enable researchers to evaluate the effectiveness of various price-ending strategies and to make recommendations to hotels regarding how specific strategies might be modified in order to ensure that the intended
message is properly communicated to the consumer groups targeted by the hotel in order to maximize revenue and profitability.

3. Fundamentals of pricing

Economists might argue that pricing is regulated by the widely accepted principle of the elasticity of demand; however, pricing decisions are based on far more factors than fluctuations in demand relative to the available supply of a product or service. The costs associated with the production of the product, the relative quality of one firm’s product as compared to the quality of their competitor’s product, the cost of a substitute product, the value, length, and quality of the relationship between the vendor and the customer, and the overall pricing strategy of the firm itself are just some of the factors that might influence pricing. As a result, pricing is an art as much as it is a science: “It depends as much on good judgment as on precise calculation” (Nagle and Holden, 1995, p. 9).

Three common approaches to pricing are defined as follows:

1. **Cost-based pricing**: A financially driven approach to pricing in which products are priced to yield an equitable profit above and beyond all costs associated with the production of the product.

2. **Customer-driven pricing**: A market-driven approach to pricing in which prices are determined by the amount that customers are willing to pay for the product.

3. **Competition-driven pricing**: A market-driven approach to pricing in which prices are determined by the pricing level at which a targeted market-share level is attained by the firm.

Although these strategies appear to be rational approaches to the pricing dilemma, each of these pricing strategies has both pros and cons.

Cost-based pricing ensures that products are priced so that an equitable contribution margin is attained above and beyond the costs associated with the production of the product; however, it is difficult to appropriately determine the unit cost associated with the product since unit costs fluctuate with sales volume. This usually leads to over-pricing in weak markets and under-pricing when demand is strong, which is not prudent strategy.

Customer-driven pricing is typically driven by the sales organization and provides flexibility in pricing so that prices can be aligned with the amount that a customer is willing to pay. This strategy has two primary shortcomings, however. First, customers are not motivated to be candid relative to the price that they are willing to pay for a product. In addition, a sales organization’s role should not be to simply take orders at whatever price the customer is willing to pay. The responsibility of an effective sales organization is to “raise customers’ willingness to pay a price that better reflects the product’s true value” (Nagle and Holden, 1995, p. 8).

Competition-driven pricing is utilized to ensure that a firm achieves its desired market-share objective. This approach can often lead to inappropriate price cutting
as a firm seeks to gain market-share. Although price cuts may assist a firm in achieving a short-term sales volume goal, this strategy can be quickly matched by competitors, which initiates a downward spiral of prices. It is often more profitable for a firm to restrict its market-share goal, and to serve a specific market-niche, in order to be able to set a price for the product that generates an appropriate margin.

Nagle and Holden (1995) contend that a more profitable approach to pricing is value-based pricing. With value-based pricing, the pricing approach is reversed from cost-based pricing. Rather than starting with a product and then determining what price should be charged for the product, value-based pricing is initiated before investments are made. Products are designed and produced in an effort to meet a cost-performance target that is demanded by customers. Through this approach, consumers are provided with value. The role of the sales and marketing organization is then to “raise the customer’s willingness to pay a price that reflects the product’s true value” as opposed to merely processing orders at whatever price the consumer is willing to pay (Nagle and Holden, 1995, p. 8). Through a value-based strategy, a firm attempts to “maximize the difference between the value created for the customer and the cost incurred by the company” and the role of pricing is to ensure that the firm realizes an equitable reward, in the form of earnings, in exchange for creating value for their customers at minimal cost (Nagle and Holden, 1995, p. 8). An example of the successful implementation of a value-based pricing strategy in the hotel industry is Marriott’s development of the Courtyard mid-priced hotel product, which was a “textbook case of product planning…. When small-sized, medium-priced, high-style Courtyard by Marriott was finally unveiled in 1983, it really flew” (Marriott and Brown, 1997, p. 94). Many hotel products were developed in the 1980s and 1990s, which attempted to replicate this value-based strategy, including all-suite, extended-stay, and other limited-service properties, resulting in the segmentation of the industry. Each of these products attempts to offer value to a specific, targeted range of consumers.

A challenge that is often faced when attempting to apply a value-based pricing strategy relates to the willingness and ability for different groups of consumers to pay different price levels for a given product. One of the methods by which marketers overcome this challenge is by establishing segmented prices (Nagle and Holden, 1995, p. 210). Two approaches to price segmentation are by buyer identification and by time of purchase. The latter is known as peak-load pricing and is effective when demand for the product varies by time period and the product is not able to be stored, as with airline seats (Nagle and Holden, 1995, p. 215).

Price segmentation by both of these methods is very prevalent in the hotel industry. Hotels typically offer multiple tiers of rates including higher corporate rates, for travelers on company expense accounts, as well as discounted leisure rates for travelers that are bearing the expense of accommodations personally. In addition, American Automobile Association (AAA), American Association of Retired Persons (AARP), and a range of additional discounts are often available on a controlled basis. The availability of the various rates offered is determined through the process of yield management. Yield management is a sophisticated form of peak-load pricing in which the numbers of discounted rooms that are sold for any given
date are restricted based upon the anticipated demand for accommodations and the price elasticity within each of the various market segments. In an effort to maximize revenue, the hotel will only offer higher rack and corporate rated rooms during periods of high demand, while discounted rooms will be offered during low demand periods in an effort to stimulate demand (Shaw, 1984).

4. Price endings

Many researchers have hypothesized that price endings may be utilized by retailers to communicate information to consumers that a product is low-priced (Dodds and Monroe, 1985; Berman and Evans, 1986; Kotler, 1991, Nagle and Holden, 1995) or to communicate about the quality of a product (Alpert, 1971; Whalen, 1980; Bolen, 1982; Bagwell and Riordan, 1991). “Odd”, “just-below”, or “psychological” pricing are terms that are utilized synonymously to refer to the practice of pricing a product to take advantage of a perceived “price illusion”, which hypothesizes “that consumers systematically underestimate prices with just-below endings”. This hypothesis contends that consumers susceptible to this phenomenon perceive the price of $599 as “$500 and something” as opposed to “almost $600” (Huston and Kamdar, 1996). As cited by Schindler and Kibarian (1996), this debate was initiated by Bader and Weinland (1932). Despite the lack of conclusive empirical evidence supporting its effectiveness, just-below pricing has been utilized by retailers for years (Bizer and Petty, 2002). Some of the examples of price-ending strategies include the following ($122.49; $189.95; $69.95; $79.99; $49.99).

Two possible mechanisms are utilized to explain why odd-pricing may be effective in creating a perception that a product is less expensive. One is the underestimation mechanism (Georgoff, 1972; Lambert, 1975). This theory proposes that because numbers are read from left-to-right, the numbers to the right tend to be ignored since they are of lesser significance than the numbers to the left and, as a result, consumers tend to round prices down (Hinrichs et al., 1982; Poltrock and Schwartz, 1984). A second rationale is referred to as the association mechanism. Because just-under or odd-pricing is often utilized in advertising in conjunction with additional cues that appeal to price conscious consumers, odd-pricing has become associated with low-price-appeals. Consequently, when consumers see an odd-price they automatically assume that the product is low-priced even though a $0.99 price ending may not be related to the product being low-priced (Schindler and Kibarian, 1996; Schindler, 1991).

In a hospitality setting, research related to price-endings is limited. Price-ending research has not been conducted in the hotel business; however, Kreul (1982) studied pricing in the restaurant industry and concluded that price-ending strategies in restaurants mirror practices commonly utilized in retailing with low-priced, value-oriented restaurateurs most likely to utilize a price ending with the digit “9”. A more recent study within the hospitality industry, conducted by Naipaul and Parsa (2001), concluded that the use of a “9” price-ending signaled “value” to consumers while a “0” price-ending communicated ‘quality.’ This strategy conveys a message consistent
with previous findings that such price-endings communicate an image of “classiness” (Spohn and Allen, 1977, p. 188), “sophistication” (Raphael, 1968), “prestige” (Alpert, 1971, p. 112), or a “touch of dignity” (Feinberg, 1962). When utilized in a full-service, upscale hotel environment, such as Hyatt, Sheraton, Marriott, Hilton, or Westin, it implies that these hotels and their customers do not consider pennies in making hotel room purchase decisions. Thus, the following hypothesis:

**H1.** Upscale, full-service hotels tend to prefer a pricing strategy using whole dollars without using pennies (prices that end with “0.00”).

Since limited-service and economy hotels such as Motel 6 by Accor, Days Inn, Super 8, EconoLodge, or Microtel are generally priced lower than upscale, full-service hotels, a fraction of a dollar represents a greater percentage of the total room rate. It is proposed that limited-service, economy hotels are more likely to be motivated to charge a fractional dollar amount in order to boost the contribution margin of each room rented. In addition, the customer-base of limited service and economy hotels may be more price-sensitive and concerned with obtaining the best price possible. As a result, the following hypothesis is proposed:

**H2.** Limited-service, economy hotels tend to prefer a pricing strategy using dollars followed by cents (prices that end with cents such as “0.95; 0.99”).

Since upscale, full-service hotels are frequented on week nights primarily by upscale, business travelers that are reimbursed for their travel expenses, it is proposed that these quality-oriented hotels will utilize a round-pricing strategy (“0” or “5” ending) strategy during the week in an effort to communicate a quality image. While on the weekends, these hotels will utilize a just-under pricing strategy (“9” price ending) as they attempt to attract price-conscious weekend travelers by communicating a value image. Thus the next two hypotheses:

**H3.** While communicating a ‘high quality image,’ upscale, full-service hotels would use digits ‘0 or 5’ as the choice for price-endings.

**H4.** While communicating a ‘high value image,’ upscale, full-service hotels would use digits ‘9’ as the choice for price-endings. Since limited service and economy hotels are value-oriented these properties tend to utilize a just-under pricing strategy consistently. These properties prefer to communicate that they are competitively priced.

**H5.** While communicating ‘high value image,’ limited-service, economy hotels would use digits “0.99” as the preferred price-ending digits.

5. Research methodology

Data for this study were collected in two ways: (1) qualitative interviews with selected hotel executives; (2) comparison of published room rates obtained from the Internet. Qualitative interviews were determined to be the most effective way to
extract information regarding room rate strategies from industry experts due to the complexities involved in the pricing process and the exploratory nature of the study. The use of a survey or questionnaire would have hampered our ability to clarify information when necessary and much of the information related to pricing obtained is subject to a wide-range of interpretations. Owing to the sensitive nature of pricing information and confidentiality involved in pricing decisions, qualitative research methods were found to be most effective.

In this study, pricing strategies of two broad categories of hotels were analyzed:

1. Upscale, full-service hotels generally priced over a minimum price of $130 or higher per night rack rate. (2) The second broad segment includes hotels that compete primarily on value pricing such as high-end economy hotels with average room rates $100 or under per night. The room rates that are of interest in this study are non-qualified room rates offered to the general public as opposed to negotiated corporate rates or group rates.

5.1. Phase I—Qualitative investigation

Initial contacts were made with several upscale and economy properties with a request for participation in this study. Qualitative personal interviews were conducted with hotel managers and the executives responsible for pricing strategies at a property. The respondents included property level Revenue Managers, Guest Service/Operations Managers, Directors of Sales, and General Managers. Ten interviews were conducted with property-level managers, five for each segment. Eighteen open-ended questions were asked of each participant with an average interview time of 50–60 min per respondent.

During these interviews, an inquiry was made to understand the rationale for the chosen price-ending strategies. For additional clarification, the nature of the pricing strategy was also discussed with other senior executives such as Regional Vice Presidents, Vice President of Sales and Marketing, wherever appropriate. Some of the salient findings obtained from these qualitative interviews are summarized in Table 1.

5.2. Phase II—Internet data collection

Hotel room rates were obtained from the proprietary Internet websites of ten upscale, full-service hotel chains as well as ten limited service and/or economy hotel chains in ten different US cities. The lowest available, non-restricted rates were obtained for a mid-week stay as well as a weekend stay with February, 2004 being the proposed date of stay. February was chosen for this study to avoid the holiday rates of December. Rates were obtained from the proprietary websites, since rate quotes obtained from telephone calls to individual properties or toll-free reservation centers are subject to misquotes, management specials, daily fluctuations and human error. It is safe to assume that rates posted on the proprietary website have been established through the prescribed process and have been appropriately approved and verified (Table 2).
6. Results

In the qualitative interviews, eighty percent (80.0%) of the upscale, full-service hotels indicated that they utilize full dollar amounts with no pennies ("0.00" ending) when establishing room rates. This is consistent with the results from the Internet rate survey in which 93.3% of rates obtained for upscale, full-service hotels are priced utilizing whole dollar amounts. This indicates that the first hypothesis (H1), which states that **upscale, full-service hotels tend to prefer a pricing strategy using whole dollars without using pennies (prices that end with "0.00")**, is supported.
Table 2
Internet Survey of hotel room rates in ten (10) United States cities, proposed date-of-stay—mid-week, February 2004

<table>
<thead>
<tr>
<th>Brand</th>
<th>Atlanta</th>
<th>Chicago</th>
<th>Cincinnati</th>
<th>Houston</th>
<th>Kansas city</th>
<th>Los Angeles</th>
<th>New York</th>
<th>Orlando</th>
<th>Phoenix*</th>
<th>San Francisco</th>
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<td>182.10</td>
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<td>123.83</td>
<td>73.27</td>
<td>97.06</td>
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*In Phoenix, the Marriott and Westin properties are resort hotels located in Scottsdale and the Loews is a resort property in Tuscon.
Only 43.4% of limited-service, high-end economy, and economy hotels’ room rates obtained from the Internet rate survey utilize a dollar followed by cents pricing strategy. However, very interestingly, mid-priced limited service hotels, high-end economy hotels, and economy hotels utilized this price-ending strategy in 6.9%, 23.3%, and 85.0% of cases surveyed, respectively. This indicates that as a hotel’s room rates decreases, the likelihood that they will deploy a dollars followed by cents pricing strategy increases. This is also consistent with the qualitative interview results. None of the mid-priced limited-service or high-end economy respondents indicated that they utilized a dollar followed by cents pricing strategy while 100.0% of the economy respondents indicated that they utilize this strategy. As a result, second hypothesis (H2) which indicates that limited-service, economy hotels tend to prefer a pricing strategy of using dollars followed by cents (prices that end with cents such as ‘‘0.95; 0.99’’) is partially supported in case of economy hotels but not in case of mid-priced hotels.

In the qualitative interviews, one out of five (20%) upscale, full-service hotel respondents indicated that they utilize primarily ‘‘0’’ and ‘‘5’’ price-endings in order to communicate a message of quality. In the Internet rate survey, two of the ten upscale, full-service brands surveyed utilize primarily ‘‘0’’ and ‘‘5’’ price-endings. One of the brands represented utilized a ‘‘0’’ or ‘‘5’’ price-ending strategy in 9 out of 10% or 90.0% of the cities surveyed. The other operator utilized a similar strategy in 3 out of 5 (60.0%) cities that were surveyed and they had properties. When combining these two brands, 80% of these hotels utilize a round pricing strategy with rates that end in a ‘‘0’’ or ‘‘5’’. Officials with both of these brands indicated that this price-ending strategy is utilized since their customer-base is sophisticated and this strategy signals that their brand is equally sophisticated and of a high quality. This indicates support for hypothesis three (H3) stating that, while communicating a ‘‘high quality image,’’ upscale, full-service hotels would use digits ‘‘0 or 5’’ as the choice for price-endings.

Of those upscale, full-service respondents that utilize a whole dollar pricing strategy, three out of four (75.0%) use primarily a ‘‘9’’ price-ending strategy. In the Internet rate survey, 78.6% of the upscale, full-service room rates are quoted in whole dollar amounts ending in ‘‘9’’. The respondents to the qualitative interviews indicated that this ‘‘just-under’’ pricing strategy is utilized since it is assumed that the consumer perceives the rate to be less expensive if it ends in ‘‘9’’ as opposed to being rounded up to the next round dollar amount, which increases the tens digit. These findings indicate support for the fourth hypothesis (H4), which proposes that, while communicating a ‘‘high value image,’’ upscale, full-service hotels would use digits ‘‘9’’ as the choice for price-endings.

When utilizing a dollar followed by cents strategy, economy hotels utilized a ‘‘0.99’’ price-ending strategy in 44.2% cases in the Internet rate survey that was conducted. In the qualitative interviews, two of the three (66.7%) operators that utilize a dollars followed by cents strategy utilize a ‘‘0.99’’ price-ending strategy, while one (33.3%) utilizes a ‘‘0.95’’ price-ending strategy; both of these strategies can be interpreted to be a ‘‘just-under’’ pricing strategy. These results, however, fail to provide conclusive support for hypothesis five (H5), which proposes that while
<table>
<thead>
<tr>
<th>Price-ending strategy</th>
<th>Upscale, full-service (%)</th>
<th>Mid-priced, limited-service (%)</th>
<th>High-end, economy (%)</th>
<th>Economy (%)</th>
<th>Total limited-service &amp; economy (%)</th>
<th>All hotels (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Of whole-dollar price-endings to communicate a value image (&quot;9.00&quot;)</td>
<td>78.6</td>
<td>74.1</td>
<td>73.9</td>
<td>16.7</td>
<td>67.9</td>
<td>74.3</td>
</tr>
<tr>
<td>% Of whole-dollars price-endings to communicate a quality image (&quot;0.00&quot; or &quot;5.00&quot;)</td>
<td>16.7</td>
<td>7.4</td>
<td>8.7</td>
<td>0.0</td>
<td>7.1</td>
<td>12.9</td>
</tr>
<tr>
<td>% Of additional whole-dollar price-endings</td>
<td>4.8</td>
<td>18.5</td>
<td>17.4</td>
<td>83.3</td>
<td>25.0</td>
<td>12.9</td>
</tr>
<tr>
<td>% Of total rate quotes using whole dollar price-endings</td>
<td>93.3</td>
<td>93.1</td>
<td>76.7</td>
<td>15.0</td>
<td>56.6</td>
<td>74.1</td>
</tr>
<tr>
<td>% Of dollars-and-cents endings to communicate value image (&quot;0.99&quot; or &quot;0.95&quot;)</td>
<td>100.0</td>
<td>50.0</td>
<td>0.0</td>
<td>52.9</td>
<td>44.2</td>
<td>51.0</td>
</tr>
<tr>
<td>% Of additional dollar-and-cents price-endings</td>
<td>0.0</td>
<td>50.0</td>
<td>100.0</td>
<td>47.1</td>
<td>55.8</td>
<td>49.0</td>
</tr>
<tr>
<td>% Of total rate quotes using dollar-and-cents price-endings</td>
<td>6.7</td>
<td>6.9</td>
<td>23.3</td>
<td>85.0</td>
<td>43.4</td>
<td>25.9</td>
</tr>
</tbody>
</table>
communicate ‘high value image,’ limited-service, economy hotels would use digits ‘0.99’ as the preferred price-ending digits (Table 3).

7. Discussion

It is apparent from this study that the price-ending strategies that have been applied within the retail and restaurant industries are being utilized in the hotel industry as well. Just-under or odd-pricing strategies are utilized intentionally to signal value while round price-endings of ‘0’ and ‘5’ are utilized to signal quality. The most commonly used pricing approach in the industry, utilized in 74.1% of the room rates recorded in this survey, appears to be the use of whole-dollar pricing; however, as a hotel’s rate level decreases the likelihood increases that dollars and cents pricing will be utilized. Upscale, full-service hotels utilized whole dollar pricing strategies without utilizing pennies (rates that end with ‘0.00’) in 93.3% of the rates obtained in this survey while mid-priced limited-service properties utilized this strategy in a nearly identical 93.1% of cases. Whole dollars were only utilized by economy hotels in 15.0% of cases. The most frequent price-ending is ‘9’ when whole dollar pricing is utilized occurring in 78.6% of instances with upscale, full-service hotels and 74.1% of cases with mid-priced limited-service properties. Only two of the ten upscale, full-service brands surveyed utilize a price-ending strategy to communicate quality in a majority of instances.

It is also interesting to note that odd-pricing is utilized in all markets including very expensive markets such as New York City, where the average rate is $252.60 for the upscale, full-service hotels surveyed, and a ‘9’ price-ending to communicate value is utilized by 90.0% of the hotels surveyed. This strong commitment to communicating value by hotels may be in response to the current state of the industry, which has been negatively impacted by a decrease in demand for hotel accommodations since the terrorist attacks in the United States on September 11, 2001.

When a dollars followed by cents approach is utilized, odd-pricing is utilized only 51.0% of the time. Accor Hotels, with their Red Roof Inn and Motel 6 brands, utilize ‘0.99’ price-endings almost exclusively, while Cendant properties, including Days Inn and Ramada Limited, did not utilize ‘0.99’ or ‘0.95’ pricing at all. One Days Inn property indicated that they utilize a ‘0.95’ pricing strategy when quoting rates from the property, yet the Internet rate survey indicated that they are utilizing a different dollar followed by cents price-ending strategy through this marketing channel. Additional inquiry will need to be made regarding Cendant’s rate strategies.

Because limited-service and economy hotels are generally priced lower than upscale, full-service hotels, a fraction of a dollar represents a greater percentage of the total room rate for these hotels. For example, upscale, full-service room rates typically range from approximately $100 to $190 and, as a result, a $0.95 add-on only increases the room rate for 0.50–0.95% whereas for economy hotels a $0.95 add-on represents a 1.58–2.71% increase since rates in this segment typically run $35–$60 per night. This may provide one explanation as to why limited-service,
economy hotels charge a fractional dollar amount more frequently. Although the fractional dollar add-on represents a smaller percentage increase in per room contribution margin for upscale, full-service hotels, it still represents a significant increase in profit dollars for these hotels since upscale, full-service hotels generally have a greater number of guestrooms on average. According to the American Hotel and Lodging Association (2003), the average number of guestrooms in a hotel charging under $60 per night is 66.3, while the average number of rooms in hotels charging more than $60 is 124.6. Consequently, the add-on makes a significant contribution to the profit level of an upscale, full-service hotel even though the add-on represents a smaller percentage of the overall rate. Recall that it has been demonstrated that a $0.95 increase in the average daily room rate (ADR) of a 300-room hotel with 65% average occupancy can increase the hotel’s EBITDA (earnings before interest, tax, depreciation and amortization) by nearly $70,000.

8. Pricing strategy to maximize lodging industry revenues and profitability

In the qualitative interviews, one hotel manager indicated that their hotel management company, which operates upscale, full-service hotels, has added $0.95 to all published room rates. After adapting this pricing strategy for more than 1 year there has been no negative feedback from customers on this practice. If there were a sufficient number of customer complaints or protest to this policy of adding 0.95 to the published rates, the hotel management company was willing to change the policy. But they did not experience any customer complaints on this strategy. During the same period, properties managed by this management company did not experience any loss in customer counts while adding a significant amount to the EBITDA. Further inquiry during the interview process has revealed that a majority of the customers at the high-end, full-service hotels often pay hotel bills with a credit card, and are most likely on a business account. Since the addition of $0.95 to the average rack rate of $130–250 has negligible economic impact on the total bill (less than 0.005%), the customers may not have even noticed the additional amount. Even if they were to notice it, they may have considered it as too trivial to complain about.

The preceding scenario raises an interesting question, if the customers of high-end, full-service hotels are not sensitive to the practice of adding $0.95 to the rack rate, what economic impact would it have on a property’s revenues and profitability? Is it worth considering it, from economic perspective? How does it effect consumer perception of a property or the industry? We try to address the first question by measuring the potential financial impact of implementing this odd-pricing strategy industry-wide. The second question can be answered by conducting consumer studies. Focus of the current paper is limited to the first question. Investigation of consumer response to the proposed price-ending strategy is outside the scope of the current paper.

According to the American Hotel and Lodging Association (2003), the lodging industry has grossed $14.2 billion in pre-tax profits on revenues of $102.6 billion in 2002 with 47,040 hotel properties and 4,397,534 guestrooms. The number of hotels in
the USA that charge rates in excess of $60 per night are about 21,929 representing 2,731,636 hotel rooms. In 2002, the industry-wide occupancy rate was 59.1% with 29% individual business travelers, 25% conference attendees, 24% vacationers and 22% others. In addition to the above facts, the following assumptions were made:

1. Approximately, 90% of hotels charging $60 or more per night for accommoda-
tions are utilizing whole-dollar pricing—as shown in this study.
2. Approximately 15% of hotels charging less than $60 are utilizing whole-dollar pricing (per this study).
3. About 50% of business travelers and 33% of leisure travelers obtain a special, qualified rate.
4. The use of a $0.95 price-ending strategy can be applied to all guests that are not receiving a special rate, qualified rate, or group rate.

Based on the above numbers and stated assumptions, the effect of new pricing strategies on industry-wide revenues and profits can be estimated in two ways: (1) conservative estimations; (2) liberal estimations. (For details please see Appendix A).

9. Conclusions

Price-ending strategies may be utilized by hotels to signal value or quality. Although this study provides a clear indication regarding the intentions of hotels relative to price-ending strategies, how consumers actually interpret these different strategies has not been determined by this study. As a result, a follow-up study is planned to explore how these strategies are interpreted by the consumer.

For example, consumers undoubtedly obtain quality cues from variables other than the price endings, such as brand affiliation and relative pricing levels. Consequently, it may be beneficial to utilize a “0.99” or “0.95” consistently since it has been demonstrated that the implementation of such a price-ending strategy can significantly impact the profitability of a hotel, and potentially the industry as a whole. The majority of hotels (74.3%) are currently utilizing a whole-dollar pricing strategy with a “9” ending to communicate value. A move to a dollar followed by cents strategy that also communicates value is not a significant departure from the present strategy prevalent in the industry, yet the potential rewards by such a shift are great. For hotels currently utilizing a whole-dollar, round pricing strategy ending in “0” or “5” to communicate quality, this change in price-ending strategy could add $4.95 or $9.95 to published rates as rates are increased to end with a “9.95”, greatly multiplying the benefits of an “odd-pricing” strategy for these hotels.

In more conservative terms, if all properties in the USA add $0.95 to all published non-qualified rates, it will result in nearly $251 million in potential industry-wide profit which is 0.25% of revenues and 1.76% of pre-tax profits. But if estimated in more liberal terms, the potential gains in revenues and pre-tax profits could be about $555 million which is 0.54% of industry-wide revenues and 3.90% of pre-tax profits.
Negative impact of such a practice is negligible as demonstrated by one hotel company managing full-service, high-end properties using this strategy. This odd-pricing strategy has resulted in about $2,450,000 EBITDA annually for this company.

Until more empirical research is conducted, the debate relative to price-ending strategies and their effectiveness will continue. Further consumer studies with price-ending strategies are highly recommended.

Appendix A

Conservative estimation of effect of new pricing strategies on hotel revenues and profits

1. **Upscale, full-service hotel rooms**: There were about 530,329,374 room nights generated in the upscale, full-service hotel segment. This number was calculated by using the following calculations: 2,731,636 rooms priced over $60 × 59.1% annual occupancy × 365 days in 1 year × 90% utilizing whole-dollar pricing.

2. **Economy hotel rooms**: Total economy hotel room nights generated were estimated at 53,903,878 per year. This number was obtained with the aid of following calculations: 1,665,898 rooms priced under $60 × 9.1% annual occupancy × 365 days in 1 year × 15% utilizing whole dollar pricing.

3. **Total room nights rented** = 584,233,252: This was obtained by adding total room nights rented from upscale and economy segments per year (530,329,374 + 53,903,878).

4. **Total rooms receiving discounts and special rates**, etc.: Total rooms receiving special rates and discounts were estimated as 319,458,743. This number was calculated by adding rooms reserved by three discount groups and adjusting them per assumptions with the following formula (half of 29%, representing the business travelers with special, qualified rates (584,233,252 × 50% × 29%) = 84,713,822; meeting attendees (25%) and receiving group rates (584,233,252 × 25%) = 146,058,313; and 33% of 46% that were traveling on vacation or for other reasons (584,233,252 × 33% × 46%) = 88,686,608).

5. **Total rooms available for new pricing strategy**: The total number of rooms available to implement the new pricing strategy is estimated to be 264,774,509. This number was calculated by subtracting total discount rooms from the total room nights rented (584,233,252–319,458,743).

6. The new odd-ending pricing strategy of adding ‘0.95’ after the rack (quoted) rate can be implemented for all room nights available for new pricing strategy after adjusting for discounts and specials (264,774,509 room nights). These rooms represent direct sales to transient and non-group guests.

7. **Potential revenue maximization with the new pricing strategy**: Potential gain in revenues when the new pricing strategy is implemented is estimated as $251,535,784. This number was calculated with the following formula (total room nights available × $0.95 = 264,774,509 × 0.95 = 251,535,784).
8. Consequently, this strategy could potentially add $251,535,784 to industry revenues, which represents a 0.25% increase over the current industry-wide revenues.

9. Potential increase in pre-tax profits: Because no significant increase in costs will be incurred through the implementation of this strategy, pretax profits will also be increased by approximately $251 million or 1.76% of industry-wide profits.

As demonstrated by a hotel company that manages several upscale, full-service hotels in the USA, this $251 million can realized without sacrificing any customer satisfaction.

The preceding calculations were based on conservative estimations of available room nights per year by deducting special rates and group business; however, the above estimations can also be calculated in a more liberal manner. If the odd-price-ending strategy is implemented industry-wide in the USA without any giving any exceptions to group business and special rates, then the potential impact on revenues and the profitability of the hotel industry would be much more significant. As a proof of this assumption, a liberal estimation of the effects of odd-price-ending strategies on industry-wide hotel sales and profitability is presented here.

**Liberal estimation of effect of new pricing strategy on hotel revenues and profits**

1. Total room nights rented per year = 584,233,252.
2. Amount of odd-price added to each room rented after the dollar amount = $0.95
   
   Potential Impact on Revenues = total room nights rented per year × $0.95 = $555,021,589.
3. New revenues as a percentage of industry-wide sales = new revenues/industry-wide revenues = $555,021,589/$102,600,000,000 = 0.54% increase in industry-wide revenues.
4. Potential impact of new gains on pre-tax profit = new gains/industry-wide pre tax profits = $555,021,589/$14,200,000,000 = 3.91% improvement over existing profits.

**References**


Whalen, B.F., 1980. Strategic mix of odd, even prices can lead to increased retail profits. Marketing News 13, 24.