Competitive Pricing in European Hotels

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This chapter examines the pricing, demand (occupancy), and revenue per available room (RevPAR) dynamics of European hotels for the period 2006-2007. The importance of understanding the pricing behavior of direct competitors is critical to effective strategy formulation and meaningful industry analysis. Nevertheless, existing demand studies miss a critical link to local market dynamics. This study offers an alternative approach to examining competitive set pricing behavior that yields insights into the inelasticity of lodging demand. The results of this study of over 3,000 European hotel observations reveal that hotels that offered average daily rates (ADRs) above those of their direct competitors had lower comparative occupancies but higher relative RevPARs. The observed pattern of demand and revenue behavior was consistent for hotels in all market segments from luxury to economy. Country-specific analyses reveal a similar pattern, with more volatility in the results for hotels in Spain and Italy. Overall, the results suggest that the best way for a hotel to have higher revenue performance than its competitive group is to maintain higher rates. The results of this study support the position that hotel operators who resist pressures to undercut competitor's prices may be better served with higher revenues.

Introduction

What is the effect on a hotel's performance when it chooses to price higher or lower than other hotels in its competitive group? A competitor's decision to drop or raise rates is a key factor in how a hotel prices its own products. Who is most successful in the market, the player who sets their prices above those of the competition or the one who offers lower prices? Competitive pricing plays an important role in both performance and strategy formulation of a hotel (Schwartz, 2006). Indeed, pegging prices to a competitor's prices is a common practice in the industry, as is setting price based on costs (Sahay, 2007). The purpose of this chapter is to explore what happens to revenue per available room (RevPAR) when a hotel sets its price higher or lower than the prices of the group of direct competitor hotels.

Industry analysis that includes a systematic examination of direct competitor performance is a key element of strategy formulation and has only seen limited use in the

lodging industry, primarily in the United States where data gathering until recently was more comprehensive and available to academics (Canina & Enz, 2006). In the European lodging industry, in particular, gathering market data on direct competitors in multiple markets and conducting empirical performance comparisons are necessary to understand pricing strategies. As a result, the main objective of this study is to explore pricing strategies of competitive hotels in Europe by examining both hotel segments (e.g., luxury, mid-priced, and budget) and specific country dynamics (e.g., United Kingdom, German, Italy, Sweden, and Germany). In addition, this study advances an approach to understanding lodging demand that offers more meaningful competitive comparisons than the traditional demand-based economic models currently offer.

Why some competitors drop their prices and why others follow is of vital importance to strategic leaders, particularly during economically challenging times when demand drops and cost pressures mount. Reference pricing is when a hotel prices with its competitors in mind and typically with the goal of enhancing revenue by stimulating greater demand for their products. Consumers frequently engage in reference pricing as well when comparing two competing hotels at a given point in time and when comparing current prices to prior pricing experiences. The underlying premise is that consumers do not respond to absolute prices, but to prices relative to the reference price (Thaler, 1985). The reference prices used in these comparisons may be contextual or temporal. Jacobson and Obermiller (1990) found that reference prices were contextual such that a brand's expected price was determined primarily by its current price and those of other brands.

Research has identified various factors that shape pricing decisions including cost, value, and elasticity (Stibel, 2007; Canina & Enz, 2006). The idea that prices depend mainly on the costs of labor and materials suggests that firms delay price increases until costs rise. During slow demand periods, businesses may delay price reductions for the same reason. The cost-based pricing perspective is not new and argues that prices react to costs with a lag (Gordon, 1981). However, service firms such as hotels have shorter production cycles and thus may have shorter lags in cost-based price adjustment. Nevertheless, hotel operators realize that cost has little to do with a customer's willingness to pay and only shapes the pricing floor or minimum price necessary. Customers are willing to pay a given price for a hotel on the basis of the value they believe they will get. For example, Gupta (1988) found that price discounts had only a small effect on consumers' timing and quantity of purchases but a strong effect on brand choice. Price differences led consumers to switch brands more than change how much or when they buy.

Other theorists have suggested that during business downturns, companies lose their least loyal customers first and retain their most loyal (Blinder, Elie, Canetti, Lebow, & Rudd, 1998). It is these loyal customers that are not sensitive to price, thus discounting will not stimulate revenues. Another view suggests that customers view price as an indication of quality, and thus, lowering prices may signal a reduction in quality. The view that loyal customers are not price sensitive appears to be stronger in manufacturing industries, while the

view that customers judge quality by price appears to be stronger for service firms (Blinder et al., 1998). Both views would suggest that price reductions may harm the businesses that deploy the strategy. According to these two views, value pricing (lowering rate) to satisfy customers' demand for a better deal can be extremely risky and is not a substitute for maintaining high quality (Hayes & Huffman, 1995). If dropping price can increase market share through larger volume, and the extra costs are less than the extra revenue (i.e., the profit margin is not shrinking), then discounting rates can improve revenues. This view assumes that demand is elastic and can be stimulated by changes in price. Of course, if discounting overtaxes the staff and facilities, the long-run benefit may be diminished. In the hotel business, this happens when extremely high levels of occupancy make it difficult to maintain the physical facility and put stress on staff to deliver consistent service quality.

Despite the importance of understanding the impact of pricing decisions facing a firm in the lodging industry, there are few studies addressing this issue (for exceptions, see Hiemstra & Ismail, 1993; Canina & Enz, 2006; Canina & Carvell, 2005). Conventional wisdom and micro-economic theory suggest that when prices fall, the quantity demanded for a given product will rise. This fundamental principle is based on the premise of the downward sloping demand curve (with price on the vertical and quantity on the horizontal axes). As prices fall, the quantity demanded will rise holding everything else constant. Falling prices and rising quantity demanded is thought to result in higher revenue, but this pattern of behavior may not in fact lead to revenue increases. Indeed, increased revenue depends on the price elasticity of demand. If lodging demand is price elastic, then as prices fall, revenue will increase. If lodging demand is price inelastic, then the percentage change in consumer demand is less than the percentage change in price. Under this situation, as prices for hotel rooms fall, revenue will fall because consumers will not significantly increase the quantity of hotel products they purchase enough to offset the price reduction.

To determine how pricing decisions impact performance, estimates of the price elasticity of demand as well as other parameters are often required. By examining the few published studies, it is evident that various approaches exist for calculating demand elasticities. Furthermore, these analyses focus on the elasticity of demand for the lodging market as a whole, not the elasticities experienced by distinct countries, markets, or individual firms.1 Outside of the lodging industry, academic researchers have frequently pursued methods to estimate price elasticity of market-level demand in various industries (Chung, 2006; Garcia & Tugores, 2006; Skuras, Petrou, & Clark, 2006). Unfortunately, the estimates produced in many studies have wide confidence intervals due to an array of complex empirical problems, and as a result, these studies do little to clarify demand conditions for those practicing managers who require guidance in establishing a pricing strategy.

We propose an alternative to calculating demand elasticities, to focus on understanding the impact of individual hotel pricing decisions vis-a-vis direct competitors' prices, revenues, and occupancies. By analyzing local hotel competitors' relative occupancies and RevPARs in the

context of comparative pricing behavior [e.g., percentage difference from competitor, average daily rates (ADRs)], our approach allows the exploration of the impact on demand and rooms revenue of pricing differences among hotels that directly compete in local markets. To prepare owners and operators for how to consider making wise strategic pricing decisions, this chapter examines the relationship between competitive pricing, demand, and RevPAR in various European countries during the period 2006-2007.

Understanding relative pricing practices helps us move beyond the cost- plus approach to pricing, in which operators focused on their costs plus the addition of a markup. While incremental cost considerations are important to assure revenue maximization, pricing that takes into consideration the strategies of other competitors will be the focus of this study. Our goal is to understand relative pricing behavior of direct competitors. As a starting point for analysis, we focus on hotel rate setting in comparison to the pricing behavior of competing hotels. The study looks at hotels that price above and below their competitors and how these hotels compare on customer demand and overall rooms revenue. We acknowledge that cost and total revenue management issues are critical in making pricing decisions, but this investigation focuses only on issues of relative demand in competitive situations. Our decision to examine relative pricing behavior among competitors is due to the fact that many individual hotels are profoundly influenced by the actions of their direct competitors. If competing hotels in a local market drop prices often, owners and operators of comparative hotels feel pressure to follow these actions by dropping prices too in order to maintain parity with their competitive set and avoid losing demand share.

Lodging Demand Literature

A multitude of demand models and functional forms have been used in the literature (e.g., see, Chung, 2006; Garcia & Tugores, 2006; Skuras et al., 2006; Li, Song, & Witt, 2004). The outcomes from these studies vary widely due to factors such as differences in the choice of mathematical models, estimated functional forms, level of aggregation, consideration for time (e.g., time series vs. cross-sectional study design), and duration of the study (short run vs. long run) (Divisekera, 2003; De Mello, Pack, & Sinclair, 2002; Turner & Witt, 2001; Lim, 1997; Crouch, 1992, 1994, 1995). The results from empirical studies on price elasticity of demand are disappointing as a result of the methodological flaws and varied operationalizations across studies.

Economists have employed a wide array of approaches to estimating demand and supply for differentiated products such as hotels (Rosen, 1974). However, there is still no agreement as to the best way to estimate elasticities for products differentiated by several attributes.

Many of those who estimate the impact of various factors on the demand for hotel room nights focus on aggregate room demand as measured by the total number of rooms sold across all U.S. markets at all price points. These models are usually estimated using average

prices for properties with varying quality in different market segments, across geographical locations yielding single industry-wide own price elasticity estimates (Canter & Maher, 1998; Jogaratnam & Kwansa, 1990). These aggregate demand models estimate the price elasticity of demand for the lodging industry as a whole, but these estimates are not valid in evaluating pricing strategies at the property level. It is not meaningful to apply overall industry estimates of demand, supply, or price elasticity to a particular property or local market, just as you would not use average overall industry forecasts of occupancy and ADR as estimates in a local market. Occupancy and ADR are forecasted controlling for market segment, full and limited service, size, price range, and geographical location. Individual products' attributes and their market position are required as inputs to the demand estimation procedure. In sum, aggregate demand estimates are of limited practical use to hotels facing property-specific demand and pricing challenges. Changing market conditions and uncertainty also render the estimates largely inaccurate or outdated over time, leading managers to steer clear of estimating demand curves when making pricing decisions.

A few consulting and economic forecasting companies provide aggregate- level models of lodging demand and supply as forecasts of ADR and occupancy for various ranges of price, number of rooms, and broad categorizations of locations . These models are reestimated periodically to revise their estimates using the most recent industry data. However, estimates of the hotels' own-price elasticity and cross-price elasticities are not published, and the consulting practices protect the details of their estimation methodology as proprietary information.

In our review of lodging demand studies, no current research exits that provides an estimate of a system of supply and demand at the hotel property level that accounts for both local market competitive conditions and the hotel attributes. Furthermore, current studies have not estimated systems of both supply and demand at the aggregate level. A few studies do exist that examine demand-related issues controlling for hotel differentiation and geographic markets. Hiemstra and Ismail (1990, 1993) found that the price elasticity of demand varied across hotel segments' room rates, using two samples of aggregate data divided into categories of high- and low-priced hotels. They estimated that the price elasticity of demand was -.35 for low- priced properties and -.57 for high-priced properties. In addition, they found that the estimated parameters varied relative to a geographic market's population. Damonte, Domke-Damonte, and Morse (1998) found that the price elasticity of demand varied using aggregate county-level data for two adjacent counties: Columbia County recorded a significant price elasticity of demand of between —0.8 and —1.8, while Charleston County's price elasticity of demand was insignificant between —0.1 and —0.3. Note the wide range of estimates and the difference in the estimates across the two locations.

Using property-level data in major metropolitan locations, Canina and Carvell (2005) found that demand is price inelastic, and price elasticity measures vary across market segments. The authors control for quality differences by analyzing the effects of income,

consumer confidence, own price, and cross prices by market price segment. They report that the price elasticity was about —0.14 across market segments and ranged from —0.31 to —0.11 by market segment. This is the only study that estimates the price elasticity at the hotel level. While their results show that demand is price inelastic, their estimates apply only to urban hotels in major metropolitan markets in the United States, and their elasticity estimates may not be applicable to other markets or countries. However, their results indicate that price discounts may not enhance revenues because the price elasticity of demand is inelastic. The inconclusive findings and gaps in previous literature indicate that a study that focuses on pricing behavior of individual hotels and examines local market competitors is an important addition to our understanding by offering a more plausible approach to examining firm behavior.

Method

Sample

The focus of this study is on individual hotels and their direct competitors in local European markets. In cooperation with Smith Travel Research (STR), we explored pricing behavior using 3,042 hotel observations over the two- year period, from 2006 through 2007. The sample size changed from year to year, ranging from 1,409 (in 2006) to 1,633 (in 2007) hotels.

We obtained monthly property-level data along with the corresponding competitive set data for each of the two years from STR Global (a subsidiary of STR). All dollar-denominated variables were supplied in U.S. dollars.

Variables

The key variables of interest in this study are the percentage differences between each hotel and its competitive set of hotels on price, demand, and revenue metrics. Annual ADR, occupancy, and RevPAR were computed for each property in the sample and each property's competitive set. The percentage difference in ADR was used as the basis for making comparisons among the pricing strategies of hotels relative to their competitive set. To calculate percentage difference in ADR, the annual ADR of a competitive set was subtracted from the annual ADR of each hotel and compared to the annual ADR of the competitive set, expressed as a percentage. For example, if a specific hotel had an annual ADR of $50.00, and the annual ADR of the competitive set was $60.00, the percentage difference would be —16.7 percent ([$50.00—$60.00/$60.00] x 100). As rates charged by the hotel in this example were lower than those of its competition, we would say that the percentage difference in ADR was negative, and the hotel's $50.00 price represents a difference of 16.7 percent below its competitive set. The percentage differences in RevPAR and occupancy were also computed and graphed to show the impact of pricing differences among competitors on both occupancy and RevPAR. The relevant competitors for inclusion in a given hotel's competitive set were determined by the individual hotels that provided their competitive set choices to the data provider. We relied on the individual hotel's selection of competitors for this study.

Data were analyzed on a yearly basis rather than on a monthly basis to minimize pricing irregularities that may have occurred in a particular month that are not representative of the property's overall pricing strategy (Ismail, Dalbor, & Mills, 2002). We aggregated monthly room data for the property and competitive set to arrive at the annual number of rooms sold, annual number of rooms available, and annual rooms revenue for each property and for each property's competitive set for each year. The data provider requires a minimum of four properties to constitute a competitive set. The relevant competitors were determined by the individual hotels that provided their competitive set choices. The data were broken down into various subgrouping by market segment and country for additional analysis. Properties that had less than 12 months of data were eliminated from the sample.

To provide a conservative test of comparative pricing behavior, we eliminated any hotel types with unique demand configurations (e.g., extended-stay or resort hotels). It is important that the performance of a given hotel is comparable to that of its competitive set; otherwise, the study may error on the side of comparing substantially different types of hotels. To ensure the results were not driven by noncompetitors, we also excluded properties that were not comparable performers. Noncomparable properties were defined as those properties in which the absolute value of the percentage difference in RevPAR exceeded one standard deviation from zero in the preceding year. All properties in which the percentage difference of RevPAR exceeds one standard deviation for the prior year were eliminated from the study. All data were examined in U.S. dollars. Finally, the pricing strategy of a given hotel in a given year was categorized into 1 of 10 groups based on the percentage difference in ADR. These pricing strategy groups ranged from a category of 30 percent lower than the competitive set to a group that priced 30 percent higher. The steps in data transformation are summarized below:

- Step 1: *Exclusions* - Excluded extended-stay and resort hotels. Eliminated hotels with less than 12 months of data.
- Step 2: *Performance outliers* - Eliminated hotels that were not comparable to competitive set. Performance outliers are those in which the percentage difference in annual RevPAR for the preceding year exceeded one standard deviation from zero.
- Step 3: *Pricing strategy categories* - Categorized hotels into groups based on percentage differences in ADR relative to the hotel's competitive set. Range of up to 30 percent lower or higher than competitor.

Findings and Discussion

European Overall Effects

The initial analyses (Fig. 1) show the average percentage difference in occupancy and RevPAR performance across hotels that raised or lowered their ADRs compared to their competition. Overall, for hotels that dropped their price relative to their competitive set,

average percentage differences in occupancies were higher, but average percentage differences in RevPARs were lower compared to their competition. This pattern of higher occupancy but lower RevPARs when pricing lower than competitors was true for hotels in both

	15-30%	10-15%	5-10%	2-5%	0-2%	0-2%	2-5%	5-10%	10-15%	15-30%
		Lower						Higher		
—Occupancy 2006	7.82	3.68	2.86	3.07	0.24	1.47	1.03	-1.69	-2.92	-8.35
—RevPAR 2006	-12.56	-8.96	-4.78	-0.42	-0.85	2.42	4.59	5.57	9.03	9.65
—Occupancy 2007	7.94	3.66	1.63	1.82	0.28	0.61	0.46	-1.21	-2.78	-8.29
—RevPAR 2007	-12.61	-9.18	-5.89	-1.77	-0.71	1.59	4.01	5.95	9.04	10.42

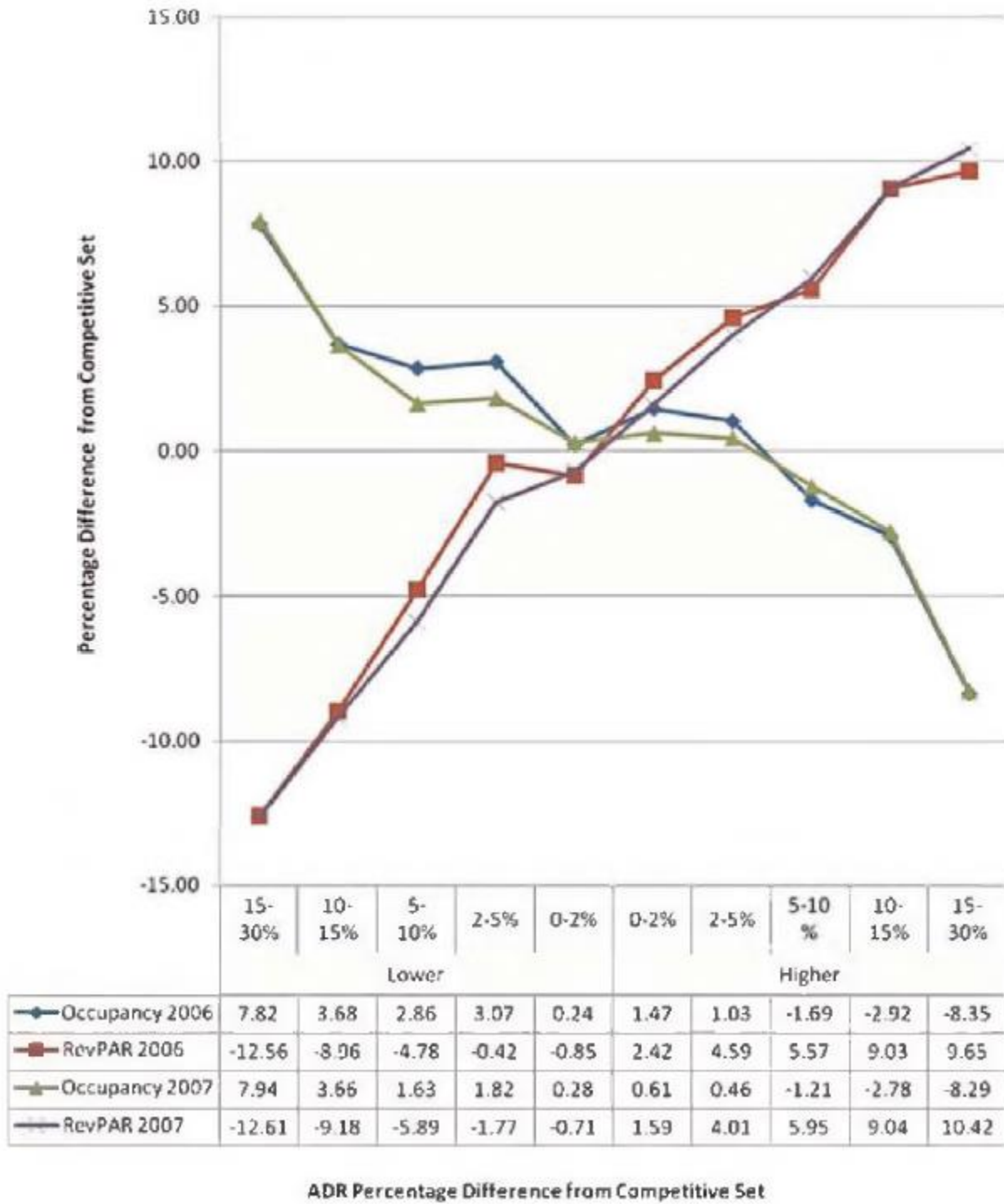ADR Percentage Difference from Competitive Set

Fig. 1. RevPAR and Occupancy percentage Differences from the Competitive Set for European Hotels 2006-2007

years. The maximum occupancy advantage over the competitive set was obtained by those hotels that had the lowest comparative ADRs. Hotels that raised their relative prices by less than 5 percent experienced both occupancy and RevPAR gains relative to their competitors. Furthermore, higher comparative RevPARs were experienced by hotels with slightly higher versus slightly lower competitive prices. Hotels that raised their relative prices more than 5 percent above the competition were punished with lower occupancies, but rewarded with higher relative revenue.

Results by Market Segments

Hotels are typically categorized into broad price and quality bands including the categories of luxury, upper upscale, upscale, midscale (full service), midscale (limited service), and economy hotels. These market segments vary on amenities, facilities, and services with associated rates. We examined the pricing dynamics of competitor hotels serving higher market segments of the industry, followed by lower end hotels.

As shown in Fig. 2, occupancies decline with rising comparative rate strategies for luxury hotels. Hotels that price above the competition lose occupancy, but they have solid RevPAR gains. For luxury hotels, occupancy gains from lower prices are not as great as they are for upper upscale or upscale hotels. Both occupancy and RevPAR rise for the upper upscale segment that price between 0 and 5 percent above their competitors. Relative occupancies decline for upscale hotels only when they price 2-5 percent above the competition. The upper upscale and upscale hotels that priced above their competitors experienced higher comparative RevPAR performance, while this pattern was true for the luxury hotels that priced over 2 percent above competitors. The market segment with the largest percentage gains in occupancy and RevPAR varied from one price category to the next (see Fig. 2).

Midscale and economy hotels gain substantial occupancy by lowering their prices relative to the competition. On average, occupancy gains are greater than gains for hotels in the higher end segments. This finding may be due to the relative price sensitivity of the lower end segment consumers as compared to the price sensitivity of the higher end segment consumers. For hotels in these segments that price 15-30 percent lower than their competitors, the occupancy gains are substantially higher than the gains obtained by higher end hotels that price lower than their competitors. Clearly, lower end hotels can use lower prices to stimulate market demand. As Fig. 3 shows, this market share benefit yields substantially lower RevPARs - 10.52-12.24 percent lower than their market competitors. Economy hotels that price between 2 percent below and above their competitors also lose occupancy. Gains in RevPAR are only experienced when economy hotels price over 5 percent above competitors. Overall, falling occupancies and rising RevPARs are the norm for hotels that price above their competition in the midscale and economy segments.
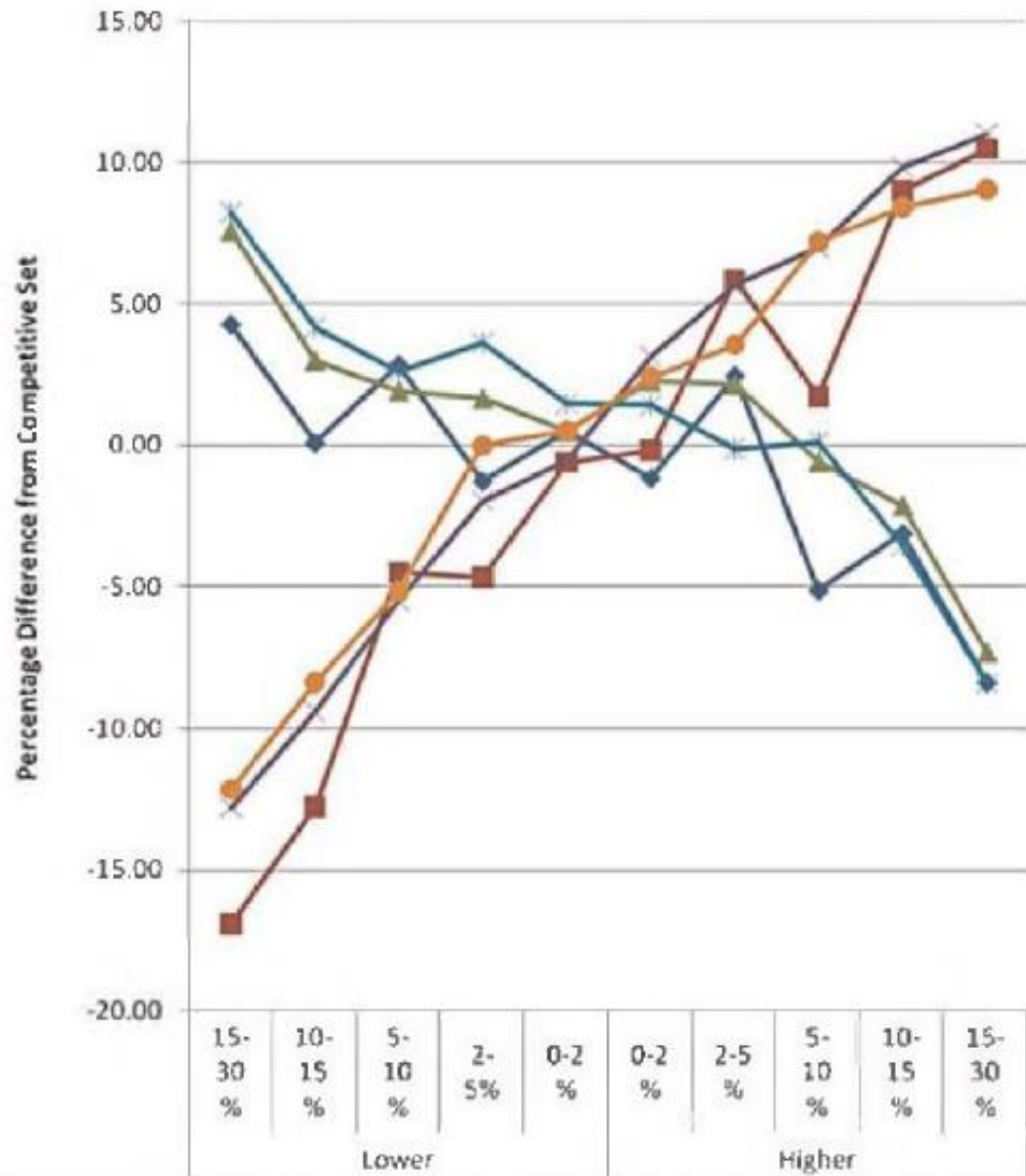
	15-30 %	10-15 %	5-10 %	2-5%	0-2 %	0-2 %	2-5 %	5-10 %	10-15 %	15-30 %
			Lower				Higher			
●── Occupancy Luxury	4.28	0.09	2.85	-1.26	0.50	-1.14	2.46	-5.10	-3.10	-8.36
■── RevPAR Luxury	-16.8	-12.7	-4.49	-4.66	-0.59	-0.18	5.85	1.72	9.00	10.47
▲── Occupancy Upper Upscale	7.58	3.00	1.93	1.67	0.49	2.28	2.15	-0.57	-2.12	-7.30
✕── RevPAR Upper Upscale	-12.7	-9.40	-5.49	-1.96	-0.54	3.15	5.66	6.96	9.81	11.01
✱── Occupancy Upscale	8.22	4.16	2.58	3.61	1.49	1.43	-0.14	0.12	-3.53	-8.39
●── RevPAR Upscale	-12.1	-8.36	-5.15	0.00	0.49	2.42	3.54	7.17	8.39	9.03

ADR Percentage Difference from Competitive Set

Fig. 2. RevPAR and Occupancy Percentage Differences for European Luxury, Upper Upscale and Upscale Hotels Compared to the Competitive Set 2006-2007
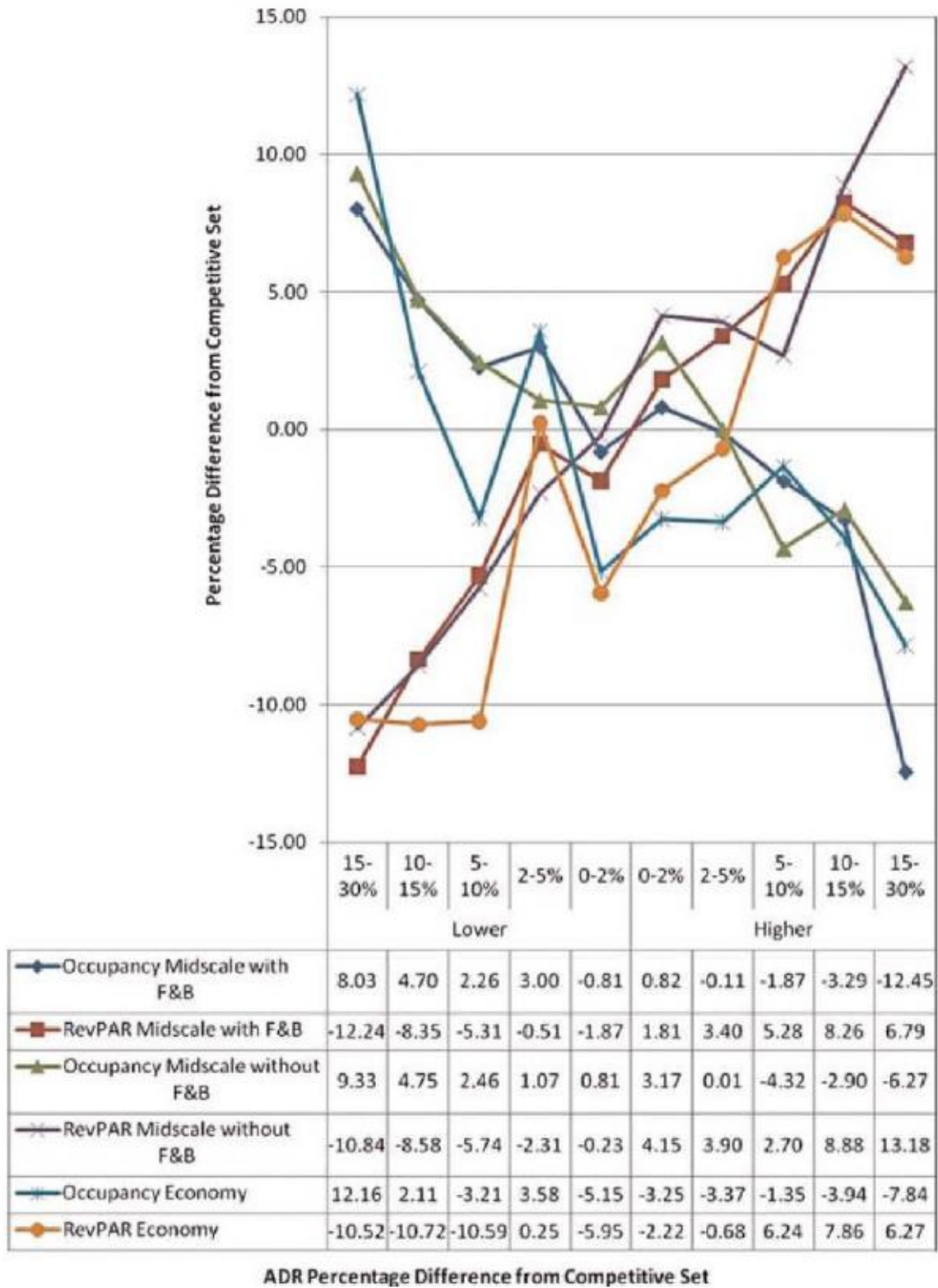
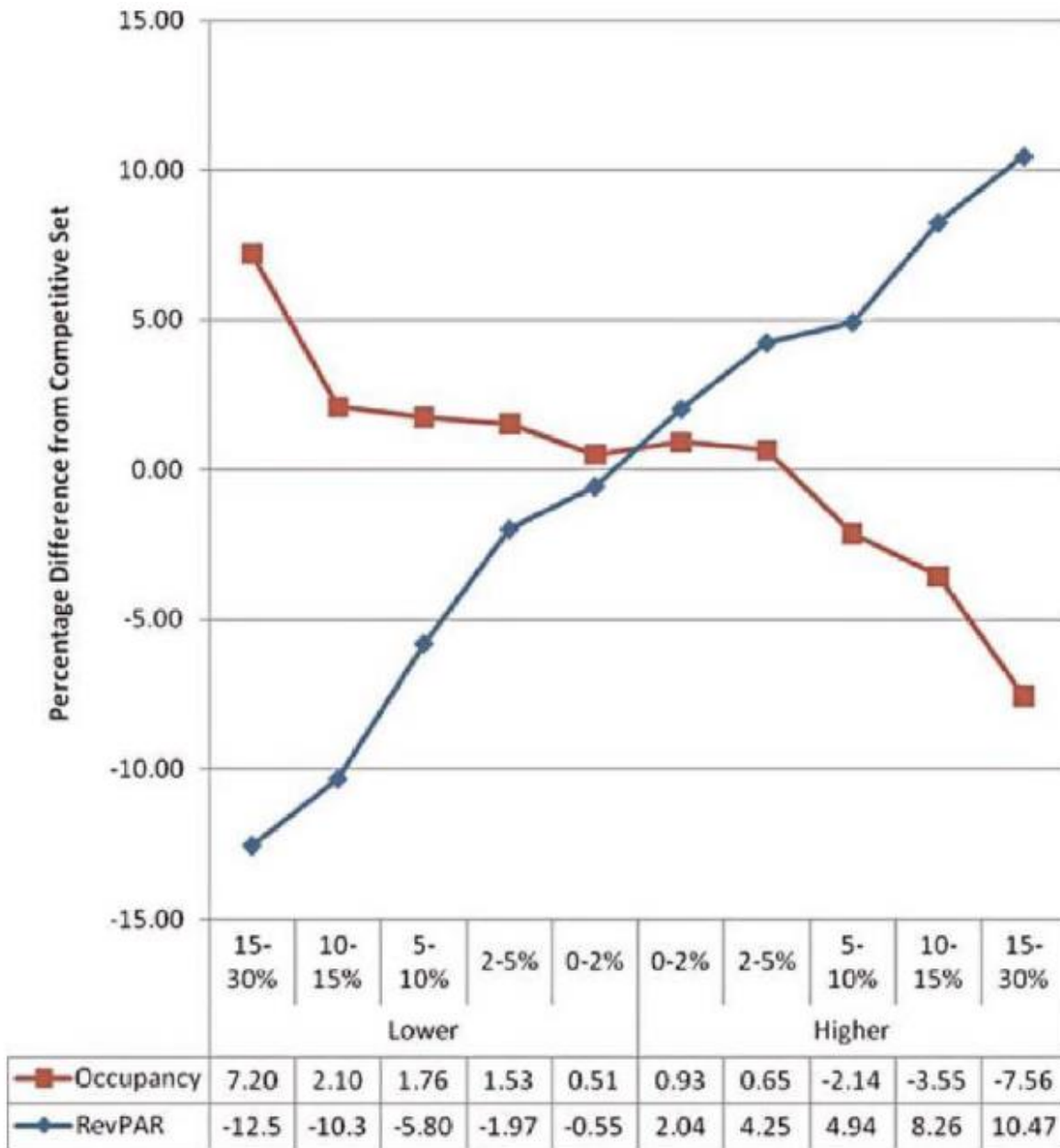|	15-30%	10-15%	5-10%	2-5%	0-2%	0-2%	2-5%	5-10%	10-15%	15-30%
			Lower					Higher		
Occupancy Midscale with F&B	8.03	4.70	2.26	3.00	-0.81	0.82	-0.11	-1.87	-3.29	-12.45
RevPAR Midscale with F&B	-12.24	-8.35	-5.31	-0.51	-1.87	1.81	3.40	5.28	8.26	6.79
Occupancy Midscale without F&B	9.33	4.75	2.46	1.07	0.81	3.17	0.01	-4.32	-2.90	-6.27
RevPAR Midscale without F&B	-10.84	-8.58	-5.74	-2.31	-0.23	4.15	3.90	2.70	8.88	13.18
Occupancy Economy	12.16	2.11	-3.21	3.58	-5.15	-3.25	-3.37	-1.35	-3.94	-7.84
RevPAR Economy	-10.52	-10.72	-10.59	0.25	-5.95	-2.22	-0.68	6.24	7.86	6.27

ADR Percentage Difference from Competitive Set

Fig. 3. RevPAR and Occupancy Percentage Differences for European Midscale and Economy Hotels Compared to the Competitive Set 2006-2007

Country-Level Pricing Strategies

   Not all parts of Europe have similar market dynamics, and for that reason, our final analysis explores specific countries separately. To determine whether unique pricing strategies exist in different countries, we analyzed the results separately for the United Kingdom, Germany, Sweden, Spain, and Italy. The results for the United Kingdom, Germany, and Sweden are shown in Figs. 4-6. The patterns in the graphs of both the percentage difference in

	15-30%	10-15%	5-10%	2-5%	0-2%	0-2%	2-5%	5-10%	10-15%	15-30%
			Lower					Higher		
Occupancy	7.20	2.10	1.76	1.53	0.51	0.93	0.65	-2.14	-3.55	-7.56
RevPAR	-12.5	-10.3	-5.80	-1.97	-0.55	2.04	4.25	4.94	8.26	10.47

ADR Percentage Difference in ADR from Competitive Set

Fig. 4. United Kingdom PevPAR and Occupancy Percentage Differences from the Competitive Set 2006-2007

occupancy and the RevPAR are similar for each of these countries and to those of the overall sample. Figs. 7 and 8 show the pattern of occupancy and RevPAR differences in Spain and Italy. As the figures suggest, both Spain and Italy have pricing behavior among competitors that is different from that in Germany, Sweden, and the United Kingdom. The primary differences across countries rests in the degree to which occupancies decline with modest pricing below the competition (0-2 percent below the competition) and occupancies rise with modest pricing above the competition (0-2 percent above) and even greater pricing above the competition (5- 10 percent above).
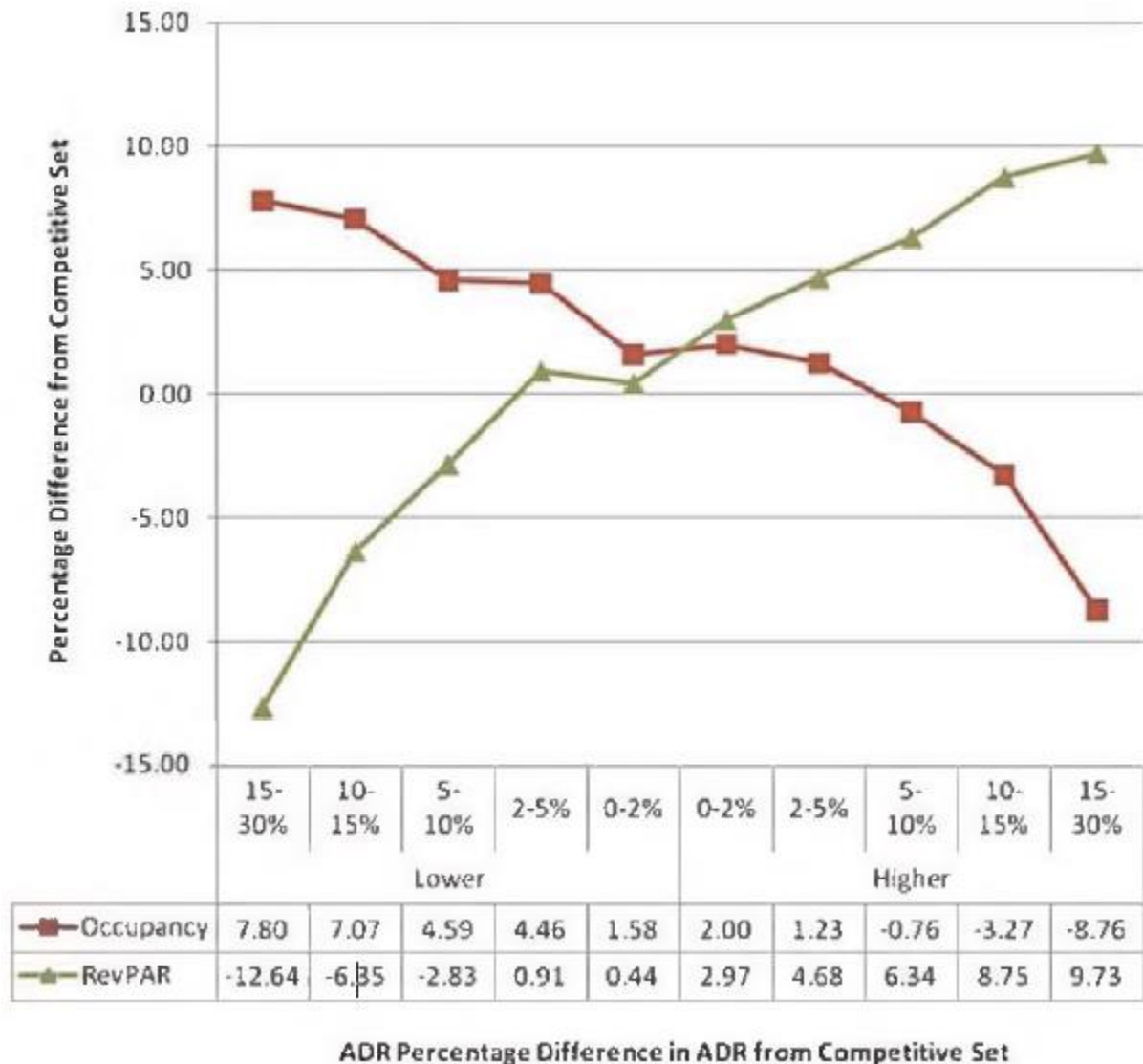

	15-30%	10-15%	5-10%	2-5%	0-2%	0-2%	2-5%	5-10%	10-15%	15-30%
				Lower					Higher	
—■—Occupancy	7.80	7.07	4.59	4.46	1.58	2.00	1.23	-0.76	-3.27	-8.76
—▲—RevPAR	-12.64	-6.35	-2.83	0.91	0.44	2.97	4.68	6.34	8.75	9.73

ADR Percentage Difference in ADR from Competitive Set

Fig. 5. Germany RevPAR and Occupancy Percentage Differences from the Competitive Set 2006-2007.

Comparing the occupancy and the RevPAR differences for the five pricing categories in which hotels price below their competitive groups, the data show that pricing below the

competitive set results in a consistent pattern of relative occupancy gains and RevPAR losses for Germany, Sweden, and the United Kingdom. The United Kingdom and Germany are the most similar. These markets are the most sensitive to comparative occupancy gains from lower prices, but also the market with the highest RevPAR losses from discounting (except in the 15-30 percent lower pricing category). Hotels in Sweden experienced the most modest occupancy gains from pricing below the competitive set. In Spain and Italy, the patterns reveal that offering prices 2-5 percent below competitors can have positive effects on both occupancy and RevPAR in Spain, and modest comparative RevPAR losses in Italy. These unusual patterns compared to other countries in Europe, as well as results in both Asia and the United States, may suggest some unusual pricing dynamics in these countries (see Enz, Canina, & Lomanno,
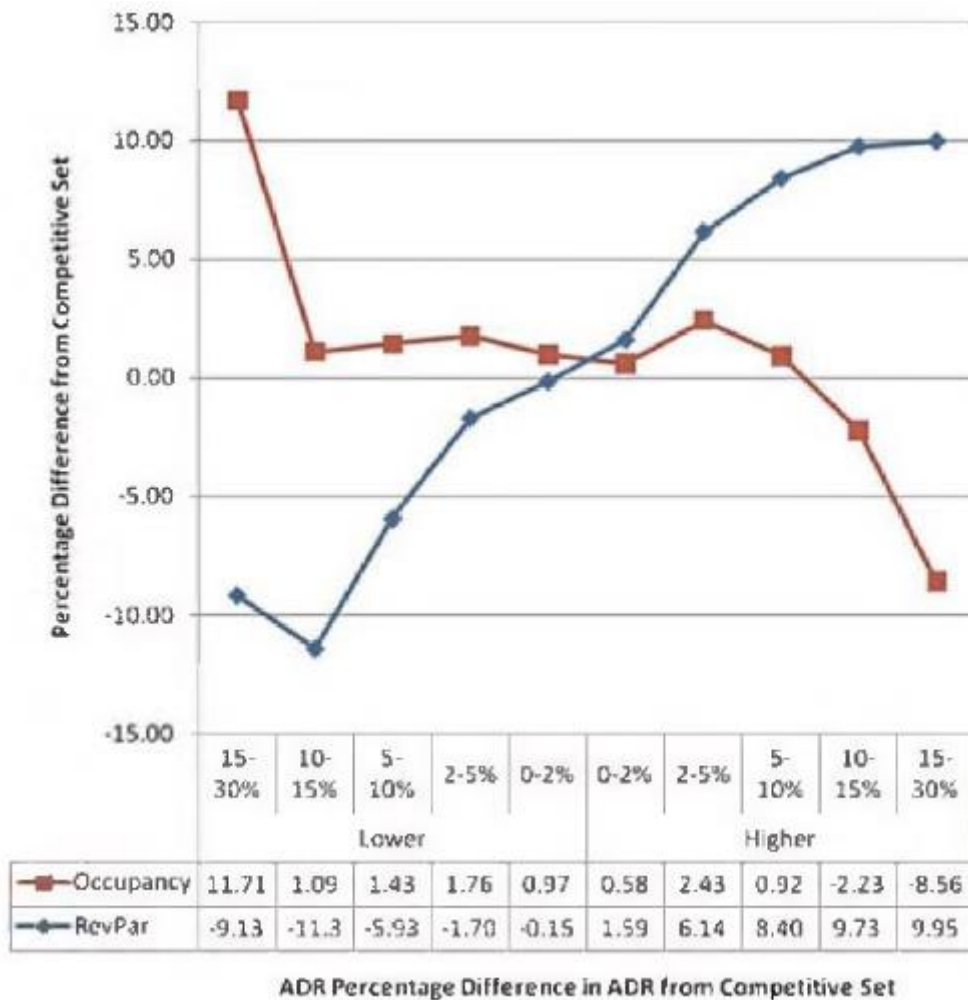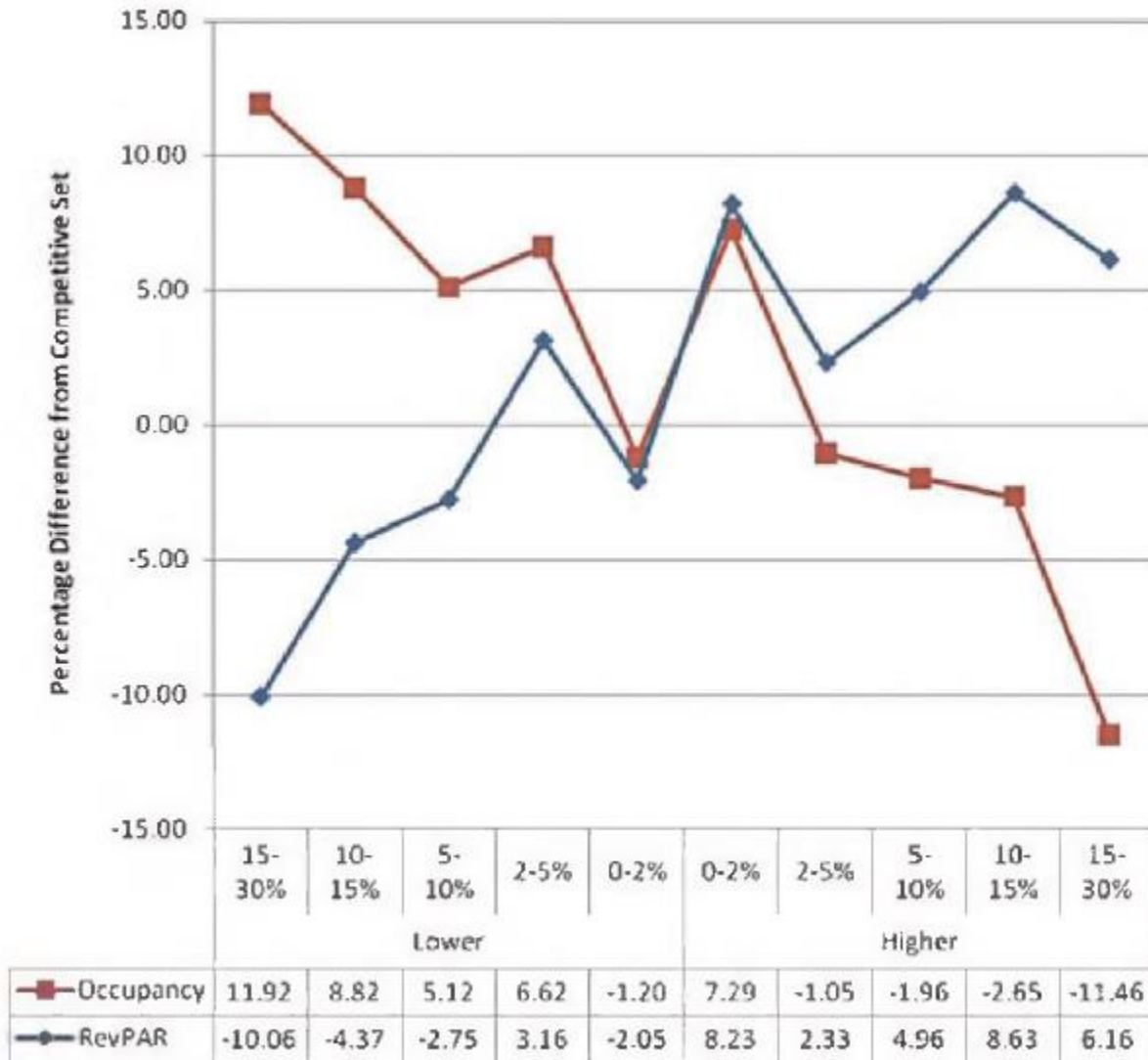

	15-30%	10-15%	5-10%	2-5%	0-2%	0-2%	2-5%	5-10%	10-15%	15-30%
			Lower					Higher		
Occupancy	11.71	1.09	1.43	1.76	0.97	0.58	2.43	0.92	-2.23	-8.56
RevPar	-9.13	-11.3	-5.93	-1.70	-0.15	1.59	6.14	8.40	9.73	9.95

ADR Percentage Difference in ADR from Competitive Set

Fig. 6. Sweden RevPAR and Occupancy Percentage Differences from the Competitive Set 2006-2007.

2009 for a detailed discussion of similar findings in the United States). In the United States, Asia, and other European countries, price discounting leads to increases in occupancy and decreases in RevPAR compared to the competition (Enz et al., 2009). When prices rise,

occupancies decline, but are more than offset by increases in RevPAR. For Spain, this result holds with a few exceptions. We observe that in Spain, on average, hotels that discount by between 2 and 5 percent compared to their competitors obtain an occupancy advantage of 6.62 percent as well as a RevPAR benefit of 3.16 percent. Hotels that have a price premium of 0-2 percent achieve both a positive percentage difference in occupancy and RevPAR. Similar results are observed in Italy for hotels that price 0-2 percent above their competitors.

	15-30%	10-15%	5-10%	2-5%	0-2%	0-2%	2-5%	5-10%	10-15%	15-30%
			Lower					Higher		
—■—Occupancy	11.92	8.82	5.12	6.62	-1.20	7.29	-1.05	-1.96	-2.65	-11.46
—●—RevPAR	-10.06	-4.37	-2.75	3.16	-2.05	8.23	2.33	4.96	8.63	6.16

ADR Percentage Difference in ADR from Competitive Set

Fig. 7. Spain RevPAR and Occupancy Percentage Differences from the Competitive Set 2006-2007

Supplementary Analysis

To explore the impact of a price reduction on a given hotel's RevPAR, we took all hotels that priced below their competitors in 2006 and calculated the difference in their own RevPAR performance between 2006 and 2007 under two conditions: (1) similar pricing strategies in

both years compared to competitors and (2) changed pricing strategy from discounting relative to the competition to even further price discounting in 2007 relative to 2006. The results summarized in Table 1 indicate that when hotels change their pricing strategy by lowering even further their prices compared to the competition in 2007, they do not obtain the same RevPAR performance as when they keep their competitive pricing strategy the same from 2006 to 2007. This data shows that lowering relative prices further produces lower RevPARs for their properties. For example, hotels that priced 1 percent below their competitors in 2006 and dropped their relative prices in 2007 to 7.5 percent below the competition had an annual RevPAR gain of $12.91 compared to a gain of $17.64 for operators who did not drop prices further. This additional analysis shows that the greater the discounting in 2007, the lower the RevPAR performance of the discounting hotel compared to hotels that maintained relative rate integrity during the two-year period of the study.
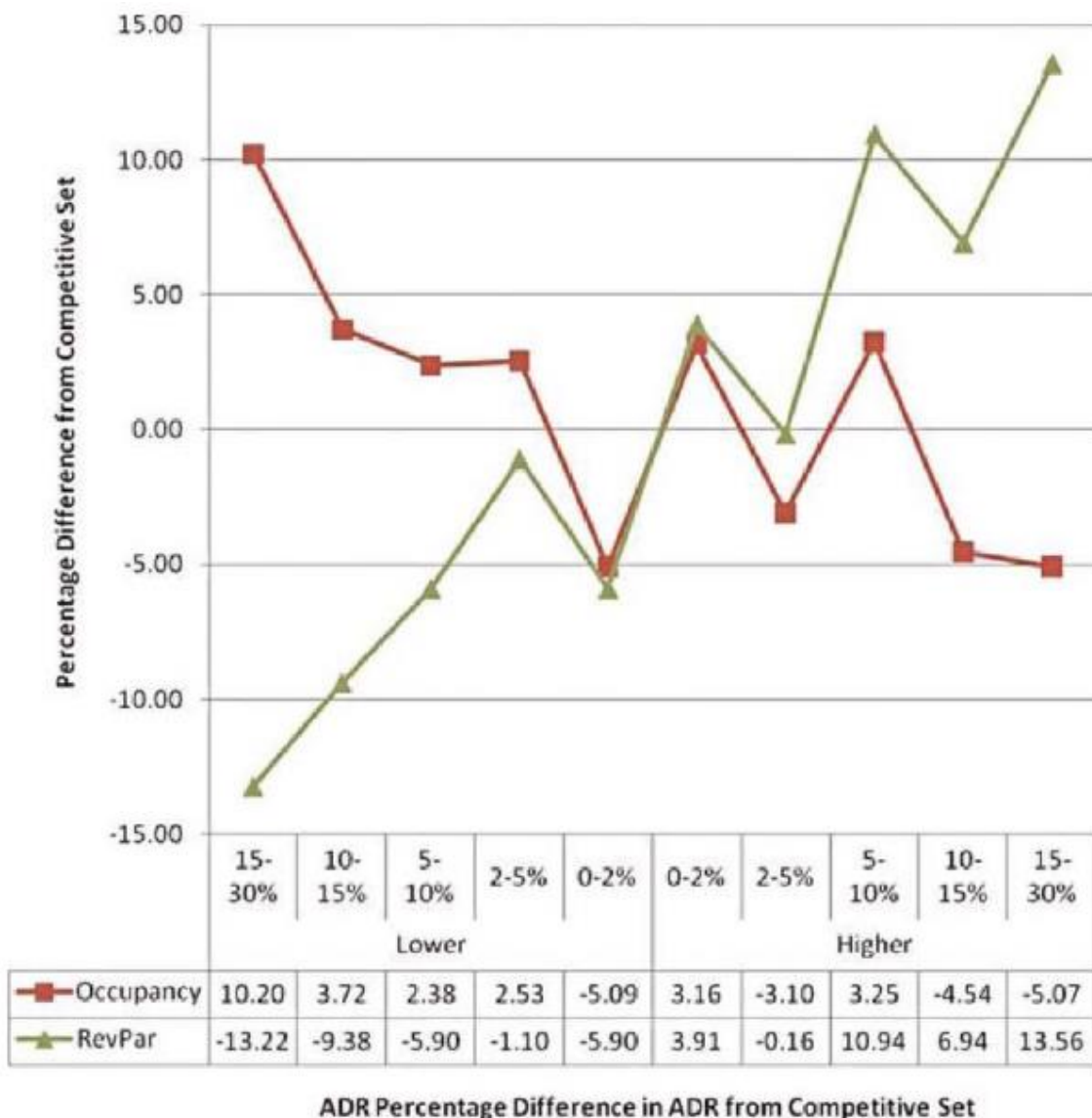

	15-30%	10-15%	5-10%	2-5%	0-2%	0-2%	2-5%	5-10%	10-15%	15-30%
			Lower					Higher		
—■—Occupancy	10.20	3.72	2.38	2.53	-5.09	3.16	-3.10	3.25	-4.54	-5.07
—▲—RevPar	-13.22	-9.38	-5.90	-1.10	-5.90	3.91	-0.16	10.94	6.94	13.56

ADR Percentage Difference in ADR from Competitive Set

Fig. 8. Italy PevPAR and Occupancy Percentage Differences from the Competitive Set 2006-2007

Observations for Practitioners

After looking at the pricing behavior of European hotels over a two-year time horizon, a few practical observations can be offered to operators. Offering guests prices that are lower than the competition does lead to higher occupancy percentages for the discounting hotel, but these comparatively lower prices also result in lower RevPAR performance than the competition. In contrast, hotels that price higher than their competitors have higher RevPARs, especially when they price significantly higher than their competitors. It is also possible that less loyal customers trade down to lower market segments. This possibility looks to be greatest for customers of luxury hotels because the occupancy declines for upscale and upper upscale hotels that price 5-10 percent above their competitors are modest. As a guide for operators, the best way to have higher revenue performance than your competitors is to have higher rates. A hotel should not drop price below the price of its true competitors if it wishes to enjoy a RevPAR premium. Very small differences were found across market segments or years in this study, and the general pattern of results was consistent. Pricing above your direct competitors yield higher rooms revenue while pricing below your competitors does not stimulate sufficient demand to give the needed revenue boost hoped for. This pattern is more volatile in Spain and Italy, perhaps due to strong tour group and forward booking patterns in these countries. Guests of luxury hotels appear to be less sensitive to price discounting while customers of economy hotels are quite sensitive to small price increases.

Table 1. Relative Pricing Strategies in 2006 and 2007 for Hotels that Price Below Their Competitors.

Price Discounting Strategies (%)		Sample Size	RevPAR Gain (Loss) from 2006 to 2007
2006	2007		
0–2	0–2	29	17.64
0–2	2–5	28	13.44
0–2	5–10	13	12.91
0–2	10–15	3	(1.38)
2–5	2–5	53	10.80
2–5	5–10	43	10.30
2–5	10–15	9	8.67
2–5	15–30	1	(1.52)
5–10	5–10	125	9.36
5–10	10–15	50	8.96
5–10	15–30	9	7.11
10–15	10–15	92	12.07
10–15	15–30	33	8.80
15–30	15–30	211	8.84

Table 1. Relative Pricing Strategies in 2006 and 2007 for Hotels that Price below Their Competitors

Conclusions

The results of this chapter are relevant for competitive pricing decisions. They offer insights into the impact on occupancy and RevPAR of competitive pricing strategies. The findings revealed a pattern of relationships between competitive price differences, and the comparisons of occupancy levels and RevPAR performance, all within a competitive system based on operator- selected direct competitors. The analysis does not reveal the optimal pricing strategy or the impact of price changes on overall demand and RevPAR. Rather, the study shows the impact of competitive price changes on relative demand and relative RevPAR. However, the supplemental analysis does suggest that hotels that discounted in 2007 yielded lower RevPAR gains than did hotels that maintained their 2006 pricing strategy.

To evaluate optimal pricing and the impact of price changes models of supply, demand and profitability costs are required. While this study did not offer this approach, in future studies, a methodology needs to be developed that is capable of estimating measures of the own-price and cross-price elasticities of demand for hotels by market segment and location using property-level data. This needed approach to understanding pricing is complex due to the heterogeneity within local markets and differences in competitive conditions across markets and countries in terms of both supply and demand factors. As a result, it is important to control for the degree and variety of supply competitiveness, as well as the differences in the characteristics and preferences of consumers differ across market segments, geographical locations, and time. While this is a nontrivial task, it is worthy of further consideration in future empirical investigations.

Each manager, owner, and chain executive will need to decide on their own how to deal with the challenges of pricing in a difficult market and the revenue versus market share trade-off, keeping in mind that hotels in the industry may be at the mercy of their dumbest competitor if they follow a path of price discounting. One hotelier put it this way, "When people break ranks it makes you look expensive. You obviously can't have a cartel, but it also makes it difficult to put rates back up" (Manson, 2009). Furthermore, given the transparency of pricing today, you gain no competitive advantage by lowering your prices because your competitors know almost immediately about your strategy and can instantly match it (Lomanno, 2008).

The results of this study should be comforting and confirming for any hotel operator who has resisted the pressure to drop prices below their competitors. This study is also reassuring for those who faced declining occupancy concerns from owners but maintained rate integrity and parity or higher prices relative to the competition. For those operations who could handle comparatively lower occupancies, the reward was higher RevPAR performance. It is our hope that by examining hotels that outperformed their competitive set because they choose not to discount that we can offer some sound facts to inform those who are puzzling over the discounting debate.

Note

1. The own-price elasticity of demand is defined as the percentage change in quantity demanded given a percentage change in price. The cross-price elasticity of demand is defined as the percentage change in quantity demanded given a percentage change in the price of a different good. The income elasticity of demand is defined as the percentage change in quantity demanded given a percentage change in income.

References

Blinder, A. S., Elie, R. D., Canetti, D., Lebow, E., & Rudd, J. B. (1998). *Asking about prices: A new approach to understanding price stickiness.* New York: Russell Sage Foundation.

Canina, L., & Carvell, S. (2005). Lodging demand for urban hotels in major metropolitan markets. *Journal of Hospitality & Tourism Research, 29(3),* 291—311.

Canina, L., & Enz, C. A. (2006). Why discounting still doesn't work: A hotel pricing update. *The Center for Hospitality Research Reports,* 6(2), 2-18.

Canter, T. A., & Maher, W. (1998). An analysis of supply and demand for the US hotel industry. *Real Estate Finance (Euromoney Institutional Investor PLC),* 75(3), 45-57.

Chung, C. (2006). Quality bias in price elasticity. *Applied Economics Letters, 13,* 241-245.

Crouch, G. I. (1992). Effect of income and price on international tourism. *Annals of Tourism Research, 19,* 643-664.

Crouch, G. I. (1994). The study of international tourism demand: A review of findings. *Journal of Travel Research,* 55(1), 12-23.

Crouch, G. I. (1995). A meta-analysis of tourism demand. *Annals of Tourism Research, 22,* 103-118.

Damonte, L. T., Domke-Damonte, D. J., & Morse, S. P. (1998). The case for using destination-level price elasticity of demand for lodging services. *Asia Pacific Journal of Tourism Research,* 5(1), 19—26.

De Mello, M., Pack, A., & Sinclair, M. T. (2002). A system of equations model of UK tourism demand in neighboring countries. *Applied Economics, 34,* 509-521.

Divisekera, S. (2003). A model of demand for international tourism. *Annals of Tourism Research, 30,* 31—49.

Enz, C. A., Canina, L., & Lomanno, M. (2009). Competitive pricing in uncertain times. *Cornell Hospitality Quarterly,* 50(3), 325-341.

Garcia, D., & Tugores, M. (2006). Optimal choice of quality in hotel services. *Annals of Tourism Research,* 55(2), 456-469.

Gordon, R. J. (1981). Output fluctuations and gradual price adjustment. *Journal of Economic Literature,* 79(June), 493-530.

Gupta, S. (1988). Impact of sales promotion on when, what and how much to buy. *Journal of Marketing Research, 25,* 342-355.

Hayes, D. K., & Huffman, L. M. (1995). Value pricing: How low can you go? *Cornell Hotel and Restaurant Administration Quarterly,* 56(1), 51-56.

Hiemstra, S. J., & Ismail, J. A. (1990). Impacts of room taxes on the lodging industry. *Hospitality Research Journal, 14(2),* 231-241.

Hiemstra, S. J., & Ismail, J. A. (1993). Incidence of the impacts of room taxes on the lodging industry. *Journal of Travel Research,* 57(April), 22-26.

Ismail, J. A., Dalbor, M. C., & Mills, J. E. (2002). Using RevPAR to analyze lodging-segment variability. *Cornell Hotel and Restaurant Administration Quarterly* (4), 73-80.

Jacobson, R., & Obermiller, C. (1990). The formation of future expected price: A reference price for forward-looking-consumers. *Journal of Consumer Research, 16,* 420-432.

Jogaratnam, G., & Kwansa, F. (1990). The price sensitivity of demand for lodging: A regression study of time series data in the U.S. domestic market. *Hospitality Education and Research Journal, Annual Conference Proceedings Issue, 14(2),* 592-593.

Li, G., Song, H., & Witt, S. F. (2004). Modeling tourism demand: A dynamic linear AIDS approach. *Journal of Travel Research, 43(2),* 141-150.

Lim, C. (1997). Review of international tourism demand models. *Annals of Tourism Research, 24(4),* 835-849.

Lomanno, M. (2008). Discounting rates leads to decreased product value. *Hotel and Motel Management, 223(21),* 22.

Manson, E. (2009). To discount or not to discount? *Caterer & Hotelkeeper, 198(4559),* 44.

Rosen, S. (1974). Hedonic prices and implicit markets: Product differentiation in pure competition. *Journal of Political Economy, 82,* 34—55.

Sahay, A. (2007). How to reap higher profits with dynamic pricing. *MIT Sloan Management Review* (Summer), 53-60.

Schwartz, Z. (2006). Advanced booking and revenue management: Room rates and the consumers' strategic zones. *International Journal of Hospitality Management,* 25(3), 447-^462.

Skuras, D., Petrou, A., & Clark, G. (2006). Demand for rural tourism: The effects of quality and information. *Agricultural Economics,* 35(1), 183-192.

Stibel, J. M. (2007). Discounting dos and don'ts. *MIT Sloan Management Review, 49(* 1), 8-9.

Thaler, R. (1985). Mental accounting and consumer choice. *Marketing Science, 4(3),* 199-214.

Turner, W. T., & Witt, S. F. (2001). Factors influencing demand for international tourism: Tourism demand analysis using structural equation modeling, revisited. *Tourism Economics,* 7(1), 21-38.