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Research note

The relative role of strategic assets in determining customer perceptions of hotel room price[☆]

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Abstract

A behavioral process measure was used to investigate the contribution of strategic assets in determining customer perceptions of hotel room price in the Israeli hospitality industry. Participants estimated the market price of a single occupancy hotel room after acquiring information on competing hotels. The information available for the competing hotels were price, brand name, star rating, number of rooms, number of restaurants, location and pool size. Prior empirical studies employing a regression analysis on published market data reveal that star rating, brand name, location and number of rooms, are all assets that predict price. Participants selected relatively few information items, with price and star rating information most frequently selected. Brand information was selected more frequently when star information was absent than when it was present suggesting redundancy in the value of the two attributes for market price predictions. Importantly, the performance of middle level hotel managers' and hotel management university students was indistinguishable on most measures save for initial confidence in their price estimates.

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1. Introduction

“Most executives name pricing as their major challenge and major weakness”

Philip Kotler

Effective pricing is critical for the long-term success of firms as overpricing can lead to lost market share, and under-pricing to lost revenues. Despite the importance of pricing in the marketing mix, research reveals that many pricing decisions are reactive instead of proactive, focus on short term instead of long-term goals, and are determined in an unsystematic fashion (Nagle and Holden, 2002). Importantly, pricing practice in the hotel industry does not appear to serve as an exception to this pattern (Israeli, 2002).

To solve the problem of pricing, marketing theorists and educators recommend that pricing be based on the value that offerings provide consumers. Despite the apparent utility of value-based approaches, many firms establish prices based on internal costs, such as with cost based and target return pricing, or on competitor pricing (Nagle and Holden, 2002). These techniques are popular because they are all relatively easy to implement. However, each technique has shortcomings. First, cost based and target return pricing do not take into account the value that consumers place on offerings. A second problem of these techniques is that they treat sales volume as independent from market price even though market price affects the willingness of consumers to buy the product, and therefore affects market share (Nagle and Holden, 2002). A main shortcoming of competitor-based pricing is that it assumes that competitors understand the value that consumers place on offerings. Rogers (1995) recently reported evidence for competitor based pricing in the tourism industry when he found that most small- and medium-sized British tourist attractions followed the pricing tactics of market leaders. Also, in informal discussions, Israeli hotel managers stated that competitor-based pricing was commonly used in the Israeli hospitality industry.

Given the shortcomings of supply side and competitor-based pricing, one may assume that pricing decisions should be based on consumer perceptions of utility. However, disadvantages are also associated with this form of pricing. The most important of which is that consumers may not know, or may not be willing to reveal their reservation price, especially when the market price is lower than the reservation price. A second shortcoming of the technique is that it relies heavily on market research and is therefore costly.

A final pricing strategy that combines a supply side focus with the value that consumers place on offerings is based on the evaluation of strategic assets. Strategic assets are resources (Barney, 1991) and core competencies (Prahalad and Hamel, 1990) held by the firm. Research in marketing strategy suggests that firms may signal strategic assets to target audiences to justify a request for a price premium (Israeli et al., 2001), to generate above average returns (Klein and Leffler, 1981), and to form the basis of sustained competitive advantage (Barney, 1991; Barney, 1986). As with value-based pricing the main problem associated with asset-based pricing is that it is difficult to determine the economic value of corporate assets.

Building on the strategic asset literature, Israeli and colleagues explored the degree to which strategic assets (corporate affiliation, brand name, and hotel size) predict the market price of hotel rooms in Israel (Israeli and Uriely, 2000; Israeli et al., 2001; Israeli and Reichel, 2001; Israeli, 2002). A regression analysis of published industry data was used to determine which strategic assets contribute to the market price of hotel rooms. A main finding of these studies was that star rating was a better predictor of price than corporate affiliation (Israeli, 2002).

More recently, Danziger et al. (2004) explored the relative contribution of strategic assets for pricing in an Experiment that required 46 hotel management students to estimate the market price of hotel rooms. The strategic assets used and their values were taken from the data set used by Israeli (2002). Using a behavioral process method developed by Bettman and Jacoby (1976) (Jacoby et al., 1987, 1994) participants estimated the market price of a single occupancy hotel room after sequentially revealing market information on competing hotels from a two-dimensional matrix that contained strategic asset information pertaining to competing hotels. Only upon exposing a particular piece of information did the participant know the value of a hotel for the particular asset. For example, a participant could expose information concerning the star rating of hotel C, or the number of rooms for hotel D, and so forth. The main benefits associated with this methodology are that it enables the investigator to determine how much information, which information, and the order in which information is acquired for a judgment task (a detailed description of the technique appears in the procedure). Also, the technique does not rely on an individual's ability to remember the search process, or be able to verbally explicate the pattern or importance participants place on information. Thus, it avoids potential pitfalls of limited and inaccurate memory resources and an inability of individuals to accurately report their cognitive processes (Nisbett and Wilson, 1977).

From the exposure/usage rates of the various attributes and the sequence in which information was gathered Danziger et al. (2004) estimated the importance of each attribute for pricing decisions. They found that star rating and location were the most frequently selected attributes, while corporate affiliation was selected far less frequently. These behavioral results are consistent with the aggregate level data analysis of Israeli and Uriely (2000) and Israeli (2002).

2. Empirical testing

The aim of this study was to further explore the relative contribution of strategic assets in determining customer perceptions of hotel room price in the Israeli hospitality industry. To do so, we employed a behavioral process method that tracked item-by-item information acquisition of individual decision makers while pricing a hotel room. The information stimuli for the study consisted of assets that Israeli (2002) found to be significant predictors of price in the Israeli hospitality industry (brand name, star rating and number of rooms) and

several other assets (price, number of restaurants, size of pool; Danziger et al., 2004, Israeli, 2002).¹

The study extends the research of Danziger et al. (2004) in four main ways. First, here we asked whether industry experience affects the perceived relevance of the various strategic assets to pricing. If assets are perceived similarly by those with differing degrees of industry relevant information then one may conclude that the assets are consistent signals for requesting a price (however see footnote 1). To address this question, performance for decision makers with and without market relevant experience in the hotel and service industry was compared. Specifically, approximately half of the participants were employed at the time of testing in the hotel industry in diverse managerial capacities such as marketing and accounting. These participants represented the knowledgeable group. The remaining participants were MBA students not working in the hotel industry. The comparison of price estimates for participants with and without market relevant experience enabled us to determine the effects of experience on the amount of information search, the relative importance of the attributes, and measures of performance (accuracy of estimate). We predicted that hotel managers would access information more selectively and provide more accurate estimates than students.

Second, given the findings of Danziger et al. (2004) we wanted to further explore the perceived value of brand and star rating information for pricing decisions. Specifically, our conjecture was that these attributes are partially redundant and therefore, participants would primarily select star information when both attributes are available in the information matrix. This hypothesis was tested by comparing search performance of participants with information environments that contained star information, brand information, both types of information, or neither type of information. Because the aforementioned studies (Danziger et al., 2004; Israeli, 2002) indicate that star information is more informative than brand information for price estimate judgments we also hypothesized that the frequency with which star information was selected would not be affected by the availability of brand information.

Third, we imposed a cost on information acquisition. Thus, whereas in Danziger et al. (2004) it was not possible to determine just how much information participants felt they needed because all participants selected 8 information items, here we asked how much information is gathered when search carries a 'cost' but is not limited (this measure is explained in the procedure). Given the cost associated with information acquisition we predicted that participants would gather few information items and that industry knowledge would be negatively correlated with the number of selected items.

¹We chose to use historic and not present market data for two main reasons. First, we wanted to be able to directly compare our results with those of Israeli (2002). Second, more recent market data for all of the strategic assets was not available. As we entertain in our discussion, some of the results of the present study were likely affected by this choice. In particular, the rather surprising finding that performance of participants employed in the hotel industry was for the most part indistinguishable from those of the hotel management students.

The final extension to the previous study was that we measured price estimates, and confidence ratings both before information was revealed and immediately before participants terminated search. This enabled us to examine the extent to which information changed price estimate accuracy and participant confidence in their estimates.

3. Procedure

3.1. Participants

There were 114 participants: 60 MBA students and 54 hotel employees. The hotel employees averaged 5 years of industry experience. Participants mean age was 28 years (range: 20–57). Fifty-five subjects were male and 59 were female. Nine participants, seven hotel employees and two students (8 females and 1 male) that either provided last price estimates greater than 800 US dollars or less than 100 US dollars or revealed over 20 items from the information matrix² were excluded from the analysis.

3.2. The information environment

To enable a direct comparison of our results to those of Israeli (2002) we used the same market values for the high season period of August 2000 published by the Israeli Hotel Association (see footnote 1). The hotels were chosen such that the information matrix contained a range of values for each of the attributes.

Hotel information was provided in a two-dimensional matrix consisting of seven options (see Table 1: rows: the six competing hotels and the target hotel for which the price estimate was made) \times the number of attributes available for each option. All participants were exposed to information regarding the same six competing hotels for each city (Eilat and Tel-Aviv)³ and the same target hotel. Participants were asked to estimate the market price in US dollars of a single occupancy room. To preclude the impact of preexisting knowledge concerning a specific hotel numbers identified the various hotels. The attributes that appeared in the matrices for Eilat and Tel-Aviv were manipulated between groups. One group viewed matrices with 4 attributes (number of rooms, size of pool, number of restaurants, price of room—this will be referred to as the no brand/no star condition), two groups viewed

²The data patterns were the same whether these participants were included or excluded from the analysis. We chose to exclude the data for participants who provided extreme price evaluations or who searched excessively to reduce the variance associated with the amount of information-acquired measures as well as the price estimate measures.

³This paper deals with two specific locations in the Israeli hospitality industry: Eilat, with 35 hotels and 6612 rooms and Tel Aviv, with 41 hotels and 4773 rooms. Eilat is a resort and vacation destination in which a large proportion of the hotels have corporate affiliation. A second characteristic of Eilat is that it traditionally has had a relatively small proportion of foreign visitors but many local tourists. In contrast, Tel Aviv is a business center with an average level of corporate affiliation, which traditionally has had a relatively high proportion of foreign visitors.

Table 1

The attribute values used in the two estimation tasks. Note that participants had to provide evaluations for Hotel 7 (marked by a question mark)

Hotel name	Brand name	Star	Rooms	Pool size	Restaurants	Room price
<i>(a) Data provided for the Eilat estimation task</i>						
Hotel 1	Dan	5	378	24*4	2	554
Hotel 2	Accor	4	159	12*25	0	130
Hotel 3	None	5	420	51*25	2	515
Hotel 4	Caesar	4	241	20*35	0	200
Hotel 5	None	4	216	25*14	0	242
Hotel 6	Isrotel	5	363	20*30	2	699
Hotel 7	Isrotel	4	450	15*30	2	?
<i>(b) Data provided for the Tel-Aviv estimation task</i>						
Hotel 1	None	4	138	33*25 (25*20)	0	152
Hotel 2	Accor	4	160	10*5	0	155
Hotel 3	Sheraton	5	346	10*15	1	426
Hotel 4	Atlas	4	120	6*9	0	137
Hotel 5	Dan	5	500	17*30	1	279
Hotel 6	None	5	559	25*20	1	380
Hotel 7	Hilton	5	581	14*25	1	?

matrices with 5 attributes (the preceding four attributes and star information—star condition; the preceding four attributes and brand information—brand condition), and a fourth group viewed matrices with 6 attributes (the preceding four attributed as well as star and brand information—both condition). A comparison of performance in the different matrix conditions enabled us to test the prediction that brand and star information are redundant for price estimate tasks and to compare valuation under different information contents.

3.3. *The price estimation task*

Participants were tested individually on a laptop computer. They read instructions detailing that the task was to estimate the real market price of a single occupancy hotel room in the cities of Eilat and Tel-Aviv for the high season period of August 2000. Participants were informed that the market price for the room in each city was for a private customer, that each room had a view to the pool and that the room was on one of the first floors of the respective hotels in the two cities.

Participants were then informed that before providing a price estimate they could first obtain market information on competing hotels in each of the respective cities and that this information could potentially improve their market price estimates. To induce task motivation a monetary reward of 500 Israeli Shekels (equivalent to 120 US dollars) was guaranteed to the student, and 1000 Israeli Shekels (equivalent to 240 US dollars) to the manager, with the best individual performance score in the respective groups. At this point, participants were told that the performance score

Table 2
Relationship between the price estimate, search cost, and precision score for a product priced at 10 \$

Participant	Estimate	Items exposed	Price estimate	Search cost	Precision score
1	\$6	4	0.6	0.86	0.52
2	\$6	6	0.6	0.8	0.48
3	\$8	4	0.8	0.86	0.69
4	\$8	6	0.8	0.8	0.64
5	\$9	10	0.9	0.66	0.6
6	\$9	20	0.9	0.33	0.3

See footnote 4 for a detailed description of how these performance measures were calculated.

took into account both the difference between the final price estimate and the actual market price for the target hotel (a pure accuracy measure) and the number of items selected from the matrix. Participants were informed that the performance score declined as the difference between their price estimate and the market price grew, and as they selected additional information items. This information search ‘cost’ was employed to encourage participants to reveal only information they deemed important. A detailed description of the performance measure is provided in footnote 4.⁴ Participants were informed that it would be worthwhile to ‘acquire’ information so long as they felt that additional information would increase the accuracy of their price estimate by more than the cost resulting from continued search. To strengthen participants understanding of the tradeoff between price estimate accuracy and search cost they were shown a table that presented possible performance scores based on varying values of the two parameters (see Table 2).

Before performing the price estimate tasks, participants completed a practice task with mock data to familiarize them with the Experiment.

At the beginning of each estimate task only the attribute information for the target hotel, save for its price, were visible. Upon viewing the initial matrix participants were sequentially presented with three questions, each appearing after the previous question had been answered. First, they were asked to provide a dollar estimate of the market price for the target hotel. Second, they were asked for their confidence in the price estimate that they had just provided (ranging from 0 to 100 with 0 representing no confidence whatsoever and 100 representing absolute confidence).

⁴The accuracy estimate consists of two parts that are multiplied. The first part of the equation estimates the deviation of the participants’ last price from the list price and was calculated as follows: $1 - (\text{Abs}(\text{last price} - \text{list price}) / \text{list price})$. Note that a deviation of 0 results in a value of 1 and that as the deviation grows values become smaller and can turn negative. The second part of the equation takes into account the number of information items exposed and the cost of each information item and was calculated as follows: $1 - (\text{cost of each item} \times \text{number of items exposed})$. The cost of each information item was equal to 1 divided by the total number of information items that could be exposed for a given information board (for a 36 item board the cost is $1/36 = .027$). Thus, for each additional item of information exposed this part of the equation would become smaller than 1 by .027. The boundary values for this part of the equation are 1 (no items exposed) to 0 (all items exposed).

Third, they were given the opportunity to reveal information from the matrix or to exit the computer program. Information from the matrix was revealed by placing the mouse over a particular cell location and clicking the mouse button, whereupon the desired information appeared on-screen instantaneously and remained visible until the end of the session. Participants were informed that cells could be revealed in any order and that search could be terminated at any point in time by clicking the mouse over an exit box that appeared to the right and below the cells of the matrix. Participants continued to answer the three questions until terminating the experiment. Thus, after revealing an information item participants provided a new price estimate and confidence score.⁵ In addition, participants wrote their answers on a sheet of paper so that they could keep track of both their price and confidence judgments. After completing the task participants were debriefed.

In summary, a behavioral process method was used to determine which attributes participants with (hotel managers) and without (MBA students) industry relevant experience deem most important for pricing a hotel room. In addition, accuracy and certainty estimates were obtained.

3.4. Design

A 2 (Industry experience: hotel employee and MBA student) \times 2 (Star information: present and absent) \times 2 (Brand information: present and absent) between subject design was employed. Combinations of the Star and Brand information variables formed the no brand/no star, star, brand and both conditions. Each participant first performed the price estimate task for Eilat followed by that for Tel-Aviv.

4. Results

4.1. Information processing

To determine whether industry experience, hotel location, and attribute information affected the number of items that were selected we submitted the absolute number of items exposed in the two price estimate tasks to an ANOVA that included Star information (Present and Absent), Brand information (Present and Absent) and Industry experience (MBA student and Manager) as between subjects factors and Location (Eilat and Tel-Aviv) as a within subject factor. The only significant effect was that of Location, $F(1,97) = 11, p < .005$, as less information was exposed in the Tel-Aviv estimation task (6.7) than in the Eilat estimation task (7.7). More importantly, students and managers accessed similar amounts of information ($F < 1$). This finding is surprising as managers may have been expected to expose less information because of their industry experience. It is possible that this pattern would have emerged with present market data (see footnote 1).

⁵Only the last price estimate served as an input to the participants performance score.

First, we examined the degree to which the presence or absence of brand and star information impacted search of the remaining four attributes (price, room number, number of restaurants, and pool size). The analysis revealed main effects of Star information, $F(1,97) = 92.4$, $p < .0001$, Brand information, $F(1,97) = 52.12$, $p < .001$, and Attribute, $F(3,291) = 107.3$, $p < .001$. The mean proportion exposed for each of the four attributes was 14.5% when star information was available and 21.6% when it was not. Likewise, the mean proportion exposed for each of the four attributes was 15.4% when brand information was available and 20.7% when it was not. The main effect of Attribute reflected the fact that price information (39%) was utilized significantly more often than room information (14.3%), pool information (7.6%), or restaurant information (11.3%). Post hoc analyses revealed that the proportions exposed for the last three attributes did not differ. There were no further main effects or interactions.

To test the hypothesis that star and brand information are perceived as redundant for the price estimate task we compared the proportion of exposures of brand and star information when they appeared alone (star condition or brand condition) with when they appeared together (star and brand condition). The analysis revealed that brand information was exposed significantly more often in the brand condition (27%) than in the star and brand condition (17%), $F(1,47) = 4.8$, $p < .05$. In contrast, star information was revealed similarly ($F < 1$) in both the star (33%) and star and brand condition (32%). These effects did not interact with Industry experience. In summary, the data suggest that both the managers and students primarily utilized price and star information for their estimates, and only to a lesser extent, brand information, which was used primarily when star information was not available. Commensurate with this view, star information (32%) was exposed proportionately more often than brand information (17%) in the combined brand and star condition (26 subjects), $F(1,24) = 8.6$, $p < .01$.

4.3. Price estimate accuracy

To address whether the managers and students had similar or different perceptions of pricing in the industry we compared initial and final price estimates for the two cities for the two groups. Before conducting the main analysis we first standardized each participants score by calculating the absolute difference in price between each individual's price estimate and the market price and divided this value by the market price. For example, if the market price of a hotel was 100 US dollars and a participant provided an estimate of 150 dollars, his deviation score would be equal to the absolute value of .5 $((150-100)/100)$.

There were several interesting findings. First, the initial market price estimate for the hotel rooms was quite inaccurate, with an initial absolute deviation of approximately .45 for both Eilat and Tel-Aviv. This translates into an over-estimation or underestimation of approximately 190 dollars for a room with a market price of 357 dollars. Interestingly, revealing information from the matrix improved performance significantly only for Tel-Aviv, as the absolute deviation decreased from .44 to .2 (an over or underestimation of approximately 75 dollars for

a room with a market price of 375 dollars), with no appreciable difference for Eilat, before—.47, and after—.45. These data were qualified by a significant interaction between Location and Time of Estimate, $F(1,97) = 18.4$, $p < .001$. A second interesting finding was that for Eilat the estimations of hotel managers (.42) were more accurate than those of students (.5) while for Tel-Aviv, student estimates (.29) were more accurate than those of hotel managers (.36). This finding was qualified by a significant interaction between Location and Industry experience, $F(1,97) = 9.6$, $p < .005$. These accuracy differences were similar both before and after information was revealed from the matrix. Finally, the presence of either brand or star information did not improve participants overall estimates for the last price deviation. This finding suggests that these attributes were not objectively diagnostic of room price with the stimulus set used. It is important to remember however, that historical prices were used and that estimates may have been far more accurate if current prices had been used.

4.4. Performance score

The performance measure took into account both the last price deviation from the market price as well as the number of information items exposed (see footnote 4). The performance score approached a value of 1 when the price estimates were close to the market price and few information items were utilized. As the difference between the price estimate and market price grew, and/or more information was exposed, performance scores approached zero and could turn negative.

Consistent with the finding of smaller absolute price deviations for Tel-Aviv than Eilat, the performance score for Tel-Aviv (.58) was also significantly better than for Eilat (.38), $F(1,97) = 84.7$, $p < .001$. Finally, and as was also found for the absolute price deviation scores, the performance scores of hotel managers (.41) were better than those of students (.35) for Eilat, while for Tel-Aviv, they were worse (.56 versus .59), $F(1,97) = 4.6$, $p < .05$.

4.5. Confidence in price estimate

Participants provided confidence scores throughout the experiment. In our analysis, we compared confidence scores obtained after the first and last price estimate were provided. The most informative result from the analysis was a three way interaction between Location, Industry Experience and Time of Estimate, $F(1,97) = 4.8276$, $p < .05$. As illustrated in Fig. 2 confidence levels were significantly higher after participants revealed information than before they revealed information. Also, for Eilat, managers were significantly more confident than students before information was revealed, while they were equally confident for judgments in both cities after information was revealed. Interestingly, there was no relationship whatsoever between the accuracy of price estimates and the confidence of subjects in their estimates.

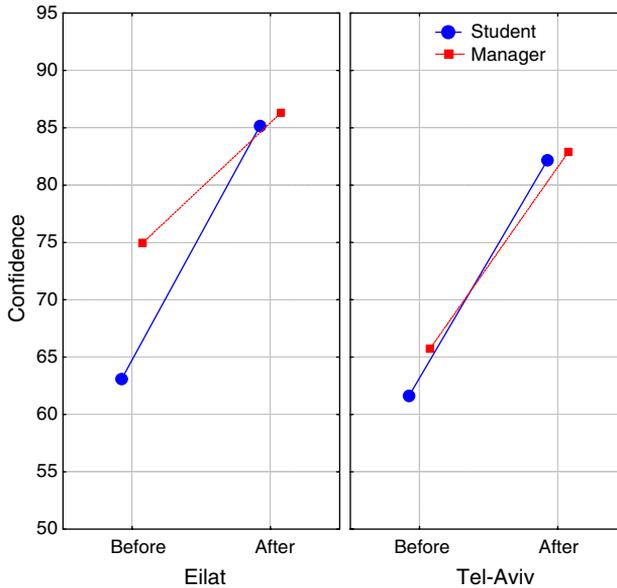


Fig. 2. Confidence levels as a function of Location (Eilat and Tel-Aviv), Industry Experience (Student and Manager) and Time of Estimate (Before and after information was exposed).

5. Discussion, conclusions and future research

5.1. Amount of information accessed

There were several interesting findings concerning the total amount of information accessed. First, due to the cost imposed on information acquisition participants were selective in exposing information. More importantly, managers and students accessed similar amounts of information for both price estimate tasks. This finding is particularly interesting in the case of Eilat as managers may have been expected to expose less information for this city given their industry experience. Several explanations may account for this pattern. First, it is likely that many of the managers were not directly involved in pricing and therefore did not know hotel room list prices. These managers would not have a knowledge advantage over students and therefore would be expected to show indistinguishable search patterns. Second, due to the variability over time in hotel room prices, managers (both those involved and those not involved in pricing) may not have remembered the historical list prices of hotel rooms for a period 3 years past. Again, this would eliminate any knowledge advantage for managers. One way to address whether managers know prices but forget them would be to conduct an experiment similar to ours with current market prices.⁶

⁶Our discussion refers to the market in general and not only the hotels used in the matrix.

A second interesting finding was that both managers and customers acquired less information when brand or star information were present than when they were absent. This pattern is consistent with previous research employing behavioral process measures (Bettman et al., 1998) that demonstrates that the proportion of accessed information decreases as the amount of total information available for search increases (conditions in which either star, brand or both types of information are present).

5.2. Type of information accessed

Two main effects of interest emerged from the relative exposure proportions for the different attributes. First, managers and students accessed similar information, and the type of information did not differ for Eilat and Tel-Aviv. This finding indicates that hotel managers and MBA students perceived the relative importance of the different strategic assets for pricing similarly. This is important because it indicates consistency in the ability of the assets to justify price that does not appear to depend on market specific knowledge. One explanation for this may be that most individuals have been on vacations, and ordered hotel rooms, and through this experience have been able to form a mental representation of the relationship between strategic assets and price.

A second interesting finding concerns the relative proportion of exposure for the various attributes. Given the nature of the task it is not surprising that competitor prices were revealed more frequently than any other attribute. This is expected as most participants may have used a strategy whereby the value of a good is determined based on the market price for similar products. Importantly, our initial conjecture concerning the perceived redundancy between star rating and brand name was confirmed as brand information was accessed less frequently when presented together with star information than when it was presented alone. In contrast, the frequency with which star information was exposed was not affected by the presence of brand information. This result pattern found at the level of the individual decision maker is consistent with the aggregate level data of Israeli (2002) who found that star rating was a better predictor of price than brand name in the Israeli hotel industry. The findings raises the question of whether the Israeli Ministry of Tourism was correct in abandoning the star rating system which consumers still appear to rely on.

5.3. Absolute price estimates

The initial market price estimate for the hotel rooms among managers and students was quite inaccurate and improved after additional information was revealed only for Tel-Aviv. Several explanations may underlie this inaccuracy in pricing. First and foremost, list prices may be known only to the managers who set them. These prices may serve as a signal to competitors but not necessarily a price that will be asked of, or paid by, potential customers. Consistent with this view many hotel visitors in Israel express surprise when they see the recommended price for the

room in which they are staying that is typically posted inside the room. Second, participants evaluated historical market prices, and may have had difficulty correcting their estimates to take into account the time difference.

5.4. *Performance score*

Performance scores that took into account both the absolute price deviation and the amount of information that was selected were significantly better for Tel-Aviv than Eilat. More importantly, performance scores of hotel managers were better than those of students for Eilat, while for Tel-Aviv, they were worse. This finding, which was also present for the absolute price estimate data may reflect a domain specific knowledge advantage for the hotel managers over the MBA students in the case of Eilat. It is less clear why performance scores would be less accurate for hotel managers in the case of Tel-Aviv. One potential explanation is that the hotel managers' knowledge from the market in Eilat actually hindered their performance for Tel-Aviv. Such a result would be plausible if the relationship between strategic assets and price in the two cities was different (see [Israeli, 2002](#) for evidence showing that corporate affiliation led to price discounts in Eilat whereas it did not in Tel-Aviv) and these hotel managers imposed their industry specific knowledge from Eilat to the Tel-Aviv price estimate task.

5.5. *Confidence in price estimate*

For both managers and students confidence levels were higher after participants revealed information than before they revealed information. Also, in the case of Eilat, managers were significantly more confident than students before information was revealed. This is consistent with the notion that the managers felt they knew the Eilat environment better than the students did. Interestingly, this initial difference in confidence levels disappeared in the last confidence estimate. Importantly, and as is many types found in studies on the relationship between confidence and actual knowledge, confidence levels did not predict absolute price deviations.

5.6. *Conclusions*

The main aim of this study was to ascertain the perceived contribution of strategic assets to hotel room pricing at the level of the individual decision maker while taking into account the contribution of industry related knowledge. Two main findings emerged. First, managers and students performance was indistinguishable on almost all measures. This pattern suggests that the strategic assets that we studied are perceived similarly by both more and less knowledgeable decision makers and indicates that those assets that were selected relatively more often are perceived as predictors or signals of price. Another important finding was that for both managers and students, the presence of star, brand or both types of information led to a decrease in the proportion of exposures for the remaining attributes. This finding is consistent with the idea that

star and brand name convey ‘information chunks’ that help decision makers infer other product features (Jacoby et al., 1977). For example, participants may infer that a five star hotel has multiple restaurants, a large pool, and various other amenities. No less important, the data also indicate that star information was perceived as more relevant for pricing than brand name. This is most evident from an examination of the condition in which both attributes were available. Here, brand information was exposed significantly less often than star information for both managers and students indicating that star rating is perceived as more diagnostic than brand name for pricing decisions. However, the fact that both attributes were revealed more frequently than all other attribute save for price indicates that both assets are perceived as relatively good predictors of price (see also Israeli, 2002; Israeli and Uriely, 2000).

In the context of the Israeli hospitality industry, the finding that star rating was perceived as more important than brand name for pricing decisions may be a cause for concern. This system that used to be the dominant quality rating for hotels in Israel was revoked by the Israeli Ministry of Tourism in 1995. Despite the fact that the system is no longer officially maintained, our findings demonstrate that consumers still use star rating to infer the price and most likely quality, of hotels. The implication of this findings is that the Israeli industry, in cooperation with the regulator, must choose between three options: (1) to reinstate the star rating system as a governing standard for quality rating of hotels in Israel, (2) to change its focus and to strengthen brand-name differentiation strategies, or (3) to develop a new attribute (or asset) that would allow for price justification and differentiation.

5.7. Suggestions for future research

Our study compared the perceived contribution of strategic assets to hotel room pricing for managers and students in the Israeli hospitality industry. It is most likely the case that in other markets the relative importance of the various strategic assets may vary and will differ from that in Israel. For example, in the US market, brand name may be perceived as the most reliable predictor of price as research suggests that this attribute is the primary differentiating strategic asset in that market (Ingram, 1996). In contrast, in the European market, which is differentiated by brand name and by quality rating (i.e., tourist class, economy class, etc.) both attributes may serve as good price justifiers. To examine this possibility it would appear worthwhile to conduct studies similar to ours in countries with various market structures. Interestingly, an investigation of popular websites that provide hotel booking services may be valuable in this respect. A first step would be to examine whether the websites that serve different target markets emphasize the same or different attributes. A more proactive approach would be to join forces with such a website service provider and design online experiments that could evaluate search performance of actual tourists planning a vacation. An investigation of consumer click-stream behavior would provide valuable insight into both the amount of search they conduct, the pattern of search, and the relative importance of various strategic

assets.⁷ In this context, it would be interesting to see whether local and foreign consumers evaluate strategic assets for similarly.

In summary, our study demonstrates that the behavioral process method may be used for identifying attributes that predict price in the hospitality industry. The method provides a way to understand customer data acquisition processes, to identify redundant attributes, and to evaluate the perceived contribution of various attributes to price justification. The use of this approach may aid firms in developing more effective pricing strategies that take into account both customer-based and cost-based factors.

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⁷We thank a reviewer for suggesting this idea.

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