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Using external reference price to reduce resistance to leisure service pricing increases

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Zone of tolerance has emerged as a key concept for guiding pricing decisions. It directs that user resistance to prices for new services or price increases to existing services will be minimized if they are within this zone, and that if discounts are to be effective in inducing additional use they should be of sufficient magnitude to be outside this zone. External reference prices can be used to influence users' perceptions of the parameters of the zone of tolerance. Four contexts in which this principle may be effective in the context of leisure services are discussed and illustrated: (i) the use of discounts to induce trial or re-engagement with an activity; (ii) comparative pricing with competitors; (iii) offering a high priced service so the other services' prices are perceived to be relatively low; and (iv) facilitating acceptance of price discrimination.

Keywords: zone of tolerance, latitude of acceptance, external reference prices, discounts, surcharges, prospect theory

INTRODUCTION

It has long been established in the marketing literature that reference price is the standard against which the fairness of a purchase price is judged (Monroe, 1973). Reference price is the price people expect to pay for a service. Its theoretical rationale emanates primarily from adaptation level theory (Helson, 1964) which suggest that people judge a stimulus by comparing it with the level to which they have become adapted.

In the leisure service field, a substantive literature suggests that reference price can be shifted by providing information that effectively changes the context in which the fairness of a given price is viewed. This work has been reported both in the UK (Gratton and Taylor, 1995, Coalter, 2004) and in the US (McCarville and Crompton, 1987a, 1987b; McCarville, Crompton, and Sell, 1993; Crompton and Kim, 2001; Kim and Crompton, 2001). Most of this work has focused on raising reference price by providing information relating to costs of service, impact on opening hours, impact on quality of service, and impact on others (both users and non-users). In contrast, this paper discusses the potential of strategies that use external reference prices for shifting contexts and raising users' reference prices.

The principles articulated in Helson's adaptation level theory were complemented in the context of pricing by those developed by Sherif and Hovland (1961) in their assimilation contrast theory (also known as social judgment theory). This proposed that there was a latitude of acceptance for new stimuli that were tolerable and there was a latitude of rejection for those considered to be objectionable. The theory emerged from a series of experiments they undertook with weights and numerical scales. Subsequently, their work has been adapted from its original pschophysical context and used to explain customer reactions to price decisions. In the context

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of leisure service pricing decisions, their terminology has been amended so latitude of acceptance is commonly termed zone of tolerance, while latitude of rejection transitions to zone of rejection.

In Figure 1, the *zone of tolerance* recognizes that for a given service and quality level, people have a range of prices that are considered acceptable. In the leisure services field this has been empirically confirmed by Gratton and Taylor (1995) and McCarville (1996). A new price is assimilated and accepted only if it is judged as being within that range. The range is then updated to incorporate the new information. The *zone of rejection* characterizes prices that fall outside the zone of tolerance, so a contrast effect occurs and the price is rejected. The *zone of non-commitment* lies between tolerance and rejection. A new price is assigned to that zone if it is not immediately accepted or rejected. From here, the price may either be assimilated and accepted, or be classified as contrasting with the reference price and be rejected. Prices perceived to fall into this zone are most susceptible to being shifted to a user's tolerance zone by shifting the perceived context. Thus, as reference prices change with experience new credible prices are assimilated (McCarville and Crompton, 1987a; McCarville, 1993). Thus Gratton and Taylor (1995) concluded: "The upper boundary of reference prices shifted as prices rose" (p. 259). Prices that are not deemed credible are contrasted and probably rejected, so their influence on the reference price is likely to be insignificant.

The low and high parameters of the zone of price tolerance are shown as the bargain and resistance points, respectively, in Figure 1. The zone of price tolerance is shown as being asymmetrical. That is, the zone is narrower above the median reference price and wider below it. This asymmetric response to a price change is explained by prospect theory which directs that users are likely to be more sensitive to prices above a reference point (perceived loss) than to prices below it (perceived gain) (Kahneman & Tversky, 1979). They tend to perceive a reduction in price below a reference price to be smaller than it actually is, but when a price revision is higher than the reference price the price difference is likely to be perceived by users to be larger than it actually is (Krishnamurthi et al., 1992).

The model described in Figure 1 pertains to decisions relating both to fixing a price for a new service and to raising the prices of existing services. However, when price discounts are considered and prospective participants recognize the price reductions are temporal,

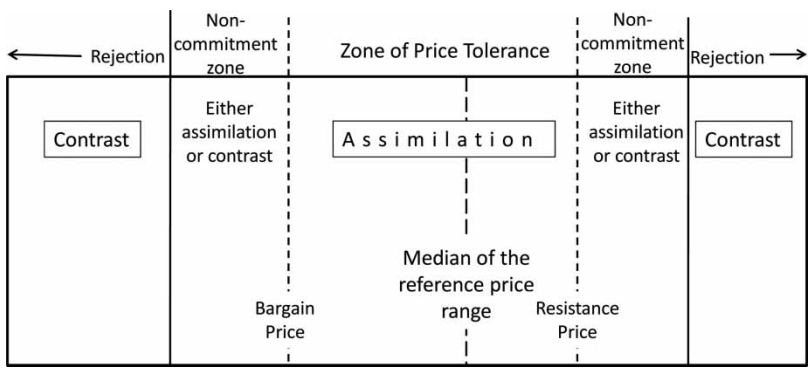

Fig. 1. A Conceptualization of the Zone of Price Tolerance

then the concepts of non-commitment and rejection below the bargain point do not apply.

There are two primary implications of the model shown in Figure 1. First, user resistance to the pricing of new services and to price increases is likely to be minimal if they are perceived to be within the zone of tolerance. Second, if discounts are used to try and induce potiential users to try a service, they must be sufficiently large to be outside the zone of tolerance or they will not capture people's attention. This paper illustrates four contexts in the leisure services field in which emphasis on an external reference price can be used to accomplish these two desirable outcomes.

In these contexts an external reference price is established in potential users' minds, and it is then used by them as the criterion against which they judge the fairness and appropriateness of a price change. The effectiveness of using an external reference price in this way has been consistently demonstrated in the marketing literature (Compeau & Grewal, 1998).

USING DISCOUNTS TO INDUCE TRIAL OR RE-ENGAGEMENT

When purchasing a leisure service people typically pass through the decision process shown in Figure 2. Initially they become aware that a service exists; then have some interest in experiencing it; they try it; on the basis of the trial they decide to become regular users; and regular positive experiences reinforce their commitment to it.

Perhaps the toughest challenge for leisure managers is to move individuals from the interest stage to the trial stage in this decision process. Many people can identify a variety of leisure activities which they are

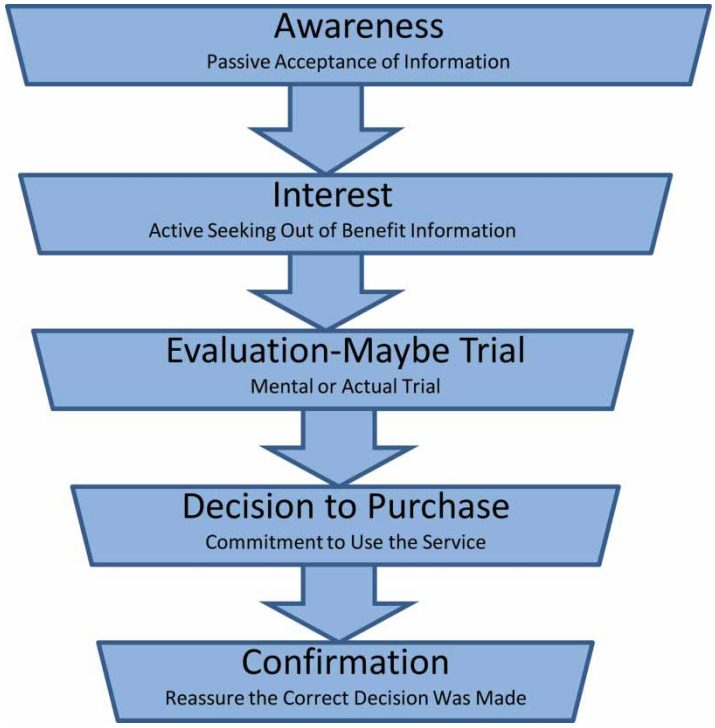

Fig. 2. Purchase Decision

interested in experiencing, but which they have not yet got around to trying. Alternatively, they may have formally participated in an activity, but discarded it when other priorities on their time arose and may be receptive to re-engaging in it. The intent of a price discount is to move people from the interest to the trial stage by offering a reduced price for a short period of time.

In this case, the regular price is positioned as the external reference price criterion against which the magnitude of a discount is measured. For the discount to be effective in inducing trial behavior, it has to be much lower than what prospective participants perceive to be the normal expected price, that is, their tolerance zone, or it will not resonate with them. It should be noted that it is illegal in the U.S. to artificially inflate a "regular" price in order to magnify the size of a discount. The external reference price must not be fictitious or misleading, and it has to have been in effect for a given period of time.

The form in which a price discount is presented will influence its effectiveness. Consider the following forms:

- Regularly $20; for one week $15
- 25% off for one week
- Save $5 for one week
- Special: $15 for one week.

All four formats have both discount information and limited-time availability information (Howard & Kerin, 2006). However, all else equal, the first of them is likely to be most effective because it highlights the regular price and uses it as the external reference point. This anchor cues prospective users to the magnitude of the savings they will accrue. McCarville (1996) reported that some users in his swimming pool sample were unsure of what was the regular price, so including it as the point of external reference was likely to significantly increase the effectiveness of the discount. In the marketing field, these findings were confirmed by Mayhew and Winer (1992).

Both monetary and proportionality discounts may be effective if they are large enough to be perceived as being outside the lower boundary of the zone of tolerance. A $1 swimming pool discount moving the price from $2 to $1 is small, but it is a 50% discount. The 50% figure is likely to attract more attention than a $1 saving, so in this case the proportionality discount should be promoted. A class discounted from $20 to $10 represents a large monetary amount so the monetary number rather than the proportionality should be stressed. These examples illustrate a general rule which is that a price discount framed in monetary terms will be more effective for high-priced services, whereas the same price reduction framed as a percent discount is likely to be more effective for lower priced services (Krishna et al., 2002).

People are more likely to respond to discounts for higher priced services because the amount of money saved is relatively high. However, perceptions of "higher priced" will vary across target markets. A discounted swim admission from $4 to $2 may be of no interest to higher income groups because of their perception that a $2 savings is insignificant. In contrast, it may have a galvanizing effect on low income groups who recognize that a family group of four people can save $8 on the admission price.

Whatever the presentation format, the discount must be perceived as being sufficiently deep that it will generate awareness and stimulate action among people who might not otherwise have considered participating. Conceptually, it should be the minimum discount needed to have this effect. At the same time, if it is not outside the boundaries of the zone of price tolerance, then it is unlikely that it will be perceived as offering any more utility than the regular price and will not create the level of awareness and excitement that is necessary for it to be effective.

Research in the marketing field suggests the zone of tolerance is likely to be around

10% - 15% (Kalyanaram & Little, 1994, Cram, 2006), while most promotional discounts are in the 30% - 50% range. Figure 1 shows the zone of tolerance is asymmetrical, being more sensitive to price increases than price decreases, so discounts have to be steeper than price increases to be noticed. Thus, price discounts designed to induce trial for a leisure service probably should be in the 15% to 50% range.

The phenomenon of odd pricing is relevant in setting a discount figure. It is common in the commercial market place for the price of many products and services to end with the number 9, for example, $9.99 instead of $10, or $29 instead of $30. Several explanations have been offered to explain this phenomenon, but the most convincing is termed "truncation" (Liu & Soman, 2008). This explanation derives from research demonstrating that people process prices from left to right: For example, in the following illustration which discount A or B, appears to be the largest?

A		B	
$41	$29	$45	$33

Both of the discounts are $12, but most people are likely to select discount A. It is suggested that this occurs because of a tendency to reach a decision by only comparing the left-side digits, so the difference between 4 and 2 is greater than that between 4 and 3 (Stiving & Winer, 1997).

The length of time for which the discount is offered should be relatively short – say 1 – 2 weeks – for two reasons. First, the strategy's purpose is to provoke imminent action by potential users. If the time period is lengthy, they may continue to defer action to a future date so the sense of urgency the discount is designed to create dissipates and no action is taken. Second, the longer the time period and the more frequently such offers are made, the more likelihood there is of the discount price morphing into the zone of tolerance in some people's minds.

COMPARATIVE PRICING WITH COMPETITORS

A second use of external reference price is for an agency to change the context of a new price increase that is higher than the zone of price tolerance by framing it with the prices charged by other agencies so it is viewed more favorably. Given higher comparative price information, users may move their resistance price higher (Blair & Bandon, 1981; Della Bitta et al., 1981; Urbany et al., 1988). For example, if the admission price to swimming pools is increased by 100% from $2 to $4, there may be vigorous negative reaction. A more favorable evaluation may be elicited by comparing the new price with those charged in proximate communities: "In cities A, B, C and D the prices are $5, $4.75, $4.50 and $4.00, respectively, so our new price is still lower than that charged by others." Alternatively, the external reference price could be that charged by non-profit or commercial entities in the city: "The university charges $7; the YMCA, $6 and the ABC health club, $9; so our new price still provides residents with a relatively low cost option." Comparisons with nonsubstitute services may provide users with an external reference point with which to favorably compare a service's price, "For $4 you can swim all afternoon *or* have two large Cokes at a fast food outlet."

Several studies have investigated the influence exerted by knowledge of external prices for comparable leisure services on changing willingness to pay a higher price. In their early study of this issue, McCarville and Crompton (1987) asked their probability sample of 254 adult residents: "What would you expect to pay for a swim at a city pool?" Those who were provided with the much higher external price charged for

swimming at a commercial pool in the city reported a higher price expectation than those who did not receive this information. Among pool users, the commercial pool price information raised reference price by 13%, while among non-users the increase was 26%. Presumably, after being alerted to the commercial price non-users wanted to see a higher price charged at the public pool in order to reduce the amount of tax subsidy they were required to provide.

The positive impact of comparative price information was reinforced soon after by similar results reported by Reiling et al. (1988) in their study of attitudes of both resident and non-resident users to camping fees at Maine State Parks. Existing fees for the two groups were $5 and $6.50 per night, respectively. When informed that the average fee charged at Maine commercial campgrounds offering similar facilities and services was $8, then the percentage in the two groups who thought the state park fees were too low increased from 9% to 14%, and from 8% to 16%, respectively.

Schwer and Daneshvary (1997) further confirmed this pattern among their sample of 2,855 visitors to the Hoover Dam Powerplant in Nevada. The visitors were asked if the Hoover Dam price they were charged was too low, just right or too high. Subsequently, they were given information on the entrance fees to other well-recognized attractions in the United States that charged higher prices than Hoover Dam and asked the same question. Among Nevada residents, the percentage of those perceiving the price was too low shifted from 3% to 10%, while among non-residents the shift was from 2% to 5%.

Crompton and Kim (2001) selected their sample of 892 residents randomly from a list of those holding a current Texas driving license. The control groups were given prices for admission to Texas State Parks which were higher than those currently charged and asked to react to them on a five point scale ranging from "much too low" (1) to "much too high"(5). The treatment groups received information about the price of admission at competitor attractions such as theme parks, golf courses and bowling centers. The scores of the control and treatment groups among park users were 2.99 and 2.93, respectively, while among non-users they were 3.07 and 2.93. Although the differences between the groups were not statistically significant, there was more of a tendency among those receiving the external reference price information to consider the given prices to be too low.

THE HIGH-END STRATEGY

A third use of external reference price is to include a "high end" priced service in an agency's offerings. This may serve as an external reference price which expands the upper range of the zone of tolerance so perceptions of all other services' prices in the agency, and subsequent increases of them, are lowered. For example, if an agency includes a personal trainer fitness program at $25 an hour and promotes this so the price has high visibility, this may serve as an external reference price resulting in perception of prices to be lower for all other fitness classes offered.

USING DISCOUNTS NOT SURCHARGES

Finally, there are instances where leisure service agencies engage in price segmentation so they charge a different price to different groups for the same service. Prospect theory postulates that individuals attend to the prospect of gains and losses, and to the way in which these gains and losses are descriptively framed. The theory's authors concluded from their empirical experiments: "A salient characteristic of attitudes to changes in welfare is that losses loom larger than gains. The aggravation that one

experiences in losing a sum of money appears to be greater than the pleasure associated with gaining the same amount" (Kahneman & Tversky, 1979, 279). Research during the 30 years since their theory was proposed has consistently reaffirmed the robustness of loss aversion. Consider the following situations:

- A state park agency charges residents $12 and non-residents $15 a night for camping.
- A city charges its residents $20 to play golf and non-residents $25.
- A golf course charges $40 a round on Saturdays, but $50 for rounds started before 10 am.
- Registration is $30. If you register late, the fee goes up to $40.
- When campers go to register at a state park the staff response is: "The fee is $12; you don't have a state parks sticker? Then it is $16; you want an electricity hook up? Then it is $19."

In all of these cases, the regular price is established as the external reference price, and then a surcharge is added for those who are not eligible to pay the regular price. In each of the above cases, the surcharge is likely to be sufficiently large that it exceeds the resistance price and falls outside the zone of tolerance. Even when those who are subjected to a surcharge see the rationale for it, prospect theory suggests there is likely to be resentment because a surcharge is a loss to them (Kahneman & Tversky, 1979).

This resentment is likely to be removed if the higher price is framed as the regular price so it serves as the point of reference, and discounting from it becomes a gain to others. Thus, in the above examples the price information would be presented differently:

- The state agency price for camping is $15. Residents receive a $3 discount to $12.
- It is $25 to play golf. Residents receive a $5 discount to $20.
- The Saturday price for golf is $50. A $10 discount is given to those who start after 10 am.
- Registration is $40. A $10 discount is given to those who register early.
- The camping fee at the state park is $19. You are a state resident? Then it is $15. You don't need an electricity hook up? Then it is $12.

Surcharges make people mad; discounts make them happy! This was empirically verified by Kimes and Wirtz (2003) who examined framing effects in golf. They presented differential prices to golfers in the forms of a discount and a premium. They reported, "When the price was presented as a discount, customers viewed it as significantly more acceptable (mean = 2.96) than when it was presented as a premium (mean = 3.92)" (p. 340).

CONCLUDING COMMENTS

Over the past quarter century, it has been increasingly recognized that neoclassical economic models of supply and demand for predicting appropriate prices are incomplete (Gratton and Taylor, 1995). They are now regarded as providing a skeletal structure, which has to be substantially amended to incorporate behavioral dimensions of individuals' reactions to a given price or changes in price. Perceptions of client groups to price changes are malleable.

The zone of tolerance concept is central to understanding that malleability. Since Monroe's (1973) pioneering paper, a substantial literature has evolved establishing that internal reference price is a key standard around which a zone of tolerance is formulated and against which the fairness of a price is judged. Internal reference price is widely conceptualized as the weighted mean value of past prices users have observed that assigns more weight to recently observed prices (Briesch et al., 1997; Della,

Bitta and Monroe, 1974; Kalyanaram and Winer, 1995). This paper has suggested the concept of external reference price can be used to shift internal reference price and, hence, the parameters of people's zones of tolerance. Leisure managers have no control over users' internal reference prices because they are formed from experience. However, this paper suggests that managers can influence perceptions of price by imaginative use of external reference price.

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