Using Inferential Evidence to Determine Likely Reaction to a Price Increase at a Festival

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This article reports an attempt to use an inferential approach to assess the likely reaction of festival visitors to a price increase. Reactions were evaluated from a historical analysis of visitation reaction to price increases and responses to six questions pertaining to substitution opportunities, strength of reference price, distribution of trip costs, affluence of the target market, and value for money. As a result of the findings, a decision was made to raise the admission price by one-third.

Traditional economic approaches to pricing, such as marginal cost analysis, are difficult for festival organizers to implement because the addition of one more person to the audience makes little or no difference to the cost. However, research suggesting alternative approaches for setting prices or assessing festival goers’ willingness to pay is conspicuously sparse in the literature. Getz (1991) notes that “this area requires considerably more work to help provide firm guidance on event pricing” (p. 211), and states: “Consequently, the decisions on price are often made subjectively or for political reasons” (p. 209). The purpose of this article is to report some empirical approaches which appear to be useful for reducing the degree of subjectivity and for guiding price decisions.

Dickens on The Strand is an annual Victorian Christmas celebration held in Galveston, Texas, on the first full weekend in December. The idea was conceived by the Galveston Historical Foundation. The Strand is a famous street in London, and is also the name of the main thoroughfare in Galveston’s Strand National Historic Landmark District, which is the site for the festival. The Dickens theme was a logical extension of the District’s nineteenth-century cotton-trading connections with England and heritage of Victorian architecture. A more complete description of the Dickens event is given by Getz (1991).

The first Dickens on The Strand, held in 1974, was really a block party, but the event has evolved into a major annual community festival and tourist attraction. For the first few years, the festival was held only on a Saturday. However, in 1980, in response to its growing popularity, Dickens was extended to include Friday evening. These times were retained through 1982, but in 1983, as popularity continued to increase, it evolved into the present time format of Saturday and Sunday.

Figure 1 shows the estimated number of automobiles that crossed the causeway to Galveston Island to attend Dickens each year, for each of the three days. No direct attendance records for the festival are available, but in 1991 the authors organized a physical count and reported that 71,440 visitors entered the site. When the 1991 automobile estimate was cross-checked with the gate count, it was found to be within 3%, so automobile estimates appear to be an acceptable approximation of attendance.

The overall attendance pattern shows the general form of a product life cycle (Figure 2). The number of visitors coming to the Island on Friday and staying overnight to visit Dickens on Saturday has remained relatively consistent since the Saturday and Sunday format was introduced in 1984 (Figure 1). The Saturday attendance, which accounts for most visitation, follows the general life cycle profile of the overall visitation pattern with a decline in the past two years from the 1988-89 peak. The festival first extended to Sunday in 1983, and in that year the Friday night visitation from previous years was transferred to Sunday. However, the Sunday attendance has been generally disappointing, lagging far behind the Saturday visitation numbers.

The life cycle of tourism destinations was conceptualized by Butler (1980) to have six stages. Although Dickens is an attraction within the city of Galveston rather than a destination per se, the graph in Figure 2 suggests that Butler’s framework is applicable: Dickens appears to be at the saturation or stagnation phase of the life cycle. The typical characteristics of this are that the peak number of visitors has been reached, and the destination has a well established image, but it is no longer in fashion.

The Dickens festival was originally created to draw attention to and help preserve Galveston’s historic waterfront commercial district. In the early years, the festival’s primary mission was to generate greater awareness and support in the Houston metropolitan area for the historical restoration work which the Galveston Historical Foundation was promoting and sponsoring in The Strand area. An important secondary mission was to generate additional business for the retail establishments that had opened in the area. During the 1980s these missions were achieved. The successful restoration and rejuvenation of The Strand area received extensive publicity, and a wide level of public awareness was attained.

Over the years, the Galveston Historical Foundation expanded its mission beyond The Strand to embrace a variety of additional restoration programs. The attainment of the original primary awareness mission of the festival, together with the Foundation’s expanded role, has led to a gradual shift in the primary purpose of the Dickens festival. Today, the
festival's primary mission is revenue generation to support further projects in The Strand area and the other 15 restoration programs the Foundation sponsors. Since the major source of revenue from Dickens is the admission price, attention has been focused on the potential for increasing revenue by raising the price.

Pricing is one of the most technically difficult and potentially most sensitive areas on which organizations, especially those in the public or nonprofit sectors, have to make decisions. It has been noted that “pricing is at least as much an art as a science, and that judgment must play a key role in pricing” (Crompton and Lamb 1986, p. 374). Although judgment is required, it should be informed judgment.

The most commonly used consumer-oriented approach to measuring level of price sensitivity is to use a question directly addressing willingness to pay. In the context of the Dickens festival, the question might be, “If the price of admission to Dickens were to be increased by $2, would you still come?” A limitation of this approach is that respondents may engage in strategic behavior in an attempt “to influence the outcome or results by not revealing a true valuation” (Rowe, d’Arge, and Brookshire 1980, p. 6) because it is in their self-interest to give false responses that would lead to a lower admission price than they were really prepared to pay.

The study reported in this article used an inferential approach rather than a direct approach: nondirect pricing questions were included to elicit information that offers useful input in making decisions about price increases. The inferential approach may be viewed as a form of triangulation to complement and cross-validate responses from a direct pricing question. The variety of inferential questions used also meant that the responses offered different perspectives on the likely reaction to a price increase, and in that sense were sources of triangulation for each other.

**METHOD**

Inferences about respondents’ reactions to existing price and their likely reactions to a price increase were drawn from...
a historical analysis of past behavior of visitors to price increases and from six questions concerned with identifying (1) the extent to which the Dickens festival was perceived to be unique, (2) the main competitive festivals and their prices, (3) length of stay, (4) proportion of individuals' total expenditure accounted for by the admission price, (5) income level of the target market, and (6) perception of the festival's value for money.

Data were collected from a systematic sample of visitors. The questions of interest in this study were part of a relatively long questionnaire, since issues other than pricing were also addressed. Sampling was conducted at four of the site's 10 gates through which 65% of all visitors entered into the festival. Gates and times were randomized through the two-day period, and every nth visitor over the age of 16 coming through the selected gates was invited to participate in the study. The refusal rate was less than 10%. Respondents were offered an incentive of being entered into a drawing for a major prize if they returned the questionnaire. A follow-up postcard and two follow-up mailings of the questionnaire were done. These procedures resulted in 471 useable questionnaires being returned, representing an effective response rate of 80%.

RESULTS

Historical admission prices and visitation levels are shown in Figure 2. In the festival's first two years, no admission price was charged. In 1976 and 1977, a voluntary donation of $1 was requested and in 1978 an admission fee of $1 was imposed. Figure 2 shows that the event has been characterized by a remarkable level of price inelasticity. With the exception of the last price increase to $6 in 1989, in every year in which the admission price was raised, the attendance increased substantially. In 1989, there was a 3% decline in attendance, but the increase to $6 represented a 20% increase in price. Figure 2 shows there was no price increase in 1990 and 1991, but that the decrease in attendance in those years was substantially greater than that in 1989, suggesting that price may not be a prime reason for the slight attendance decline in 1989. The historical evidence suggests that Dickens' visitation has not been adversely affected by increases in price.

Crompton and Lamb (1986) suggest three main factors are likely to influence price elasticity: availability of substitute services, overall costs covered by the price, and affluence of the target market. Concerning the first factor — the availability and relative price of substitute services — Crompton and Lamb state, "If a similar service of comparable quality is offered by another supplier, then a substantial change in the organization's price structure relative to the alternative supplier's price is likely to lead to a substantial change in the demand for the service" (p. 337). Respondents were asked how many other Texas festivals they had visited in the past two years. The responses in Table 1 suggest that Dickens on The Strand offers a unique experience to many visitors, since 49% had not attended any other festival. For these visitors, a directly substitutable experience does not appear to be available. Only 19% of visitors could be classified as "heavy festival goers," who had been to three or more festivals in the previous two years.

Those who had been to other festivals were asked, "Other than Dickens on The Strand, which two of them did you most enjoy?" Of this group, 38% (or 18% of the total sample) listed the Renaissance Festival; this proportion far exceeded that of any other festival listed. Thus, the Renaissance Festival appeared to be the closest direct substitute experience for Dickens available. This festival runs for seven weekends through October and November each year. It is on a site located about 100 miles from Galveston, but it is approximately equidistant with Dickens from Downtown Houston, so it seeks to attract similar target markets in the Houston metropolitan area. The Renaissance Festival, like Dickens, has an English historical theme, but it is focused on the sixteenth century rather than the Victorian era. The daily gate admission to the Renaissance Festival was $12.95, which was more than double that charged by Dickens.

Reference price is the price visitors expect pay. The expectation derives from past pricing experiences at the attraction or similar attractions, which are amended to fit the context of the current situation (McCarville and Crompton 1987). Willingness to pay a price is likely to be strongly influenced by expectation of what the fair price should be, since the new price is compared to the reference price and this determines an individual's assessment of whether the new price is too low, too high, or about right (Monroe and Petroshius 1981). The data reported in Table 1 indicate that 49% of visitors did not go to other festivals and thus had no direct reference price against which to evaluate whether the Dickens price was fair, except, in some instances, the price paid on a previous visit to Dickens. However, the study reported that 47% were first-time visitors, so many individuals had no direct reference price framework. This lack of a direct reference price makes it unlikely that new, nonfestival-going visitors would resist a price increase, because for them the first price paid established the only direct reference as to what constitutes a fair admission price. For many other Dickens visitors, the reference price was likely to be influenced by the Renaissance Festival price, which was more than double that charged at Dickens. Thus, a price increase appears unlikely to adversely affect Dickens attendance by Renaissance Festival goers.

Although many respondents had not been to other festivals, it is possible they could formulate a reference price for Dickens by comparing Dickens' price with less direct substitutable events such as other leisure entertainment opportunities. Table 2 shows the modal (most typical) length of stay on the site was four hours both on Saturday and Sunday. The mean average stays for the two days were 5.4 hours and 4.7 hours, respectively. The longer average on Saturday was probably attributable to the festival extending longer into the evening on that day.

While the price of admission to leisure activities varies, a reasonable rule-of-thumb is $3 per hour. As examples illustrating this time duration-admission price relationship, a
theme park visit tends to average about eight hours and costs around $24, a two-hour movie at a theater costs $6, and bowling is likely to cost around $3 per hour. The $3 per hour figure can only be a point of departure since many other situation-specific factors have to be considered, but it does reasonably approximate the price charged for a wide range of leisure opportunities. Given the length of stay data shown in Table 2, the Dickens admission price of $6 would appear to be very low.

The second factor cited by Crompton and Lamb (1986) which influences price elasticity is the proportion of total costs that the direct price of a service represents: "If substantial costs are involved, then a small change in the direct user price is not likely to lead to a meaningful change in demand" (p. 337). Respondents were asked to record their expenditures in eight categories and to indicate whether the expenditures were made on or off Galveston Island. Expenditures from Galveston Island residents were excluded from the analysis. Admission price to Dickens on average accounted for only 8% of each off-the-Island visitor's total trip expenditure. It seems unlikely that an increase in admission price would deter visitors when it represents such a small increase in their total costs.

Affluence of the target market was the third factor influencing price elasticity identified by Crompton and Lamb (1986): "The greater the level of affluence, the less likely a price adjustment will cause a change in use" (p. 337). Table 3 reports household incomes. Respondents were relatively affluent, with almost 60% reporting incomes of $40,000 or more and over half of those (31% of the total) reporting levels of $60,000 or more. An admission price increase seems unlikely to adversely influence their decision to visit Dickens.

Finally, respondents were asked two value-for-money questions, to which they responded on the five-point scale shown in Table 4. The questions were (1) "Given the admission price my group paid, our experience at Dickens was . . . "; and (2) "The prices for food and beverages at Dickens were . . . ". Responses to the two questions were markedly different. Those relating to admission price were substantially more favorable than were those pertaining to food and beverages prices. These data suggest that increasing food and beverage prices is not feasible without risking alienation of many visitors, but that raising the admission price is an option since only 8% believed it was currently too high.

**TABLE 3**

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<tr>
<th>Income</th>
<th>1991</th>
<th>1987</th>
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<td></td>
<td>Percent</td>
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<tr>
<td>Less than $20,000</td>
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<td>70</td>
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<td>$80,000 and over</td>
<td>15</td>
<td>63</td>
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**CONCLUDING COMMENTS**

The inference from all the indicators reported in the study was that the current Dickens admission price of $6 could be raised. As a result of these findings, the price was increased to $8. If these indicator questions and analyses are used regularly, either every year or second year, with a probability sample of visitors, then responses can be compared to the baseline data reported here.

Although the data suggest a large majority of visitors will accept this price increase, there is likely to be some proportion who will resist it. However, the festival offers price-sensitive visitors two alternatives. First, all visitors who are dressed in Victorian costume have always been admitted free of charge. The costumes make a substantial contribution to the atmosphere of the festival, and studies have shown they are an important part of the event's wide appeal. This policy is interpreted liberally, so it means that those dressed inexpensively as street urchins are eligible as well as those in more expensive Victorian finery. Second, price-sensitive visitors may purchase discounted advance purchase tickets, which are on sale at the outlets of a large supermarket chain that operates throughout the greater Houston area. These advance tickets are priced at $6 instead of the $8 gate admission.

Dickens officials reported that despite the availability of these options, price increases in the past had produced no noticeable increases in either number of costumed visitors or number of advanced discount ticket sales.

The finding that almost half of visitors were first-timers confirms a similar finding in a 1987 survey of the Dickens festival. The implications of this are profound. The aggregate off-Island attendance between 1978 and 1991 is estimated at almost 720,000. If it is assumed that 50% of all visitors in this time period were first-timers, then 360,000 people have visited Dickens. Both the 1991 and the earlier 1987 studies reported that approximately three-quarters of off-Island attendance was first-time attendance.
visitors came from the Houston area. Since 270,000 people from the Houston area have visited Dickens, there may be decreases in attendance in the next few years even if no price increases are made, because the target pool of potential customers is being depleted.

There is often a temptation to refrain from price increases when attendance is decreasing. However, the data in this case suggest the Dickens festival is price inelastic at its current admission rates, and foregoing a price increase will not retain visitation levels.

The attendance trend graph of Figure 2 follows the general form of a product life cycle. The lack of a historical relationships between visitation and pricing levels suggests that the decline since the 1988 peak attendance is not related to price, but rather to an inability either to attract different target markets or to modify the festival in a way which will encourage repeat visitation.

The set of questions used in this study gave clear guidance that the admission price should be increased, given that a primary mission of the festival is to maximize revenue. This inferential approach appears to be a useful managerial tool for guiding the difficult annual decision on price that festival organizers have to make.

REFERENCES