QUALITY, SATISFACTION AND BEHAVIORAL INTENTIONS

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Abstract: Performance quality was conceptualized as the attributes of a service which are controlled by a tourism supplier, while satisfaction referred to a tourist's emotional state after exposure to the opportunity. A structural equations model hypothesized that perceived performance quality would have a stronger total effect on behavioral intentions than satisfaction. This hypothesis was confirmed. The analysis also indicated that the perceptions measure of quality fitted the hypothesized model better than data derived from the subjective disconfirmation measure. Results suggested that evaluation efforts should include assessment of both performance quality and satisfaction, but since performance quality is under management's control it is likely to be the more useful measure. Keywords: performance quality, satisfaction, behavioral intentions, festival, structural equations.

INTRODUCTION

The literature related to quality and satisfaction in the tourism and recreation field dates back to at least the Outdoor Recreation Resources Review Commission reports of 1962 (Manning 1986). The high level and sustained interest in this topic derives from a widely held belief that the primary managerial criterion for success should be defined in terms of level of satisfaction (Bultena and Klessig...
1969; LaPage 1963). Implicit in this belief is the notion that improvement in performance quality and satisfaction will result in retention or expansion of tourist numbers, more vociferous and active tourism support, and ultimately enhanced profitability and political support.

It seems intuitively logical that there should be a causal link between quality of a tourism supplier’s performance, level of consumer satisfaction, and the organization’s success. Higher quality of performance and levels of satisfaction are perceived to result in increased loyalty and future visitation, greater tolerance of price increases, and an enhanced reputation. The latter is critical both for attracting new tourists through positive word-of-mouth and media acclaim and, in the case of publicly owned amenities, for enhancing or retaining level of public tax investment in the amenity.

Although a substantial literature has evolved in this area, there has been relatively little discussion of the distinction between the constructs of quality of performance and level of tourist satisfaction, nor has there been any assessment of their relative impact on subsequent behavior. Failure to resolve these issues is not unique to those working in this field. In the marketing field, the topic of service quality has probably been discussed and researched more than any other issue in the past decade. Despite this substantial investment of effort, there is vigorous debate on conceptualization of the performance quality and satisfaction constructs, and the nature of their interrelationships. The primary intent of this paper is to focus on the impact of performance quality and satisfaction on behavioral intentions, but this cannot be done without first addressing the conceptualization issue.

Conceptualizations of the relationship between the constructs of quality and satisfaction have evolved independently in the tourism and marketing literatures. A detailed discussion of the definitions and nature of these two constructs, and how they differ in the two literatures has been provided by Crompton and Love (1995). Their conceptualization of the constructs as used in the tourism field was adopted in this study. The lack of consensus on conceptualization of the two constructs has resulted in confusion to the point where the two constructs are frequently used interchangeably (Parasuraman, Zeithaml and Berry 1994a). Thus, for example, from his comprehensive review of the literature Manning does not differentiate between the two when he concludes that “The principal measure of quality in outdoor recreation has long been defined by visitor satisfaction” (1986:6). In the marketing field where debate on the two constructs has been particularly dynamic, Taylor and Baker have observed “Our understanding of the specific nature of the relationship between service quality and consumer satisfaction, as well as how these two constructs combine to impact consumer purchase intentions, continues to perplex marketing scholars” (1994:163).

Part of the confusion is attributable to the most widely accepted conceptualization of both constructs being derived from the same
theoretical source—the expectancy disconfirmation paradigm (Oliver 1980). This defines an individual's perception of performance quality or level of satisfaction with an experience in terms of the magnitude of his or her disconfirmation. Both performance quality and satisfaction are assessed by relating perceptions of the former or experience to initial expectations, against which it is confirmed (met expectations), negatively disconfirmed (worse than expected), or positively disconfirmed (better than expected). There is a considerable body of empirical evidence that confirms the hypothesized impact of the disconfirmation of expectations, particularly in the area of satisfaction (Yi 1990). In the marketing literature, disconfirmation of expectations has been the predominant research paradigm in the area of satisfaction (Barber and Venkatraman 1986), and this probably holds true for the tourism and recreation field as well.

In the marketing field, satisfaction and quality often have been differentiated by the standard of comparison used in the disconfirmation of expectations. In their early work, Parasuraman, Zeithaml and Berry (1985) distinguished between the two constructs by defining quality as a gestalt attitude toward a service which was acquired over a period of time after multiple experiences with it, whereas satisfaction was seen to relate to a specific service transaction. In adopting this distinction, they were building on the conceptualization provided by Oliver who defined satisfaction as “a function of an initial standard and some perceived discrepancy from the initial reference point”. He also stated, “satisfaction soon decays into one’s overall attitude toward purchasing products . . . or quality” (1980:460).

In the tourism and recreation field, distinctions have been made between quality of opportunity or performance, and satisfaction or quality of experience. These terms were first introduced by Brown (1988) in his review of the literature in outdoor recreation to that point, and were subsequently embraced by Crompton and Love (1995) in their discussion of the quality and satisfaction constructs in the context of tourism. Quality of performance, which may also be termed quality of opportunity, refers to the attributes of a service which are primarily controlled by a supplier. It is the output of a tourism provider. Evaluations of the quality of performance are based on tourists’ perceptions of the performance of the provider. In contrast, satisfaction refers to an emotional state of mind after exposure to the opportunity. It recognizes that satisfaction may be influenced by the social-psychological state a tourist brings to a site (mood, disposition, needs) and by extraneous events (for example climate, social group interactions) that are beyond the provider’s control, as well as by the program or site attributes that suppliers can control.

Thus, performance quality is conceptualized as a measure of a provider’s output, whereas level of satisfaction is concerned with measuring a tourist’s outcome. All else equal, higher quality performance in facility provision, programming, and service are likely
to result in a higher level of visitor satisfaction. However, extraneous variables associated with factors outside the control of the provider make it likely that there will be a less than perfect correlation between the two measures.

Tourists are an integral part of the service process, which is one of the characteristics that distinguishes services from products. Their involvement may be active or passive, but their presence influences what is delivered. However, individuals do not have to be exposed to an attraction to form perceptions of quality, because people may vicariously relate to others’ experiences at a destination or to promotional material associated with it. Hence, much of the image research reported in tourism measures perceptions of quality of a destination’s attributes. In contrast, satisfaction is purely experiential. It is a psychological state that can only be derived from interaction with the destination.

Over most of the past decade in the marketing field, the prevailing differentiation between the quality and satisfaction constructs has been that quality relates to cumulative impact and satisfaction to transaction specific exchanges. However, Crompton and Love (1995) note that there is increasing evidence that marketers are moving towards the conceptualization suggested by them and by Brown (1988). Thus, in their most recent conceptual model of this relationship, Parasuraman et al state:

This model posits a customer’s overall satisfaction with a transaction to be a function of his or her assessment of service quality, product quality, and price. This conceptualization is consistent with the “quality leads to satisfaction” school of thought. (1994a:121).

Similar sentiments were expressed by Fornell and Manfredo (1996), while Oliver observes, “the consumer’s psychology mediates the impact of performance observations on satisfaction judgements” and that “some agreement exists that, in the short term, service features determine quality which then satisfies consumer needs” (1997:40,184). These conceptualizations of the relationship of the two constructs are consistent with that advocated in the tourism and recreation field in that they do recognize quality as a precursor to satisfaction.

Otto and Ritchie developed definitions and operationalizations that were essentially synonymous with the notions of quality of performance and user satisfaction. They used qualitative techniques to investigate the relative utility of the two constructs. Service experience focused on individuals’ affective responses. Its essence lay in individuals’ emotional reactions, rather than in their perception of the functional/utilitarian attributes of a service that characterize performance quality. The authors recognized that “specific emotions may intervene or act as a mediator, between performance and satisfaction” (1995:39).

Spreng, MacKenzie and Olshavsky appear to further narrow the distinction in conceptualizations between the two fields. They define
overall satisfaction as “an affective state that is the emotional reaction to a product or service”, which is consistent with the notion of satisfaction. They go on to propose that overall satisfaction has two chief antecedents which they term attribute satisfaction and information satisfaction. Their definitions of these concepts are consistent with the notion of quality of performance. Thus, they define attribute satisfaction as “the consumer’s subjective satisfaction judgment resulting from observations of attribute performance”, and information satisfaction as “a subjective satisfaction judgment of the information used in choosing a product” (1996:12,17,18).

Spreng, Mackenzie and Olshavsky (1996:17) argue that “attribute-specific satisfaction is not the only antecedent of overall satisfaction, which is based on the overall experience, not just the individual attributes”. They point out that this conceptualization is consistent with the most recent view of Oliver (1993). It allows for other antecedents such as social-psychological state brought to the opportunity and extraneous events that impact it, which define the operational differences between perceptions of performance quality and satisfaction. It appears that if the Spreng et al (1996) definition is accepted by the marketing field, then differences in conceptualizing the quality and satisfaction constructs between the two fields become more semantic than substantive.

Thus, the emerging view in marketing appears to recognize “that satisfaction is superordinate to quality—that is, quality is only one of the many potential service dimensions factored into consumer satisfaction constructs” (Taylor and Baker 1994:166). If the notion of “many dimensions” is broadened beyond “service” to embrace social-psychological states and extraneous events that are beyond the provider’s control, then this conceptualization of the quality and satisfaction constructs gets close to that advocated in the tourism and recreation field. Indeed, Taylor and Baker note “a large number of non-quality issues can help form satisfaction judgements (e.g. needs, equity, perceptions of ‘fairness’)”—these issues all appear to be affective or cognitive influences which it is difficult for the tourism supplier to exercise and control (1994:165). Otto and Ritchie (1995) point out that there is research in the marketing literature indicating that perceptions of the quality of service attributes act as causal antecedents to level of satisfaction with an experience. Thus, for example, Johnson and Zinkham (1991) and Crosby and Cowles (1986) demonstrated that service delivery personnel can have a direct impact on emotional reaction to a service, while Bitner (1992) pointed out that the physical environment may impact satisfaction with a service experience.

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The study’s dependent variable was behavioral intentions which are indications of whether a visitor to a program or facility will return. The theory of reasoned action postulates that behavior can be predicted from intentions that correspond directly (in terms of
action, target, context, and time) to that behavior (Ajzen and Fishbein 1980). Fishbein and Manfredo conclude, “Considerable research demonstrates that, when properly measured, correspondent intentions are very accurate predictors of most social behaviors” (1992:33).

The primary motivation among tourism providers for investing effort in evaluating and improving their quality of performance and seeking to enhance level of satisfaction, is that such improvements will result in increased visitation and/or revenues. The authors are unaware of studies which have empirically explored these relationships in the tourism field. Similarly, in the marketing field only two studies that investigated these relationships could be found (Boulding, Karla, Staelin and Zeithaml 1993; Zeithaml, Berry and Parasuraman 1996), both of which concluded that perceptions of high quality positively affected intended behavior. Gotlieb, Grewal and Brown comment, “Surprisingly, effects of perceived quality and satisfaction on behavioral intentions have seldom been examined when both variables are included in a model” (1994:875). This view is endorsed by the individuals who have led the marketing field’s investigation into the nature of quality who observed, “the impact of service quality on behavioral response has been the subject of only a few marketing studies to date” (Zeithaml et al 1996:32).

It has been observed (Spreng et al 1996) that most prior research in satisfaction in either the marketing or tourism fields has not included perceptions of quality of performance as a direct antecedent of satisfaction (Bearden and Teel 1983; Cadotte, Woodruff and Jenkins 1987; Oliver 1980; Oliver and DeSarbo 1988; Swan and Trawick 1980; Westbrook 1987; Westbrook and Reilly 1983). However, when quality of performance has been included in the model, a direct relationship between perceived quality and user satisfaction often has been found (Anderson, Fornell and Lehmann 1994; Anderson and Sullivan 1993; Churchill and Surprenant 1982; Tse and Wilton 1988). The only study to have evaluated the impact of both quality and satisfaction on behavioral intentions appears to be that undertaken by Cronin and Taylor (1992). They reported that satisfaction had a stronger and more consistent effect on purchase intentions than did service quality. Their conceptualization and operationalizations of the two constructs were similar to those used in this study. A single item scale ranging from very unsatisfied to very satisfied was used to measure satisfaction, while they used a perceptions measure to operationalize quality.

Some efforts have been made in the marketing and economics fields to investigate the relationship between quality and economic return. For example, Capon, Farley and Hoenig (1990) identified 20 studies that reported a positive relationship between quality and economic return. Their conclusions were similar to those of Rust, Zahorik and Keiningham who concluded their review of literature exploring these relationships by stating, “These studies are unanimous in finding that customer satisfaction and service quality have
a measurable impact on customer retention, market share, and profitability” (1995:59).

**Hypotheses**

The model shown in Figure 1 is based on the previous discussion and describes the relationships that were empirically investigated. Performance quality was hypothesized to have a direct effect on behavioral intentions and an indirect effect on them through satisfaction. Level of satisfaction also was hypothesized to have a direct effect on explaining behavioral intention. The implication of incorporating into the model a non-recursive relationship between performance quality and satisfaction was explored. This was consistent with one of the models tested by Gotleib, Grewal and Brown (1994). Support for such a non-recursive relationship stems from evidence suggesting that mood or affect may influence evaluative judgement (Petty, Schumann, Richman and Strathman 1993). Thus, positive mood may bias judgement or appraisal in a positive manner, whereas negative affect may produce an unfavorable judgement. For example, the performance quality of a casino may have been excellent, but an individual’s evaluation of it may be low if a lot of money was lost there. Conversely, if the player had a major win, then his or her euphoria may result in an evaluation of the casino’s quality that is unreasonably high.

A decision to omit the non-recursive relationship between satisfaction and performance quality in Figure 1 was made for two reasons. First, the results reported by Gotleib et al (1994) did not support this relationship. Second, such a relationship was tested with the data from this study and it was not supported. Hence, the path between performance quality and satisfaction is shown as being recursive. Two hypotheses were tested:

![Figure 1. Relationships among Quality, Satisfaction, and Behavioral Intentions](image-url)
Hypothesis 1: Perceived quality of performance will have a stronger total effect on behavioral intentions than will satisfaction.

Hypothesis 2: The perceptions measure of quality will have a greater total effect on behavioral intentions, and perceptions measure data will fit the model better, than will the subjective disconfirmation measure data.

Operationalizations

The second hypothesis addresses alternative ways of measuring the performance quality construct. During the past decade, the most frequently used operationalization of quality has been a discrepancy measure introduced by Parasuraman et al (1988). The discrepancy refers to the gap between respondents’ expectations scores and their perceptions scores. Typically, individuals respond to a set of attributes designed to measure their expected quality, and then subsequently respond to the same battery of items with a score that reflects their perceptions of an organization’s performance on each attribute. This operationalization has been criticized on several grounds, but the two most persistent relate to its psychometric properties and its inferior predictive validity.

The psychometric problems stem from the process of subtracting one measurement (expectations) from another measurement (perceptions), in order to create a new construct for use in subsequent data analysis. This approach has been widely criticized (Babakus and Boller 1992; Brown, Churchill and Peter 1993; Carman 1990; Cronbach and Furby 1970; Johns 1981; Lord 1963; Teas 1993). The criticism has stimulated suggestions that a superior alternative measure may be to directly measure a respondent’s perception of the quality of performance against an expectation standard (Brown et al 1993; Carman 1990; Teas 1993; Williams 1988). Hence, a decision was made in this study to use a subjective disconfirmation measure (Tse and Wilton 1988) requiring respondents to assess perceptions of performance quality directly against their expectations and to record their evaluation with a single score. The format and instructions used for the subjective disconfirmation measure are reproduced in Figure 2.

Comparative studies of the predictive validity of alternative operationalizations of quality have consistently demonstrated higher levels of predictive validity for perceptions measures than for perceptions-minus-expectations measures (Crompton and Love 1995; Cronin and Taylor 1994). Thus, a decision was made to also operationalize quality with a perceptions measure. An additional consideration that contributed to the decision to use a perceptions measure in this study was its widespread use among professionals (Cronin and Taylor 1994; Parasuraman et al 1994a). The rubric for the perceptions measure used in this study stated, “We would like to know your views about the quality of the following features of Main
Street Days. Please circle the number which reflects your perception of each item”.

The attributes used to measure quality of performance at the festival which was the context for this study were adapted from those used in a festival study by Crompton and Love (1995). The 18 attributes were designed to measure four domains: generic features which embraced those that are characteristic of most festivals (6 items); specific entertainment features of this festival (5 items); information sources, comprised of printed program, street maps, and information booths (3 items); and comfort amenities, which related to overall comfort of the festival participant (4 items). In accordance with the recommendation of Parasuraman, Zeithaml and Berry (1994b), the attributes were measured on a 9-point scale. Satisfaction was measured by a 4-item scale which was adapted from Crosby and Stephens (1987). This offers an overall global measure of satisfaction and was selected because it had been empirically verified. A 9-point semantic differential format was used. The four sets of polar terms were dissatisfied/satisfied, displeased/pleased, unfavorable/favorable, and negative/positive.

Seven items adapted from the scale developed by Zeithaml et al (1996) were used to operationalize behavioral intentions. They were a priori assigned to the two domains of loyalty (five items) and willingness-to-pay more (two items). Loyalty is committed behavior, and is defined as the biased use of a selected program or resource (Backman and Shinew 1994). Loyalty is measured by two types of components: behavior and attitude. Behavior is proclivity towards repeat visitation, but alone it has been found to be an inadequate measure of loyalty (Backman and Crompton 1991). To explain additional portions of variance not accounted for by behavioral

Earlier we asked how you perceived the quality of selected features of Main Street Days. Now we would like you to compare your perceptions of those features with your desired quality level. Desired quality level is defined as the level of quality you desire at a festival.

For each of the following statements, please circle the number that indicates how Main Street Day’s quality compares with your desired quality level

<table>
<thead>
<tr>
<th>Main Street Day’s Quality Was:</th>
<th>Lower Than My Desired Quality Level</th>
<th>The Same As My Desired Quality Level</th>
<th>Higher Than My Desired Quality Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>When it comes to .............</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The visual appearance</td>
<td>1 2 3 4 5 6 7 8 9</td>
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</tr>
</tbody>
</table>

Figure 2. The Format for the Subjective Disconfirmation Measure of Quality
measures, it is necessary to incorporate attitudinal measures that assess tourists’ strength of affection toward a program or facility (Backman and Crompton 1991). The five item loyalty subscale was much easier to administer than the 15-item loyalty scale developed by Backman and Shinew. It appeared to offer an effective response to their conclusion: “The challenge to future research will be to develop the measures used to assess loyalty in a more parsimonious fashion” (1994:15). The behavioral intentions items are listed in Table 1.

The study was conducted at an annual festival which attracts over 50,000 participants during the two and a half days it operates. It is held in the community’s historic downtown business district and its distinctive features include living history demonstrations, historical reenactments, carnival rides, continuous live entertainment, and over 150 food and art and craft vendors. The festival was held within a fenced and gated six block section of the downtown area.

Every nth individual entering the site at three locations was given a mail-back questionnaire in a prepaid postage envelope and asked to return it. Their names and addresses were recorded to facilitate the two mail follow-ups which were undertaken. Two versions of the questionnaire were used to collect the data that are analyzed in this study containing the perceptions measure, and the subjective disconfirmation measure. Of the 508 individuals who were given the questionnaire incorporating the perceptions measure, 369 (73%) were returned with all the questions completed. Among the 252 individuals who received the instrument containing the subjective disconfirmation measure, the response rate of those who answered all the questions was lower at 56% (n = 141).

Table 1. Items Used to Measure Behavioral Intentions

<table>
<thead>
<tr>
<th>Actions you might take ...</th>
<th>Not at All Likely</th>
<th>Extremely Likely</th>
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</thead>
<tbody>
<tr>
<td>Willingness to Pay More Subscale:</td>
<td></td>
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<tr>
<td>Continue to attend festival if the admission price increased</td>
<td>1 through 9</td>
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<tr>
<td>Pay a higher price than other festivals in the area charge</td>
<td>1 through 9</td>
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<tr>
<td>Loyalty Subscale</td>
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<tr>
<td>Say positive things about festival to other people</td>
<td>1 through 9</td>
<td></td>
</tr>
<tr>
<td>Attend festival again next year or the year after</td>
<td>1 through 9</td>
<td></td>
</tr>
<tr>
<td>Get tired of coming back to festival every year</td>
<td>1 through 9</td>
<td></td>
</tr>
<tr>
<td>Encourage friends and relatives to go to festival</td>
<td>1 through 9</td>
<td></td>
</tr>
<tr>
<td>If festival was not available it would make little difference to me, since I would just go to another festival</td>
<td>1 through 9</td>
<td></td>
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</tbody>
</table>

*This item was removed to improve the internal reliability of the loyalty subscale.
Study Results

Factor analyses were undertaken to verify the a priori specified dimensionality of the scales. This technique generally confirmed assignment of attributes to the four festival quality attribute domains: generic features, specific entertainment features, information sources, and comfort amenities. The level of internal consistency of attributes within each domain was acceptable, with coefficient alphas ranging from .75 to .90. The Cronbach alpha undertaken on the sample's responses to the satisfaction scale was .98, indicating a high degree of internal consistency. A factor analysis of the behavioral intentions items confirmed the scale's a priori two domain dimensionality. However, one item was deleted from the loyalty domain to improve its internal consistency. The alphas for the final loyalty and willingness-to-pay scales were .80 and .77, respectively (Table 1).

The hypothesized relationships in the perceived quality and direct relative measure of quality models were tested using maximum-likelihood simultaneous equation estimation procedures (LISREL-8) developed by Joreskog and Sorbom (1993). Table 2 shows the corre-

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
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<th>7</th>
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<td>Quality:</td>
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<tr>
<td>1. Generic Features</td>
<td>1</td>
<td>.70</td>
<td>.58</td>
<td>.62</td>
<td>.62</td>
<td>.64</td>
<td>.60</td>
<td>.64</td>
<td>.39</td>
<td>.51</td>
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<tr>
<td>2. Specific Features</td>
<td>.68</td>
<td>1</td>
<td>.66</td>
<td>.52</td>
<td>.52</td>
<td>.51</td>
<td>.50</td>
<td>.50</td>
<td>.28</td>
<td>.39</td>
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<tr>
<td>3. Information Sources</td>
<td>.57</td>
<td>.59</td>
<td>1</td>
<td>.57</td>
<td>.43</td>
<td>.42</td>
<td>.38</td>
<td>.41</td>
<td>.40</td>
<td>.33</td>
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<tr>
<td>4. Comfort Amenities</td>
<td>.60</td>
<td>.60</td>
<td>.49</td>
<td>1</td>
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<td>.44</td>
<td>.47</td>
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<td>Satisfaction:</td>
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<td>5. Satisfied</td>
<td>.59</td>
<td>.50</td>
<td>.38</td>
<td>.39</td>
<td>1</td>
<td>.93</td>
<td>.91</td>
<td>.90</td>
<td>.48</td>
<td>.71</td>
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<td>6. Pleased</td>
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<td>.52</td>
<td>.36</td>
<td>.36</td>
<td>.91</td>
<td>1</td>
<td>.94</td>
<td>.92</td>
<td>.49</td>
<td>.74</td>
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<td>7. Favorable</td>
<td>.58</td>
<td>.50</td>
<td>.34</td>
<td>.36</td>
<td>.91</td>
<td>.92</td>
<td>1</td>
<td>.93</td>
<td>.48</td>
<td>.70</td>
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<tr>
<td>8. Positive</td>
<td>.55</td>
<td>.47</td>
<td>.30</td>
<td>.33</td>
<td>.88</td>
<td>.91</td>
<td>.94</td>
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<td>9. Willingness to pay more</td>
<td>.37</td>
<td>.36</td>
<td>.25</td>
<td>.31</td>
<td>.42</td>
<td>.42</td>
<td>.42</td>
<td>.46</td>
<td>1</td>
<td>.40</td>
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<tr>
<td>10. Loyalty to festival</td>
<td>.62</td>
<td>.55</td>
<td>.39</td>
<td>.44</td>
<td>.68</td>
<td>.66</td>
<td>.67</td>
<td>.67</td>
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<td>Means:</td>
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<tr>
<td>Direct Relative Measure</td>
<td>6.33</td>
<td>6.16</td>
<td>5.74</td>
<td>5.34</td>
<td>7.16</td>
<td>7.18</td>
<td>7.23</td>
<td>7.28</td>
<td>4.23</td>
<td>6.85</td>
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<tr>
<td>Perceptions</td>
<td>7.22</td>
<td>6.74</td>
<td>6.65</td>
<td>5.85</td>
<td>7.07</td>
<td>7.09</td>
<td>7.17</td>
<td>7.22</td>
<td>4.37</td>
<td>6.80</td>
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<td>Standard Deviations:</td>
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<tr>
<td>Direct Relative Measure</td>
<td>1.32</td>
<td>1.32</td>
<td>1.72</td>
<td>1.55</td>
<td>1.41</td>
<td>1.41</td>
<td>1.40</td>
<td>1.39</td>
<td>2.07</td>
<td>1.50</td>
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<tr>
<td>Perceptions</td>
<td>1.08</td>
<td>1.21</td>
<td>1.55</td>
<td>1.57</td>
<td>1.61</td>
<td>1.59</td>
<td>1.55</td>
<td>1.59</td>
<td>2.02</td>
<td>1.59</td>
</tr>
</tbody>
</table>

*The direct relative measure of quality correlations (n = 141) are in the upper region above the diagonal and the perceptions measure of quality correlations (n = 369) are in the lower region below the diagonal.
lation matrices, means, and standard deviations for each measure. The procedures used to specify the model followed those recommended by Joreskog and Sorbom (1993) and Hayduk (1987). The parameter estimates and chi-square statistics were calculated using LISREL 8 (Joreskog and Sorbom 1993). Unless the scale of the latent variables is established, an indeterminacy exists between the variance of the latent variables and the loadings of the observed variables on the applicable latent variable (Anderson 1987). Thus, the scales for the latent variables were established by the highest loading observed variables. The standardized maximum-likelihood estimates for performance quality, satisfaction, and behavioral intentions are presented in Tables 3 and 4. Loadings of the observed variables (four performance quality domains and two behavioral intentions domains) for all three of the latent variables were significant.

The goodness-of-fit for the perceptions measure of the performance quality model was strong \( \chi^2 (19) = 17.95, P = .53; \text{AGFI} = .97 \) and the total coefficient of determination for the two structural equations was also strong (.79). Performance quality had a significant direct effect on visitor satisfaction \( \gamma_{21} \) (.63, \( t = 11.48, P < .01 \)). Both quality \( \gamma_{31} \) (.41, \( t = 6.37, P < .01 \)) and satisfaction \( \beta_{32} \) (.60, \( t = 9.95, P < .01 \)) had a significant direct effect on visitors’

### Table 3. Key Parameters for the Perceptions Measure of Quality Model

<table>
<thead>
<tr>
<th>Proposed Linkages</th>
<th>Standardized Value</th>
<th>Sign of ( H_0 )</th>
<th>( t )</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions Measure of Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality—Generic Features</td>
<td>.94</td>
<td>–</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Quality—Specific Entertainment Features</td>
<td>.88</td>
<td>17.15</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Quality—Information Sources</td>
<td>.61</td>
<td>11.21</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Quality—Comfort Amenities</td>
<td>.65</td>
<td>12.33</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Total Effect: Quality—Satisfaction</td>
<td>.63</td>
<td>11.48</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Direct Effect: Quality—</td>
<td>.41</td>
<td>6.37</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Behavioral Intentions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirect Effect: Quality on Behavioral Intentions</td>
<td>.38</td>
<td>8.58</td>
<td>+ Supported*</td>
<td></td>
</tr>
<tr>
<td>Quality—Loyalty to Festival</td>
<td>.65</td>
<td>–</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Quality—Willingness to Pay More</td>
<td>.41</td>
<td>8.36</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Satisfaction—Behavioral Intentions</td>
<td>.60</td>
<td>9.95</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Satisfaction—Loyalty to Festival</td>
<td>.49</td>
<td>–</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Satisfaction—Willingness to Pay More</td>
<td>.31</td>
<td>7.51</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Behavioral Intentions—Loyalty to Festival</td>
<td>.82</td>
<td>12.22</td>
<td>+ Supported</td>
<td></td>
</tr>
<tr>
<td>Behavioral Intentions—Willingness to Pay More</td>
<td>.51</td>
<td>9.62</td>
<td>+ Supported</td>
<td></td>
</tr>
</tbody>
</table>

*The indirect effect was found to be significant and mediational analysis suggested that the effect was not significantly mediated by satisfaction \( (P=.039) \).
behavioral intentions. Overall performance quality had a total effect on behavioral intentions of .79. Furthermore, mediational analysis, utilizing Baron and Kenny’s (1986) formula, revealed that the indirect effect of quality on participants’ behavioral intentions (.38) was not fully mediated by their level of satisfaction ($P = .039$).

The goodness-of-fit indices for the subjective disconfirmation measure of performance quality were lower $\chi^2 (19) = 25.16$, $P = .16$; AGFI = .91, and the total coefficient of determination for the two structural equations was .72. Performance quality had a significant direct effect on satisfaction ($\gamma_{21}$) (.69, $t = 7.56$, $P < .01$). Satisfaction ($\beta_{31}$) (.87, $t = 7.91$, $P < .01$) had a significant direct effect on behavioral intentions. The indirect effect of quality ($\gamma_{31}$) on intentions was not significant (.12). Mediational analysis using Baron and Kenny’s (1986) formula indicated that the indirect effect of performance quality on behavioral intentions was significantly mediated by satisfaction ($P = .091$).

The findings indicated that data from the perceptions measure of quality fitted the hypothesized model better than did data derived from the subjective disconfirmation measure, and had a greater total effect on behavioral intentions. Since the chi-square statistic is sensitive to sample size, the comparison could be extrapolated further by increasing the sample size to match the per-

### Table 4. Key Parameters for the Direct Relative Measure of Quality Model

<table>
<thead>
<tr>
<th>Proposed Linkages</th>
<th>Standardized Value</th>
<th>Sign of $H_0$</th>
<th>$t$</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct One-Column Measure of Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality—Generic Features</td>
<td>.93</td>
<td>–</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Quality—Specific Entertainment Features</td>
<td>.76</td>
<td>9.99</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Quality—Information Sources</td>
<td>.63</td>
<td>7.04</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Quality—Comfort Amenities</td>
<td>.66</td>
<td>8.16</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Quality—Satisfaction</td>
<td>.69</td>
<td>7.56</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Direct Effect:</td>
<td>.12</td>
<td>1.07</td>
<td>+</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Quality—Behavioral Intentions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirect Effect:</td>
<td>.60</td>
<td>5.73</td>
<td>+</td>
<td>Supported$^a$</td>
</tr>
<tr>
<td>Quality on Behavioral Intentions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality—Loyalty to Festival</td>
<td>.55</td>
<td>–</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Quality—Willingness to Pay More</td>
<td>.38</td>
<td>4.99</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Satisfaction—Behavioral Intentions</td>
<td>.87</td>
<td>7.91</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Satisfaction—Loyalty to Festival</td>
<td>.67</td>
<td>–</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Satisfaction—Willingness to Pay More</td>
<td>.46</td>
<td>5.65</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Behavioral Intentions—Loyalty to Festival</td>
<td>.77</td>
<td>–</td>
<td>+</td>
<td>Supported</td>
</tr>
<tr>
<td>Behavioral Intentions—Willingness to Pay More</td>
<td>.52</td>
<td>6.22</td>
<td>+</td>
<td>Supported</td>
</tr>
</tbody>
</table>

$^a$While the indirect effect was found to be significant, mediational analysis suggests that the effect was significantly mediated by satisfaction ($P = .091$).
ceptions sample \((n = 369)\). When this was done, it revealed that the goodness-of-fit of the subjective disconfirmation measure model was still lower. All four quality domains had a significant linkage with quality. The strongest linkage was with the generic features domain. However, both these and specific entertainment features domains had a much stronger linkage with quality than did the information sources or comfort amenities domains. Both quality and satisfaction had significant indirect effects on both domains of behavioral intentions with the stronger linkage being with loyalty to the festival.

CONCLUSION

The LISREL models using the perceptions and the subjective disconfirmation measures were both significant, but the perceptions data performed somewhat better than the disconfirmation data. Data from the subjective disconfirmation measure did not fit the \textit{a priori} conceptualization of the relationship of performance quality and satisfaction to behavioral intentions (Figure 1) as well as the perceptions measure, since the effect of quality was significantly mediated by satisfaction. In addition, the goodness-of-fit tests indicated that the subjective disconfirmation measure was somewhat inferior to that of data from the perceptions measure. The better fit of the perceptions measure meant that Hypothesis 2 was confirmed. This is consistent with previous studies that have compared the perceptions measure with a variety of alternative operationalizations of performance quality, including the widely used perceptions-minus-expectations measure, and concluded that it is superior from a predictive-validity standpoint (Babakus and Boller 1992; Babakus and Mangold 1992; Boulding et al 1993; Carman 1990; Childress and Crompton 1997; Crompton and Love 1995; Cronin and Taylor 1992). The superior fit of the perceptions measure may be attributable to respondents finding it easier to answer perceptions questions compared to disconfirmation questions (Childress and Crompton 1997). Certainly, it simplifies the evaluation task for managers, since perception measures are easier to design and analyze than are disconfirmation measures.

In the perceptions model, the total effect of performance quality on behavioral intentions was .79, of which .38 was indirect via satisfaction. This satisfaction did not fully mediate the effect of quality on behavioral intentions. This confirms Hypothesis 1 and is consistent with the findings reported by Gotlieb et al (1994), but is antithetical to those reported by Cronin and Taylor (1992) who used similar operationalizations of satisfaction and perceptions measure of performance quality to those that were used in this study. The results also confirmed that satisfaction was enhanced by higher perceptions of performance quality which was consistent with the quality \(\Rightarrow\) satisfaction \(\Rightarrow\) behavioral intentions relationship flow that conceptually guided this study. In addition, perceptions data
suggested that high performance quality encouraged participants to be more loyal, increasing the probability that they would return and that they would spread positive word-of-mouth about the festival. The strong linkage between the quality domains and willingness-to-pay more is consistent with the belief that those who perceive performance quality to be high are willing to pay more for the opportunity.

The findings indicated that perceptions of quality of the generic features and specific entertainment features domains had a stronger linkage to quality (.94 and .88, respectively) than did the other two domains (.61 and .65). In the specific context of this festival, the strong link between quality and behavioral intentions suggests that the greatest potential for strengthening behavioral intentions of participants is by ensuring high quality generic and specific entertainment features. The weaker association of quality with the information sources and comfort amenities domains seems consistent with Herzberg, Mausner and Snyderman’s (1959) notion of hygiene and motivator domains. Research by Herzberg et al. was developed in the field of job satisfaction, but their model can be adapted for use in this context. They identified two sets of factors—one generated satisfaction and the other dissatisfaction. The dissatisfiers were job context factors—analagous in this case to the basic infrastructure attributes of a festival exemplified by the information sources and comfort amenities domains. These factors can only cause dissatisfaction in their absence or dysfunction. They are the “ordinary” components of the festival, their presence is expected but unexciting; thus they have no satisfying consequences when fulfilled. Herzberg et al. referred to these as maintenance or hygiene factors. In contrast, satisfiers are factors that satisfy, excite, and motivate. They are exemplified by the generic features and specific entertainment features domains. The absence of these “motivators” would not cause dissatisfaction; rather a neutral state would be manifest.

The information sources and comfort amenities domains may be key in defining a base level of quality, so if these domains fall below this base level, then participants are likely to become dissatisfied with the festival. However, if they are exceeded, there is likely to be relatively little increase in their desire to visit because infrastructure is not intrinsically interesting or satisfying. In contrast, the generic and specific entertainment features are motivator domains that arouse a sense of excitement and potential enjoyment. These domains are more likely to motivate participants to return and provide a greater potential for increasing their satisfaction with the festival. This may partially explain the stronger linkages between perceptions of overall quality and these two domains. Thus, optimal investment of resources is likely to occur when tourism providers meet minimum acceptable level of performance quality for attributes comprising the information sources and comfort amenities domains, and concentrate resources so they exceed this to meet their stan-
standard for superior quality on the generic features and specific entertainment features domains.

Results suggest that festival organizers should focus their evaluative resources on assessing both perceived quality of the performance and the satisfaction level of participants. While the total effect of satisfaction (.60) indicates that it is a useful predictor of their behavioral intentions, it is substantially lower than the total effect of the quality construct. Further, from a managerial perspective the measuring and attaining of performance quality is likely to be more useful, since it is under management’s control. The study findings support the theoretical position that enhanced performance quality leads to stronger positive behavioral intentions, and that visitor satisfaction does add to the explanatory power of quality. Since quality of performance is under control of the tourism provider, measuring its attributes is likely to offer the most guidance for making changes that would lead to stronger behavioral intentions.

From a managerial perspective, it might be useful in evaluations to try and minimize the impacts of participants’ social-psychological states and extraneous events, and focus their attention on the quality of performance elements that the tourism provider can most effectively control. Such an instrument may include a statement saying “We cannot control your mood or the weather, but we aim to provide the highest quality of everything we can control. Please help us improve by evaluating the quality of the following features”.

This study may be the first attempt to assess the relative impact and interrelationship of the quality of performance and satisfaction constructs in the tourism field. It included only a global measure of satisfaction, and future studies exploring this issue should also include more specific measures reflecting satisfaction with the particular benefits sought from the attraction at which data are collected. These may take the form, for example, of adaptations of the recreation experience preference scales (Manfredo, Driver and Tarrant 1996). It is anticipated that inclusion of these responses will improve the fit of the model, and would also enable the relationship between performance quality domains and satisfaction with specific experience outcomes to be explored.

REFERENCES

Ajzen, I., and M. Fishbein

Anderson, E. W., C. Fornell, and D. R. Lehmann

Anderson, E. W., and M. W. Sullivan

Anderson, J. G.
Babakus, E., and G. W. Boller
Babakus, E., and W. G. Mangold
Backman, S. J., and J. L. Crompton
Backman, S. J., and K. J. Shinew
Barber, M. B., and M. Venkatraman
Baron, R. M., and D. A. Kenny
Bearden, W. O., and J. E. Teel
Bitner, M. J.
Boulding, W., A. Kalra, R. Staelin, and V. A. Zeithaml
Brown, T. J., G. A. Churchill, and J. P. Peter
Bultena, C. L., and L. L. Klessig
Capon, W., J. U. Farley, and S. Hoenig
Carman, J. M.
Childress, R. D., and J. L. Crompton
Crompton, J. L., and L. I. Love
Cronbach, L. J., and L. Furby
Oliver, R. L., and W. S. DeSarbo
Otto, J. E., and J. R. B. Ritchie
Parasuraman, A., L. L. Berry, and V. A. Zeithaml
Parasuraman, A., V. Zeithaml, and L. L. Berry
Petty, R. E., D. W. Schumann, S. A. Richman, and A. J. Strathman
Rust, R. T., A. J. Zahorik, and T. L. Keiningham
Spreng, R. A., S. B. Mackenzie, and B. W. Olshavsky
Swan, J. E., and I. F. Trawick
Taylor, S. A., and T. L. Baker
Teas, R. K.
Tse, D. K., and P. C. Wilton
Westbrook, R. A.
Westbrook, R. A., and M. D. Reilly
Williams, D. R.
Yi, Y.
Zeithaml, V. A., L. L. Berry, and A. Parasuraman