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Assessing Service Quality in Adventure Tourism

Professor Antonie Bauer

Abstract

The purpose of this paper, which is based on a survey of activity providers in South West Ireland, is to assess the quality of adventure tourism offerings and to investigate which aspects of the experience contribute most to visitors' perception of quality. In addition, it explores the validity of different methods for the assessment of service quality. A new importance-weighted method is developed that avoids the inconsistencies of existing approaches and has higher predictive value than the other models for the Irish sample. A simple performance only approach is second best in explaining variation in overall perception of quality, whereas the gap-based and simple importance-weighted methods are inferior. A good atmosphere and staff friendliness were the most important influences on overall perceived quality, which was generally very high.

Keywords: service quality, quality measurement, expectations, importance, performance, adventure tourism, Ireland

Introduction

In 2009, the Irish tourist board Fáilte Ireland commissioned an audit of the service quality of adventure providers in the Irish South West, which was conducted in 2009 and 2010. Its purpose was to provide a neutral, objective assessment of companies' offerings; similar to hotel grading schemes, the survey awarded points based on the availability of attributes such as changing rooms, small groups and qualified guides (Bauer 2013). No weights were used, giving every attribute equal importance. This study complements the audits by taking a more subjective approach, looking at quality exclusively through the clients' lenses. It seeks to establish overall quality, the influence of different attributes on overall quality and last but not least the best way of measuring quality.

There are numerous definitions of adventure travel, which encompass elements such as activity, risk, uncertainty, challenge, excitement and nature (Buckley 2006, Swarbrooke *et al.*, 2003, Canadian Tourism Commission 2001, George Washington University *et al.*, 2010, Sung *et al.*, 1997). Whereas hard adventure poses real dangers and requires advanced skills, soft adventure is less risky and suitable for novices and families (Hill 1995). The companies in this sample were all classified as soft adventure providers by Fáilte Ireland even though some of the activities offered such as scuba diving and canyoning could be regarded as hard adventure. For the purpose of this paper, adventure is practically the same as (outdoors) activity (Fáilte Ireland 2009), with various levels of risk.

Adventure is one of the fastest growing segments of the tourism industry; according to the Adventure Travel Trade Association (2013), the market volume increased by 65 per cent annually between 2009 and 2012. In addition, it is one where rural areas have a natural advantage. Consequently, it plays a major role in Ireland's tourism development strategy. One of the purposes of this study was to assess how good the offerings of the industry are in the eyes of its customers.

Various methods have been used to measure service quality and customer satisfaction. The most straightforward approaches such as SERVPERF (Cronin and Taylor, 1992; 1994) simply assess performance on a number of attributes that are considered relevant. However, many researchers have argued that satisfaction is not just a function of how a company delivers on the attributes, but of expectation disconfirmation (Oliver 1980) – what matters is performance compared to some yardstick, most often clients' expectations. Thus, one of the dominant models for service quality measurement is SERVQUAL (Parasuraman *et al.*, 1988, Parasuraman *et al.*, 1991). Originally developed for the retail industry, consequently used for many other service industries and also very popular in tourism and hospitality (Augustyn and Seakhoa-King 2004), it relates customers' beliefs on what companies should offer to their perception of the actual quality provided. Quality is measured by the gap between expectation and perception; the more performance exceeds expectation, the better. HOLSAT, a model for the tourism industry introduced by Tribe and Snaith (1998), uses positive expectation instead of normative expectation: they assume that tourists compare a destination not to a lofty ideal, but to what they can realistically expect – which may be a lot less when it comes to budget destinations.

Another strand of literature considers importance instead of expectation. The rationale here is that tourists' perception depends not only on the quality of a feature, but also on how important this feature is to them (Crompton 1979). There are various ways of integrating importance into the measures. Classic importance performance analysis (IPA), introduced by Martilla and James in 1977, seeks to give management a simple tool for identifying areas of concern: importance and performance scores are compared for each item, and discrepancies mean that quality is either too low ("concentrate here") or higher than necessary ("possible overkill"). In spite of conceptual challenges, IPA has become a widely used tool in tourism and hospitality research (Azzopardi and Nash 2013). A different approach is to multiply performance and importance scores; this method was pioneered by Goodrich (1978) who developed a Fishbein-type choice model that multiplies visitors' assessment of the average quantity of an attribute a destination offers with average importance ratings.

There has been an intense debate on the validity of the different approaches, on conceptual, technical, and empirical grounds (Crompton and Love, 1995; Baker and Crompton, 2000, Yüksel and Rimmington 1998, Fallon and Schofield, 2003). On the most basic conceptual level, the main question is which construction theoretically best captures quality: is it performance alone, as proposed by Cronin and Taylor (1994), or is there something missing when expectations and importance are not considered? There is substantial theoretical support for including importance (Carman 1990, Fick and Ritchie 1991, Martilla and James 1977). Integrating expectations also has many proponents, and SERVQUAL has proved an extremely popular instrument in many disciplines including tourism; however, there has also been some fundamental criticism. Especially in tourism applications, the assumption of meaningful expectations may not be justified as every trip can be a totally new experience (Crompton and Love 1995, Cronin and Taylor 1992, Kozak 2001, Yüksel and Rimmington 1998, Carman 1990, Ekinci 2003). In this respect, tourism is very different from retail or banking. Problems at a more technical level include correlations of the variables and aggregation problems (Oh 2001, Hudson *et al.*, 2004) and the fact that for expectation disconfirmation models, respondents should ideally be surveyed before and after the experience, which can pose a problem in practice.

Another big challenge is integrating importance and performance into one variable. The difference between both is hardly a meaningful construct as the value increases equally if performance increases one point, which benefits the client, or importance drops one point,

which probably does not. Multiplying performance and importance scores also has its downsides. Not only is the same score generated by a combination of high importance and low performance and a combination of high performance and low importance though tourists would be much happier with the latter combination as noted by Crompton and Love (1995); values even rise when more importance is attached to an unsatisfactory performance.

While the theoretical debate offers support for all types of models, empirical research tends to confirm the superiority of performance only methods. This also applies to several studies undertaken in tourism and hospitality contexts. In Dorfman's 1979 survey of campers, which used eight different concepts based on different combinations of perception, importance, preference and expectation variables, difference measures were less strongly correlated to satisfaction than straight performance ("perception of the degree to which a valued source is present"); importance weights did not improve results. Similarly, SERVPERF delivered better predictions of service quality than SERVQUAL and weighted measures in Cronin and Taylor's 1992 analysis of four service industries including fast food.

Crompton and Love (1995) evaluated seven different operationalisations of quality in the context of a festival. They found that simple performance measures predicted quality best and disconfirmation approaches produced the weakest results. The results were similar in Yüksel and Rimmington's 1998 survey of restaurant patrons; in both correlation analysis and regression, performance measures were superior to difference scores, and weighting generated no improvement over performance only variables. At destination level, Fallon and Schofield (2003) also found that performance predicted overall satisfaction best and there was no benefit to using weights. On the other hand, the study by Hudson *et al.*, (2004), which ranked holiday dimensions (e.g. brochure, journey, skiing) in tour operations, found no significant differences between the results from SERVPERF, SERVQUAL and IPA. One of the rare instances of successfully integrating expectations is Robledo's 2001 analysis of service quality in the airline industry. SERVPEX, the model that performed best, took expectations into account in a different way than the SERVQUAL method: it had single items for the difference between expectation and performance (e.g. "much worse than expected"). The version without importance weights had the highest validity. However, even though none of the studies above have been able to add any extra values by importance weighting, there is still a tendency to consider importance relevant (Yüksel and Rimmington 1998, Crompton and Love 1995).

To date, there has been no comprehensive study of service quality in adventure tourism. This paper tries to close this gap and to add to the general debate on quality measurement at the same time. To this purpose, it analyses data from a survey in South West Ireland with the help of both existing methods and two new operationalisations.

Method

The survey discussed in this paper was conducted from May to October 2012 in collaboration with nine adventure providers in Cork and Kerry. These companies represent the adventure sector in Ireland rather well, with a wide range of activities from walking to climbing, horse-riding, kayaking, sailing, scuba diving, multi-activity camps and several more. Based on extensive literature research, a pilot round and interviews with visitors, a questionnaire with 34 performance and importance attributes was drawn up. Further items were overall service quality ("Overall, I think this company provides a very good experience"), satisfaction, intention to recommend, and intention to return. Among the demographic details collected were residence, age, nationality, skills and gender. The survey was given to clients of the participating companies immediately after they had finished an activity. As some of the smaller

firms only handed it out sporadically, the majority of the completed questionnaires came from two big adventure centres. Response rates were over 90%, resulting in 622 completed questionnaires.

The attributes in the questionnaire were chosen to represent the specific nature of adventure. Therefore, there were six questions on staff, four on equipment and facilities and five on organisation; three items explored the suitability of the setting and seven addressed emotional outcomes: fun, relaxation and, with particular relevance to adventure tourism, excitement, challenge, a sense of achievement, improving one's self-esteem and having acquired new skills or improved existing ones. In addition, there were single attributes such as value for money, eco-friendliness and feeling safe. For each item, respondents had to state how important they found it on a five-point Likert scale from 1 = very unimportant to 5 = very important. The second part of the questionnaire consisted of statements regarding the performance on each of the 34 attributes, e.g. "The equipment provided was good", "staff were friendly and enthusiastic" or "crowding was not a problem". Participants were asked to rate these statements on a five-point Likert scale, from 1 = "fully disagree" to 5 = "fully agree". The wording was positive for all statements; higher quality translated into higher scores. Overall quality, satisfaction, intention to recommend and intention to revisit were also based on a five-point Likert scale. Correlation analysis and multivariate regression were used to establish the influence of attribute performance on perceived quality and to compare the predictive qualities of different approaches.

On the whole, five different measures of quality were tested: simple performance, a gap measure and three different ways of weighting performance scores. The gap measure subtracted importance from performance. While this approach has been used occasionally for measuring quality, it is not identical to the SERVQUAL method of comparing performance to expectation and possibly inferior. However, as even proper SERVQUAL-type models do not tend to perform well in empirical analyses, it was decided to focus on importance and performance measures to keep the length of the questionnaire tolerable.

The first of the three weighted measures multiplied performance with importance scores as common in the literature. However, in such a simple weighted model, a combination of bad performance and high importance, which is the worst that could happen from a customer's point of view, leads to a higher score than bad performance coupled with low importance. To address this problem, performance scores were transformed in the other two weighted models so that low perceived quality translated into negative scores. On the assumption that values of up to three are not perceived as positive, three points were deducted from each performance score in one model (WPM3). Thus, ratings of 1 or 2 resulted in negative values and only scores of 4 or 5 produced positive results. As a consequence, increased importance of an item that received a low score reduced the overall quality measure instead of increasing it as in the traditional approaches. The last importance-weighted measure (WPM4) subtracted four points from the performance scores, setting the neutral point, at which increased importance does not affect overall quality, at 4.

Results

Half of the 622 respondents had participated in more than one activity, often a combination of land- and water-based. 77.3% were Irish, and 82.6% of all participants were living in Ireland. While the gender mix was fairly close to the general population, with slightly over half of the female respondents, the age balance was not. Two thirds were younger than 20 years. Even though many Irish adventure providers depend heavily on children's holiday camps and school activities at outdoor recreation centres, this is probably not representative.

Overall quality ratings were very high, with an average of 4.72 points out of 5; visitor satisfaction was slightly lower at 4.6. Average scores for all categories were above 4. While this may indicate rather generous rating, it seems to represent respondents' assessments rather well: A full 250 clients had also given feedback in the open comments section, and the vast majority of the comments were very favourable. This also confirmed the results of the service quality audit, in which the majority of these firms had done very well.

The attributes with the highest performance ratings were skilled instructors (4.75), friendly staff (4.71), the suitability of the setting (4.7), fun (4.68) and the eco-friendliness of the activity (4.65). Regression analysis shows that the most important influences on the perception of overall quality were a good atmosphere, staff friendliness, a feeling of excitement and skilled instructors.

Equally, importance ratings also tended to be on the high side; the average across all attributes was 4.25. Diagram 1 shows the items that were most and least important in visitors' eyes.

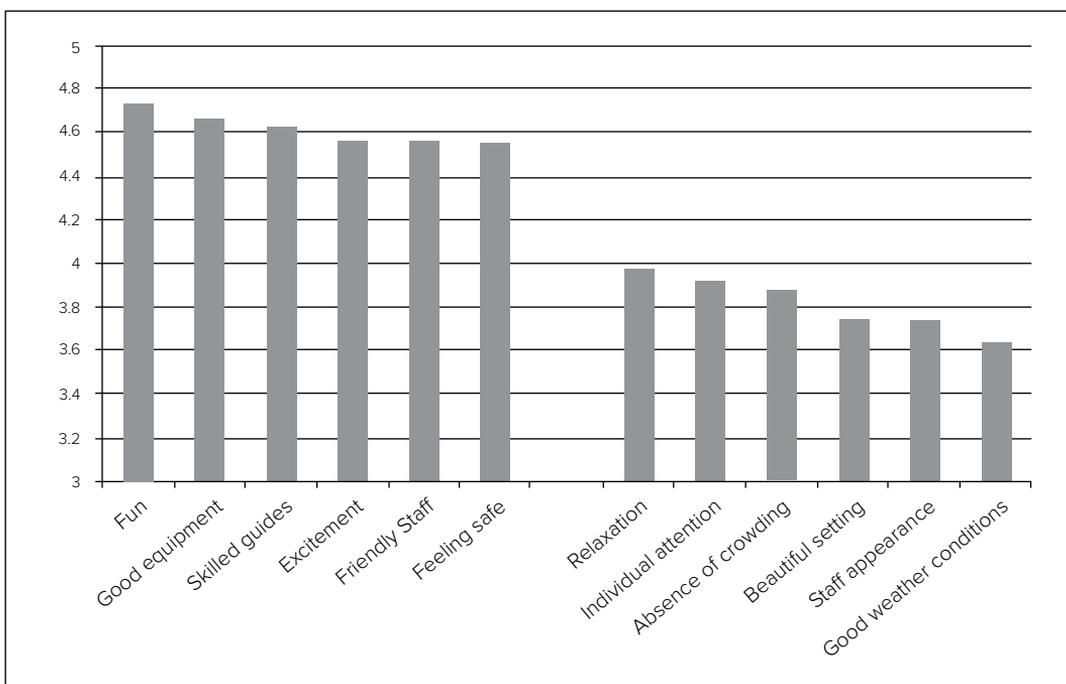


Diagram 1: Highest and lowest importance ratings

To establish the quality of the different measures, the scores produced by each were correlated with overall quality of the experience, customer satisfaction, likelihood to recommend and intention to revisit. For all five models, perception of total quality was the variable most closely related to the construct from single attribute scores. Correlations with satisfaction and intention to recommend were also quite high, whereas values were lower for intention to return. This does not come as a surprise as other factors also affect repeat visits, especially how close clients live to the adventure centre.

In contrast to findings from previous studies, a weighted model outperformed all other methods in this survey. The measure that subtracted a full four points from each of the item

quality ratings was more closely correlated to three of the four variables than any of the other concepts. The one exception was satisfaction, which was more closely correlated to simple performance. The predictive quality of the weighted model that subtracted three points from performance was similar, whereas simple weighted performance and especially performance minus importance were clearly less correlated to quality, satisfaction and behavioural intentions. Table 1 shows the correlation coefficients for all five models.

	Overall quality	Overall satisfaction	Degree of recommendation	Intention to revisit
Weight * (performance-4)	.567	.462	.560	.419
Performance	.562	.472	.543	.408
Weight * (performance-3)	.551	.444	.559	.405
Weight * performance	.476	.362	.495	.371
Importance - performance	.282	.242	.151	.132*
* significant at 0.05 level, all other values significant at 0.01 level				

Table 1: Spearman correlation coefficients for different quality measures

As an alternative measure of predictive quality, standard multivariate regressions were run with the variables from the five models, with overall quality as the dependent variable. The fit of all models except the one with the gap measure was very good; the highest multiple R value was 0.971. It follows that the attributes chosen for the questionnaire represent adventure tourists' preferences very well. Again, the best method was the one that subtracted four points from the performance scores, followed by WPM3 (0.960) and simple weighted performance (0.942). The gap measure was the only one that did not produce any significant results.

Weighted measures also outperformed simple performance in a stepwise regression to identify the aspects of an adventure that have the highest impact on the perception of overall quality. The attribute that contributed most to quality in the WPM4 regression was friendly staff with a beta coefficient of 0.755, followed by the score for accommodation (beta = 0.416). As only the smaller part of respondents stayed in camps overnight, an additional regression was run without accommodation. In this case, the simple performance measure came in second, but WPM4 still had the highest predictive power. The four most important factors were identical in both models: the atmosphere, friendly staff, a feeling of excitement and skilled instructors. On the other hand, easy communication with staff and short waits only played a role in WPM4, while a suitable setting and being given value for money were only significant in the performance model. Apparently, what matters most to adventure tourists is good staff and "soft factors" like the atmosphere; equipment and facilities do not seem to matter much.

Discussion

Even though many researchers feel that importance should somehow be taken into account in the measurement of quality, empirical studies so far have tended to identify no additional benefits from weighting. Considerable attention has been paid to the construction of the importance weights; thus, it has been argued that self-reported weights may not be accurate (Azzopardi and Nash) and various constructs like relative importance have been introduced (Taplin 2012). There is some truth in this - in the Irish sample, there were also some differences between what people said was important to them and what really affected their satisfaction and behaviour, but the real problem with importance weighting lies in the conceptual flaws. This paper tried to eliminate them not by changing the importance weights, but rather by standardising the performance scores of the attributes. This improved the predictive quality of the weighted models significantly; the best version proved superior to standard performance measures in all respects.

So what are the implications for researchers and tourism providers that want to assess and manage the quality of their offerings? Weighting can improve the accuracy of the assessment; however, to achieve this improvement, it takes more than just asking visitors how important they find various aspects of their experience: the data have to be explored with statistical methods to identify the transformations necessary. While this is definitely recommended to researchers that analyse the quality of destinations, attractions or events, it is probably beyond the average tourism manager. This definitely holds in the Irish adventure sector, where companies are small, mostly family-run and their owners tend to be outdoor enthusiasts rather than marketing and statistics experts (Bauer 2010).

The recommendation would be to keep evaluation simple, with the added benefit of not putting off clients with endless questionnaires. Though more sophisticated methods can produce even better results as shown above, performance scores are a perfectly adequate instrument for establishing customers' quality judgements. In addition, more sophisticated methods not only add complexity, but decrease rather than enhance the quality of the information gathered if not well chosen. It is true that, as Parasuraman *et al.*, (1991) and Crompton and Love (1995) note, the diagnostic value rises when expectations or importance are added – a stellar performance on an unimportant item where only mediocre quality is desired does not improve overall perception of quality. But this does not mean that including expectation and importance questions in all surveys is necessary. The best strategy might then be to once establish importance and expectations for a number of items in a survey and then to focus on those that were deemed most important or where the expectations were highest in the future.

It also has to be noted that quality does not equal satisfaction. The correlation between the two variables was 0.533 in the sample. Satisfaction is a state of mind of the tourist (Baker and Crompton, 2000) rather than an evaluation of the objective standards offered. Consequently, the aspects of the experience that matter differ to some extent. Most noticeably, value for money had a much larger impact on satisfaction than on quality perception in the present study. But, an industry practitioner might not even want to maximise client satisfaction; the intention to return or recommend affects the bottom line of a business even more. Both are more strongly related to satisfaction than to quality in the sample, but even the highest correlation – satisfaction and recommendations – only had a Spearman coefficient of 0.503.

In addition, the results suggest that tourists' overall impression of an experience depends mainly on a few variables. Consequently, customer feedback questionnaires do not need a long battery of questions – they just have to ask the right questions. A well-devised short questionnaire yields enough information, and as it is far less time-consuming to fill

it in, customers are much more likely to do it. The challenge is to find the attributes that matter most. The results from this study are probably good indicators of the preferences of adventure tourists in the Irish South West, but it is far from clear whether e.g. staff friendliness is equally important in other regions and cultures. Though self-reported importance was mostly compatible with regression results in the Irish sample, there were also a few exceptions. Some of the top attributes in the importance ranking such as safety had very little influence on perceived quality, satisfaction or behavioural intentions. The reason for this is probably that even though feeling reasonably safe is very important in adventure tourism, increasing the feeling of safety beyond a certain level brings no benefits or may even be counterproductive as it might detract from the feeling of excitement. On the other hand, not all of the factors with low importance ratings were unimportant. For instance, relaxation had a low importance score and did not affect quality much – but it had a strong impact on the intention to revisit and generating word of mouth.

Conclusion

This study has introduced new tools for measuring service quality in adventure tourism: a questionnaire that seems to represent visitors' perceptions very well and a new method of weighting attributes that delivered higher predictive value than the common models. In addition, it has identified determinants of quality in adventure tourism. Further research would be useful to establish whether these results also hold in different settings, e.g. in different regions, and how these instruments can be refined. Whereas the questionnaire is particularly suited to adventure tourism, it would also be interesting to test the applicability of the modified weighting methods in other tourism sectors or even service industries.

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