Tourism-Based Revenue Generation: Information (Research) Tools

By

Kreg Lindberg
Oregon State University, USA
Fax: +1-541-383-7501
kreg.lindberg@osucascades.edu

Introduction

Protected areas around the world face budget shortfalls.

Entrance and other tourism-related fees can be important sources of additional revenue.

Fee levels (and revenue) are often constrained by legal, political, or other considerations – and they should be framed within managerial objectives.

Example: Effect on Visitor Numbers

Consider a hypothetical PA “Nature Park.”

– no legislative constraint on charging fees
– politically, fees as high as US$10 per visitor would be acceptable
– tourism fee revenue objective is “cost recovery” – and tourism-related costs (e.g., visitor center) are estimated at US$100,000 per year

The park currently receives 20,000 visitors per year, so it appears that a US$5 per visitor fee would generate enough revenue to cover tourism-related costs.

But would a $5 fee reduce the number of visitors? If so, by how much?

Introduction

Within these constraints and objectives, information (research) tools can help managers set fee levels

– guidance on how fees affect visitor numbers, and thus revenue
  • helps one select the “optimal” fee level
– guidance on how visitor responses vary by fee system
  • annual pass vs. fee for multi-day visit vs. daily fee
  • revenue to NGO vs. government agency
  • effect of earmarking
– facilitates discussion with stakeholders
  • if research shows that a specific fee increase would not decrease visitor levels, it can reduce opposition by the tourism industry (if revenue is used to enhance quality, the fee increase may enhance industry support)
Research Tools

- Answers to such questions are particularly important since typically it is difficult for PAs to change fees
  - unlike businesses, PAs need to “get it right” the first time
- Managers often rely on informed judgement
  - experience with fees at target site or others
  - origin, income, and other characteristics of visitors
- Research can provide important information that complements and informs managerial judgement
  - analysis of actual price-visitation data
  - responses to specially-developed questions in visitor surveys

Actual Price-Visitation Data

- If a park changes fees over time and collects visitor data, the relationship between fee level and visitation level can be analyzed
  - anecdotally (“we increased fees, but just as many people visit now as in the past”)
  - visually (next slide)
  - statistically (using regression and related techniques)
- Statistical analysis provides the most precise information on the effect of fees, and it facilitates inclusion of other factors (e.g., was a decline in visitation due to the fee increase or to an economic slump in origin markets?).

Actual Price-Visitation Data

- Small fee increases had no effect, but the large increase (more than 10-fold) did reduce visitation.
- In the case of Manuel Antonio, “price elasticity” was calculated as -0.238
  - this means that a 100% increase in fees is estimated to lead to a 23.8% decrease in visitation
- Using the “Nature Park” example, assume the current fee is US$2.50 and there are 20,000 visitors per year = $50,000 in fee revenue.
  - If the fee were doubled to $5, and elasticity was -0.238, revenue would not double.
    - the number of visitors would decrease by 23.8% to 15,240
    - revenue would be 15,240 x $5 = $76,200
    - an increase in revenue, but not a doubling
Visitor Survey Approaches
- Visitor surveys can be used to gather diverse information, such as trip characteristics, visitor characteristics, motivation, etc.
- Specialized questions can be used to gather data that is analyzed to estimate price responsiveness (e.g., elasticity).
- Some approaches gather data on actual behavior – e.g., how much did you pay in travel costs to get to the park?
- Others gather data on “contingent” or hypothetical behavior – e.g., would you still have visited if the fee had been $5 rather than $2.50?

Travel Cost Model
- Uses information on actual trip costs across visitors to estimate how they would respond to an increase in costs.
- Example: an evaluation of visitation at Lake Nakuru NP in Kenya estimated that foreigners had price elasticities ranging from -0.169 to -0.842.
- Strength:
  - based on actual behavior
- Weaknesses:
  - assumes visitors respond to fees the way they do to other travel costs (e.g., airline tickets or hotel charges)
  - works best with a single destination/PA, but often visitors travel to several destinations during one trip

Contingent Valuation
- Directly asks visitors if they would still visit at a higher fee.
  - e.g., Would you still have visited Nature Park if the fee was $5?
- Strength:
  - asks visitors directly how they would respond to a fee
- Weakness:
  - visitors may not respond accurately
    - may not take it seriously
    - may answer strategically (“No, would not visit”) to deter the higher fee

Contingent Valuation
- Example: visitor surveys at marine PAs in Belize.
- Two versions were used, one with a US$10 fee per day and one with a $20 fee.
  - 82% would still have come with $10 fee, 59% with $20 fee
- Similar surveys conducted at Bunaken NP, a marine site in Indonesia, estimated average WTP of US$31 per international visitor. Results were used as a guide when increasing fee levels.
Contingent Behavior

- Like contingent valuation, but recognizes that visitors may take fewer trips or spend fewer days in response to a higher fee — rather than cancel visit altogether.
  - e.g., How many days are you spending at Nature Park on this visit? How many days would you have spent if the fee was $5? (assuming fee is charged per day)
- Strengths and weaknesses are similar to those in contingent valuation, but contingent behavior provides more “nuanced” information.

Example: visitor surveys in KwaZulu-Natal, S. Africa.

- Several versions were used, with differing fee levels. Results indicate that fees could be increased above $1.40 (at time of survey) with only modest effect on visitation, especially for foreigners.

Summary

- Research typically requires time, money, and specialized skills.
- However, it provides valuable information, and thus often is a worthwhile investment.
- This brief presentation illustrated the main methods used, but others are available to suit a wide range of situations and information needs.