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# **Using the Stated Preference Choice Method to Inform the Initial Design of a Publicly-Funded Tourism Attraction**

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## **ABSTRACT**

Publicly funded capital investments for tourism attractions, if designed and developed in ways that fail to appeal to enough of a potential market, may burden host communities by requiring greater than expected tax contributions toward operating costs, drawing resources away from other public needs and reducing support for future projects. This study uses the stated preference choice method to examine potential user preferences for a publicly funded off-road vehicle park. Results will inform the design of the park in an effort to capture as much of the potential market as possible.

**Keywords:** Stated preference choice method; off-highway vehicle; Tourism capital investment; Public tourism investment

## **INTRODUCTION**

As communities continue to recognize the positive potential of tourism, many existing and would-be destinations consider publicly funding or subsidizing attractions to increase the desirability of an area to tourists. Publicly funded capital investments for a tourism attraction are risky propositions for both lenders and taxpayers. Attractions that do not appeal to enough visitors, may become defunct or require larger than expected contributions from the tax base for operating costs; drawing resources away from other community needs while decreasing support for future investments. Prior to the development of a new attraction, many communities conduct market analyses and feasibility studies in order to assess the potential market for a specific attraction. However, it is less common for communities to conduct research into the potential market's preferences for specific features, amenities and policies related to the design and development of the attraction. Once an attraction has been developed, it may be difficult, or even impossible, to make changes to better appeal to a potential market if the initial design is less than optimal.

## **LITERATURE REVIEW**

Traditional research designs of visitor preferences that use a series of Likert-type questions have been criticized for their inability to provide meaningful information to managers because respondents are able to make independent preference choices that do not take trade-offs into consideration (e.g., Oh, et al., 2005). Choice modeling is based on the premise that consumers make purchase decisions based on a set of attributes offered by rival products. In a tourism context, this applies to the choices made by tourists between destinations and attractions that offer different sets of features, amenities and other factors that impact the tourism experience (Huybers, 2003). According to Lindberg and Fredman (2005), choice experiments can be used to evaluate how visitors react to different levels of attributes at destinations and attractions.

The stated preference choice method (SPCM) is a type of choice experiment in which respondents make several choices between hypothetical combinations of attribute levels for a product. It is rooted in random utility maximization theory, which suggests that individuals make choices to maximize utility (Louviere, et al., 2000). The SPCM allows researchers to identify the relative importance of those attribute levels and tradeoffs that consumers make in their decision process (Oh, et al., 2005). The SPCM is an innovative multi-dimensional tool that can be used to identify user's preferences for trade-offs collectively (Oh, et al., 2005; Oh and Ditton, 2006) and has been used to evaluate user preferences for tourism destinations and recreational attractions (Haider and Ewing, 1990; Schroeder and Louviere, 1999; Hearne and Salinas, 2002; Oh and Ditton, 2006; Oh, Draper and Dixon, 2010). It is considered to be a major improvement in understanding the preferences of tourists and recreationists (Louviere, et al., 2000; Oh, et al., 2005).

Although other forms of conjoint analysis have been widely implemented in the tourism field, the use of SPCM in the tourism sector is still somewhat new (Lindberg and Fredman, 2005). To the extent that it has been used to examine visitor preferences, SPCM has mostly been used in the context of existing destinations and attractions (Huybers, 2003; Lindberg and Fredman, 2005; Oh, et al., 2005; Chen and Chen, 2012). Although studies of existing attractions are important, the ability to make major changes recommended by them, may be limited by existing infrastructure and superstructure as well as by the expectations of existing repeat visitors. Few studies have used SPCM to inform the initial design decisions of a new attraction or destination before it has been developed. Employing SPCM to inform new tourism development could improve the chances of success for tourism development projects.

## **METHODS**

This study used the SPCM to examine the preferences of potential tourists to a proposed publicly operated off-highway vehicle (OHV) park in Michigan, a state that has seen a 46% increase in registered ORVs from 2000 – 2010 and hosts over 200,000 distinct tourism trips annually in which recreational ORV use is the primary purpose of the trip (Nelson, et al., 2010).

Because tourists are limited in the number of attributes that they consider when making a choice, the choice sets focused on the ones that would be most difficult to reverse or change after

the initial development of the OHV park. The attributes and levels for the choice sets were developed after focus groups and discussions with experienced ORV users, and a review of the SPCM literature.

A sequential orthogonal factorial design was used to generate choice sets for a pilot study of 42 OHV users in the study area. Ngene stated choice experimental design software was used to generate 36 choice sets and these choice sets were divided among 6 otherwise identical surveys (each with 6 of the choice sets). Each choice set presented respondents with two different hypothetical parks that offered different combinations of attribute levels (e.g., different levels for varieties of park features, types of restroom facilities, trail designs). For each of the 6 choice sets, respondents chose either one of, or neither of the two parks (See Figure 1). Although attribute levels across alternatives (Park A or Park B) are not orthogonal in a sequential orthogonal design, the sequential method of constructing orthogonal designs will typically lead to smaller designs in terms of the number of choice sets of the design (Hensher, Rose, and Greene 2005). The results of this pilot study were used to develop coefficients so that an efficient design could be used to develop choice sets for the primary study, which was recently conducted with a stratified random sample of 4,032 OHV users who registered at least one OHV in Michigan during 2012. Half of this sample was identified as potential tourists to the park based on the distance of their primary residence from the proposed site of the park. The list of registered OHV users was provided by the Michigan Department of Natural Resources and a geographically stratified sampling design was used to ensure a mix of local residents and potential tourists. At the time of this writing, the response rate for the survey has exceeded 52% with surveys still coming in on a daily basis.

## **RESULTS**

The results of this study will not only inform the design of this proposed county OHV park, but can serve as a model for research into other tourism attractions that are in the planning stages. Informing the design of tax-funded capital investments can help to increase the likelihood of the attraction capturing a larger portion of a potential market. Capturing potential market share will consequently lead to a more successful attraction, decreasing the demand on tax revenues to subsidize operating costs while increasing the likelihood of support for future worthwhile tourism development.

**Figure 1**  
**Example of a Choice Set**

Suppose you could only choose from the ORV parks below (*Park A, Park B, or neither park*).

| <b><u>PARK A</u></b>                      | <b>Park Attribute</b>   | <b><u>PARK B</u></b>                      |
|---|---|---|
| <i>Mostly mixed motorized trails</i>      | Trail usage   | <i>Mostly dedicated use trails</i>        |
| <i>Medium variety of park features</i>    | Variety of park features (rocks, mud pits, hills, off-camber, etc.) | <i>Little variety of park features</i>    |
| No  | Vehicle wash station with high pressure hoses                       | Yes                                       |
| Yes                                       | Staff to enforce park rules   | No  |
| <i>Port-potties with no running water</i> | Restrooms   | <i>Port-potties with no running water</i> |
| \$15.00                                   | Daily entry fee   | \$20.00                                   |

**Which would you prefer?**

I prefer... (Select only one below)

**Park A**

☐

**Neither Park**

☐

**Park B**

☐

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