

The Influence of Activity Importance and Similarity on Perception of Recreation Substitutes

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River(s): Metolius River

Research Topic(s): User experience, User satisfaction, Activity substitutability

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1. Study Purpose

- To examine the “relationship between importance and substitutability for participants in a recreation activity including both fly-angling and camping recreation” (p. 78).
- Hypotheses tested in this study:
 - | H1: “The greater the importance assigned to attributes present in a recreation activity, the lower the perceived quality of the activity’s most likely substitute” (p. 79)
 - | H2: “The great the importance assigned to attributes of an activity, the smaller number of substitutes perceived available for it” (p. 79)
 - | H3: The great the similarity between the attributes of an activity and its most likely substitute, the higher the perceived quality of the substitute” (p. 79)

2. Findings

Response rate 100%.

2.1. Characteristics of the Metolius River Trip

- Of the 14 attributes listed, “being near the river” was the most important attribute (76% of respondents)
- The second most important (59% of respondents) attribute was “being near a well-maintained campground,” followed by “viewing mountain scenery” (45%), “engaging in a preferred activity” (42%) and “being at an area patrolled by enforcement officers” (34%)
- The least important attributes were: paying reasonable campground costs, seeing other people, having close access to a grocery store, and meeting new friends (ranged from 8-9% of respondents)

2.2. Substitutes for the Metolius River Trip

- 95% would choose an alternative that provided the same activities at a different location, while 5% would choose a different activity

- Two thirds of respondents thought their alternative would be “as good” or “almost as good” as the Metolius
- 10% indicated their alternative was “not nearly as good”
- Regarding number of substitutes available, 23% did not have a good alternative, 44% had one or two, 14% had three to five, and 18% had six or more

2.3. Relationship Between Importance and Perceived Quality of Substitute

- H1 is accepted; overall, the greater importance of attributes of the original activity, the lower the quality of the alternative
- When examining individual attributes, three categories were significantly correlated: the river, the fishing experience, and secure surroundings; suggesting that the more importance placed on these factors, the lower the quality would be of the alternative

2.4. Relationship Between Importance and Number of Substitutes

- H2 is accepted; the greater importance placed on attributes of the original activity, the fewer number of substitutes that will be available
- When examining individual attributes, three categories were significantly correlated: camping environment, factors related to fishing, and social attributes

2.5. Relationship Between Opportunity Similarity and Perceived Quality of Substitute

- H3 is rejected; no significant correlations were found

3. Key Discussion Points

- “Attributes which make a substitute good may be different from those which make it uniquely available” (p. 82)
- The number and quality of substitutes are inversely related to the importance of attributes for the original activity
- Recreationists “are likely to choose substitutes which include the same activity and most of the important attributes of the original opportunity” (p. 83)
- Measures of similarity should be refined to possibly look at the extent of an attributes presence, rather than just its presence/absence
- Directly questioning recreationists about substitutes may not provide quality substitutes
- This study supports the idea that more specialized activities have less substitutes than non-specialized

4. Management Recommendations

- Managerial application of substitute activities is not straightforward because the quality of the substitute is difficult to predict. This may result in reduced levels of

visitor satisfaction. “Therefore, approaches to substitutability through use of recreation inventory systems such as ROS should be used carefully” (p. 85)

- When estimating economic demand for recreation, sites that appear to be similar may not be good substitutes

5. Research Design

Survey research, census

5.1. Study Area

15 miles of the Metolius River on the Deschutes National Forest

5.2. Data Collection Instruments

On-site questionnaire given to a representative of every party within each campground

5.3. Study Population

Recreationists using nine campgrounds located along the Metolius River on weekends during August 28-29th and September 4-5th, 1982

5.4. Sample Size

4 days sampled, 103 parties surveyed

5.5. List of Variables and Operational Definitions

5.5.1. Importance

Importance relates to the choice of a substitute and the resulting satisfaction level.

“When important attributes available in the original [activity] are not available in the replacement, there is some loss of satisfaction to the participant” (p. 78). Two types of importance were used in the study:

- Attribute importance measures – “subjects’ evaluation of the importance of 14 items describing social, resource, managerial, and activity attributes” (p. 80) that were deemed potentially important to their river trip

| Ratings given on a three-point scale: 1 – not important, 2 – moderately important, 3 – most important aspect of the Metolius

- Summary attribute importance index – sum of all attribute ratings

5.5.2. Similarity

Three measures were used to gauge similarity of the substitute activity to the original activity:

- Replacement type – participants were given a choice of two responses if their preferred activity was unavailable: 1 – choose the same activity at a different location, 2 – choose a different set of activities
- Attribute availability measures – given the same 14 items rating importance and asked if they applied (yes/no) to the substitute activity

- Attribute similarity indices – calculated based on the number of items scored important, the actual scores given, and the presence or absence of the attribute in the substitute

5.5.3. Number of substitutes

Asked participants the number of substitutes they thought were available for their Metolius trip.

5.5.4. Quality of substitutes

Asked participants if the substitute activity was “as good”, “almost as good”, “not as good but acceptable, or “not nearly as good” (p. 80)

6. Theories Used in Study

Multi-Attribute Choice Theory – “choice for a given product is based on an evaluation of salient attributes perceived to be associated with it” (p. 78). In this case, choice of a substitute recreation activity is a “function of the attributes associated with an alternative and of the importance of the attributes to a person” (p. 78).

- The authors use this theory to hypothesize the relationships between activity attributes and their importance and the resulting satisfaction when recreationists are faced with choosing a substitute recreation activity.