



THE RELATIONSHIP BETWEEN DAILY AND VACATION ACTIVITIES

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Abstract: The purpose of this research was to build upon existing literature in recreation involvement and loyalty to investigate the relationship between vacation and daily activities. The results support the hypothesis that the more that individuals are involved in an activity in a daily setting, the more they tend to participate in the same activity while on vacation. The segmentation tree analysis shows that not all activities are “created equally,” since some obtain a higher level of attachment than others. Three classifications of activity association are established: positive, nondescript, and negative. Implications for destination planning and marketing as well as future research directions are discussed. **Keywords:** recreation, specialization, involvement, segmentation tree analysis, activity prediction. © 2006 Elsevier Ltd. All rights reserved.

Résumé: La relation entre loisirs et activités quotidiennes. Le propos de cette recherche était de se baser sur la littérature de la participation et la loyauté aux loisirs pour étudier la relation entre les activités quotidiennes et celles des vacances. Les résultats soutiennent l'hypothèse que plus on s'engage à une activité dans un contexte quotidien, plus on participe à la même activité pendant ses vacances. L'analyse par arbre de segmentation montre que les activités ne sont pas toutes «égales en droits», puisque certaines obtiennent un plus haut niveau d'attachement que d'autres. On établit trois classifications d'association à une activité: positive, insignifiante et négative. On discute des implications pour la planification et le marketing et des directions de recherches futures. **Mots-clés:** loisirs, spécialisation, engagement, analyse par arbre de segmentation, prédiction d'activités. © 2006 Elsevier Ltd. All rights reserved.

INTRODUCTION

Research has directly linked recreation with tourism. Past literature has underscored the role of recreation in tourism product development (Chubb and Chubb 1981; Clawson, Held and Stoddart 1960). Other discussions focus on the intrinsic ties between the two (Bentley, Meyer, Page and Chalmers 2001; Chen, Hong, Liu, Zhang, Hou and Raymond 2004; Needham and Rollins 2005). Researchers have gone so far as to classify tourism as just an extreme or special form of

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recreation (Mathieson and Wall 1982; Murphy 1986). McKercher (1996) posited that in specific contexts, recreation becomes undistinguishable from tourism. However, while its construct has been researched alongside the tourism product, little is understood in its behavioral setting. There exist few empirical evidences as to the relationship between an individual's daily recreation activities and what he or she, as a tourist, chooses to do at a destination. If they are correlated, then the questions concern the "how and why" of their association. This research attempts to investigate these relationships conceptually and empirically.

From an intellectual perspective, this research attempts to explain the potential relationship between daily and destination-bound behaviors based on the constructs of involvement and recreation specialization. The empirical implication of assessing this association lends strategic insight for tourism planners and marketers. By developing an understanding of activities that elicit varied participation in a tourism setting, planners can accordingly develop a recreation offering mix to match customer interests. In addition, ties between different forms of recreation can be established, allowing planners to promote complementary activities.

RELATIONSHIPS BETWEEN TOURISM AND RECREATION

According to Simmons (2000), recreation can be considered a pleasurable and social activity that works to restore the individual by means of the experience of leisure. But there has been no consensus as to what constitutes recreation. Different researchers have elaborated on their own definitions or understandings of what it truly means (Moore, Cushman and Simmons 1995; Shaw and Shonkwiler 2000). These diverse viewpoints have been reflected through the continuously evolving debate and changing landscape for the interpretation of the phenomenon. Clawson classified recreation into five interrelated but distinct phases, including anticipation of the activity, travel to the activity, the activity itself, travel home from the activity, and recollection of the activity (Clawson and Knetsch 1966). Likewise, Driver and Tocher (1970) described recreation as having the characteristics of a commitment to the engagement, self-reward to the participant, pleasure from the experience, the personal nature of the experience, free choice, and occurrence during non-obligated time.

Researchers have also been intrigued by what constitutes tourism recreation. While acknowledging that the two share resources and facilities, compete for the consumer dollar, and exert similar impacts when the same activity is undertaken (Jansen-Verbeke and Dietvorst 1987; Mathieson and Wall 1982), tourism and recreation have been perceived as separate but interrelated phenomena. Perceptual differences existing between tourism and non-tourism activities have been discussed (Ross 1994; Ryan 1991). Further attempts have been made to conceptualize the phenomena from their psychological and social outcomes (Fedler 1987). According to Hunt, Twyham, Haider and

Robinson (2000), similar outcomes can be obtained from both. Behaviors socially identified as recreation, such as biking and climbing, may also be considered tourism activities. Driver and Tocher (1970) noted that the in and away participations are both goal-oriented behavioral processes, with those experiencing them setting out with the explicit goal of achieving specific internal and psychological outcomes (Driver and Brown 1978). However, the behavioral link between the two concepts has not been empirically examined.

The link between daily and vacation recreation can be better understood through involvement theory. Defined as an unobservable state of motivation, arousal, or interest (Sherif and Cantril 1947), involvement is regarded as a major constant for studying consumer behavior (Broderic and Mueller 1999). It plays a decisive role in the decision-making process to participate in activities (Dimanche, Havitz and Howard 1993) and is the measure of how people engage in different aspects of the consumption process (Gursoy and Gavcar 2003). While development of the involvement construct over the past 30 years has brought forth several definitions and scales intended to render the construct operational (Havitz and Dimanche 1997; Rothschild 1984), it has been applied either as a uni- or multidimensional structure. For instance, Zaichkowsky's personal involvement inventory scale (one-dimensional) and Laurent and Kapferer's consumer involvement profile (multidimensional) have been tested extensively for their applicability throughout behavior research (Jamrozy, Backman and Backman 1996; Havitz and Dimanche 1997, 1999). Both scales have been applied in various tourism and leisure studies to examine behavior and participation in leisure activities (Backman and Crompton 1989; Havitz and Crompton 1990). Dimanche, Havitz and Howard (1991), for instance, found that instead of the five dimensions proposed by Laurent and Kapferer (1985), only four were supported in tourist and recreation contexts: the interest or perceived importance of the product/service including the perceived pleasure value attached to that product (importance/pleasure); the perceived value attached to the product by the consumer (sign); the perceived importance of less than desirable outcomes resulting from bad choices (risk consequences); and the perceived probability of this mistake happening (risk probability).

Regardless of whether the application of involvement within tourism and leisure is one- or multidimensional relationship, this construct has played an important role in behavior research (Gursoy and Gavcar 2003). Past research has demonstrated that involvement status with a product or activity manifests into varying patterns (Havitz and Crompton 1990; Lehto, O'Leary and Morrison 2004). A concept closely related to involvement is that of recreation specialization. This theory, proposed by Devall (1973) and Shibutani (1955), describes personal progression along a linear scale of activity interest. An individual moves linearly from being a general to a specialized participant. Indicative variables for the level of specialization can include the equipment and skills used in the sport and activity-setting preferences (Bryan 1977). Studies have built upon these findings by gauging the level of

recreation specialization (Wellman, Roggenbuck and Smith 1982; Donnelly, Vaske and Graefe 1986) and substituting involvement as a measure of participation (Graefe 1980 as cited in Ditton, Loomis and Choi 1992). This is multi-layered in respect to each person's individual specialization within single or a set of activities. Research has also related the level of involvement to the degree of specialization and identified changes that occur within the individual, such as interaction with different social strata. This multidimensionality has shown that measurement of recreation specialization remains problematic (Oh, Ditton, Anderson and Scott 2005). Specialization is seen as a complex ideal and a multifaceted construct requiring a variety of methods and approaches to develop its measurement (McFarlane 2001). Agreements that behaviors and attitudes constitute specialization have been reached, but consensus as to the measurement of the construct eludes researchers (Scott and Shafer 2001).

While discussion proliferates as to the measurement of specialization, general agreement is that it is a progression along activity interest (Bryan 2001). A tourist may follow a line of progress through various stages in their choice of destinations and activities as their needs and assessments of the situation change (Kerstetter, Confer and Graefe 2001; Lehto et al 2004). An example of this would be an avid vacationing golfer, who will initially try any course to satisfy the need to golf. As this player progresses to the next stage, an increased level of specialization necessitates that they will only play semi-private or higher-profile public clubs to satisfy this same need. The final stage of this progression is a golfer who will select only those destinations that have exclusive or private courses of primary interest to him/her. Following this same line, tourists can be assessed similarly as to which types of recreation activities they participate in, at and away from their home environment. It is important to note that there may be outliers to such activity specialization situation norms. For instance, individuals may golf high-profile courses only for social recognition, not due to an increase of activity specialization (the wealthy duffer).

Involvement and specialization are precursors to a recreationist developing loyalty to a specific activity. Loyalty, the high propensity to participate in a particular activity, is closely related to the concept of leisure involvement (Backman and Crompton 1991b). Its construct, which was first applied in research on recreationists by Backman and Crompton (1991a; 1991b), accounts for their behavior towards an activity in which they are involved and their propensity to resist behavioral change (Kyle, Graefe, Manning and Bacon 2004). Loyalty, as a focus of consumer brand studies, was introduced by Copeland in 1923 in his theory of "brand insistence" and has been extensively investigated within consumer sciences (Iwasaki and Havitz 1998; Kim, Scott and Crompton 1997; Pritchard, Havitz and Howard 1999).

To operationalize the recreation loyalty construct, Iwasaki and Havitz (2004) posit that behavioral and attitudinal indicators are valid measurements for it. Sociologically, attention has been placed on the social and structural conditions that foretell commitment to and persistence

in a particular activity (Becker 1960; Scott and Godbey 1994). Psychologically, research has investigated the interrelationship between commitment and psychological involvement in a particular activity or string of them (Kim et al 1997). Kyle et al (2004) proposed and tested a conceptual model of the relationships among involvement, psychological commitment, and behavioral loyalty which integrated social, situational, and personal factors to explain the degree of psychological commitment and ultimately behavioral loyalty. They proposed that the latter can be measured by behavioral variables such as duration, frequency, and intensity. Within the tourism construct, measuring it via the dual dimensions of attitude and behavior was first introduced by Jarvis and Mayo in their study of hotel chain loyalty (1986).

Research Hypothesis and Data

Research has shown that involvement leads to commitment, which leads to resistance to change, which in turn lends itself to behavioral loyalty (Kyle et al 2004; Iwasaki and Havitz 1998, 2004). While the focus of this research is not on the dimensionality of these theoretical constructs or intricacy among them, this progression through various stages provides an excellent basis for arguing that a linkage might exist between daily and vacation recreation.

To examine the loyalty construct, previous research has primarily focused on psychological, behavioral, or composite measurements (Jacoby and Chestnut 1978). Pritchard, Howard and Havitz (1992) provide theoretical discourse and implications of measuring loyalty from each of these approaches, as application has been varied in academic research. Jain, Pinson and Malhotra (1987) focus on measuring loyalty strictly from an attitudinal perspective. Backman and Crompton (1991), along with Jarvis and Mayo (1986), favor the use of composite measurements in their studies. From a behavioral outlook, Engel and Blackwell (1982) suggest that behaviors related to an activity can predict loyalty, while Kim et al (1997) present it through participation frequency, ability or skill, equipment ownership, and other quantifiable variables.

Due to the nature of data, activity loyalty in this study is measured in behavioral terms. Recreation researchers have successfully used behavior for measurement (Donnelly et al 1986; McFarlane 1994; Scott and Godbey 1994). While there are identified concerns with strict use of behavior, such as superficial loyalty brought on by ulterior motives (Jarvis and Mayo 1986), support for behavioral measurement is undeniable. Stebbins (1992) states that persistent behavioral commitment to a leisure activity shows inclination to be serious about participation. Within the sociology and psychology fields, the concept of commitment to explain consistent behavior has also been used (Becker 1960; Johnson 1973). With previous research successfully applying behavior in recreational setting to measure loyalty, support is provided for use of behavioral measurements in this study.

With this research platform in place, the objective is to apply the conceptualization of recreation involvement and loyalty through behavior to assess the relationship between daily and destination recreation patterns. Hence, the study's hypothesis is that tourists who display higher degrees of involvement with a daily recreation activity will have a higher propensity to participate in the same activity while on vacation. Data utilized to test this hypothesis came from the "2001 US Travel Activities and Motivation Survey" (2001) undertaken by the Canadian Tourism Commission. Using both telephone and mail techniques, individuals in the United States age 18 years or older were randomly selected and reached by phone, with a total sample of 28,397. From these initial surveys, participants who had traveled in the previous two years were asked to complete an additional mailed questionnaire. While the telephone contacts collected information on respondents' social demographic background, daily recreation participation patterns, and leisure travel history, the mail survey gathered extensive information on the specific types of activities that the US tourists were engaged in during the previous two years. For the purpose of this research, responses from both survey techniques were matched and merged. A sample of 6,378 usable responses were collected and analyzed for this study.

The daily recreation activity involvement is measured in behavioral terms based on a Likert scale (participated frequently, occasionally, rarely, and not at all). Data concerning recreation activities participated in as a tourist were collected dichotomously with identification of activity involvement in a yes or no format. Individuals identified as skipping these questions, or as "not stated," were dropped from the analyses. This accounts for the variance between usable surveys and utilized sample size.

Statistical Analysis

This research adopted a two-step approach to test the research hypothesis. First, a series of chi-square tests was performed to assess the bivariate relationship between daily recreation and destination recreation participation patterns. This initial exploratory step provided a supporting base for the second step, examining the relative predictive values of daily recreation activities for projecting vacation recreation patterns in a multivariate context by using segmentation tree analysis, a relatively new methodology for tourism research (Chen 2003). This technique, also known as classification tree analysis, can effectively predict membership of cases in categorical and numeric dependent variables on one or more predictor variables (StatSoft 2005). Used as a predictor model, the output is typically read top-down starting at the root node, which is represented in this study by the independent variable, the daily recreation activities. Each subsequent node is represented by the various dependent variables (the vacation recreation activities). When interpreting the results from the segmentation trees, it is important to remember that percentages listed are in relation to

the total sample size. For this specific study, numbers within each node represented a point on the Likert scale (1 = participate often to 4 = never participate) and each number within subsequent nodes was in reference to the equivalent number in previous nodes. For example, of the 853 golfers that play often, the segmentation tree reveals that 617 golf on vacation and 236 not. This same method of reading corresponding nodes can be employed until reaching the end or terminal node.

The technique can be used as a method to demonstrate various relationships within dependent and independent variables (Wedel and Kamakura 2000). Because of its high level of adaptability and ease of reading through its visual display of output (StatSoft 2005), the technique was used to represent the complex relationships or associations between daily and vacation activities with binomial and multinomial responses. The study employed this technique to illustrate the predictability of destination activity participation based upon daily activity patterns and to illustrate the relativity among various vacation activities. The path-like predictive models are visually displayed to gauge variable relationships that have a high incidence rating. The segmentation tree technique also allows the researchers to predict activity associations in positive directions (that is, a high daily to high destination activity association), analyze those not readily participated in on a vacation trip (high daily to low destination association) and measure those shown to lack predictive ability (no pattern or association between the two). The segmentation results can produce multiple "trees" based on different activities. However, due to space considerations, only three deemed most pertinent to the discussions of this research are displayed in the result section.

Chi-square Results

The sample was composed of 56.5% female and 43.5% male respondents. Of those, a total of 91.8% were born in the United States. Ethnicity was classified continentally: 93.1% were North American (US and Canadian), 2.1% from South/Central America, 2.5% European, 1.6% Asian, and .7% from other regions. Concerning age, 35.6% were 41–55, 28.1% older than 56, 27.6% 26–40, and 8.7% 18–25. Educationally, 23.9% had high school or less education, 14.5% some college education, 35.9% a college degree, and 12.4% a graduate degree or higher. From a geographical dispersion perspective, 23% were from states in East North Central, 15.5% Pacific/Pacific Island, 14.4% Mid-Atlantic, 12.8% South Atlantic, 9.4% Mountain, 8.4% West South Central, and 16.5% from remaining regions.

Chi-square tests were performed on the various pairs of activities participated in daily versus on vacation (Tables 1 and 2). Table 1 includes the test results of 21 outdoor-based or sports- and fitness-related activities (or OSF). Table 2 includes the results of 16 activities that occurred in a greater social context including general entertainment activities, dining, and culturally based events (or EDC). The OSFs were compared with similar daily sets, as questions relating to types of activities

Table 1. Recreation Participation Comparison: Outdoor, Sport, Fitness

Activities Participated at Destinations	Recreation Activities Daily Participation %				Chi-Square ^{a,b}
	Frequently	Occasionally	Rarely	Never	
Occasional golf	52.6%	28.4%	5.7%	13.4%	2428.19
Staying at a golf resort	65%	20.4%	3%	11.6%	1378.02
Purchasing packaged tour golf	75.1%	11.6%	1.7%	11.6%	77.49
Picnicking in parks	33.6%	43%	14.8%	8.6%	467.43
Fishing (fresh water)	39.6%	34.6%	12.6%	13.2%	1935.01
Fishing (salt water)	41.5%	29.2%	13.3%	15.9%	868.72
Fishing (ice)	50.0%	26.2%	6.6%	17.2%	166.58
Hunting (big game)	52.7%	21.4%	4.8%	21.1%	1816.04
Hunting game/fowl	51.9%	18.6%	5.1%	24.4%	1556.87
Camping	47.5%	37.0%	7.2%	8.2%	1381.58
Camping (wilderness)	55.7%	30%	7.1%	7.2%	874.12
Canoeing or kayaking	21.7%	42.6%	15.9%	19.7%	1347.55
Recreational biking	49.4%	34%	6.8%	9.8%	1022.83
Mountain biking	59%	27.3%	6.2%	7.5%	434.12
Biking, overnight event	63.4%	20.4%	6.5%	9.7%	137.16
Downhill skiing	36.2%	36.6%	10.4%	16.9%	2189.37
Baseball/softball	34.3%	27.5%	8.1%	30.1%	588.85
Basketball	33%	26.5%	11%	29.5%	425.95
Ice Hockey	31.6%	30.3%	7.9%	30.3%	83.31
Soccer	29.8%	28.3%	9.1%	32.8%	186.52
Jogging outdoors	73.9%	18.1%	2%	6%	245.33

^a Bonferroni inequality alpha value for independent tests = .00132; ^b Corresponding p - values <.001.

were not identically paired. For example, golf is represented in three separate instances as a destination activity (occasional golf, staying at a golf resort, and purchasing packaged golf tour). Thus, all three vacation golf activities were cross-compared with the corresponding daily leisure activity. Other examples that were comparatively matched and analyzed in this manner included hunting (big and small game hunting/fowl), fishing (fresh water, salt water, and ice fishing), and camping (large campground or park areas, outside of large campground or public areas, and wilderness).

For the OSF activities presented in Table 1, respondents showed a consistently high propensity for participation in destination recreation activities if they enjoyed the same ones on a daily basis. The significant chi-square statistics, however, need to be interpreted with caution due to the large sample size, as these tests are so sensitive to it (Sheskin 2004). To mitigate these sample size concerns and control for the increased Type I error due to repeated measures, the Bonferroni inequality correction was applied (Hair, Anderson, Tatham and Black 1998). Based upon adjusted alpha levels for independent tests within each table, all chi-square values were found to be significant at the .001 level.

Table 2. Participation Comparison: Entertainment, Dining, Cultural

Activities Participated on Vacation	Recreation Activities Daily Participation %				Chi-Square ^{a,b}
	Frequently	Occasionally	Rarely	Never	
Dining, local café	70.2%	26.7%	2.1%	1%	137.57
Dining, regional cuisine	65.1%	30.7%	3%	1.1%	168.18
Dining, nationally recognized restaurant	76.8%	19.8%	2.2%	1.2%	209.42
Theme parks, movie	19.5%	53.1%	18%	9.4%	440.71
Theme parks, science	18.5%	51%	19%	11.5%	261.25
Amusement park	17.9%	54.6%	17.7%	9.7%	607.12
Visiting a bot. garden	23.1%	55.9%	14.3%	6.7%	298.04
Visiting a zoo	21.5%	53.6%	16.4%	8.5%	412.55
Theatre	33.7%	49.3%	10.8%	6.3%	935.93
Theatre festivals	38.9%	41.7%	10.1%	9.2%	204.57
Ballet	13.4%	43.9%	18%	24.6%	772.18
Opera	20.8%	44%	17.1%	18%	1079.58
Concerts, classical music	37.7%	47.4%	6.8%	8.1%	305.39
Concerts, jazz music	39.1%	45.9%	7.8%	7.2%	263.80
Concerts, rock music	31.3%	53.6%	10.6%	4.4%	443.63
Visiting art galleries	28.3%	51.2%	13.2%	7.2%	1327.16

^a Bonferroni inequality alpha value for independent tests = .0016; ^b Corresponding p – values <.001.

Interesting patterns have emerged from the data. The general tendency is that the higher the daily participation, the more likely the respondents will participate in the same activity when on vacation. For instance, among destination golfers, the frequent daily players did more while on vacation (52.6%) than those who only occasionally golf (28.4%), and rarely or never do so at home (19.3%). The more golfing one does on a daily basis, the more likely the individual will golf occasionally (52%) or stay at a golf resort (65%) or purchase a packaged golf tour (75%) during vacation. It appears that the more involved with golf one is on a daily basis, the more specialized his vacation activities will be. This is evidenced by the ascending percentages of participants from occasional golfing when away to taking a full-golf vacation.

Another example is biking. Highly involved bikers (who bike frequently near home) tend to participate in recreational biking (49.4%) or mountain biking (59%) or overnight biking (63%) on a vacation trip. The ascending order of percentages again indicates a positive relationship between daily and vacation involvement with the activity. The chances of treating golfing or biking as the main purpose of vacation are manifested in a golf vacation or an overnight biking event. Similar patterns can be observed with fishing, hunting, and camping. It appears that, in particular, activities that require higher levels of specialization in skills and resources (like golfing and

hunting) tend to follow the distinct high (daily) and high (on vacation) relationship pattern.

Similar to OSFs, the EDCs (Table 2) showed a general pattern of high propensity for individuals to participate in an activity while on vacation if they engage in it frequently daily. The significant chi-square tests on these activities attested to the tendency. It was illustrated in three activity groupings: dining (local, café, regional cuisine, and nationally recognized), theater (theater, theater festivals), and concerts (classical, jazz, and rock music). Also noted is that for EDCs, the positive correlation between daily and vacation activity participation appeared less prominent than for the OSFs. The overall percentage ratio between home and vacation participation was lower. An average of the two sets of home activities shows the trend. For instance, average home participation for the OSFs registered at 43% compared to only 31% for the EDCs. On the other hand, there is a marked difference in the average percentage of occasionally participated in the home environment. For the EDC grouping, it is nearly 50% compared to only 29% for the OSF grouping. Comparing the overall statistics, they were more loyal to their activities, as they showed a greater propensity to participate in them on vacation.

Segmentation Tree Results

The results of the analysis reinforced aforementioned associations. However, it also further showed that some activities obtained a greater loyalty level than the rest when subjected to the presence of other activity variables. Variables displayed are significant in differentiating the four daily participation groups. From this, it appears that three types of loyalty relationships exist. The first, a high to high relationship, is exemplified by activities where individuals showed both high daily and vacation participation. These included golfing, fishing, hunting, visiting theme parks, and attending concerts. Figure 1 presents the golf example of how the hierarchical display of the classification tree represents activity loyalty.

The analysis explains how daily involvement with golf is associated with an individual's tendency and degree of playing while on vacation. The top node is represented as the independent variable: daily golfing participation level. The root node is connected to lower-level nodes by connectors indicating either participation (represented by 1) or non-participation (represented by 2) of golfing on vacation. This relationship is elaborated upon by the next level of the hierarchy where a further split is based upon whether the vacation players chose to stay at a golf resort while on vacation. The last split was based on whether those who stayed at a resort also purchased a packaged golf tour.

Figure 1 demonstrates that among the avid daily golfers (853 individuals), 617 played on vacation while 70% of these identified themselves as frequently staying at a golf resort. One additional split was analyzed for player propensity to purchase a packaged golf tour. In this split, 81.8% of those who frequently enjoyed the game while on vacation

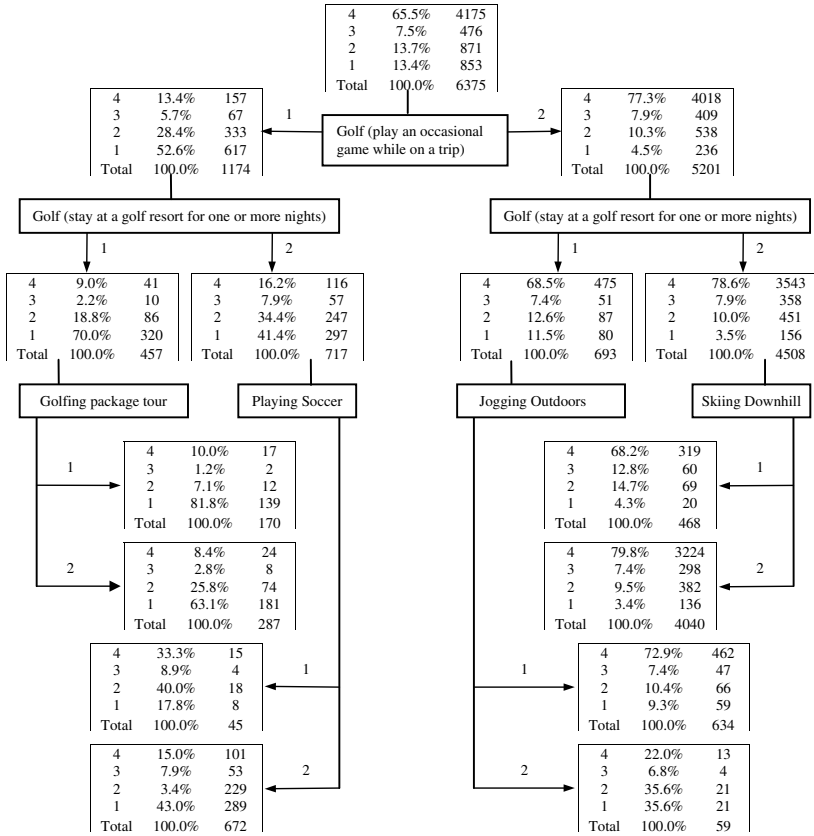


Diagram Value Interpretations—Within Node: Likert scale values where (4) represents minimal participation and (1) represents often participation. Node Connectors: (1) signifies they did participate in the corresponding activity and (2) represents they did not participate

Figure 1. Hierarchical Display of Positive Correlation

and who frequently stayed at a golf resort also purchased a packaged golf tour. The latter represents the highest level of involvement. This result is an excellent representation of the loyalty construct. That is, compared to nondaily golfers, the daily ones have higher tendencies to occasionally play on a vacation, stay at a specialized resort, and purchase the package. This attests to the premise that as an individual becomes more involved or loyal to an activity, the higher its propensity to impact aspects of their life. While the golf progression is apparent, the nongolf activities appear to be random because they account for variances from all other sources (activity preferences and vacation locations, for instance). Although golfing was used as an illustrative example, similar association paths and data patterns exist for four other activities including hunting, fishing, going to art galleries/shows, and theme park visitation.

The second type of activities shows no specified pattern: activities participated in at home showed no significant correlation to similar

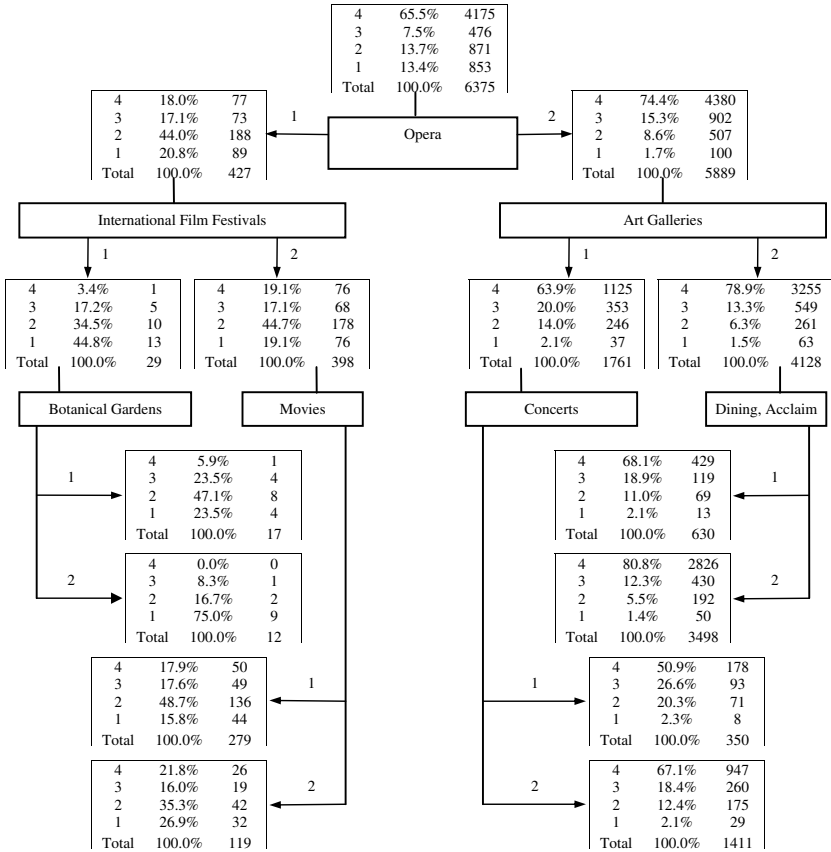


Diagram Value Interpretations: See Figure 1

Figure 2. Hierarchical Display of Nondescript Relationship

or same ones at a destination. Unlike the strong associations discussed above, these had no clear-cut majority decisions between the levels of participation. A number of activities exemplified this lack of strong relationship (neither positive nor negative) when subjected to the presence of all other activities. To illustrate this pattern, Figure 2 displays the noncorrelated EDC activity of opera. Apparent in this diagram are the weak relationships represented within each of the nodes. For example, out of the 189 respondents who frequently patronize opera, there was an almost even split between patrons (100) and nonpatrons (89) of opera while on vacation.

The third type of activity association pattern is that of the negatively correlated activities (that is, daily activity predicts nonactivity at a destination). This type of negative relationship existed within a limited number of activities. An illustrative example was the negative relationship between daily participation in team-related activities and the propensity to not participate in them while on vacation. Figure 3

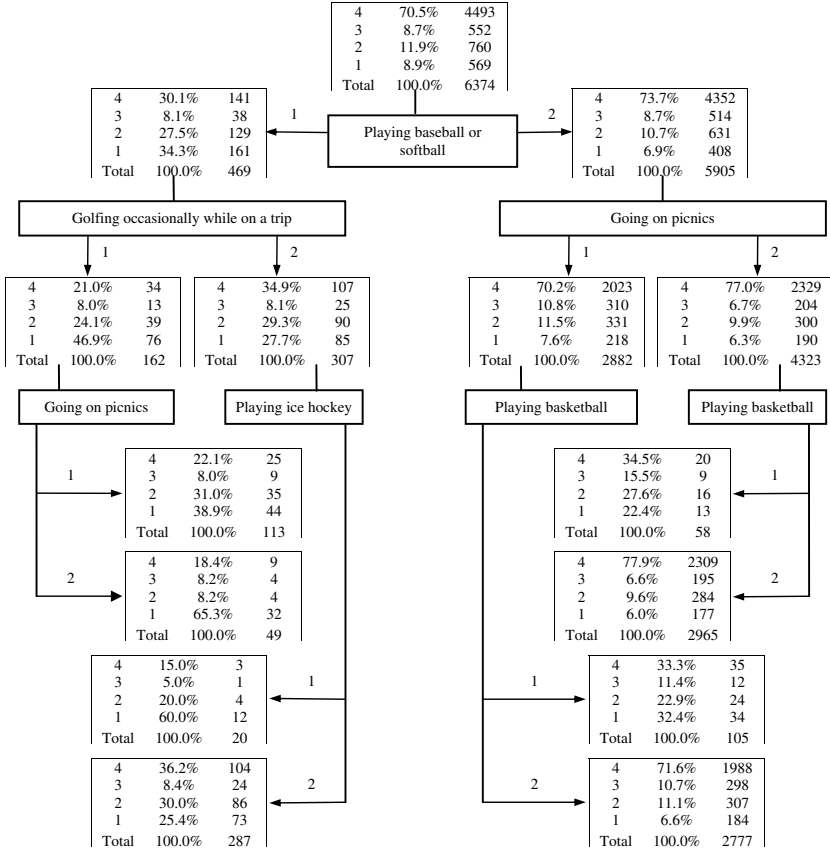


Diagram Value Interpretations: See Figure 1

Figure 3. Hierarchical Display of Negative Relationship

provides visual representation of this association. The first node value of 70.5% represents the number of those participating in team sports on a daily basis that did not engage in the team-based sports of baseball/softball while on vacation. The subsequent split further supported this negative relationship, as 77.9% of those participating in daily team-based activities did not play basketball as a recreation activity while a tourist. The information portrayed in this figure, unlike previous figures, is inverted as the reported percentages are negatively related.

CONCLUSION

The challenge facing leisure researchers is to provide a coherent yet realistic interpretation of the complex construct of recreation loyalty (Pritchard et al 1992). Through the use of descriptive statistics and segmentation tree analysis, this study has imparted a greater

understanding of this state of mind. While Day (1969) argued that true loyalty exists only when there is involvement with the purchase and further commitment to the brand, Jacoby and Chestnut (1978) connected commitment and loyalty as the individual develops a degree of commitment to the brand in question. Based upon these arguments, Buchanan (1985) has argued that the same type of state can be transferred to recreation. The current research is a groundbreaking effort to test this assertion in an empirical context. Because of this applicability, there exist multiple implications for tourism recreation researchers.

Findings largely support the hypothesis that the more an individual is involved with a certain activity in a daily setting, the higher the tendency to participate in the same while at a destination. The data has also shown that not all activities share this characteristic. Some produce a higher level of attachment or consistency than others, much like tangible products where involvement levels vary (Zaichkowsky 1991). Havitz and Dimanche (1997) posit that there are varying degrees of involvement and that there could be multiple mediating factors causing this variation. Within the OSF setting, it seems the more an activity is skill-based, the higher the positive association between daily and vacation participation. Examples include golf and hunting. The less skill-based activities seem to show less or no apparent association. Examples of this type include jogging or participating in picnics. Of particular interest are the high degrees of association and loyalty to activities in the OSF grouping. Within this survey, the highest level of loyalty to golf was that of purchasing the package tour, one step on an activity loyalty scale above staying at a golf resort. This finding is supported both from the single dimensional chi-square test as well as the segmentation tree analysis. It also agrees with past research that has discussed the golfer persona and how loyal they tend to be to their sport (Petrick, Backman, Bixler and Norman 2001). This data presents empirical support that the golf experience is an activity engendering high loyalty levels from participants and is representative of an activity that can provoke a high level of loyalty.

While a large number of activities, both athletically and culturally based, showed a propensity of continued participation (at home and on vacation) through the initial single dimensional chi-square analysis, not all showed this loyalty in the segmentation tree relationships. For example, biking showed 49.4–63.4% of frequent or occasional users on a daily basis but lacked a positive correlation to that activity in the segmentation tree analysis. The correlation between biking and overnight biking trips, which represents the highest form of loyalty in this study, was found to be negative instead of positive, indicating a lack of loyalty. As loyalty measures imply, for persons to be this, they will do anything needed to be involved with their particular activity. However, the findings of this research reiterate the opposite, a negative association. Thus, bicycling may not be a typical loyalty-based activity.

The intricate activity loyalty patterns derived from this study bear practical implications for destinations to effectively market and package activities. For example, this research reveals that not all

activities are loyalty-based. That is, even if a consumer participates in an activity while at home, he or she may not necessarily do so while on vacation. For example, in the case of biking, this research suggests that its daily practice exhibits a low degree of loyalty on the part of the recreational bikers. This could indicate that destinations promoting biking-oriented activities as a primary attraction may need to consider advertising in venues other than a biking magazine. Relying solely on those who enjoy biking on a daily basis as the customer base could be off target. In addition, the destination could actively identify activities that are positively correlated with biking and promote them to increase consumer interest in the product.

The opposite can be said for activities which engender high levels of loyalty. For example, given the high level exhibited by hunters, it could be an effective strategy for a Rocky Mountain resort to attract this group to their locale by promoting the sport in hunting magazines. Appearing and advertising in such magazines could be an excellent source of exposure if a resort wanted to attract this particular segment to its business. While it may not be sufficient to rely solely on this type of association advertising, the high level of loyalty may ensure a strong customer base. Different strategies are needed for activities that do not show significant correlation between daily and vacation participation. Ballet, for instance, is representative of one such activity which, if participated in as a daily activity, shows no association with that when on vacation. This nondescript relationship indicates that there may be limited effectiveness for resorts to market this activity to those who participate in it as daily leisure activity.

The findings can also lend insights for developing a destination, modifying, or repackaging a current one. For example, information about leisure activity interests and their association with each other could prove very useful in planning and development efforts. Activities that are positively associated could be bundled or packaged as offers to tourists. This approach could potentially add peripheral values to a tourism experience. One such example would be the resort that is based on whitewater rapids and has a strong base of canoeing patrons. Based on this study, the resort would not want to develop a recreation program centered on football or other team sports as there would be limited interest. This is an excellent illustrative example of what not to develop or package together. Such an extreme case would seem instinctually clear, but this approach could lend insight to activities whose associations are not as apparent or intuitive. Certain activity associations or dissociations based on consumers' behavior can present themselves as counter-intuitive or illogical on the part of the destination planners, but still be successful tandem offerings. While this concept has seen limited applications in tourism planning, these types of association have seen extensive uses in general business decision making such as how a convenience store stocks and displays goods.

This research, while exploratory, contributes to a greater understanding of tourist recreational choices. Statistical evidences have been provided that not all activities carry the same interest or loyalty levels from daily into tourist lives. Some may not be of interest in a vacation

context as they are in a daily basis. That is, even if someone enjoys a certain activity, they may not carry the same level of interest in that activity while on vacation. However, other activities, regardless of location, will be enthusiastically sought out and participated in. It seems that activities that require specialized skills exhibit a higher level of loyalty between home and tourism settings. These findings could be an important step towards understanding the activity mix of a successful destination. This research also carries theoretical ramifications. It extends the recreation activity loyalty and specialization from daily setting to a vacation context and builds a linkage between the two. This effort establishes unexplored avenues of discovery in the areas of destination recreation specialization and loyalty.

Future research needs to consider situational factors such as companionship, and purpose, as well as personal factors such as personality, which may impact activity choice at a destination. Due to the limitation of secondary data, these factors could not be incorporated into the analysis. As a result, certain possible confounding effects could not be examined. However, considering that the subjects are representative samples of the US traveling public and destination activity is reported in a relatively longer period of time (past two years) and in various destination settings (activities reported are not destination specific), these confounding effects could have been mitigated.

Another shortfall of the data used to establish the loyalty relationships is the number of activities considered. Although there were those represented in the data set that allowed for a participation progression to be seen in some activities, this was not available for all. If each variable had equal related progressive activities, a better gauge of relationships and associations could have been established.

From a loyalty and commitment measurement standpoint, contemporary literature often uses composite measures including both psychological and behavior measurements (Pritchard et al 1999). This study has relied solely on behavioral variables as guided by data. Future studies should consider applying composite measurements to validate this baseline study. Attitudinal scales or methodologies examining both latently and spuriously loyal individuals should be used (Backman and Crompton 1991b; Jarvis and Mayo 1986). Behavior should be measured from a variety of angles including frequency, duration, and intensity. Measurement effectiveness could be supported by adding repeated measures and time series data to mitigate the set period of time differences. This combination of measurements will further the understanding of the multidimensionality of the commitment and loyalty constructs. Further, in subsequent studies, researchers should examine the impacts of demographic factors on consumers' loyalty to any particular activity and cross-analyze those results. Multivariate models that incorporate these situational as well as personal factors can prove to be more rigorous.

This research leads to a new frontier of knowledge to better understand tourist behavior. Its findings demonstrate an important linkage between daily leisure and tourism. That is, destinations, to some extent, can become extensions of daily settings. Activity involvement

in a home environment can lead to similar actions at a destination. In this respect, knowledge of tourist daily consumption choices and patterns can potentially contribute to a better understanding of destination desires and behavior.

In an effort to better comprehend variations in touristic pursuits, scholars have recently proposed mediating factors ranging from destination characteristics to psychosomatic dimensions disparate from activities (Lew and McKercher 2006; Pizam and Fleischer 2005). Utilizing these theoretical perspectives, further exploration of how and why daily recreation becomes the antecedent of vacation activity choices is warranted. Investigation into possible mediating effects can further shed light on this relationship. The mediating factors can be external (such as destination characteristics) or internal (such as personality, lifestyle, and value), as well as situational (such as travel party composition, gender, and age). In a broader context, patterns relating to all touristic aspects could potentially be related to daily life dynamics. Leisure time expenditures, family functions, home setting characteristics, daily dining, and transportation choices can be such examples in the mix. Investigations of these factors may represent new avenues of knowledge discovery about tourism desires, behaviors, and practices actually rooted in the generating environments. Simply put, to understand tourism at the destination requires studying the tourist in the home market. ■

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