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多元族群森林遊憩服務品質知覺之比較

A Multi-Ethnic Comparison of Perceptions of Forest Recreation Service Quality

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摘要

本研究之目的是在調查一個臨近大都會之國家森林遊樂區，檢驗多元族群之遊憩服務品質知覺，並以美國三個國內種族: 安格魯裔，西班牙裔，以及亞裔為例。在已發表多元族群戶外遊憩之文章大都以活動參與類型或頻率相關做主題。既有之文獻中，很少有以森林遊樂區遊客為對象之服務品質知覺跨文化比較。從美國南加州安琪拉國家森林遊樂區遊客之抽樣調查，我們取得 444 位安格魯裔，312 西班牙裔，以及 319 亞裔遊客之樣本 (n = 1,075)。結果分析發現，當控制遊客在美國之代數變相之後，我們發現亞裔族群與安格魯裔及西班牙裔族群在遊憩服務品質知覺上有所不同。相較於安格魯裔及西班牙裔族群，亞裔族群有較低之服務品質知覺。我們將這樣的發現歸咎於文化價值觀之不同並提出建議供經營管理上之參考。

【關鍵詞】：服務品質知覺、多元族群、文化價值觀、森林遊樂、代數效應

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Abstract

This study examines perceptions of service quality on an ethnically diverse national forest adjacent to a large metropolitan area, specifically looking for differences among whites, Hispanics, and Asians. Published studies of recreation and ethnicity have focused primarily on activity participation rates and patterns. The literature contains few cross–cultural comparisons of perceived service quality in a forest recreation setting. Data from a purposive convenience sample of recreationists (*n* = 1,075) visited Angeles National Forest, California, US, includes 444 whites, 312 Hispanics, and 319 Asians. The results reveal that compared to whites and Hispanics, Asians are most distinct in service quality ratings after controlling for generational effects. In particular, Asians tend to perceive lower service quality. The implications of these findings are discussed as they relate to the role of cultural values and service quality measurement in recreation management.

Keywords: perceptions of service quality, multi–ethnic, cultural values, forest recreation, generational effect

Introduction

Current demographic trends indicate population growth for ethnic minority groups is increasing considerably faster than the overall rate of the U.S. population. The Hispanic population in the U.S. currently exceeds 35 million, representing almost 13% of the U.S. population. Census estimates indicate that this rapidly growing group will exceed 43 million by the year 2010, and reach almost 100 million by the year 2050. On the other hand, the Asian population is now over 10 million (almost 4% of the population). Although small percentage, it is the fastest growing ethnic group in the U.S. and is expected to double by the year 2030, reaching 35 million by the year 2050 (U.S. Bureau of the Census [USBC], 2006). In addition, it is expected that minority groups will continue to grow faster than the non-minority population. According to current projections, non-Hispanic whites will make up barely one-half of the total population by 2050 and will lose their majority status by 2060 (USBC, 2006).

Historically, national forests have been used primarily by a predominantly white segment of the population. Moreover, despite a policy designed to serve minorities better, managers often struggle in their efforts increase minority group participation. For example, the U.S.

Forest Service recognizes that many of its units have not offered experiences to visitors from varied ethnic backgrounds (USDA, 1998). As the ethnic composition of the U.S. continues to grow more diverse, the success of the national forest recreation management will depend increasingly on attracting, hosting, and educating visitors from a variety of ethnic backgrounds, especially those underserved ethnic groups (Godbey, DeJong, Sasidharan, and Yarnal, 2001). Moreover, responsiveness to the needs of diverse populations is a legal requirement. It is essential to give equal opportunities to diverse ethnic groups. A failure of agencies to respond to these requirements may ultimately result in serious legal challenges (Allison, 2000). Therefore, it is important to assess and address the perceptions, values, and needs of the nation's growing ethnic minority populations with respect to forest management (Sasidharan, 2002) and to the provision of recreation services (Dwyer and Chavez, 2005). In this changing social climate, understanding the similarities and differences among various ethnic groups will help national forest recreation management be more successful in the future.

Service quality can play a central role in serving minority populations better, and is a concern for a variety of organizations including those in the park, recreation, and tourism sector (Khan and Su, 2003). Because of citizens' demands for responsiveness and high quality service from government agencies (Crompton, Mackay, and Fesenmaier, 1991), service quality has emerged as an important issue in park and recreation management. Although this issue has been addressed broadly with respect to national forest management, such a mandate has not been as evident in the outdoor recreation area (Absher, 1998). To provide high service quality and satisfying experiences, managers must know how visitors perceive service quality and employ appropriate customer service quality strategies.

The continued growth of U.S. ethnic diversity underscores the need to better understand how to host and educate diverse forest visitors. An examination of the park and recreation literature also shows an increasing interest in cross-cultural research (Hudson and Ritchie, 2001). Despite its importance, there has been a lack of quantitative multi-ethnic service quality research in leisure literature (Dahl, 2000). Moreover, multi-ethnic comparative research in the park and recreation context is rare in both the anthropological and leisure literatures (Chick, 2000). Research that develops a better understanding of the perception of service quality among different ethnic groups may lead to enhanced communication between users and service providers, and to improved knowledge about managing recreation

opportunities, as well as support for the administration agency (Li, Chick, Zinn, Absher, and Graefe, 2007; Li, Lai, Chick, Zinn, and Graefe, 2007; Li, Zinn, et al., 2007; Li, Absher, Graefe, and Hsu, 2008; Li, Absher, Hsu, and Graefe, 2008; Li, 2009). In order to respond to the demographic change, and to promote an integrated national forest customer service management strategy, studies of perceived service quality among different ethnic groups are needed.

Literature Review

We review the relevant literature, especially from the service marketing perspective to understand the relationship between ethnicity and perceptions of service quality. The following literature review is divided into three subtopics including ethnicity and culture in forest recreation, service quality measurement and its dimensions, and linking ethnicity and service quality.

Ethnicity and culture in forest recreation

The concept of ethnicity refers to groups of people who share cultural characteristics such as religion, common language, customs, ancestry and values (Rose, 1997). Although the concept differs from race they are often confused in practice. And this imprecision endures in part because the concept of ethnicity is usually measured by way of standardized U.S. Census Bureau categories that treat most “ethnicities” as racial categories. Race and ethnicity both represent social or cultural constructs for categorizing people based on perceived differences in biology (physical appearance) and behavior. Although popular connotations of race tend to be associated with biology and those of ethnicity with culture, the two concepts are not clearly distinct from one another (McLemore and Romo, 2005). The U.S. federal policy, however, has an historical background (e.g., ensure equality and social justice) to mandate monitoring of race and ethnic disparities in the use of natural resources and other federal services and programs.

The importance of ethnic diversity has been recognized in recreation and park management for several decades (e.g., Outdoor Recreation Resources Review Commission [ORRRC], 1962), and studies of ethnic diversity in recreation environments have become

more evident in the literature (Ewert, Chavez, and Magill, 1993; Floyd, 1998; Henderson, 1998; Johnson and Bowker, 1999; Chick, 2000; Winter, Jeong, and Godbey, 2004). But, studies of recreation and ethnicity have focused primarily on activity participation rates and patterns (Hutchison, 2000).

On the other hand, other service sectors also incorporate the premise that understanding their multi-ethnic target market is crucial to business success (Winsted, 1997). Service marketing researchers are paying increased attention to the relationship between culture, ethnic groups, and perceptions of service quality (Donthu and Yoo, 1998; Mattila, 1999; Furrer, Liu, and Sudharshan, 2000; Weiermair, 2000; Liu, Furrer, and Sudharshan, 2001; Iacobucci, Grisaffe, Duhachek, and Marcati, 2003; Reisinger and Turner, 2003; Reisinger, 2009). For example, Mattila (1999) studied luxury hotel customers and found that those with Western backgrounds were more likely than their Asian counterparts to rely on tangible service quality cues from the physical environment. Donthu and Yoo (1998) found that western consumers preferred to act as individuals rather than as members of groups. As a result, they expected high overall service quality and higher levels of empathy and assurance from the service provider. Furrer et al. (2000) found that cultural value orientations determine perceptions of service quality. They argued that it is the underlying cultural values of diverse ethnic groups that lead to differences in the perception of otherwise similar service quality attributes. Despite being literature from service marketing, to the best of our knowledge, there is no comparative service quality study from an intracultural perspective in parks and recreation. Therefore, in this study, we intended to compare perceptions of service quality within three major ethnic groups in the U.S.

Service quality measurement and dimensions

Because successful management of a park and recreation agency depends, in part, on the quality of visitors' experiences, providing high quality experiences is a principal goal of park and recreation managers. How recreationists define service quality (Tian-Cole, Crompton, and Willson, 2002) and how it might be measured are important issues in park and recreation management (Graefe and Fedler, 1986; Absher, 1998).

Measures of recreation service quality have been somewhat elusive (Mackay and Crompton, 1988). The foundational service quality model in the services marketing literature

is the SERVQUAL model developed by Parasuraman, Zeithaml, and Berry (1988). Some researchers in the parks and recreation field have adopted the broad SERVQUAL conceptual framework (i.e., five dimensions of service quality comprised of tangibles, reliability, responsiveness, assurance, and empathy). MacKay and Crompton (1988) applied this instrument to measure service quality in the recreation sector, and Crompton et al. (1991) adapted the SERVQUAL instrument to measure service quality in public recreation and termed it RECQUAL. However, this approach has not been as useful in outdoor recreation settings (Burns, Graefe, and Absher, 2003). For example, Hamilton, Crompton and More (1991) found that the importance of the Empathy dimension was too small to be meaningful and therefore, in their opinion, should be excluded from studies in the context of public parks. There have been issues raised by other applications of SERVQUAL. Oberoi and Hales (1990) looked at UK conference hotels and identified two operative dimensions, tangibles and intangibles. Li and Lee (2001) examined service quality in a small town YMCA and found three dimensions — tangibles, reliability, and caring.

Some research has reconceptualized the customer service measurement problem for forest recreation by starting from the ground up (Absher 1998; Absher, Baker, Green, and Virden, 2000). Although previous service quality research was based on SERVQUAL's five dimensions, Absher and colleagues (2000) began with focus groups of national forests recreation users and proposed three domains from twenty-two questionnaire items: Facilities, Services, and Information. Later, this was expanded to four domains when the facilities domain was split into two subdomains: Facilities-Sufficiency and Facilities-Operations. The other two domains were Services and Information.

In outdoor recreation settings three and four dimension approaches have been reported (Absher, Howat, Grilley, and Milne, 1996). Graefe, Absher, and Burns (2001) investigated the service quality dimensions at the U.S. Army Corps of Engineers Lakes and found four dimensions of service quality — information, services, facilities, and experience. This four-dimension model was tested and shown to be useful in different settings throughout the country park in Hong Kong and national park in Taiwan (Li, Absher, Graefe, et al., 2008; Li, 2009). Table 1 summarizes service quality studies in park and recreation contexts.

Table 1. Service quality dimensions in recreation and park management context

Researcher(s)	Setting(s)	Service quality dimensions
Crompton and Mackay (1989); Crompton et al. (1991); Hamilton et al. (1991); Backman and Veldkamp (1995); Reisinger (2009)	State park Public recreation YMCA Tourism attraction	Tangibles Reliability Responsiveness Assurance Empathy
Absher et al. (1996)	Public sports and leisure centres	Core programs and services Secondary services Staff quality General facility
Absher (1998)	National forest	Information Services Facilities–sufficiency Facilities–operations
Absher et al. (2000)	National forest National recreation area	Facilities Employees Safety/security Information sources Other visitors Recreation opportunities
Graefe et al. (2001); Burns et al. (2003); Li, Absher, Graefe, et al. (2008); Li (2009)	Army Corps of Engineers lakes Country park National park	Information Services Facility Experience or management
Li and Lee (2001)	YMCA	Tangibles Reliability Caring

The underlying logic for SQ analysis has also been problematic in forest settings. The instrument used for SERVQUAL (Parasuraman, Zeithaml, and Berry, 1988) is based on an expectancy–disconfirmation model, which defines service quality as a function of the magnitude and direction of the gap between expected service and perceived service. This model serves as their theoretical justification for service quality measurement. When service expectations are unknown or ambiguous (subjects may not be able to form clear expectations), an alternative method is to employ a simplified performance–measures–only model (Carman, 1990; Teas, 1994). This approach reduces response burden, which may be especially important in outdoor recreation settings and avoids the conceptual problem of defining expectations (Oh and Parks, 1997).

In a related study, Cronin and Taylor (1992) suggested there is not enough empirical evidence to warrant the use of gap scores (expectations minus performance) as the basis for measuring service quality and similarly reported only performance scores. Crompton and Love (1995) concluded that the most valid measures of quality in the festival context were performance-based and the least valid were disconfirmation-based. In the outdoor recreation context, this was supported by Burns et al. (2003), who used a performance–only based model with four customer service domains. Absher (1998) also used only performance variables rather than the more complex expectancy–disconfirmation scheme to gauge aspects of service quality in national forests (Table 1).

Linking ethnicity and service quality

Although one outdoor recreation study touched on perceived service quality among different ethnic groups by addressing meanings and preferences for the natural environment (Virden and Walker, 1999), to the best of our knowledge, the literature contains no cross-cultural comparisons of perceived service quality in a national forest setting. Yet multi-ethnic service quality measures are an important part of an overall service delivery and management approach. Service providers need to know how the diverse customers evaluate their services so they can monitor and improve the quality of service. Quality evaluations are not made solely on the outcome of a service; they also involve evaluations of the process included in the service delivery (Gronroos, 1982; Parasuraman et al., 1985). In response to the increased awareness about psychological service needs associated with ethnic and cultural diversity, it has been noted that service encounters have a social nature and that customers' cultural backgrounds will affect their evaluations of service delivery (Solomon, Surprenant, Czepiel, and Gutman, 1985; Cohen and Goode, 1999). For example, Thapa, Graefe, and Absher (2002) studied the information services provided by the U.S. Forest Service and found that whites were more likely than Hispanics or other minority groups to use all available types of information services. They also found that Hispanics were least likely to approach national forest rangers or employees for information related services.

People with different ethnic backgrounds may have different cultural identities and are likely to hold different cultural values and behave differently in response to otherwise similar recreation opportunities (Chick, 1997; Floyd, 1998). If so, their assessments of experienced

service quality will also likely be different. In other words, in this study we hypothesize that ethnic differences across U.S. Census Bureau categories may influence judgments about how well the service products (outdoor recreation experiences) have been delivered.

Methods

Study design and setting

During the summer of 2002, we surveyed visitors at the Angeles National Forest (ANF) which is adjacent to metropolitan Los Angeles. The ANF is a 650,000 acre urban interface forest and provides outdoor recreation opportunities to over 20 million residents. Past general population samples have shown that the ANF visitor population is predominantly white (Ewert, Gramann, and Floyd, 1991) and that some groups (e.g., Asian) are vastly underrepresented. Because a simple random sample of all visitors would not efficiently yield adequate respondents from lightly represented ethnic groups, an on-site survey at ANF locations near ethnically diverse neighborhoods was targeted.

Sampling details

Convenience sampling at sites frequently visited by individuals and groups of particular ethnic backgrounds was used (Weisberg, Krosnick, and Bowen, 1996). Sampling sites were chosen in consultation with USDA Forest Service officers, on-site Forest Service rangers and volunteers, as well as through a literature review of former studies about ethnic diversity in southern California (e.g., Carr and Williams, 1992). Eventually, 14 sampling sites known to be heavily used by visitors with diverse ethnic backgrounds were identified.

Sampling occurred on 26 days during June, July and August 2002, and covered weekends, holidays and weekdays. All interviews were on-site and focused on day users in order to obtain a maximally diverse sample. Field researcher went to trailheads, scenic overlooks, picnic areas, campgrounds, visitor centers, and parking lots and contacted visitors present during the sampling time block. To avoid self-selecting subject's bias, every third visitor was selected to participate the survey (Salant and Dillman, 1994). Each selected individual was asked to complete the on-site questionnaire. In general, the field researcher

initially asked visitors “which country do you come from?” If there were many more people to interview than could be accommodated in the time remaining on-site, those who answered that they came from a country other than the U.S. were given priority. When approaching a party with more than one person, each adult member of the party was asked to fill out a survey questionnaire. If they were willing to participate, they were asked to read the survey protocol first. The survey protocol was attached on the back of the survey clip board and was printed in English as well as Spanish, Chinese, and Korean. Despite the survey protocol being printed in four languages, all the survey questionnaires were printed in English. Participants who were unable to read or listen to English were not included in this study. Nine potential informants were unable to read English or complete the survey, including four who did not have their reading glasses. Five potential informants were unable to understand spoken English. All participants were welcome to keep the survey if they wanted further information about the study.

A total of 1,332 subjects were approached, and 154 subjects declined or were unable to participate. Of the 1,178 subjects that responded, four survey questionnaires were incomplete. This resulted in 1,174 usable surveys, and an overall response rate of 88%. Of these, 38% were white (*n* = 444), 27% Hispanic (*n* = 312), 27% Asian (*n* = 319), and 8% “other” which included African-American, American-Indian, “other”, and unspecified (*n* = 99). In analysis, three groups including white, Hispanic and Asian were used and the sample size equaled 1,075. In the survey questionnaire, participants were asked “what cultural group do you most closely identify with?” In answering this question, a few respondents replied that they were just Americans, or they were mixed. Some respondents were not willing to relate themselves to any category. Also, the 8% that chose “other” were excluded from the data analysis in this study. As a whole, 90% (*n* = 1,055) of the responses were from weekend and holiday sampling days, and 94% (*n* = 1,093) were day users. Among the 14 sampling sites in the ANF over 90% of the responses came from three large developed sites. At sampling sites further from the urban edge, fewer visitors were encountered, especially on weekdays.

Variables and measurement

Acculturation and assimilation variable. Participants were asked which generation best described their place in their family’s U.S. history (e.g., 1st generation or 2nd generation). It

is an admittedly coarse measure of acculturation and assimilation, but this use of the variable is consistent with other studies that have used it as an intervening measure of ethnic subculture (Kahle, 1983). We used this variable as a covariate in the analysis of covariance tests (ANCOVA).

Service quality variables. Based on the outdoor recreation service quality literature, four dimensions — facilities, information, services, and management — were measured by 22 service quality questionnaire items (Absher, 1998; Graefe, et al., 2001). These items and dimensions have been used across the U.S., including 10 Army Corps of Engineers Lakes nationwide. Each item used a 5-point response scale (5 = *strongly agree*, 1 = *strongly disagree*; see Table 3). An 8–item facilities dimension focused on physical aspects of the national forest (e.g., trail, campground, parking space). A 5–item information dimension focused on whether the forest information was available or easy to obtain, a 4–item services dimension focused on how the forest visitors had been treated by the national forest staff and rangers, and a 5–item management dimension focused on the fairness of fees, feeling of safety and security, and the interaction with other visitors.

Data Analysis and Results

Service quality indices

Internal consistency of service quality indices was measured by Cronbach's alpha reliability analysis. The four multi-item indices for service quality exhibited high levels of internal consistency (Table 2). The 22 service quality items were coded in the same direction, and placed in simple additive indices of facilities, services, information, and management dimensions as described above. Cronbach's alphas ranged from .83 to .92: the facilities dimension alpha was .86, and services, information, and management dimensions alphas were .88, .92. and .83, respectively.

Table 2. Reliability and means for service quality dimensions

Dimension items (attribute)	Item Mean	Item S.D.	Dimension Alpha	Dimension Mean
Facilities			.86	3.76
1. Access to the place(s) I like to visit	4.15	.88		
2. Facilities that are accessible to all visitors	3.98	.88		
3. Trails clearly marked and signed	3.93	.89		
4. Trails clean & well maintained	3.96	.88		
5. Enough campgrounds	3.58	.94		
6. Enough parking space	3.19	1.20		
7. Facilities are convenient	3.77	.87		
8. Campgrounds are well maintained	3.73	.92		
Service			.88	3.83
9. Forest Service staff who make me feel welcome	3.94	.87		
10. Forest Service staff who are available	3.72	.90		
11. Forest Service staff who are willing to answer questions	3.96	.84		
12. Opportunity to make comments/provide feedback to Forest Service	3.78	.91		
Information			.92	3.60
13. Comprehensive information about recreation opportunities	3.66	.86		
14. Information that is easy to find	3.64	.89		
15. Accurate and current information available about the area	3.67	.87		
16. Natural and history information available	3.49	.93		
17. Information about safety and emergency	3.57	.90		
Management			.83	3.82
18. Feel safe and secure	3.99	.81		
19. Rules/regulations that are enforced	3.77	.85		
20. Fees are reasonable	3.70	1.08		
21. Fair prices about maps, etc.	3.67	1.02		
22. I am treated courteously	4.03	.82		

Scale from 1 = *strongly disagree* to 5 = *strongly agree*

Perceived service quality differences among ethnic groups

Analysis of covariance tests for differences in service quality indices among the ethnic groups were performed to assess the differences while controlling for acculturation / assimilation effects (i.e., using generations in the U.S. as the covariate). The covariate showed no significant difference for the four service quality dimensions, indicating that

generations in the U.S. had limited influence on the perception of service quality among ethnic groups. The overall mean scores for the service quality dimensions were broken out by ethnic group (Table 3). The differences among ethnic groups across the four service quality dimensions revealed that all four service quality dimensions were significantly related to ethnic group (*F*s for facilities, services, information and management = 4.49, 4.46, 5.66, and 5.71, respectively). Hispanics' ratings were usually intermediate to whites and Asians, but Asians always provided the lowest ratings. Post-hoc significance tests (cf. subscripts in Table 3) showed that whites and Hispanics were always different from Asians, except for Services where the Hispanic post-hoc comparison (3.81 versus 3.64) was not statistically significant from either group even though the white–Asian difference (3.93 versus 3.64) remained significant. Thus, overall service quality ratings for Hispanics were always similar to whites when generational experience was taken into account (all have an 'a' subscript, indicating no significant difference), whereas Asians (all 'b' subscripts) always remain distinct from whites (all 'a' subscripts) and three out of four times provide different ratings than Hispanics (one 'ab' subscript). Overall, the result of the ANCOVA tests for the four service quality dimensions followed a consistent pattern, and demonstrated that Asians tended to perceive lower service quality than either whites or Hispanics when controlling for generations in the U.S. Also, among the three ethnic groups, whites tended to perceive the highest service quality among ethnic groups although this was not significantly different from Hispanics ratings on most of the dimensions.

Although all the service quality dimensions were significantly different among ethnic groups, the differences were relatively weak (*F*-value ranges from 4.46 to 5.71). Item analysis was undertaken to see if there were differences among ethnic groups for selected items. Two customer service items, "feel safe and secure here" and "information about safety and emergency", differed significantly at $p < 0.01$ level (Table 3). These two items followed the same patterns: compared to whites and Hispanics, Asians tended to feel less safe or secure and felt they needed more information about safety and emergency for their forest recreation trips. In addition, item analysis also revealed that Hispanics and Asians were less likely to perceive enough parking spaces than whites in the ANF, with the largest statistical difference between whites and Hispanics.

Table 3. Comparison of service quality of whites, Hispanics, and Asians (controlling for generations in the U.S.) in the Angeles National Forest using adjusted means

Service quality Dimension/item (attribute)[1]	whites Mean[2]	*n*	Hispanics Mean	*n*	Asians Mean	*n*	*F* for ANCOVA
Facilities	3.82_a	330	3.73_a	182	3.56_b	111	4.49*
1. Access to the place(s) I like to visit	4.19	325	4.13	179	3.95	108	2.40
2. Facilities that are accessible to all visitors	3.99	323	4.01	179	3.76	107	2.56
3. Trails clearly marked and signed	4.00_a	322	3.95_a	175	3.69_b	110	3.88*
4. Trails clean & well maintained	4.01_a	320	4.00	175	3.71_b	110	4.06*
5. Enough campgrounds	3.56_{ab}	309	3.65_a	176	3.12_b	106	4.06*
6. Enough parking space	3.25_a	327	2.91_b	177	2.99_{ab}	110	3.50*
7. Facilities are convenient	3.87_a	322	3.68_b	176	3.54_b	110	4.56*
8. Campgrounds are well maintained	3.75	320	3.67	174	3.57	109	1.14
Service	3.93_a	327	3.81_{ab}	181	3.64_b	111	4.46*
9. Forest Service staff who make me feel welcome	4.02	322	3.88	177	3.75	110	2.99
10. Forest Service staff who are available	3.76	319	3.72	179	3.52	109	2.19
11. Forest Service staff who are willing to answer questions	4.09_a	316	3.91_b	178	3.77_b	109	4.51*
12. Opportunity to make comments/provide feedback to Forest Service	3.83_a	318	3.76_a	176	3.53_b	108	3.21*
Information	3.60_a	326	3.64_a	180	3.32_b	109	5.66**
13. Comprehensive information about recreation opportunities	3.67_a	314	3.74_a	175	3.43_b	108	4.16*
14. Information that is easy to find	3.64_a	318	3.66_a	177	3.36_b	108	3.97*
15. Accurate and current information available about the area	3.65_{ab}	318	3.71_a	176	3.43_b	107	3.27*
16. Natural and history information available	3.45_a	316	3.51_a	171	3.20_b	108	3.74*
17. Information about safety and emergency	3.59_a	318	3.60_a	177	3.23_b	108	5.81**
Management	3.89_a	328	3.78_a	181	3.58_b	111	5.71**
18. Feel safe and secure	4.07_a	324	3.96_a	177	3.66_b	108	7.91***
19. Rules/regulations that are enforced	3.73	313	3.80	176	3.55	109	2.70
20. Fees are reasonable	3.80_a	321	3.57_b	177	3.46_b	110	3.39*
21. Fair prices about maps, etc.	3.74_a	317	3.58_{ab}	172	3.37_b	109	3.54*
22. I am treated courteously	4.13_a	318	3.97_{ab}	178	3.85_b	109	3.52*

*Significant at $p \leq .05$, ** Significant at $p \leq .01$, *** Significant at $p \leq .001$.

[1] Variables within dimension/item coded on a 5-point scale from 1= *Strongly disagree* to 5= *Strongly agree*. The dimension was created by taking the mean of the items within the individual dimension.

[2] Mean with different subscript letter significantly differed at the $p = .05$ level after Least Significant Difference adjustment

Discussion

This study found that Asians were likely to perceive lower service quality than whites or Hispanics, and although whites reported the highest service quality, it was usually indistinguishable from Hispanics' ratings. From a cross-cultural psychology perspective, the different characteristics between western and Asian cultures may explain some of these differences in perceived service quality. Unlike western culture, which tends to value personal freedom, independence, self-motivation, material well-being, and achievement (Inglehart, 1977), Asian culture tends to value responsibility, hard work, respectful conduct, and submission to the group and elders, as well as obedience and loyalty to authority (Utsey, Chae, Brown, and Kelly, 2002). Also, compared to western culture, Asian culture tends to incorporate fewer personal psychological well being and embeds some degree of psychological suppression (Triandis, 1994; Tinsley, Tinsley, and Croskeys, 2002). This psychological suppression may stem from family responsibility, duty of life or other social norms. The culturally dependent suppression negatively influences the service evaluations through an emotional connection (Wenzlaff and Wegner, 2000; Scollon, Diener, Oishi, and Biswas-Diener, 2004), resulting in lower perceptions of service quality (Gountas and Gountas, 2004).

We found few differences in perceptions of service quality between Hispanics and Asians, except for the service dimension. For example, the results showed no difference in ratings of Forest Service staff's willingness to answer questions. This might be because both Hispanics and Asians tended to have fewer interactions with Forest Service staff than others during their forest trips.

The underlying cultural values of diverse ethnic groups may be crucial factors in determining perceptions of service quality **(**Brislin, 1993). This needs to be investigated further. Indeed, the different cultural values of racial and ethnic groups may cause them to see things differently, and in turn this might influence many aspects of perception, including the perception of service quality. Mattila (1999) argued that hedonic dimensions might be more important for western consumers. Their core values tended to include fun and enjoyment, whereas Asian values tended to emphasize a sense of duty in life. Hofstede (2001) concluded that, compared to western cultures, Asian cultures tend to be conservative, tolerant

of others, harmonious in interpersonal relations, and less competitive. Triandis and Suh (2002) found people from Asian cultures view the environment as more or less fixed (stable norms, obligations, duties) and view themselves as changeable, or ready to “fit in”. People from western cultures see themselves as more or less stable (stable attitudes, personality, rights) and the environment as changeable (e.g., if they do not like a job they seek a different one). Furthermore, according to Walker, Deng, and Dieser (2001), Western Europeans and North Americans tend to value individuality, uniqueness, self-expression, and self-promotion, whereas Asians tend to value social interdependence, communal identity and social conformity, and the promotion of others’ goals.

Given the recognition that cultural values play a significant role in understanding and judging perceptions of service quality among ethnic groups (Triandis, 1994), other studies have also concluded that Asians may perceive lower service quality (e.g., Mattila, 1999; Hofstede, 2001; Walker et al., 2001; Triandis and Suh, 2002). These studies are consistent with findings in this study and may provide additional avenues for a better understanding of the service quality differences among ethnic forest users.

In addition, the result of an item analysis of the individual service quality variables in this study found that, compared to whites and Hispanics, Asians tended to feel unsafe, less secure, and needed more information about safety and emergency for their forest recreation trips. Such feelings of insecurity in a forest might be caused by perceptions of real or anticipated discriminatory behavior among ethnic groups (Stodolska, 2005) or by the fear of natural hazards (e.g., wildlife). Similarly, Blahna, and Black (1993) found African Americans and other minorities tended to recreate in larger groups in order to deter potential attacks. Asians’ concerns about safety and security issues may be addressed by the Forest Service through improved recreation communications and service quality management.

Implications

Understanding how visitors’ perceptions of service quality differ among various ethnic groups can facilitate effective program delivery and market segmentation strategies (e.g., segmentation that particularly targets Asians to improve service quality). For example, study findings can offer a few suggestions for managing diversity. Managers can better meet their

legal requirements by ensuring quality service to their visitors in ways that are relevant to the target groups' own use and preference patterns, especially near metropolitan edge areas that are closest to minority populations. Customer service metrics are relatively simple to obtain but are not currently being used in this way.

The results above imply that managers might consider providing more information (especially safety and security information) via multiple language brochures (e.g., Korean, Chinese versions), multiple-language on-site signs, or perhaps bilingual volunteers to create a more "ethnic-friendly" ambience for the Asians. Moreover, managers might emphasize more interpretive and educational programs tailored to minority groups, or target recreation sites near Asian communities for enhanced patrols that might lead to more efficient, friendly, and effective communication. One small difference in this study revealed that Hispanics and Asians tended to disagree about the adequacy of parking spaces. Managers might look for ways to keep Hispanics and Asians better informed of when and where to park their vehicles, especially for those places most frequently visited by Hispanics and Asians.

Finally, in order to serve an increasingly diverse clientele, national forest managers need to understand the diverse ethnic background of visitors they serve and to focus on the relationship between cultural values and ethnic groups in each service quality dimension. For example, Asians tended to be quiet and passive forest visitors and tended to have less interaction with Forest staff. As a result, Asians may be unaware of all the services provided and this may lead to lower service quality perceptions. And this effect may be especially important in areas with high proportions of more recent immigrants in another way. Many forest proximate communities are culturally more distinct than the census-based categories used above (Carr and Williams, 1992). Often entire neighborhoods come from one country that is subsumed by a broad ethnicity category. Thus, subgroup differences in either Asian (e.g., Japanese, Korean) or Hispanic (e.g. Guatemalan, Salvadoran) subpopulations are unknown and need further study.

Study limitation and future research

This study was intentionally limited to three broad ethnic groups: whites, Hispanics, and Asians. Clearly, further research should include African-Americans. Also, these groupings

are census category driven and may not capture the considerable differences across cultures and subcultures. Additional research might focus on the comparison of distinct subgroups within the major minority groups, such as a comparison of those with Chinese, Korean, and Japanese ancestry within the Asian group. We suggest incorporating anthropologically robust measures and techniques such as cultural consensus analysis to empirically examine whether or not the putative ethnic groups are homogeneous in terms of religion, family structure, cultural values, and the like (Chick, 1997). If ethnic and other sorts of social groups display within-group variance that equals or exceeds between-group variance in terms of culture content, then it seems to us that there is a limited basis for making comparisons among them. Such variations were not part of this study's design but should be empirically studied for a better and more thorough understanding of recreational service quality effects among ethnic groups.

Second, this study used generations in the U.S. as a covariate to test the perception of service quality differences among ethnic groups. While useful, it might not fully capture cultural nuances or assimilation concerns. Future research might consider the use of other, perhaps equally relevant or more precise, measures. For instance, language spoken at home might be an additional covariate. Such extensions might provide more implications and points of comparison for understanding assimilation and acculturation effects.

Third, this study employed convenience sampling as the data collection method. We do not intend to generalize results to all recreationists in southern California. Instead, we simply compared perceptions of service quality among the selected ethnic groups to whom the sampling was targeted. In addition, the survey response of service quality is skewed as it is also normally found in recreation studies (Manning, 1999). These are obvious limitations of the study.

Fourth, this study did not incorporate cross-cultural value measures. Yet they seem important to understanding the observed differences in perceptions of service quality. We advocate that future research explore the value – service dimension relationship in a multi-ethnic context.

Lastly, activity preferences and recreation patterns have been traditionally emphasized in ethnic studies. Future research might combine the activity preferences and recreation

patterns to perceptions of service quality within the ethnic research. In other words, future research might explore the influence of different cultural groupings on perceptions of service quality across activities. Such research might show how cultural groups are linked to specific recreational activities through service items or domains and thus provide much more specific direction to assist managers.

References

Absher, J. D. (1998). Customer service measures for national forest recreation. *Journal of Park and Recreation Administration*, 16(3), 31-42.

Absher, J. D., Baker, D., Green, T., & Virden, R. (2000). *Outdoor recreation service quality items: Tonto National Forest and Land-Between-The-Lakes National Recreation Area.* Unpublished report. Riverside, CA: USDA Forest Service, Pacific Southwest Research Station.

Absher, J. D., Howat, G., Grilley, G., & Milne, I. (1996). Toward quality customer service: Market segment differences for sports and leisure centers. *Australasian Leisure*, 7(1), 25-28.

Allison, M. T. (2000). Diversity in organizational perspective. In Allison, M. T., & Schneider, I. E. (Eds.), *Diversity and the recreation profession: Organizational perspectives* (pp. 3-16). State College, PA: Venture Publishing.

Backman, S. J., & Veldkamp, C. (1995). Examination of the relationship between service quality and user loyalty. *Journal of Park and Recreation Administration*, 13(2), 29-41.

Blahna, D., & Black, K. (1993). Racism: A concern for recreation resource managers. In Gobster, P. (Ed.), *Managing urban and high use recreation settings: Selected papers from the 4th North American Symposium on Society and Natural Resource Management* (pp. 111–118). USDA Forest Service General Technical Report NC-163.

Brislin, R. W. (1993). *Understanding culture's influence on behavior.* Orlando, FL: Harcourt Brace College Publishers.

Burns, R. C., Graefe, A. R., & Absher, J. D. (2003). Alternate measurement approaches to recreational customer satisfaction: Satisfaction-only versus gap scores. *Leisure Sciences*, 25(4), 363-380.

Carman, J. M. (1990). Consumer perception of service quality: An assessment of the SERVQUAL dimensions. *Journal of Retailing*, 66(1), 33-55.

Carr, D., & Williams, D. (1992, May). *Sources of intra- and inter-ethnic variation among visitors to the forest of southern California: The influence of social, structural, and ancestral variables on recreation site preferences and behavior.* Paper presented at the 4th North American Symposium on Society and Resource Management, Madison, WI.

Chick, G. (1997). Cultural complexity: The concept and its measurement. *Cross-Cultural Research*, 31(4), 275-307.

Chick, G. (2000). Editorial: Opportunities for cross-cultural comparative research on leisure. *Leisure Sciences*, 22(2), 79-91.

Cohen, E., & Goode, T. D. (1999). *Policy brief 1: Rationale for cultural competence in primary health care.* Retrieved October 22, 2006, from http://www.dml.georgetown.edu/depts/pediatrics/gucdc/nccc6.html

Crompton, J. L., & Love, L. L. (1995). The predictive validity of alternative approaches to evaluating quality of a festival. *Journal of Travel Research*, 34(1), 11-26.

Crompton, J. L., & MacKay, K. J. (1989). Users' perceptions of the relative importance of service quality dimensions in selected public recreation programs. *Leisure Sciences*, 11(4), 367-375.

Crompton, J. L., MacKay, K. J., & Fesenmaier, D. R. (1991). Identifying dimensions of service quality in public recreation. *Journal of Park and Recreation Administration*, 9(3), 15-27.

Cronin, J. J., Jr., & Taylor, S. A. (1992). Measuring quality service: A reexamination and extension. *Journal of Marketing*, 56(3), 55–68.

Dahl, S. (2000). *Advertising appeals in intercultural communications research*. Luton, UK: Intercultural Discourse Group, University of Luton.

Donthu, N., & Yoo, B. (1998). Culture influences on service quality expectations. *Journal of Service Research*, 1(2), 178-186.

Dwyer, J. F., & Chavez, D. J. (2005). The challenges of managing public lands in the wildland-urban interface. In Vince, S. W., Dureya, M. L., Macie, E. A., & Hermansen, L. A. (Eds.), *Forests at the wildland-urban interface* (pp. 269-283). Boca Raton, FL: CRC Press.

Ewert, A. W., Chavez, D. J., & Magill, A. W., Eds. (1993). *Culture, conflict, and communication in the wildland-urban interface.* San Francisco: Westview Press.

Ewert, A. W., Gramann, J. H., & Floyd, M. F. (1991, August). *Ethnic patterns in creational uses of natural resources: Rethinking the marginality-ethnicity paradigm*. Paper presented at the annual meeting of the Rural Sociological society, Norfolk, VA.

Floyd, M. F. (1998). Getting beyond marginality and ethnicity: The challenge for race and ethnic studies in leisure research. *Journal of Leisure Research*, 30(1), 3-22.

Furrer, O., Liu, B. S.-C., & Sudharshan, D. (2000). The relationships between cultural and service quality perceptions: Basic for cross-cultural market segmentation and resource allocation. *Journal of Service Research*, 2(4), 355-371.

Godbey, G., DeJong, G., Sasidharan, V., & Yarnal, C. (2001). *The northeastern United States in the next two decades – Implications for the Northeast Region of the National Park Service.* National Park Service Northeast Region report. Philadelphia, PA: Philadelphia Support Office.

Gountas, S., & Gountas, J. Y. (2004). The influence of consumers' emotions on their service product evaluation. In Grouch, G. I., Perdue, R. R., Timmermans, H. J. P., & Uysal, M. (Eds.), *Consumer psychology of tourism, hospitality, and leisure* (Vol. 3, pp. 21-31). Cambridge, MA: CABI.

Graefe, A. R., & Fedler, A. (1986). Situational and subjective determinants of satisfaction in marine recreational fishing. *Leisure Sciences*, 8(3), 275-295.

Graefe, A. R., Absher, J. D., & Burns, R. C. (2001). Monitoring visitor satisfaction: A comparison of comment cards and more in-depth surveys. In Kyle, G. (Ed.), *Proceedings of the 2000 Northeastern Recreation Research Symposium* (pp. 265-269). USDA Forest Service General Technical Report NE-276.

Grönroos, C. (1982). *Strategic management and marketing in the service sector.* Helsingfors: Swedish School of Economics and Business Administration.

Hamilton, J. A., Crompton, J. L., & More, T. A. (1991). Identifying the dimensions of service quality in a park context. *Journal of Environmental Management*, 32(3), 211-220.

Henderson, K. A. (1998). Researching diverse populations. *Journal of Leisure Research*, 30(1), 157-170.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.

Hudson, S., & Ritchie, J. R. B. (2001). Cross-cultural tourist behavior: an analysis of tourist attitudes towards the environment. *Journal of Travel and Tourism Marketing*,10(2), 1-22.

Hutchison, R. (2000). Race and ethnicity in leisure studies. In Gartner, W. C., & Lime, D. W. (Eds.), *Trends in outdoor recreation, leisure and tourism* (pp. 63-71). New York, NY: CAB International.

Iacobucci, D., Grisaffe, D., Duhachek, A., & Marcati, A. (2003). FAC-SEM: A methodology for modeling factorial structural equations models, applied to cross-cultural and cross-industry drivers of customer evaluations. *Journal of Service Research*, 6(1), 3-23.

Inglehart, R. (1977). *The silent revolution: Changing values and political styles among western publics.* Princeton, New Jersey: Princeton University Press.

Johnson, C. Y., & Bowker, J. M. (1999). On-site wildland activity choices among African American and white Americans in the rural South: Implications for management. *Journal of Park and Recreation Administration*, 17(1), 21-39.

Kahle, L. R. (1983). *Social values and social change: Adaptation to life in American*. New York: Praeger.

Khan, M. M., & Su, K. D. (2003). Service quality expectations of travelers visiting Cheju Island in Korea. *Journal of Ecotourism*, 2(2), 114–125.

Li, C. (2009, June). *Why do people travel to nature based tourism destinations?* In Proceedings of the 40th Travel and Tourism Research Association Annual Conference. Honolulu, Hawaii.

Li, C., & Lee, J. (2001). Dimensions of service quality and their influence on intentions to repurchase. In Williamson, S., & Lemelin, H. (Eds.), *Proceedings of the 9th leisure research symposium: A leisure odyssey (pp. 13-17)*. Waterloo, Canada: University of Waterloo.

Li, C., Absher, J. D, Hsu, Y.-C., & Graefe, A. R. (2008). Approaches to measuring cultural diversity in recreation. In Chavez, D. J., Winter, P. L., & Absher, J. D. (Eds.), *Recreation visitor research: Studies of diversity* (pp. 207-216). USDA Forest Service General Technical Report PSW-GTR-210.

Li, C., Absher, J. D., Graefe, A. R., & Hsu, Y.-C. (2008). Research reflections — Services for culturally diverse customers in parks and recreation. *Leisure Sciences*, 30(1), 87-92.

Li, C., Chick, G. E., Zinn, H. C., Absher, J. D., & Graefe, A. R. (2007). Ethnicity as a variable in leisure research. *Journal of Leisure Research*, 39(3), 514-545.

Li, C., Lai, P. C., Chick, G. E., Zinn, H. C., & Graefe, A. R. (2007). Cross-cultural models of customer service: The case of Hong Kong country park recreation. *Journal of Park and Recreation Administration*, 25(3), 41-66.

Li, C., Zinn, H. C., Chick, G. E., Absher, J. D., Graefe, A. R., & Hsu, Y.-C. (2007). Segmentation of culturally diverse visitors' values in forest recreation management. *Forest, Snow and Landscape Research*, 81(1/2), 19-29.

Liu, B. S.-C., Furrer, O., & Sudharshan, D. (2001). The relationships between culture and behavioral intentions toward services. *Journal of Service Research*, 4(2), 118-129.

MacKay, K. L., & Crompton, J. L. (1988). A conceptual model of consumer evaluation of recreation service quality. *Leisure Studies*, 7(1), 41-49.

Manning, R. E. (1999). *Studies in outdoor recreation: Search and research for satisfaction* (2nd ed.). Oregon State University Press.

Mattila, A. S. (1999). The role of culture in the service evaluation process. *Journal of Service Research*, 1(3), 250-261.

McLemore, S. D., & Romo, H. D. (2005). *Racial and ethnic relations in America* (7th ed.). Boston: Allyn & Bacon.

Oberoi, U., & Hales, C. (1990). Assessing the quality of conference hotel service product: Towards an empirically based model. *The Service Industries Journal*, 10(4), 700-721.

Oh, H., & Parks, S. (1997). Customer satisfaction and service quality: A critical review of the literature and research implications for the hospitality industry. *Hospitality Research Journal*, *20*(3), 52-64.

Outdoor Recreation Resources Review Commission [ORRRC] (1962). *Outdoor recreation for America.* Washington, DC: US Government Printing Office.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(fall), 41-50.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.

Reisinger, Y. (2009). *International tourism: Culture and behavior.* Burlington, MA: Butterworth-Heinemann Press.

Reisinger, Y., & Turner, L. W. (2003). *Cross-cultural behavior in tourism: Concept and analysis.* Burlington, MA: Butterworth-Heinemann Press.

Rose, P. I. (1997). *They and we: Racial and ethnic relations in the United States* (5th ed.). OH: McGraw-Hill.

Salant, P., & Dillman, D. A. (1994). *How to conduct your own survey.* New York: Wiley Press.

Sasidharan, V. (2002). Special issue introduction: Understanding recreation and the environment within the context of culture. *Leisure Sciences*, 24(1), 1-11.

Scollon, C. N., Diener, E., Oishi, S., & Biswas-Diener, R. (2004). Emotions across cultures and methods. *Journal of Cross-cultural Psychology*, 35(3), 304-326.

Solomon, M. R., Surprenant, C., Czepiel, J. A., & Gutman, E. G. (1985). A role theory perspective of dyadic interactions: The service encounters. *Journal of Marketing*, 49(1), 99-111.

Stodolska, M. (2005). Implications of the conditioned attitude model of individual discriminatory behavior for discrimination in leisure settings. *Leisure Sciences*, 27(1), 59-74.

Teas, R. K. (1994). Expectations as a comparison standard in measuring service quality: An assessment of a reassessment. *Journal of Marketing*, *58*(1), 132-139.

Thapa, B., Graefe, A. R., & Absher, J. D. (2002). Information needs and search behaviors: A comparative study of ethnic groups in Angeles and San Bernardino National Forests. *Leisure Sciences*, 24(1), 89-107.

Tian-Cole, S., Crompton, J. L., & Willson, V. L. (2002). An empirical investigation of the relationships between service quality, satisfaction and behavioral intentions among visitors to a wildlife refuge. *Journal of Leisure Research*, 34(1), 1-24.

Tinsley, H. E. A., Tinsley, D. J., & Croskeys, C. E. (2002). Park usage, social milieu, and psychosocial benefits of park use reported by older urban park users from four ethnic groups**.** *Leisure Sciences*, 24(2), 199-218.

Triandis, H. C. (1994). *Cultural and social behavior*. New York: McGraw-Hill.

Triandis, H. C., & Suh, E. M. (2002). Cultural influences on personality. *Annual Review of Psychology*, 53(1), 133-160.

U.S. Bureau of the Census (USBC). (2006). *Statistical abstract of the United States: 2006* (125th ed.). Washington, DC: USBC.

U.S. Department of Agriculture (USDA). (1998). *Secretary of agriculture, National Urban and Community Forestry Advisory Council (NUCFAC) action plan.* Sonora, CA: NUCFAC.

Utsey, S. O., Chae, M. H., Brown, C. F., & Kelly, D. (2002). Effect of ethnic group membership on ethnic identity, race-related stress, and quality of life. *Cultural Diversity and Ethnic Minority Psychology*, 8(4), 366-377.

Virden, R. J., & Walker, G. J. (1999). Ethnic/racial and gender variations among meanings given to, and preferences for, the natural environment. *Leisure Sciences*, 21(3), 219-239.

Walker, G. J., Deng, J., & Dieser, R. B. (2001). Ethnicity, acculturation, self-construal, and motivations for outdoor recreation. *Leisure Sciences*, 23(4)*,* 263-283.

Weiermair, K. (2000). Tourists' perceptions towards and satisfaction with service quality in the cross-cultural service encounter: Implications for hospitality and tourism management. *Managing Service Quality*, 10(6), 397-409.

Weisberg, H. F., Krosnick, J. A., & Bowen, B. D. (1996). *An introduction to survey research, polling, and data analysis.* Thousand Oaks, CA: Sage Publications, Inc.

Wenzlaff, R. M., & Wegner, D. M. (2000). Thought suppression. *Annual Review of Psychology*, 51(1), 59-91.

Winsted, K. F. (1997). The service experience in two cultures: A behavioral perspective. *Journal of Retailing*, 73(3), 337-360.

Winter, P. L., Jeong, W. C., & Godbey, G. C. (2004). Outdoor recreation among Asian Americans: A case study of San Francisco Bay areas residents. *Journal of Park and Recreation Administration*, 22(3), 114-136.