Satisfaction:
A Segmentation Criterion for “Short Term” Visitors
of Mountainous Destinations

Rodoula Tsiotsou
Eleytheria Vasioti

ABSTRACT. The purpose of the study was to study the “short-term” visitors of mountainous destinations in order to gain a better understanding of this market and improve marketing practices. The objectives of the study were (a) to develop a measurement instrument on “short-term” visitors’ satisfaction and (b) to segment “short-term” visitors of mountainous destinations based on their satisfaction. An anonymous questionnaire was given to 170 subjects who participated in a three-day trip organized by travel agencies to the mountainous region of Hepeiros, Greece, from November 2003 to February 2004. The questionnaire was given the last day of the trip and was answered by 115 individuals (68% response rate). A factor analysis followed by a cluster analysis on satisfaction was performed for identifying distinct tourist segments. Classification with discriminant analysis was used to test the two satisfaction segments. Furthermore, a Multivariate Analysis of Variance was employed to better describe the segments using demographics and physical activities as the dependent variables. The findings of the study provide theoretical and practical implications in identifying homogeneous segments, in predicting satisfaction level, and increasing marketing effectiveness. doi:10.1300/J073v20n01_05 [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2006 by The Haworth Press, Inc. All rights reserved.]

KEYWORDS. Consumer satisfaction, visitor segmentation, tourism services, physical activities, mountainous destinations

INTRODUCTION

Greece is a tourism destination and tourism is one of the main sectors that contribute significantly to the economic development of the country. According to the National Institute for Tourism Research and Predictions (2004), tourism contributes to the Gross National Product by 22%, more that any other sector (industry 12.4% and agriculture 9%) in Greece. Tourism is one of the main industries in Greece that stimulates economic development in industries from hospitality, transportation, construction, and retail, to small business such as restaurants, bars, and tourism agents.

However, no much scientific data exists on tourism in Greece. In particular, there is limited information on international tourists that Rodoula Tsiotsou is Associate Professor, Department of Commerce and Advertising, Higher Technological Education Institution (A.T.E.I.) of Crete, Palama & Kakridi, Ierapetra, TK 72200, Greece (E-mail: rtsiotsou@yahoo.gr). Eleytheria Vasioti is Administrative Assistant, Region of Hepeiros, Voreiou Ipeirou 20, TK 45 445 Ioannina, Greece.
visit the country and even less data on Greek tourists. “Internal” tourism (Greeks who take their vacation in Greece) is developing rapidly in Greece in recent decades. According to Eurostat (the statistics office of the European Union), 56% of the Greek population prefers Greece as the place for its vacation. Moreover, Greek tourists spend more money during their vacation than foreign tourists (Glynia, Lytras, & Maras, 2004).

Lately, several changes that refer to “internal” tourism have taken place. The Greek tourist is not a “passive” tourist anymore but prefers to be involved in activities during his/her vacation. A study conducted by GFK Market Analysis in 20 countries (with a sample size of 20,818 tourists) revealed that Greeks are very fanatic in participating in physical activities during their vacation. The majority of Greeks (71%) exercise during their vacation and swimming is the most preferred physical activity (“Vacations Hobbies,” 2004). In addition, it has been noted that more and more Greeks prefer “short-term” vacations than “long-term” vacations. Vacation time has expanded to winter period whereas a few decades ago it was limited to the summer period only. Furthermore, near the coasts places are not the only destination choices anymore. Mountainous regions are attracting “short-term” visitors and especially during winter time. The “internal” vacation market has changed mainly due to financial and time constraints and weekends have become the most favorable time for short vacations (National Institute for Tourism Research and Predictions, 2001). However, there is no much knowledge about these “new Greek tourists,” their demographics, wants, needs, behavior and satisfaction with “short-term” trips.

Thus, the purpose of this study was to study the “short-term” visitors of mountainous destinations in order to gain a better understanding of this market and improve marketing practices. Specifically, the objectives of the study were: (a) to develop a measurement instrument on “short-term” visitors’ satisfaction, and (b) to segment “short-term” visitors of mountainous destinations based on their satisfaction.

The visitors were defined based on their length of stay. “Short-term” visitors refer to those taking a vacation from one to six nights whereas “long-term” visitors are those taking a vacation for more than six nights. This categorization has been proposed by Neal (2003) and was adapted for the purpose of this study.

Because satisfaction plays a central role in marketing tourism services, it was chosen as the main variable of the study. Demographics, preferred physical activities and perceived level of competence in these activities were included in the study after reviewing the related literature. The combination of satisfaction, demographics and preferred physical activities has not been used before for segmentation purposes in the tourism literature. Thus, besides gaining a better understanding of “short-term” visitors’ behavior, the study could contribute theoretically to the tourism literature. Moreover, this study proposes the combination of cluster analysis, classification with discriminant analysis, and Multivariate Analysis of Variance for segmenting tourists, as another methodological approach that provides the benefit of segmentation and a better description of the segments.

The following research questions have been raised after reviewing the related literature:

1. Could “short-term” visitors be divided into sub-segments based on their satisfaction?
2. Do satisfaction segments differ in their demographics and preferred physical activities?

The first research question investigates whether satisfaction can be used as a criterion to segment “short-term” visitors of mountainous destinations into mutually exclusive groups. The second question refers to whether demographics and physical activities could lead to significant differences between satisfaction segments.

Following, the review of literature on satisfaction and segmentation provides the conceptual framework of the study. Then, the methodology and results of the study are presented. Finally, the paper concludes by discussing the results and their implications and by providing recommendations for future research.
CONCEPTUAL FRAMEWORK

Consumer and Tourist Satisfaction

Consumer satisfaction is a topic that attracted the interest of marketing scholars the last few decades. However, though consumer satisfaction has been studied extensively, a generally accepted definition does not exist. Giese and Cote (2000) have defined satisfaction as a summary affective response of varying intensity with a time specific point of determination and limited duration directed toward focal aspects of product acquisition and/or consumption.

Consumer satisfaction is one of the most important constructs (Morgan, Attaway, & Griffin, 1996; McQuitty, Finn, & Wiley, 2000) and constitutes one of the main goals in marketing (Erevelles & Leavitt, 1992) because it is a good predictor of purchase behavior (repurchase, purchase intentions, brand choice and switching behavior) (McQuitty, Finn, & Wiley).

Various theories and models have been developed in an effort to define the construct and explain satisfaction. The expectancy-disconfirmation paradigm (Oliver, 1980), the perceived performance model (Churchill & Surprenant, 1982) as well as attribution models (Folkes, 1984), affective models (Westbrook, 1987) and equity models (Oliver & DeSarbo, 1988) are only some of the main theoretical bases developed to explain consumer satisfaction. The above approaches have raised several issues and debates among marketing scholars. Some of the questions refer to (a) the application of each model; which of the models are best applicable in different consumption situations and for different products (Erevelles & Leavitt, 1992); (b) the measurement of satisfaction; different measurement instruments should be used for different products and services; (c) the definition of satisfaction; should it be defined with focus on the response (construct) or on the process (model) (Giese & Cote, 2000)?

Satisfaction has been studied in different products and services as well as consumption stages. Many studies have been conducted on satisfaction with travel and tourism services. Satisfaction in travel and tourism has become a major research area in the last three decades (Fallon & Schofield, 2003; Kozak, Bigne, & Andreu, 2003). It has been recommended that tourist satisfaction should be taken into account when assessing the strengths and weaknesses of a tourism organization. Moreover, it should be considered when forecasting demand for developing the marketing strategy. Tourist satisfaction is central to marketing and should feed into the strategic and operational planning of tourism organizations (Satish & Menezes, 2001).

Tourist satisfaction has been explained by different variables acting either as antecedents or as mediators. It has been found that tourist (visitor) satisfaction is determined by the extent to which desired outcomes or benefits are realized (Tian-Cole & Crompton, 2003), by the type of location and the number of facilities (Webb & Hassall, 2002) and by the emotions evoked (Bigne & Andreu, 2004). It has been also proposed that the role of personnel is important in explaining tourist satisfaction (Noe & Uysal, 2003) whereas demographic variables such as age and education can be good predictors of the level of satisfaction (Tsiotsou & Vasioti, 2006).

Moreover, satisfaction can act a mediator in tourist behavior. Knutson, Singh, Yen, and Bryant (2003) have proposed the American Consumer Satisfaction Index (ACSI) model as a measurement instrument of service quality in the hotel industry. In this model, customer expectations, perceived quality and perceived value are the antecedents of satisfaction whereas customer complaints and customer loyalty are the consequences. According to Baloglu, Pekcan, Chen, and Santos (2003) satisfaction plays a mediating role between attribute based destination performance and behavioral intentions (return intention and recommendation). Lee, Graefe, and Burns (2004) found that service quality is an antecedent of satisfaction and satisfaction is a mediator between service quality and behavioral intentions. Satisfaction is also a significant predictor of destination loyalty (Yoon & Uysal, 2005) purchase intentions (Ekinci, 2003). Furthermore, it has been state that multiple comparison standards are used by consumers when determining their satisfaction (Ekinci).
Different tourist segments have been described by their satisfaction. Anderccek and Caldwell (1994) have reported that satisfaction and enjoyment demonstrated significant differences among segments in tourism market while demographic variables displayed little difference in their study. Significant satisfaction differences have been identified between “short-term” and “long-term” visitors, and first time and repeated visitors. Short-term visitors are less satisfied with perceived service quality and perceived reasonableness of the cost of their travel destination than long-term visitors (Neal, 2003). Similarly, repeated visitors score higher in satisfaction than first-time visitors (Baloglu et al., 2003). Furthermore, overall satisfaction varies according to the length of stay, gender and decision horizon (Huh & Uysal, 2003). Since satisfaction varies from segment to segment, it is recommended that it should be measured and predicted in each segment separately (Baloglu et al.) to gain a better understanding of tourists and their needs. Satisfaction as a base for tourist segmentation has not attracted researchers and marketers attention though it has been found to be different among segments (Yuksel & Yuksel, 2002; Petrick, 2002). Thus, studies using satisfaction as segmentation criterion are necessary for better understanding different tourist segments.

Segmentation

Market segmentation has become one of the main practices in marketing that assists in identifying distinct groups of consumers. These groups have similar needs, wants, attitudes, shopping habits, media usage, price sensitivity and other. The goal of segmentation is to identify homogeneous groups of consumers in order to satisfy their needs and increase marketing effectiveness. The information gathered through market segmentation is crucial in the strategic marketing planning process of a company.

There are two types of segmentations, “a priori” and “post hoc” segmentation. “A priori” segmentation is when the variable used as a criterion to divide a market is known in advance whereas “post hoc” segmentation is when there is no knowledge about distinct groups and a set of variables is used as the base for segmentation (Chen, 2003).

Different variables have been used as the bases of segmentation. The most often used variables for segmenting consumer markets are demographic (age, gender, family status, income), geographic, behavioral (benefits, frequency of use, loyalty), and psychographic (lifestyle, personality characteristics) (Kotler, 2000).

Segmentation has been often used to identify distinct groups of tourists because like any other market, tourists do not respond homogeneously to marketing activities. The diversity of products and customers in tourism has made segmentation a necessary tool for responding to changes and to an increasingly competitive environment.

The most often used bases for segmenting tourists are demographic, socioeconomic, and lifestyle variables. Specifically, the variables recommended for tourist segmentation are demographic characteristics (Chen, 2000; Sung, 2004), activities (Sung, 2004; Sung, Morrison, & O’Leary, 2000), travel expenditure (Mok & Iverson, 2000), benefits (Frochot, 2005; Frochot & Morrison, 2000), and motivation (Sellick, 2004).

In terms of the role of demographics in segmenting tourists, different findings have been reported. Age and occupation differed significantly among Norwegian tourist segments (Chen, 2000), gender, age and marital status were found to be significantly different among adventure trip segments (Sung, 2004) and age differed between heavy and light spenders (Mok & Iverson, 2000). However, it has been also found that marital status, gender and occupation did not differ significantly among expenditure-based segments (Mok & Iverson), neither age, education, marital status and income among risk taking-sensation seeking tourist segments (Pizam et al., 2004). It seems that it not clear whether demographics act as discriminating factors among segments or not. Further research is needed to identify in which occasions demographics are important in segmenting tourists.

Activities have been often used to segment tourists of different trip type, age and national origin. It has been suggested that tourists who prefer certain activities are likely to
differ from others who participate in different types of activities (Jeffrey & Xie, 1995). However, activities are not well defined in the travel and tourism literature. More often the term refers to physical activities (or sport activities) and sometimes to cultural or other activities such as shopping. For the purpose of this study, the literature in relation to segmentation and physical activities is reviewed.

There are two segmentation approaches, either a priori segmentation based on activities or posteriori segmentation that leads to the identification of “active” segments. Sung et al. (2000, p. 17) identified six physical activity segments (soft nature, risk equipped, question marks, hard challenge, rugged nature and winter snow) and suggested that “activity sets are associated with distinct groups of customers who have varying demographic and travel characteristics.” They further argued that activities should be taken into account when studying adventure traveler segments because they are associated with consumer preferences. Adventure trip segments differ in trip-related characteristics, demographic and socioeconomic characteristics (Sung, 2004). Similarly, it has been found that high risk taking-sensation seeking tourist score significantly higher in physical activities than low risk taking-sensation seeking tourists of eleven different countries (Pizam et al., 2004). Thus, it becomes evident that physical activities can discriminate among different tourist segments.

In posteriori segmentation, the identification of “physical active” segments is very common. In most segmentation studies at least one segment is characterized by its preference in active participation in physical activities. Preference for active participation in physical activity (sports) was the main factor along with age and social class that distinguished the “actives” from the other segments of rural tourists in Scotland (Frochot, 2005), the “active individual tourists” of Austria (Dolnicar & Leisch, 2004) and the “carefree wellness tourists” in Czech Republic (Tureckova, 2002). Even in senior tourist segments physical activity as travel motive is different among segments. The “enthusiastic-connectors” segment of Sellick’s study (2004) scored higher in physical activity than the other three segments of senior tourists. Similarly, the “physicals” (seniors who traveled so they participate in a physical activity) were one of the segments identified by Astic and Muller (1999).

Another aspect of tourism segmentation being studied is the role of the length of a trip. Neal (2003) categorized tourists as “short-term visitors” (those who stayed from one to six nights) and “long-term visitors” (those who stayed seven or more nights). These two types of visitors differ in their satisfaction with the efficiency of travel and tourism services. “Long-term” visitors are significantly more satisfied than “short-term” visitors. Consequently, it is necessary to investigate what are the factors that influence “short-term” visitors satisfaction since this segment seems to behave differently from “long-term” visitors.

After reviewing the related literature, it became apparent that demographics and physical activities should be used in the study in order to identify homogeneous segments. It has been argued that activities should be the primary base for tourist segmentation (Sung et al., 2000) whilst demographics should be used too because in several cases their effect might be significant (Tsiotsou, 2006). Moreover, “short-term” visitors have not been studied adequately in travel and tourism literature. Thus, “short-term” visitors became the population of interest for this study while satisfaction, demographics and physical activities became the variables to be studied in order to gain a better understanding of these visitors.

**METHODOLOGY**

The study utilized the survey research method to study consumer satisfaction with tourism services. Specifically, en route survey methodology was used due to its cost effectiveness and the reduction of response errors (memory bias) (Hurst, 1994).

An anonymous questionnaire was given to 170 subjects who participated in a three-day trip (“short-term visitors”) organized by travel agencies to the mountainous region of Hepeiros, Greece, from November 2003 to February 2004. The questionnaire was given the last day of the trip before their departure and was answered by 115 individuals (68% response rate). Table 1 presents the data analyses process.
A self-developed questionnaire was used to gather data from “short-term” visitors of the mountainous region of Hepeiros. The questionnaire consisted of three parts. Part I measured visitors satisfaction, Part II gathered data on the preferred physical activities and Part III gathered demographic data.

Part I consisted of 32 items that had to be rated on a 5-point Likert scale (1 = not at all satisfied, 5 = completely satisfied). The self-developed satisfaction questions were used due to the unique aspects of the specific tourist destination (sport activities, cultural activities, traditional food testing and sight seeing were included in the three-day trip). Subjects expressed their satisfaction in relation to the destination they visited. It had been recommended that different satisfaction survey instruments should be developed, tailored to different types of customers and research questions (Fallon & Schofield, 2003; Giese & Cote, 2000).

In terms of physical activities, the respondents could participate in activities such as horseback riding, rafting, walking and others. The study showed that the most preferred activity was rafting (54%), second most selected was walking (34.5%), third most preferred was horseback riding (9.7%) whereas only a 1.8% preferred another activity.

Finally, 80% of the respondents had visited before the mountainous region of Hepeiros whilst 16.5% visited it for the first time (3.5% did not reply to the question).

Factor Analysis

A factor analysis was used to identify the underlying structure of the 32 variables reflecting various aspects of satisfaction. The variables were reduced to 22 during the analysis (10 items dropped because either they were highly correlated with others or not correlated at all). The Maximum Likelihood procedure was used to determine the dimensionality of the factor model. Sampling tests were used to determine the appropriateness of the sample being used for the factor analysis. A Kaiser-Meyer-Olkin test measuring the adequacy of sampling was conducted (produced a p-value of .792) and provided evidence that the sample used for the study was adequate. Based on Kaiser’s rule of selection (eigenvalues larger to 1), six factors were extracted; they accounted for 74.6% of the total variance. However, a six-factor solution indicated a lack of model fit.

### Instrumentation

### RESULTS

#### Sample Demographics

The majority of the respondents participating in the study were males (64%) whereas only 36% were females (Table 2). From these, 66% were single, 8% were married with no children and 25% were married with children (1% declared that had another family status). Regarding their age, 52% of the respondents were between 26-35 years old, 22% were up to 25 years, 22% were between 36-45 years and 4% were between 46-55 years old.

Regarding their level of education, most of the respondents had a university degree (50%), 20% had a high school diploma, 18% had a graduate degree and 12% graduated from a vocational education institution. Most of the respondents were independent professionals (32%), several also worked in the private sector (25%) whereas only 22% were employees in the public sector, some were students (17%) or unemployed (4%).

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### TABLE 1. Data Analysis Procedure of the Study

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<th>Results</th>
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<td>Description of the sample</td>
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<td>Factor Analysis on Satisfaction</td>
<td>Five factors were extracted instrument validated and evaluated</td>
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<tr>
<td>Case Analysis</td>
<td>Identified if serious violations of the assumptions of independence, multivariate normality and the homogeneity of variance/covariance matrices exist</td>
</tr>
<tr>
<td>Cluster Analysis (K-means)</td>
<td>Identified “short-term” visitors segments</td>
</tr>
<tr>
<td>Discriminant Analysis</td>
<td>Tested the reliability of the two-segment solution</td>
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<td>Classification</td>
<td>Evaluated the predictability of the classification functions (cross validation)</td>
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<tr>
<td>Multivariate Analysis of Variance (MANOVA)</td>
<td>Described the segments in relation to other variables (demographics and physical activities)</td>
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</tbody>
</table>
(p-value for fit test = .186 and 64 (21%) residuals). Thus, a five-factor solution was examined and seemed that it was the best approach (explained variance 70.3%; p-value for fit test = .038; Chi-square statistic = 199.682, 59 residuals (21%)) (Table 3).

An oblique rotation (delta = 0) was chosen because of the theoretical expectation that the resulting factors would in reality be correlated. The factors were labeled as personnel satisfaction, food satisfaction, excursion satisfaction, socialization satisfaction and landscape satisfaction. The factors Cronbach’s coefficient alpha ranged from .847 to .957 and the correlations between the factors ranged from .033 to .481.

### Cluster Analysis (K-Means)

To segment “short-term” visitors of mountainous destinations, cluster analysis (K-Means) was used on the five satisfaction factors. Due to small sample size, a solution of two segments seemed reasonable. Based on their mean in the five satisfaction factors, the two segments were named as low satisfaction and high satisfaction. The low satisfaction segment represented 37% of the sample whereas the high satisfaction segment represented 63% of the sample. To validate the 2-cluster solution, cluster membership was related (one-way ANOVA and Duncan multiple-range test) to the original five satisfaction factors. Between groups and within groups differences were tested using one-way Analysis of Variances (ANOVA) (Table 4). Cluster means were found significantly different on all 5 factors at the 0.05 level.

### Classification with Discriminant Analysis

To evaluate the two-segment solution and test for significant differences between the two segments, classification with discriminant analysis was used. Classification with discriminant analysis involves classifying subjects into the one of several groups on the basis of a set of measurements. Discriminant analysis provides information on the strength of the relationship between each segment and the criterion of interest and assists in correctly classifying new observations into the identified segments (Chen, 2003).

The five satisfaction factors used to generate the cluster solution were the independent variables of the analysis. The total sample was randomly split into a development sample of 36 subjects and a cross validation sample of 79 subjects to assess the classification accuracy of the discriminant variates. The classification function was computed first on the development sample and then checked its hit rate on the cross validation sample. The classification variables were the five satisfaction factors. The homogeneity of variance/covariance test (Box’s M) indicated that the data did not violate the assumption (fail to reject at the .05 level; F = 1.219, p = .249).

The overall multivariate relationship (MANOVA) was statistically significant at the .05 (chi square = 42.920; Wilk’s Λ = .256; p = 0.000) indicating that the difference between the two segments was statistically significant.
The MANOVA results indicated that the two satisfaction segments (low and high satisfaction) differed significantly with regard to the means of the independent variables. Thus, the five satisfaction factors were able to discriminate between the two satisfaction segments.

The analysis continued by evaluating the contribution of each independent variable to the discrimination of the two satisfaction segments. All univariate F-tests were significant at the 0.05 level.

The analysis continued with the evaluation of the performance of the classification procedure. The results for the development sample indicated a 100% correct classification rate whereas the “hit rate” for the cross validation sample decreased to 95.3% though it remained very high. The precision of correct classification was high, indicating good internal consistencies of the two segments and providing support for the appropriateness of the two-segment solution. However, according to Aldenderfer and Blashfield (1984) high classification accuracy is strong evidence of reliability (internal consistency) but not of validity.
As it has been recommended, the best way to test the cluster solution is to validate the clustering solution on a set of external variables different from those used to produce the clusters (Aldenderfer & Blashfield, 1984). By doing so, the external validity is demonstrated whilst the segments can be better profiled. Thus, to assess the validity of the two satisfaction segments identified, Multivariate Analysis of Variance (MANOVA) was employed. MANOVA was chosen over one-way ANOVAs (the usual methodological approach taken in the tourism segmentation literature) to secure a better protection against the inflation of family-wise error rate. Age, education, family status, preferred physical activities and perceived level of competence in these activities were the dependent variables of the MANOVA analysis.

To test the equality (homogeneity) of the covariance matrices in each segment for the five dependent variables, the Box test was used. The Box test was not significant (F = 1.632, p = 0.057) indicating that the homogeneity of the covariance matrices assumption was tenable at the 0.05 level. Descriptive statistics of the variables are presented on Table 5. Thus, a MANOVA was conducted with follow-up Analyses of Variance (ANOVAs). The overall multivariate null hypothesis (Ho: population mean vectors are equal), tested to determine if any differences existed within the groups in the dependent variables, was rejected (Wilks Λ = 0.849, p = 0.015; Hotellings test = 0.178, p = 0.015). Thus, it was concluded that the two satisfaction segments differed in terms of their demographics and physical activities.

Univariate F-tests were run for all sets of groups on the dependent variables to determine where the differences existed. Significant differences between groups on three out of the five dependent variables were detected (Table 5). Education, age and family status (the three demographic variables) were significantly different in the two satisfaction segments.

**DISCUSSION/IMPLICATIONS**

Several studies have used different segmentation approaches to resolve some marketing issues facing today’s tourism. The purpose of the present study was to gain a better understanding of “short-term” visitors of mountainous destinations in order to improve marketing strategies. The study takes a useful approach that could assist marketers in identifying valuable segments effectively. Satisfaction can be used to identify distinct segments of “short-term” visitors while demographics can assist in better profiling these segments. Moreover, the results of the study provide useful information to mountainous destinations managers for improving their services in Greece.

In general, the results of the study are significant for theoretical and practical reasons. The analysis has given some very important insight into the role of education, age, and family status on “short-term” visitor satisfaction. The study confirmed previous findings about the important role demographic characteristics play when segmenting travel and tourism markets (Mok & Iverson, 2000; Rodoula Tsiotsou and Eleytheria Vasioti 69

<table>
<thead>
<tr>
<th>Variable (range)</th>
<th>Low Satisfaction Segment</th>
<th>High Satisfaction Segment</th>
<th>F</th>
<th>Sign.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Standard Deviation</td>
<td>Mean</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>Education (1-5)</td>
<td>2.35</td>
<td>0.981</td>
<td>2.86</td>
<td>1.008</td>
</tr>
<tr>
<td>Age (1-6)</td>
<td>2.26</td>
<td>0.790</td>
<td>1.93</td>
<td>0.728</td>
</tr>
<tr>
<td>Family Status (1-4)</td>
<td>1.85</td>
<td>0.958</td>
<td>1.51</td>
<td>0.869</td>
</tr>
<tr>
<td>Preferred Physical Activity (1-6)</td>
<td>3.06</td>
<td>1.013</td>
<td>3.37</td>
<td>0.837</td>
</tr>
<tr>
<td>Level of Competence (1-4)</td>
<td>2.03</td>
<td>1.000</td>
<td>1.79</td>
<td>0.796</td>
</tr>
</tbody>
</table>

* Significant at the 0.05 level.
** Significant at the 0.1 level.
Chen, 2000; Sung, 2004; Tsiotsou & Vasioti, 2006). However, the results did not confirm the importance of physical activities in identifying homogenous groups of tourists (Jeffrey & Xie, 1995; Sung). The study also provides new insights into the relationship between satisfaction and demographics.

Based on the demographic characteristics gathered by the study, the profile of “short-term” visitors of mountainous destinations seems to be as follows. “Short-term” visitors are males, 26-35 years old, singles with a university degree who work as free agents, prefer adventure physical activities such as rafting during their trips and they have visited before the same mountainous destinations.

The instrument developed to measure “short-term” visitor satisfaction extracted five factors and produced satisfactory results. The five-factor solution explained much of the variance of the construct (70.3%) and does better than other instruments developed to measure tourist satisfaction. For example, Shankar and Taylor (2003) extracted a three-factor solution (three important attributes: physical facilities, service experience and services provided) that explained only 60.6% of tourist satisfaction. Fallon and Schofield’s study (2003) resulted in five factors (“performance only”: facilitators, secondary attractions, tertiary attractions, core attractions and transport) that explained 56.54% of the total variance of satisfaction. Thus, the satisfaction instrument developed in this study seems to do a better job in predicting tourist satisfaction than other ones. Of course improvements could be made to increase predictability and explain more of the variance of satisfaction. However, it could be used for future studies of “short-term visitors” in similar tourism settings and it could be tested for “long-term visitors.”

Cluster analysis produced two distinct segments: visitors highly satisfied and visitors less satisfied with a three-day trip to the mountainous region of Hepeiros. The hypothesis that satisfaction will classify “short-term” visitors of mountainous destinations was confirmed. Two distinct segments were identified: less satisfied and highly satisfied visitors. These two segments differ in their satisfaction with the personnel, food, excursions, socialization and landscape of the trip. Highly satisfied visitors scored high on all five aspects of satisfaction whereas less satisfied visitors scored low.

Demographic variables such as education, age, and family status along with preferred physical activities and competence level in these activities were the variables used to better describe the two satisfaction segments. However, not all variables contributed significantly to the classification of the two satisfaction segments. Family status, age and education had a significant contribution whereas preferred physical activities and competence level did not contribute significantly.

Statistically significant differences were found between the means of the two satisfaction segments in relation to family status, age and educational level. Specifically, single visitors were more satisfied with the trip than married or married with children visitors and younger visitors were more satisfied than older visitors. The group means of the dependent variables show that highly educated visitors were more satisfied with their trip whereas visitors with less education were less satisfied.

Regarding physical activities, the highest the activity level (rafting, horse riding) being preferred, the highest the satisfaction level was and the lowest the activity level (walking) being preferred, the lower the satisfaction was. Moreover, the higher the perceived level of competency in these activities the lower the satisfaction level and the lower the perceived level of competency the highest the satisfaction was. However, these last two relationships were not statistically significant.

Thus, the two satisfaction based segments that were produced from the study could be profiled as follow. The low satisfaction segment consists of less educated visitors, married or married with children, who are older than 35 years. The high satisfaction segment consists of highly educated younger people, single, who prefer during their vacation more adventurous physical activities such as rafting.

The implications of the study are several. Marketers can segment better their market in order to satisfy the needs of “short-term” visitors and plan more effective positioning strategies. Their marketing and promotional strategies
should be designed to target young, single, educated males that prefer to be involved in high intensity physical activities during their trip. Marketers can predict the level of satisfaction of prospective consumers if family status, age and education are known. Moreover, marketers of mountainous destinations should not disregard different aspects of the services they offer such as personnel behavior, quality of food, landscape, excursions program and socialization opportunities given during the trip.

Market segmentation could benefit tourism destinations in four ways: (a) it could provide the base for target marketing; (b) it could assist in developing more effective marketing mixes in order to satisfy the needs of specific visitors segments; (c) it could facilitate destination differentiation; and (d) it could provide easier identification of market opportunities and threats. Identifying opportunities for developing new products, designing more effective marketing strategies, and better allocation of marketing resources are some only of the benefits targeting well-defined segments of tourists (Satish & Menezes, 2001).

Tourism is expected to continue to grow due to the increase in leisure time, the rise of income and life expectancy. Competition will be intensified in the tourism sector and marketing strategies will become increasingly important. Travel agencies should continuously improve their services in order to maintain or increase consumers’ satisfaction, and to attract new ones. Increasing tourist satisfaction maximizes consumer retention and decreases switching behavior. Thus, it will be more difficult and more expensive for competitors to attract these consumers. As a result, sound marketing research is necessary as tourism continues to grow and become more competitive to increase marketing efficiency and effectiveness.

**FUTURE RESEARCH/LIMITATIONS**

Future research on tourism should focus in longitudinal approaches in measuring customers’ satisfaction changes and in the relationship between satisfaction and activities offered during a trip. Market segmentation is necessary in order to identify and target the appropriate segments in tourism (a priori) and to identify different components and properties and to group consumers according to their different satisfaction perspectives (post-purchasing). Finally, a better instrument measuring satisfaction in tourism services needs to be developed to explain more of the variance in the construct and taking into account the unique aspects of the tourism market. Moreover, a replication of this study with a larger sample size and using “long-term” visitors is recommended.

This study was intended to produce meaningful data that would provide a tool and data source on which quality marketing efforts in tourism services could be based. However, the sample used limits our ability to generalize its findings to a large population. The results of the study reflect only the visitors studied. Generalizations of the findings should be made with caution.

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