Evaluation of Ski Center Services in Greece based on the Multiattribute Measurement Model of Attitudes

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Abstract: The scope of this study was to evaluate ski center services in Greece. Our research sample consists of n=1,614 visitors in 11 of the largest ski centers in Greece. The 22-item SERVQUAL standard questionnaire has been used, with each item classified based on five quality-assessment dimensions. In order to assess ski center offered services, the Multiattribute Attitude Measurement Model has been used. The values gathered by applying this model were used as reference values for ski center evaluation. Ski centers have then been ranked based on their total attitude score. The paper provides administrative suggestions on improving center offered services.

Key words: SERVQUAL dimensions, multiattribute attitude measurement model, ski centers

INTRODUCTION

During the last two decades, a series of new ski centers have been established in Greece, like Voras, Elatochori, Pertouli, while others have been modernized, like Seli, 3-5 Pigadia, Falakro and Vassilitsa[1,2]. The number of active skiers along with non-active skiers for all ski centers in Greece amount to approximately 250.000 visitors every year[3]. Ski centers in Greece are of relatively small size and offer limited customer services. The number of lodgings for visitors who wish to spend the night in ski centers is usually limited and of poor standards. In many cases, this problem is reduced by accommodation provided in the nearby areas. Many ski centers lack in logistical base (snow machines) or have limited number of lifts, as well as inadequate or few trails. Moreover, problems and other inadequacies are encountered in visitor waiting areas, like restaurants, cafeterias, gear rentals, alternative activities areas[4]. According to World Trade Organization definition, Winter Sports Destination is a geographical, economic and social unit consisting of all those firms, organizations, activities, areas and installations which are intended to serve the specific needs of winter sports tourists.

The increasing number of people who wish to engage in ski-related activities in Greece has also increased demand for ski centers. In turn, the large number of ski centers has reinforced competition to attract potential customers. It should be pointed out that, besides domestic competition, other Balkan (Bulgaria, Yugoslavia, FYROM) and European countries (Austria, Switzerland) have been focusing towards gaining a share from the Greek market. Greece, being a strong tourist attractor, is interested in extending tourist season throughout the year by creating the necessary facilities that can attract ski center visitors not only from within its borders but also from international markets[5]. Within an international competitive environment, Greek ski centers are looking towards developing into important Winter Sports Destinations.

Competition grows as ski center management seeks to maintain old visitors and attract new ones at the same time[6]. Competition for customers is imminent and will ultimately force sport centers to improve the quality of their services[7-9]. Alexandris et al.[10] point out that growing competition and increased customer expectations, service quality has been identified as a key factor in building a competitive advantage in the service industry.

Quality is the field that has been the focus of companies and organizations aiming at providing customer services[11]. According to Kotler[12] a service is any act or performance one party can offer to another that is essentially intangible and does not result in the ownership of anything. Sport centers engage in a business that is primarily based on the provision of services[7].

Services differ from products in that they are *"intangible"*, *"inseparable"*, *"perishable"* and *"variable"*[13,14]. The quality of services reflects the degree in which the provided services perceptions meet client expectations. Client expectations represent the desired level of services, i.e. the level that a client is willing to accept and which he/she believes he/she will finally receive[15]. Perceptions of service quality are the result of the comparison of consumer expectations with their perceptions of the organization's performance[16]. Parasuraman et al.[17] argue that the extent of discrepancy between customer expectations (desires) and their perceptions of performance is accepted as an important measure of customer service quality. Zeithaml et al.[18] states that only the criteria defined by

customers count in the evaluation of service quality. Only customers judge quality; all other judgments are essentially irrelevant. Since clients have different characteristics, beliefs, behaviors and accumulated experiences, each one of them perceives and assesses the provided services in different ways[19]. A sport center visitor is satisfied when his/her needs, real or perceived, are met or exceeded[20]. Ski center managers ought to provide high-quality services if they wish to maintain their customers and attract new ones[12]. They must be prepared to think like customers and apply well-planned customer satisfaction programs[9]. Tourists use a choice of tourism services and valuate their experience holistically in terms of final judgment[21]. Service quality is important in retaining customers[22, 20].

In research bibliography, customer-oriented quality measurement techniques (category of composed methods) include two different measurement techniques: those focusing on attitude measurement (attitude measurement techniques) and those focusing on client satisfaction (satisfaction measurement techniques). The SERVQUAL and Fishbein Model measurement tools are analyzed below. Both tools belong to the above two quality measurement techniques and have been used by the authors as part of their empirical research. The SERVQUAL model is part of the satisfaction measurement techniques, while the Fishbein model is part of the attitude measurement techniques[22].

SERVQUAL is a management tool for measuring the quality of service delivery. It consists of 22 items[16,18] aiming to measure the level of quality for delivered services. These items are classified by five service delivery dimensions: tangibles, reliability, responsiveness, assurance and empathy.

Attitude represents a summary evaluation of a psychological object captured in such attribute dimensions as good-bad, harmful-beneficial, pleasant-unpleasant and likeable-dislikeable[23]. Attitudes are consumer evaluations or assessments representing the ability of delivered services to meet their specific needs. Thus, consumer needs affect his/her attitudes which, in turn, affect his/her preferences. The concept of consumer attitude refers to preparation or propensity to act[24]. According to Allport[25], attitude is a mental or a nervous state of readiness, which is formulated based on a person's experience and which rules or has a dynamic effect on the person's reaction towards all objects or situations related to him/her. Attitudes are literally concise evaluations of various environmental elements, that prompt consumers to react systemically towards a given object or situation.

The scope of this paper is to a) draw conclusions regarding the process of evaluating ski center delivered services on the part of visitors and b) examine the relationship between the five dimensions of the SERVQUAL model and its main characteristics, as expressed by visitor assessment under the Fishbein model.

MATERIALS AND METHODS

The research sample consists of n=1.614 visitors in 11 of the largest ski centers in Greece (Table 1). This research was carried out in the winter of 2003. Questionnaires were distributed to ski centers and were answered on the spot by visitors. Sampling was conducted based on the convenience sampling method[26].

For this particular questionnaire, the five dimensions of the SERVQUAL model were used[14]. Service quality was measured using the SERVQUAL battery[16]. More specifically, a total of 22 items have been examined and distributed across five different model dimensions: a) *tangibles*, b) *reliability*, c) *responsiveness*, d) *assurance* and e) *empathy*. As far as the importance of dimensions is concerned, aggregated-scale measurement was used, along which visitors were requested to distribute 100 points among five dimensions. Distribution was based on the importance given by visitors on each one of the five dimensions. In order to apply the Fishbein model, the mean values along the 22 questions and five dimensions of the SERVQUAL model were calculated for each ski center. As Woratschek[22] points out the value for service quality equals the sum of the individual quality assessments for each characteristic multiplied by the subjective importance. The same measurement procedure as above is applied on the Multiattribute Model of Attitude (model 1).

The Multiattribute Model of Attitude Measurement is expressed in this case as follows[27]:

$$A_{ijk} = \sum \left(\left(\sum \frac{\beta_{ijk}}{n} \right) \bullet \left(\sum \frac{I_{ik}}{n} \right) \right) \qquad (1)$$

Where
A= the overall attitude toward the object (the ski center)
ß= the strength of the belief that the object (the ski center) has any particular attribute i
i = the attribute (SERVQUAL dimension) of ski center
j = the ski center (object)
k= the visitors of ski center
I= the visitor evaluation of the goodness or badness of the attribute i
n= the total number of visitors

At first, visitor attitude for each ski center was measured based on the sum of the products deriving by multiplying the average assessments of SERVQUAL dimensions and their respective average importance (Table 2).

RESULTS

Statistical results after adopting the Multiattribute Model of Attitude Measurement are exhibited in Tables 1 and 2.

Table 1: Mean values of SERVQUAL dimensions (*b*) for each center and average importance of dimensions (*I*)

Object	Attributes (SERVQUAL dimensions)				
Ski center	Tangibles	Reliability	Responsiveness	Assurance	Empathy
1. Falakro	4.46	4.48	4.78	4.92	4.63
2. 3-5 Pigadia	4.78	4.38	4.42	4.74	4.55
3. Vorras	4.61	4.44	4.65	4.60	4.52
4. Elatohori	4.00	4.36	4.63	4.66	4.56
5. Vassilitsa	4.14	4.19	4.51	4.73	4.56
6. Seli	4.22	4.09	4.17	4.34	4.13
7. Vigla	4.09	3.77	3.89	3.97	3.70
8. Parnassos	4.12	3.38	3.62	3.80	3.61
9. Lailias	3.18	3.29	3.67	3.92	3.67
10. Pilio	3.15	3.23	3.60	3.73	3.55
11. Karpenissi	3.23	2.89	3.51	3.86	3.40
Mean value of SERVQUAL dimensions:	3.97	3.89	4.15	4.30	4.06
Importance of dimensions (I):	0.23	0.21	0.20	0.19	0.17

Table 2: Calculations based on the multiattribute model of attitude measurement

Multiattribute Models of Attitude Measurement for the 11 ski centers	Attitude score	Relative importance %	No
$A_1 = (4.46)(0.23) + (4.48)(0.21) + (4.78)(0.20) + (4.92)(0.19) + (4.63)(0.17) =$	4.65	10.39	1
$A_2 = (4.78)(0.23) + (4.38)(0.21) + (4.42)(0.20) + (4.74)(0.19) + (4.55)(0.17) =$	4.58	10.23	2
$A_3 = (4.61)(0.23) + (4.44)(0.21) + (4.65)(0.20) + (4.60)(0.19) + (4.52)(0.17) =$	4.57	10.21	3
$A_4 = (4.00)(0.23) + (4.36)(0.21) + (4.63)(0.20) + (4.66)(0.19) + (4.56)(0.17) =$	4.42	9.87	4
$A_5 = (4.14)(0.23) + (4.19)(0.21) + (4.51)(0.20) + (4.73)(0.19) + (4.56)(0.17) =$	4.41	9.85	5
$A_6 = (4.22)(0.23) + (4.09)(0.21) + (4.17)(0.20) + (4.34)(0.19) + (4.13)(0.17) =$	4.19	9.36	6
$A_7 = (4.09)(0.23) + (3.77)(0.21) + (3.89)(0.20) + (3.97)(0.19) + (3.70)(0.17) =$	3.89	8.69	7
$A_8 = (4.12)(0.23) + (3.38)(0.21) + (3.62)(0.20) + (3.80)(0.19) + (3.61)(0.17) =$	3.72	8.31	8
$A_9 = (3.18)(0.23) + (3.29)(0.21) + (3.67)(0.20) + (3.92)(0.19) + (3.67)(0.17) =$	3.53	7.89	9
$A_{10} = (3.15)(0.23) + (3.23)(0.21) + (3.60)(0.20) + (3.73)(0.19) + (3.55)(0.17) =$	3.44	7.69	10
$A_{11} = (3.23)(0.23) + (2.89)(0.21) + (3.51)(0.20) + (3.86)(0.19) + (3.40)(0.17) =$	3.36	7.51	11
Total sum:	44.76	100	
Mean Attitude Value of the 11 ski centers	44.76/11=4.07		

DISCUSSION

The results of this research have shown that, according to visitor assessment, there are great differences between the examined centers. Falakro ski center has the highest total mean attitude value (A_1=4.65). On the other hand, the Karpenissi ski center has the lowest total mean attitude value (A_{11}=3.36). As far as the SERVQUAL dimensions are concerned, Falakro ski center has achieved the highest score in the *assurance* dimension (A_1=4.92), while the Karpenissi ski center presents the lowest score in the *reliability* dimension (A_{11}=2.89). It is worth pointing out the variances in the Parnassos ski center scores (A_8). While its score in *tangibles* is quite high (4.12), it appears to fall short in other factors.

From the comparison between the Mean values of SERVQUAL dimensions and their respective average importance values (*I*) shown in Table 1, we need to consider the following points: a) *tangibles* are evaluated in the first attributes column according to the average importance *(I)* classification criterion, as well as in the fourth column based on the mean value of dimensions classification criterion. Due to the importance of the *tangibles* attribute, improvements need to be carried out on ski center materials, including new buildings, installations, facilities, surrounding areas and equipment.

Based on our attitude analysis results (Table 2), the Mean Attitude Value of the 11 ski centers adds up to 4.07 points. Those centers with attitude scores below the Mean Attitude Value of all 11 ski centers (4.07) ought to inquire on the factors responsible for their low assessment. Ski centers 7-11 present scores below the total mean value, while centers 10 and 11 have the lowest scores due to poor assessments made by visitors on the five SERVQUAL dimensions. According to Table 2 attitude analysis results, the Falakro ski center prevails as the most desired and high quality winter destination compared to the rest. Based on the tangibles dimension, we may provide certain recommendations towards administration. More specifically, the Falakro ski center may be able to reach the 3-5 Pigadia score of 4.78 by improving the quality of material elements. Moreover, it is quite surprising that the Parnassos ski center, being the largest and better-equipped center in Greece, only managed to take the 8th place in our attitude analysis results. Although its score on the materials dimension is higher than the mean value, its score on the remaining four dimensions is below average.

CONCLUSION

Based on the results above, the researcher is able to a) determine the strong and weak points of the center of his interest, b) compare all center characteristics and c)

retrieve information that will help the decision making process. For further research, the use of the Ajzen and Fishbein extensive model[28] is recommended. This model, apart from the variables included in the previous model, also measures the effect the social environment has on the consumer's decision to accept or reject a service or product. Finally, it should be pointed out that the procedure followed may constitute a useful decision making process, supported by the Destination Benchmarking[29,30].

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