
AN APPLICATION OF ECOSERV MODEL IN ASSESSING PERCEIVED SERVICE QUALITY IN OUTDOOR RECREATION PROGRAMS TOWARDS PRIVATE OUTDOOR RECREATION OPERATOR

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Abstract: Outdoor recreation operators need a special mechanism to evaluate their service quality from customers' perspectives. This study aimed to evaluate the applicability of ECOSERV model a modified SERVQUAL model in assessing perceived service quality towards private outdoor recreation operator in outdoor recreation program, based on customers or participants' satisfaction. Nowadays, outdoor recreation activities contribute positive impact to the tourism industry in order to sustain natural resources. It has become one of the important niche markets in ecotourism and sport tourism sector in Malaysia. Hence, it is important to examine the service quality in outdoor recreation programs provided by private outdoor recreation operators towards their customers, as it may influence repeat participation. The ECOSERV model which consists of 30 attributes categorised into six dimensions namely Ecotangibles, Assurance, Reliability, Responsiveness, Empathy and Tangibles are used to measure the service quality expectations and perceptions. The respondents in this study were undergraduate students from University Technology MARA Shah Alam who participated in four days outdoor recreation program at Teratak River View, Tanjung Malim, Perak. SPSS was used for analysing and interpreting the data. Reliability analyses used the Cronbach's alpha value to assess the reliability of the instruments, which was represented by the Cronbach's alpha value. While descriptive statistics such as means, frequencies and standard deviation will be used for describing the data.

Keywords: service quality, expectation, perception, outdoor recreation operator, ECOSERV.

Introduction: Outdoor recreation has a significant impact on the societies which is believed to bring positive benefits to the individual, family members, societies and to the countries. Engaging in the outdoor recreation activity would promote lifelong physical, emotional and spiritual well-being. Outcomes for physical, emotional and spiritual well-being were enhanced when more time is spent outdoor in nature (Holmes, 2007). Outdoor recreation can be defined as any positive form of recreation that is directly related to the natural environment (Mwandla, 2004). Outdoor recreation encompasses organized free time activities that are participated in for some intrinsic value where there is an interaction between the participation and element of nature (Mwandla, 2004). To date, outdoor recreation activities were greatly practiced

and supported as a medium to gain positive satisfaction during leisure all over the world. There is notable that outdoor recreation operators in Malaysia were consist of three main organizations which is Public (Government), Non-profit Governmental Organizations (NGO's) and Private outdoor recreation operators. These three organizations were sharing the same objectives which are to capture the interest, commitment and enthusiasm of society through outdoor recreation activities. Nevertheless, the Public (Government) and NGO's objectives are more towards fulfilling the society desire and lead the society to the healthy life style and achievement. Whereas, the Private is more on profit making based. According to Md. Amin et. al. (2011), due to the lack of outdoor recreation programs offered by the public operators and NGO's,

societies are more interested and keen to employ private outdoor recreation operators for their outdoor recreation programs. Though the price to be paid is high but the societies are more preferred to hire private operator in term of the service quality offered.

Service quality has been suggested by many scholars and organisations to measure the quality of services offered to customers all over the world. Many researchers found that satisfaction towards service quality will show increment on customer retention rates, and higher profits for organizations (Backman & Veldkamp, 1995; Baker & Crompton, 2000; Bloemer et. al. 1999; Zeithaml & Bitner, 2003). It is widely accepted today that service quality has a direct effect on customer satisfaction. A customer with positive perceptions about service quality is likely to report high levels of satisfaction (e.g., Caruana, 2002; Cronin & Taylor, 1992; Spreng & Chiou, 2002; Spreng & McKoy, 1996; Woodside, Frey, & Daly, 1989). Realising the importance of service quality has influenced many organisations to establish a special department or unit called customer service department or unit particularly for big international companies. Research study on customer satisfaction also has been adopted by many organisations nowadays. However, there is limited empirical evidence to support service quality in outdoor recreation activities in the literature. As Kouthouris and Alexandris (2005) stated, research on the applicability of service quality models in outdoor settings is still limited. Thus, the objective of this study is to examine the applicability of ecotourism service (ECOSERV) model to evaluate service quality in outdoor recreation program towards the outdoor recreation operator.

1.1 Service Quality:Service quality concept has attracted the interest and concern of researchers in the field of

operations management and marketing research for decades. Johnston and Clark (2005) use the term service quality to describe how an organisation treats its customers. Accordingly, service quality covers how customers' requirements and desires are met, as well as how the service quality delivered matches customers' expectations.

Service quality is defined as the degree and direction of discrepancy between customers' perceptions and expectations (Parasuraman et. al. 1985). Parasuraman et. al. (1985) also stated perceived service quality is the gap between customers' expectation and perceptions and as a measure of service quality in meeting customers' needs and requirements, and thus consider to what extent the service delivered is consistent with customers' expectations. They suggested that service quality is dependent on the difference between expectation and performance along the quality dimensions. In this paradigm, it implies that feelings of satisfaction appear when consumers compare their perceptions of a service or product's performance to their own expectations. Accordingly, if the actual performance matches initial expectations, then the result is confirmed. If the perceived performance exceeds consumers' expectations, then the consumer is satisfied. However, if perceived performance falls short of expectations, then the customer is dissatisfied.

Studies undertaken by both academic and practitioners show that the impact of service quality will influence customer satisfaction, financial performance, manufacturing costs, customer retention, customer loyalty, and the success of marketing strategy (Cronin and Taylor, 1992; Cronin et. al. 2000; Duncan and Elliot, 2004; Wong et. al. 2008). In short, service quality is one of the most important elements to assist the success of one product or service in the market. Nonetheless, due to the weaknesses of SERVQUAL model a

modified model called ECOSERV introduced by Khan (2003) is used to better fit with the topic of this study.

1.2 Expectation: Researchers have defined customers or participants' expectations as what customers believe should happen (Boulding *et al.*, 1993; Johnston and Clark, 2005), what customers hope for (Zeithaml, Berry and Parasuraman, 1993), what customers or participants wish for (Edvardsson, Thomasson and John, 1994), what customers or participants expect from an excellent service provider (Zeithaml, Parasuraman and Berry, 1990), and what customers or participants predict product and service performance to be like in the future (Liljander and Tore, 1995). These definitions found in service quality literature indicate that in general, expectations are expressions of what customers believe a service provider should offer, rather than would offer.

Customers or participants can be influenced by many factors. Berry and Parasuraman (1991) discuss two levels of expectations, arguing that customers or participants service expectations exist at two different levels. These are desired level and adequate level. The desired level refers to the service that a customers or participants hopes to receive, which means the desired level is a blend of the customers or participants' belief about what the service 'can be' and 'should be'. Whereas, the adequate level refers to the service that the customers or participants can accept. It is therefore the task of the customer or participant to assess what the service 'will be'. The best example of the adequate level is the level of service predicted by the customer or participant. Furthermore, the difference between the desired level and the adequate level is known as the tolerance zone, which changes over time from service to service and from customer to customer (Kasper, Helsdingen and Gabbott, 2006).

ECOSERV MODEL: This study is proposed to evaluate the applicability of the ECOSERV model in assessing perceived service quality toward private outdoor recreation operator in outdoor recreation program, based on customers or participants' satisfaction. This model is a modified of Parasuraman, et al. (1985) SERVQUAL model which considered as a basic skeleton that require adaption to meet the needs of a particular sector. Due to SERVQUAL weaknesses (Asubonteng et. al. 1996) some modification is needed, as motivations, educations, participation and behaviour of ecotourists differ from mass tourists (Khan, 2003; Khan & Su 2003). The ECOSERV model is proposed to be applied to specifically measure service quality in natural areas such as ecotourism destinations. It instrument consists of attributes and grouped into six (6) service dimensions (Khan 2003) which incorporated with four (4) service dimensions changes (*assurance, reliability, responsiveness and empathy*) from the SERVQUAL model. However, the tangibles dimension were further split into two (2) sub- dimensions and named as ecotangibles and tangibles. The six dimensions were labelled as tangibles (material and appearance of the personnel that reflects local influence; ecotangibles (physical facilities and equipment that safe and appropriate to the environment); reliability (ability to perform the promised service dependably and accurately); responsiveness (willingness to help customers and provide prompt service); assurance (knowledge and courtesy of the employees and their ability to convey trust and confidence, and provide necessary information); and empathy (caring, individualized attention the firm provides its customers). The service quality expectations and perceptions are determined using the ECOSERV instrument developed by Khan (2003). The degree of service quality is evaluated from differences in customers or

participants' service quality expectations and perceptions.

Outdoor Recreation operators in Malaysia

In the year of 1994, the former Malaysia Prime Minister, Tun Dr Mahathir Mohamad had launched Active Malaysia Program in order to encourage the healthy life style to Malaysians. This program indirectly rejuvenates the development of outdoor recreation sector in Malaysia. Therefore, a huge amount of funds was allocated to the Ministry of Youth and Sports (KBS) to implement several of outdoor recreation activities organised by appointed government and private agencies and associations.

As a result, there were various outdoor recreation events and programs were developed which attracted mass participations such as; KemBara, Outdoor Recreation Instructor Course and Archipelago Kayaking. Through Active Malaysia Program also encouraged the formation of several official and unofficial outdoor recreation associations and NGOs for example; Malaysia Climbing Association, Malaysia Canoe Association and Malaysia Orienteering Association.

Today, there are many active outdoor recreation operators in Malaysia. These operators are either from the government, NGOs and private agencies who involved in organising outdoor recreation activities and programs. They worked together and support each other to promote outdoor recreation activities and programs locally and internationally. Malaysian government particularly through KBS provide many assistance and initiatives for outdoor recreation operators. Hence, outdoor recreation activities are becoming popular in Malaysia for the past few years but the data is hard to obtain in the literature. It is the focus of this study to fill in the significant gap in the literature and to evaluate the applicability of ECOSERV model in assessing

perceived service quality in outdoor recreation programs towards private outdoor recreation operator in Malaysia.

Methodology: This study was conducted at Teratak Riverview (TRV), Tanjung Malim, Perak. This resort is located in between two states of Perak and Selangor. Their outdoor recreation activities and attractions are; tubing, river crossing, white water rafting, obstacles course, flying fox, abseiling, mountain biking, paintball, jungle trekking, night walk, and survival course.

In this exploratory study, the respondents were conveniently sampled using on- site intercept method. This non- probability method is often used during preliminary research efforts to get a gross estimate of the results, without incurring the cost or time required to select a random sample (Saunders et. al. 2003). The questionnaire was self- administered upon registration at the resort office. The survey was conducted in September 2014. Visitors or participants who participated in outdoor recreation activities were the target population. The questionnaire was made available in both English and Malay language. In total, 33 sets of questionnaires were returned and later used for data analysis. This study is an exploratory study with the main objective being to evaluate the applicability of instruments in assessing service quality in outdoor recreation programs towards private outdoor recreation operator. Guest et al. (2006) and Creswell (2007) stated that for a study which focuses on understanding the commonalities within a fairly homogeneous group, a sample size of between 25 to 30 may well serve the purpose.

A survey questionnaire was designed to evaluate the applicability of ECOSERV in assessing service quality of private outdoor recreation operator in outdoor recreation program. The survey questionnaire consisted four (4) parts. The first part of the questionnaire consisted of questions on

respondents' demographic profile. The second part contained questions asking respondents about their expectations participating in the outdoor recreation program at the resort. The third part contained questions pertaining to respondents' perceptions of their experience in outdoor recreation program at the resort. The last part asked about the overall satisfaction of the respondents participated in the outdoor recreation program at the resort. In this study, the ECOSERV instrument was modified incorporating all thirty items from the six major service dimensions (*ecotangibles, tangibles, assurance, reliability, responsiveness and empathy*) into the questionnaire. The expectations and perceptions of respondents were measured using a 5- point Likert scale for expectations and perceptions. The fourth part contained six additional questions to determine respondents' overall level of satisfaction based on 5- point Likert scale. Statistical Package for Social Science (SPSS) version 20.0 program was used for analyzing and interpreting the data. Reliability analyses used the Cronbach's alpha value to assess the reliability of the instruments, which was represented by the Cronbach's alpha value. Descriptive statistics such as

means, frequencies and standard deviation will be used for describing the data.

Results:

The demographic data of respondents were male with 63.6% while female 36.4%. The respondents mostly are aged between 18-24 years old. Majority of respondents are single (97.0%) and 3.0% are married. All of the respondents are Malaysians. The highest education background is comes from Diploma which is 100.0% were full times undergraduate students.

The Cronbach's Alpha test was applied to determine the reliability of the data collected was summarize in table 1 and table 2. The resultant scale was found to be internally reliable as the values exceeded the minimum standard of 0.65 to 0.95 is satisfactory suggested by Chua Yan Piaw (2013).

As shown in the demographic data, the value of Cronbach's Alpha for service quality expectations was calculated to check the reliability of the instrument. Result showed in the Table 1 indicate the value ranged of each items from $\alpha = 0.65$ to $\alpha = 0.83$. The value Cronbach's alpha reliability was 0.95, which indicated that the items scale has very good reliability.

Table 1: Reliability Analysis of Dimensions for Service Quality Expectation

Dimensions	N	No. of Items	Coefficient Alpha
Empathy	33	5	.83
Assurance	33	5	.82
Reliability	33	5	.78
Responsiveness	33	4	.77
Tangibles	33	8	.77
Ecotangibles	33	3	.65

As shown in the Table 2, the value of Cronbach's Alpha for service quality perceptions was calculated to check the reliability of the instrument. Result showed in the Table 2 indicated that the value ranged of each items from $\alpha = 0.74$ to $\alpha = 0.92$. The value Cronbach's alpha reliability was 0.95, which indicated that the items scale has very good reliability.

Table 2: *Reliability Analysis of Dimensions for Service Quality Perceptions*

Dimensions	N	No. of Items	Coefficient Alpha
Tangible	33	8	.92
Reliability	33	5	.85
Responsiveness	33	4	.85
Empathy	33	5	.84
Ecotangibles	33	3	.81
Assurance	33	5	.74

As shown in the Table 3, the value of Cronbach's Alpha for service quality overall satisfaction was calculated to check the reliability of the instrument. Result showed in the Table 4 indicate the value ranged of each items from $\alpha = 0.69$ to $\alpha = 0.80$. The value Cronbach's alpha reliability was 0.95, which indicated that the items scale has very good reliability.

Table 3: *Reliability Analysis for Service Quality Overall Satisfaction items*

Dimensions	N	No. of Items	Coefficient Alpha
I am satisfied with the services provided by this outdoor recreation operator	33	1	.80
I believe I did the right thing to participate in this outdoor recreation program	33	1	.79
I am happy about my decision to participate in this outdoor recreation program	33	1	.78
I will be back to use this outdoor recreation operator services again	33	1	.75
I will recommend to others to use this outdoor recreation operator services	33	1	.74
I am satisfied with my decision to participate in this outdoor recreation program	33	1	.69
Satisfaction Items	33	6	.95

Discussion: The pilot survey carried out by this study is to test and ensure the content of the questionnaire is easily understood by the respondents. The pilot survey also geared to obtain some information on the content and face validity of the questions. It helped in the prediction of the duration of time to complete each questionnaire.

A total of 33 respondents from the undergraduate student of Outdoor Recreation course from Faculty of Sport Science and Recreation, University Technology MARA UiTM Shah Alam, were chosen for this pilot survey. All of the respondents spent 4 days and 3 nights participated in the outdoor recreation program at private outdoor recreation

campsite known as TRV. The findings based on Cronbach's alpha value in determining service quality expectations and perceptions in this study revealed some corrections and improvement of the questionnaire need to be done due to the low of alpha value on the expectations and perceptions items. Although there are a few of lower alpha value on the items of service quality expectations and perceptions, the overall alpha value for each six dimensions is satisfactory which is above the 0.65.

In addition, findings on overall satisfaction of the respondents regarding the service quality being received as tested using reliability test of Cronbach's alpha value for each item was satisfactory as the alpha value were close to the high reliability value. The items can be concluded as clear and easy for the respondents to understand. Hence, there is no necessary change on the items needed. Based on the differences of the priority dimensions in both hierarchy on the respondents perspectives, it can be concluded that the major concern of the respondents before they participating in outdoor program they were hoping and expecting that the outdoor recreation operator would stress more on caring, and individualised attention to them. However,

after their participation in the program, the respondents highlighted that the operator is focusing more on physical facilities, equipment and appearance of their personnel that reflects local influence. Satisfaction, willingness to return and recommendation the outdoor recreation operator to others as shown in the Table 3 has obtained the alpha value above 0.65. It shows that, all six items is a reliable tool to measure the outdoor recreation participants overall satisfaction.

Conclusion: From the study, it can be concludes that the ECOSERV model which is used to measure the perceived service quality in outdoor recreation program towards private outdoor recreation operator. It is a reliable tool to be used in outdoor recreation activities studies. Of the total six ECOSERV dimensions, empathy is the most important dimension in the service quality expectation's hierarchy followed by assurance, reliability, responsiveness, tangibles and ecotangibles dimensions. While, in the service quality perception's hierarchy, tangible is the most important and assurance is the last most important dimension in the hierarchy. However, more study particularly in Malaysia should be done to test ECOSERV model.

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