

The Evaluation of Recreational Farm Service Quality: The Application of SERVQUAL Model

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Abstract

Recreational farm becomes a new highlight industry that adds value to traditional agriculture and becomes a recreational destination for tourists in rural areas of Taiwan. It is important for recreational farm to improve service quality in order to maintain the competitiveness in the industry. The aim of this study is to determine the key and priority of improvement in service quality in recreational farm. Questionnaire was used to collect the data from experienced tourists in recreational farm in Taitung. The result in quality gap score for all dimensions are in positive which mean that tourists' expectations have met and their perceptions of recreational farm service quality are good. The tourists have highest expectation in empathy, followed by responsiveness, assurance, reliability and tangible respectively. The tourists have highest satisfaction on responsiveness quality, reliability, tangible, assurance and empathy respectively. This study provide several implications for the recreational farms to enhance the service quality and maintain the competitiveness.

Keywords: SERVQUAL model; recreational farm; service quality, Taitung

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I. Introduction

According to the World Travel & Tourism Council (WTTC), in 2018, travel and tourism in Taiwan significantly increased more at 3.9% which one in five new jobs were created by travel and tourism industry over the last five year. The contribution of travel and tourism in Taiwan has positive effects to GDP by 4.5% of total economy and took 5.6% of total employment. By 2019, travel and tourism will attract about 11.2 million international tourists to visit Taiwan. This demonstrates that travel and tourism is growing continuously and becoming one of key important to raise up the economy. While travel and tourism has contributed to the growth of Taiwan's GDP, agriculture industry's GDP contribution has decrease for several decades, from 1981 to 2001, its contribution decreased from 7.33% to 1.90% and in 2018, it remains at 1.8% (Lee, H-J. 2013).

Agriculture is one of the most important roles in Taiwan which providing food, supporting rural development and contributing to environment conservation. In the new Agricultural policies for Taiwan in 2018, there is a section that promote recreational farm since it becomes a new highlight industry that adds value to traditional agriculture and creates tangibles outcomes such as employment opportunities, economic value, and tourists (Liu, W.-Y. 2018). Farmers tends to implement recreational activities into the farms. The recreational farm is becoming popular and important form of recreational destination. Thus, the farms need to improve the service quality to maintain the competitiveness in the competition pressures' situation (Tseng, M.-L. and C.-H. Liao 2008).

This study aimed to evaluate the recreational farm service quality to determine the key dimension in order to improve service quality as well as to determine the difference between tourists' perception and expectation towards the service quality. The result in the difference can prioritize the direction to improve the service quality. Therefore, this study can be a reference to recreational farm to increase the service quality and the value of customers' needs to meet the tourists' satisfaction.

II. Literature Review

2.1 Recreational farm

Recreational farms consist of tourism or recreation enterprises which located in the farm. Recreational farm is one of tourism categories of the agri-tourism (Tseng, M.-L. and C.-H. Liao

2008). It becomes popular and becomes one of the best sort of activities which attract tourists to visit the countryside (Tseng, M.-L. and C.-H. Liao 2008). The recreational farms can offer different types of activities including: outdoor recreation such as fishing, hunting, horse-riding, wildlife study; educational experiences such as cannery tours, cooking classes, wine tasting, on-farm museums; entertainment such as harvest festivals, barn dances, petting farms; hospitality services such as overnight farm, guided tours; and on-farm direct sales such as picking fruits and vegetables (Brown, D. M. and R. J. Reeder 2007).

Recreational farm is an attraction place that is human creation through management and creativity in a working farm with the management, skills and strategies to attract tourists. It is important for tourist attractions' manager to operate the tourism activities to meet the perception of performance quality and to reach the quality expectations of the tourists (Peters, M., and Weiermair, K. 2000). The farm must continuously improve the service quality to maintain its competitiveness.

2.2 Service quality

Service quality is defined as the overall consumers' impression to organizations' service. Parasuraman, Zeithaml and Beery defined service quality as "global judgement or attitude relating to the overall excellence or superiority of the service (Mmutle, T. 2017). Service quality performance is determined by functional quality and technical quality. Functional quality or interactive quality refers to the manner of service provider delivered or how the service delivered. Technical quality refers to what customers received at the end or what service provider delivered (Tseng, M.-L. and C.-H. Liao 2008).

According to the research of Parasuraman, Zeithaml and Beery of service quality, there was 10 original dimensions of SERVQUAL model before reducing the collapse dimension to five key dimensions which is the most used model to identify the satisfaction of service quality (Parasuraman, Zeithaml and Beery, 1988).

SERVQUAL's five dimensions is as following:

- Tangibles: the appearance of physical facilities, equipment, personnel, and communication materials.
- Reliability: the ability to perform the promised service dependably and accurately.
- Responsiveness: the willingness to help customers and to provide prompt service.

- Assurance: the knowledge, courtesy of employees and ability to inspire trust and confidence.
- Empathy: the provision of caring, individualized attention provided to customers

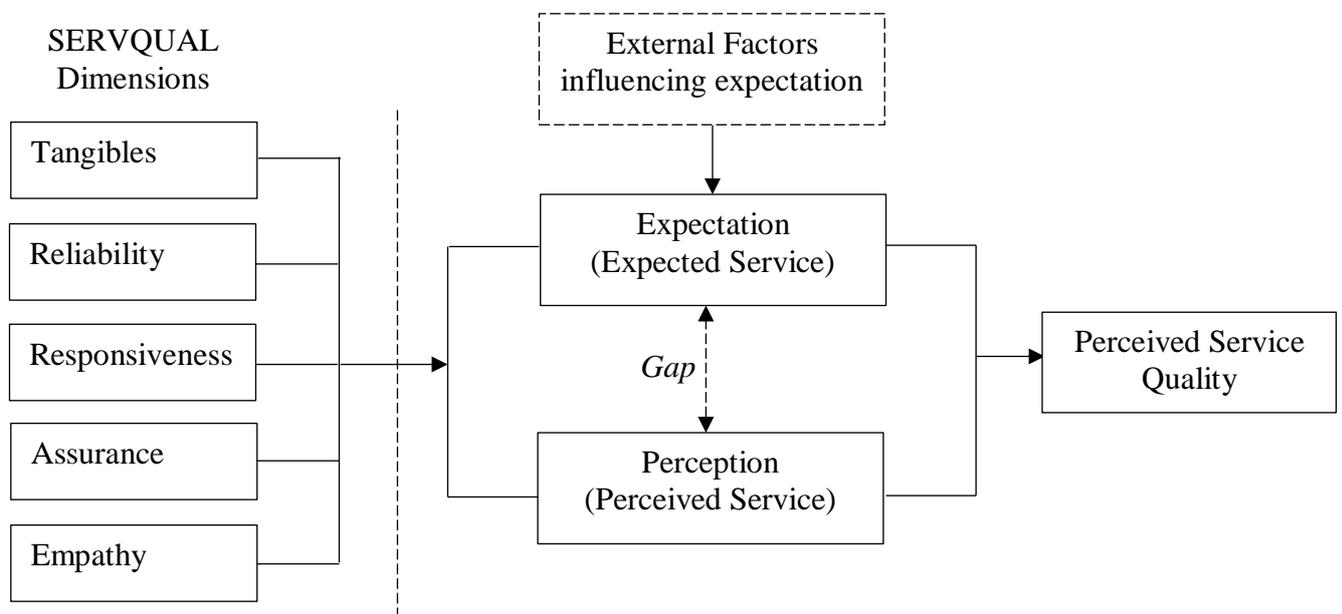


Figure 1 SERVQUAL Model

Source: Parasuraman, Zeithaml and Beery, 1988

According to SERVQUAL model, the gap between perceived service and expected service ($P - E$) show the perceived service quality. The positive gap means that tourists satisfy with the perceived service quality while negative gap means that the perceived service quality have not met tourists' expectation implied to be unsatisfactory service. By comparing the difference of expected service and perceived service, the recreational farms will be able to determine the actual quality of service whether it exceeds, meets, or falls (Parasuraman, Zeithaml and Beery, 1988).

Tourists satisfaction is one of the most powerful tools for recreational farm to maintain the business and to be able to run sustainable business in the industry. The farm will be able to maintain the competitive advantage to be successful and to survive in the industry if excellence service quality is existed (Tseng, M.-L. and C.-H. Liao 2008).

III. Study Design and Method

3.1 Research structure and hypothesis

To measure the tourists' satisfaction in recreational farm, this study used the SERVQUAL model which consists of five dimensions including tangibles, reliability, responsiveness, assurance and empathy. The research framework is as Figure 2.

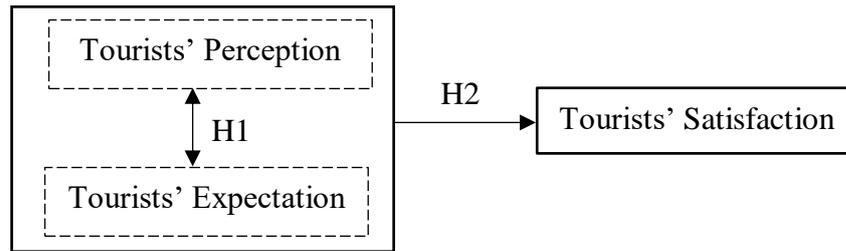


Figure 2 Research framework

3.2 Data Collection

This study was used the quantitative questionnaire which was designed according to the research framework. The questionnaire consists of 2 part including part 1: Basic information (tourists' demographic) and part 2: expectation and perception of tourists towards each dimension of SERVQUAL model. The respondents required to rate on five point Likert-type scale of perceived service (P) ranging from not very satisfied (1) to extremely satisfied (5) and expected importance (E) ranging from not important (1) to extremely important (5).

According to the determination of sample size for estimating proportions equation:

$$n = \frac{z^2 pq}{d^2}$$

where; n = sample size

z = level of confidence according to the standard normal distribution

p = estimated proportion of the population that presents the characteristic

q = 1-p (estimated proportion of the population that do not presents the characteristic)

d = tolerated margin of error

This equation was used to calculate the number of sample size of the study which 95% level of confidence and 5% of error limit were set. Thus, an accept total number of sample in this study is at least 385 respondents. A convenience sampling of experienced tourists in recreational farm in Taitung was selected to collect quantitative data.

3.3 Data analysis

Service quality (SQ) can be defined from the calculation of the different mean between tourists' perceived service (P) and expected importance (E) with the following measured aspects: tangibles, reliability, responsiveness, assurance and empathy. The different between perceived service (P) and expected importance (E) can indicate the service's improvement priority ($SQ = P - E$). The positive score means that tourists' expectations have met their perception while the negative score means tourists' expectations have not met their perception.

Cronbach's Alpha value were used to examine the reliability of data. The data in this study was analyzed by using statistical package for social science (SPSS) version 22.

IV. Results and analysis

A total of 450 questionnaires were distributed to tourists during November 1, 2018 to January 31 2019 in Taitung County Farmer's Association Toyugi Recreational Farm and 385 questionnaires or 85.56% were completed and be able to use in this study.

4.1 Tourists' characteristics

Most of tourists in the farm is female tourists which is about 56.6% while male tourists is 43.3%. Most of them are in the age of 36-45 years old (26.2%), followed by the age of 26-35 years old (25.7%), 46-55 years old (21%), below 25 years old (15.1%), 56-65 years old (8.3%) and above 65 years old (3.6%). Most tourists are people in eastern area (66%), followed by southern area (17.7%). Most of them have annual income in a range of NT\$300,000-600,000 (29.1%), followed by a range of NT\$600,001-900,000 (26%). Most of them are public servant/teacher, (28.1%), followed by tourists who work in service job for 17.4%.

4.2 Tourists' travel characteristics

Most of the tourists visit the farm by their private car 63.7%, followed by motorcycle (27.5%), bus (4.4%) and bike (2.6%). About 43.6% of the tourists visit the farm for more than 4 times and 26% visit the farm for the first time. For the number of companions, 57.7% travel with a group of 3-5 people, followed by 1-2 people (26.5%). The tourists acquire the information of the farm from their relatives or family (68.6%).

4.3 Reliability test

The values of Cronbach's Alpha are used to check the reliability and the value of Cronbach's Alpha of all dimensions both expectation and perception are higher than 0.7 which considered as acceptable.

4.4 Analysis of service quality on five dimensions of expectations and five dimensions of perceptions

An analysis of service quality on five dimensions were calculated by using the mean score of expectation and perception as shown in table 1. The results of service quality of the recreational farm are all in positive score which mean that tourists satisfy with the service quality of the farm.

The mean score of the expectation of empathy has the highest score, followed by responsiveness, assurance, reliability and tangible respectively. Among all items, the highest mean score of tourists' expectation is having pre-order product in the store. The following ranks in mean score of tourists' expectation are having camping area in the farm, having BBQ area in the farm, having agricultural DIY activity in the farm and the restaurant provides delicacy made by local agricultural products. All of these items are related to empathy dimension. The lowest expectation is having a convenient parking lot.

The mean score of responsiveness of perception has the highest score, followed by reliability, tangible, assurance and empathy respectively. The highest perception's mean score is staff always be patient about the question that customers asked, followed by staff help each other to provide good service to customers. Both items are related to responsiveness dimension. Another second rank item is having a complaint channel for customers which is in reliability dimension. The following high score item is staff always smile and be kind in assurance

dimension. The lowest perception score is having camping area in the farm, followed by having BBQ area in the farm, having pre-order product in the store and having agricultural DIY activity in the farm.

The quality gap score for all items were calculated by the mean score of perception minus the mean score of expectations (P-E). The results show that tourists' expectation and perception in service quality for all items in all dimensions are significantly different. The quality gap score of responsiveness has the highest score, which mean that tourists satisfy with the responsiveness of the recreational farm the most. Tourists have highest expectation on empathy but their perceived satisfaction have lowest score and the quality gap score shows that tourists least satisfy with empathy dimension.

Table 1 Scores of expected and perceived service quality

Dimensions and items	Expected (E)		Perceived (P)		Quality Gap
	Mean	SD	Mean	SD	(P-E)
Tangible	1.90		4.29		2.39
Having clear sign until reach the farm	1.85	0.77	4.40	0.97	2.55
Having convenient transportation to the farm	2.02	0.97	4.30	0.98	2.29
Having a convenient parking lot	1.60	0.69	4.36	1.02	2.76
Having fire escape and fire equipment	1.99	0.79	4.35	0.99	2.36
Having modern decoration and modern equipment	2.03	0.87	4.05	0.93	2.02
Reliability	1.96		4.39		2.43
Having comfortable and tidy surrounding	1.84	0.86	4.42	1.02	2.58
Having quiet and safe surrounding	1.80	0.80	4.36	1.01	2.56
The restaurant is quiet and safe	2.07	0.81	4.32	1.01	2.24
The restaurant area is comfortable and clean	2.05	0.80	4.38	0.96	2.34
Having a complaint channel for customers	2.02	0.83	4.45	0.93	2.43
Responsiveness	1.99		4.45		2.46
Staff know what customers need and provide service immediately	2.02	0.89	4.42	0.92	2.40
Staff help each other to provide good service to customers	1.99	0.86	4.45	0.94	2.46
Staff always be patient about the question that customers asked	1.95	0.85	4.46	0.94	2.51
Assurance	1.97		4.24		2.27
Having modernized and computerized service	2.11	0.93	4.03	0.91	1.91
Having guidance person who narrate the service	2.01	0.88	4.17	0.96	2.16
Staff always smile and be kind	1.86	0.82	4.43	0.95	2.58
Staff look tidy	1.90	0.73	4.33	1.00	2.43
Empathy	2.19		3.78		1.59
The restaurant provides delicacy made by local agricultural products	2.12	0.92	3.84	0.86	1.71
Having camping area in the farm	2.20	0.96	3.71	0.90	1.52
Having BBQ area in the farm	2.17	0.96	3.76	0.87	1.59
Having agricultural DIY activity in the farm	2.16	0.96	3.80	0.88	1.64
Having pre-order product in the store	2.30	1.02	3.78	0.85	1.49
Overall service quality	2.00		4.21		2.21

Source: this study

V. Conclusions and suggestions

The main objective of this study is to evaluate the service quality of the recreational farm from the difference of tourists' expected importance and perceived satisfaction. The SERVQUAL model was used in this study to assess the five dimensions of service quality including tangible, reliability, responsiveness, assurance and empathy. The result of reliability test by Cronbach's Alpha value for all dimensions of both expectation and perception are range from 0.71 to 0.95 which can be accepted to test the hypotheses. The result in quality gap for all dimensions are positive which mean that tourists' expectations have met and their perceptions of recreational farm's services are good. Among SERVQUAL five dimension, empathy is the dimension that has lowest mean score so the recreational farm should firstly improve the empathy. In addition, the results from this study show that there are several implications for the recreational farm to enhance the service quality. The most important dimension, empathy, the recreational farm should provide more camping area, BBQ area and provide the channel for tourists to pre-order the products. For tangible, the farm should modernize decoration and equipment of the farm. For reliability, the farm should improve the restaurant's environment to be more comfortable, safe and clean. For responsiveness, staff should improve the their service to provide more immediate customers' needs. Finally for assurance dimension, the farm should have modernized and computerized the service for tourists and having guidance person who narrate the service in the farm.

The results in this study are based on the tourists in one recreational farm in Taitung, Taiwan. Thus, the results may be different in different farms. Future studies should conduct the study with more respondents in other recreational farms.

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休閒農場服務品質評估：SERVQUAL 模型的運用

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摘要

在台灣鄉村地區休閒農場成為一個新的產業亮點，能為傳統的農業生產增加價值，並且成為遊客新的休閒目的地。休閒農場必須提高服務品質，以保持行業競爭力。本研究的目的是為確定改善休閒農場服務品質的關鍵和優先事項。資料來源是為曾經到訪台東縣農會東遊季休閒農場的遊客。結果顯示，在所有的預期與實際感受的服務品質上，均為正值，這表示遊客的期望得到滿足，對休閒農場的服務品質的看法是正向的；另外，遊客對同理心的期望最高，其次是響應性、保證性、可靠性和有形性。遊客對滿意度最高的是響應性，其次是可靠性、有形性、保證和同情心。本研究建議休閒農場應注意持續提升服務品質才能保有持續的競爭力。

關鍵字：SERVQUAL 模型；休閒農場；服務品質；台東縣農會東遊季

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