

A Study on the Impact of Cycling Sports Tourism Satisfaction on Revisit Intention—a Case Study of Taoyuan Shihmen Reservoir

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Abstract : *In recent years, recreational sport has been flourished in Taiwan. With vigorous development of sports tourism industry, cycling tourism has once again become popular. From city sightseeing to country-depth tourism, visitors can ride bikes everywhere. The purpose of this study is to explore tourist background, tourist satisfaction with bicycle tracks, and revisit intention of Taoyuan Shihmen Reservoir Bicycle Track. Also, the relationship between tourist satisfaction and revisit intention is further analyzed. In this study, the questionnaire survey is conducted. A total of 300 questionnaires are sent out, with a total of 295 valid questionnaires and an effective recovery rate of 98.3%, after the deduction of 5 questionnaires which are incomplete or consistent with each other. Descriptive statistics, correlation analysis and multiple regression analysis are conducted. The results show that the majority of cycling tourists are male, aged 26 to 35 years old, most of whom are single, having college degree, working in manufacturing industry, living in the north part, and with NT40,000-NT50,000 monthly income; tourist satisfaction with bicycle tracks has a significant effect on overall satisfaction; and the overall tourist satisfaction with bicycle tracks has a significant impact on revisit intention. At the end of this study, it puts forward practical recommendations and related academic research directions for Taoyuan Shihmen Reservoir Bicycle Track. It is also hoped that this study would be helpful to the planning of bicycle tracks for Taoyuan City Government and relevant institutions.*

Keywords: *bike, revisit intention, satisfaction, sports tourism*

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I. INTRODUCTION

1. Research Background and Motives

In 2016, the world's latest fashion wave is "sport is fashion". Nowadays, in Taiwan, regardless men or women, old or young, all the people have strong passion for sports. Sports population could be seen everywhere. Sports Administration, Ministry of Education, commissioned Shih Hsin University to conduct the "2013 Sports City Survey". According to this survey, the top three sports that the public most engaged in are walking, jogging and followed by cycling, which means cycling has become an important way of leisure lifestyle (Sports Administration, Ministry of Education, 2014). All of these show that, once again, cycling becomes a popular trend.

In recent years, in order to promote sports tourism, active local economy, and expand the development of sports tourism industry, each county or city government in Taiwan constructs high-quality bicycle tracks. Based on local topography, those bicycle tracks are constructed to meet the leisure, recreation, and sports needs of the public. Meanwhile, at the other end of the earth, the UK has converted part of the roads around the country into bicycle tracks. With approximately 160,000 kilometers of bicycle tracks have been constructed so far, it is estimated that 25 million bike tourists would be attracted, bringing £500 million tourism revenue per year (Zhenyu Hong, Huichun, Lin, 2006). Therefore, bicycle tracks are important constructions for local governments to develop sports tourism. After riders use bicycle tracks, the feelings and satisfaction will affect the reputation of the bicycle tracks and their revisit intentions, which will further influence local governments' tourism promotion and profits. The revisit intention is the satisfaction, experience, familiarity, cognitive value, safety, image and culture of visitors for a destination, so that visitors to the memories of such place is a positive memory and information, and thus affect the willingness to visit the destination again in the future (Kozak, 2001; Um, Chon & Ro, 2006).

This study explores tourist background, tourist satisfaction with bicycle tracks, and revisit intention of Taoyuan Shihmen Reservoir Bicycle Track. Also, the relationship between tourist satisfaction and revisit intention is further analyzed, which would be helpful to the planning of bike ride environment and related supporting facilities for relevant institutions.

2. Purpose of Research

Based on the above research motives, the purposes of this study are as follows:

- i. To understand the social background, satisfaction and revisit intention of bicycle track tourists.
- ii. To explore the impact of bicycle track tourists' satisfaction on overall satisfaction.
- iii. To explore the impact of bicycle track tourists' overall satisfaction on revisit intention.

II. LITERATURE REVIEW

1. The Definition of Satisfaction

Woodruff (1993) argues that satisfaction is an emotional reaction from consumer experience, and that consumers use emotional words to express dissatisfaction or satisfaction with the use of the product for emotions of different brands (Lam, Shankar, Erramilli, & Murthy, 2004). Satisfaction is also recognized by many scholars as an assessment of the accumulation of a particular product or service by a customer and can be materialized to provide a measure of a customer's satisfaction with a product for a company. Alegre and Cladera (2009) point out that satisfaction and the number of visits have a positive impact on the willingness to revisit, but satisfaction is the main factor in the decision. Pedragosa and Correia (2009) believe that expectations, facilities and services contribute to the evaluation of consumption and services, that is, satisfactory evaluation attributes. Good customer satisfaction will increase customers' willingness of patronage and build customer loyalty; and the effect of word of mouth, will attract new customers and build a good image (Robin & Giannelloni, 2010). The enterprises actively improve their own service quality, strive to achieve the standard that customers set. Conveying the willingness to deal with the enterprise again, or recommending the enterprise's information to others stem from customer perception of the enterprise products and corporate image (Kotler, 2003; Jones, Taylor & Reynolds, 2014).

2. The definition of revisit intention

Fishbein and Ajzen (1975) and Baker and Crompton (2000) suggest that individuals are aware of the chances of engaging in a particular act under the subjective judgment, that is, the willingness to express what behavior and the possibility of doing something again. Kotler (2003) argues that when a customer is subjected to a certain degree of satisfaction or dissatisfaction after receiving the service, the intrinsic psychological change of such customer will affect his follow-up, and if the customer is satisfied, there will be a higher re-visit the wishes again. For operators, the most desirable is to hope that customers can travel to the tourist district again, so understanding the influential factors of customers' revisit intention for the tourist district is very important. Xiuyu Huang (2014) shows that bike enthusiasts attach great importance to leisure, comfort and safety on the requirements of bicycle track quality. In the choice of bicycle tracks, bike enthusiasts pay attention to natural landscape and ecological richness and the landscape environment brought about by parent-child interaction. The quality of bicycle tracks positively affects bike enthusiasts' intention to revisit, and the reason is that they have a high degree of user satisfaction.

3. Taoyuan Shihmen Reservoir Bicycle Track

The total length of Taoyuan Shihmen Reservoir Bicycle Track is about 6 kilometers. Parts of the lanes are steep slopes, but most of them are more flat, which are suitable for the whole family. From Pinlin toll entrance, surrounded by green trees, the riders could enjoy the cool shade along the lanes in the summer; they could also look at the beauty of the reservoir when they ride to the top of the dam; a panoramic view of the momentum of Shihmen Reservoir could be seen from the dam area; when the weather is clear, they can see the distant city. Located in the midstream of Dahan River, Shihmen Reservoir was named because of its stone-door shaped river mouth with a pair of peaks face to face. There are many tourist attractions around, such as Cihu Mausoleum, Daxi Old Street, Maple Paths, Sankeng Eco Park, Dajiuqiong Historic Trail and so forth. Therefore, this study will explore the cycling tourists' satisfaction and revisit intention of Shihmen Reservoir Bicycle Track.

III. METHOD

1. Research Object and Sampling Method

The object of this study is the cycling tourists of Taoyuan Shihmen Reservoir Bicycle Track. Based on a field investigation, it was conducted at the locations that the tourists must and easy to stay. Questionnaires are sent out from July to September in 2016. A total of 300 questionnaires are sent out, with a total of 295 valid questionnaires and an effective recovery rate of 98.3%, after the deduction of 5 questionnaires which are incomplete or consistent with each other.

2. Research Tool

The questionnaire of this study is designed based on the questionnaire of “The study of sports tourism attraction, bicycle track image, leisure satisfaction and revisit intention of the tourists of Puzi River Bicycle Track”. It is also designed according to the actual operation of sports tourism attraction and experience value of the riders of Taoyuan Shimen Reservoir Bicycle Track on revisit intention, which is revised to reduce the development of the completion of the questionnaire and the subject matter. The questionnaire content can be appropriate to the theme and purpose of the study.

3. Research Hypothesis

H1: The satisfaction of the bike track has a significant impact on the overall satisfaction.

H2: The overall satisfaction of the bike track has a significant impact on revisit intention.

IV. RESULTS

1. Narrative Analysis of Sample Characteristics

In this study, 295 valid questionnaires are collected. Gender, age, marriage status, educational level, occupation, place of residence, monthly income, and personal characteristics of respondents are as shown in Table 1. It shows that the majority of the respondents are single male, aged 26 to 35 years old, with college degree, industry - related occupation background, and most of them live in north, with monthly income of NT40,000 -50,000 dollars.

Table 1: Frequency Distribution of Sample Basic Data

Variables	Options	Population	Percentage%
Gender	Male	171	58.0
	Female	124	42.0
Age	15 and below	56	19.0
	16-25	50	16.9
	26-35	112	38.0
	36-45	42	14.2
	46-55	20	6.8
	56 and above	15	5.1
Marriage Status	Single	87	29.5
	Married	62	21.0
	Married, have a child/children with elementary school or below	67	22.7
	Married, have a child/children with junior school or above	79	26.8
Educational Level	Elementary school or below	46	15.6
	Junior school	21	7.1
	Senior high school	28	9.5
	University, junior college	121	41.0
	Graduate or above	79	26.8
Occupation	Student	61	20.7
	Military officers, government officials and educational personnel	57	19.3
	Industry	89	30.2
	Commercial business	36	12.4
	Agriculture	7	2.4
	Services	4	1.4
	Retiree	16	5.4
	Others	25	8.5
	Place of Residence	Northern region	126
Midland		92	31.2
Southern region		34	11.5
Eastern region		23	7.8
Outlying islands		20	6.8
Monthly Income	NT20,000 and below	60	20.3
	NT20,000-30,000	45	15.3
	NT30,000-40,000	69	23.4
	NT40,000-50,000	76	25.8
	NT50,000 and above	45	15.3

2. Narrative Analysis of Satisfaction

a. Intrinsic psychological factors

The highest degree of bike track satisfaction is “Bike track highlights the landscape features of scenic spots” (4.37), followed by “The scenery along the bike track is consistent with expectation” (4.21).

b. Environmental factors

The highest degree of bike track satisfaction is “Appropriate width of the bike track” (4.30), followed by “There is enough shade along the bike track” (4.17), and the lowest degree is “Route planning of the bike track”.

c. Recreational activity factors

In Table 2, the highest degree of bike track satisfaction is “Leisure and safety satisfaction of the bike track” (4.09), followed by “Strict control of pedestrians entering into the bike track” (3.96).

Table 2: Narrative Statistical Analysis of Satisfaction

Facets	Variables	Mean	Standard deviation	Ranking	
Intrinsic factors	psychological	Bike track highlights the landscape features of scenic spots	4.37	1.16	1
		The scenery along the bike track is consistent with expectation	4.21	0.92	5
		Appropriate width of the bike track	4.30	1.18	2
		Appropriate slope of the bike track	4.11	0.98	4
		Appropriate length of the bike track	3.93	0.87	10
Environmental factors		Route planning of the bike track	3.74	0.78	12
		The air quality along the bike track is good	4.07	0.97	7
		There are enough public toilets along the bike track	3.91	0.95	11
		There is enough shade along the bike track	4.17	1.06	3
		There are obvious traffic signs along the bike track	3.95	0.81	9
Recreational factors	activity	Strict control of pedestrians entering into the bike track	3.96	0.87	8
		Leisure and safety satisfaction of the bike track	4.09	0.99	6

3. Narrative analysis of Overall Satisfaction

In Table 3, the mean of the overall satisfaction is 4.14, which shows the overall performance of the bike track is satisfied by those tourists.

Table 3: Narrative statistical analysis of Overall Satisfaction

Facet/ Variable	Mean	Standard deviation
The overall satisfaction of bike track	4.14	0.92

4. Narrative analysis of revisit intention

In Table 4, “I will share the experience of riding the bike track with others” (4.15) ranked the highest in revisit intention analysis, followed by “Willing to ride the bike track again in the future” (4.06) and “I will recommend this bike track with others” (4.02).

Table 4 Narrative Statistical Analysis of Revisit Intention

Facets/Variables	Mean	Standard deviation
Willing to ride the bike track again in the future	4.06	0.94
I will recommend this bike track with others	4.02	0.91
I will share the experience of riding the bike track with others	4.15	0.96

5. Hypothesis Verification

H1: The satisfaction of the bike track tourists has a significant impact on the bike track overall satisfaction.

In this part, with the overall satisfaction of bike track as the dependent variable, the three facets—*intrinsic psychological factors*, the *environmental factors*, and the *recreational activity factors* of bike track tourists’ satisfaction— as the self-variables, the multiple regression analysis is carried out. The results are as follows:

The results of the multiple regression analysis show that, in the overall satisfaction of the bike track, “*intrinsic psychological factors*”, “*environmental factors*” and “*recreational activity factors*” are effective explanatory variables for “*bike track overall satisfaction*”. The variable “*environmental factors*” has the highest predictive power, and the Beta number is 0.486.

Table 5: Multiple Regression Analysis Table of the Impact of the Satisfaction of the Bike Track Tourists on the Bike Track Overall Satisfaction

Satisfaction facets	Non-normalized coefficient		Normalized coefficient	T	
	B estimated value	Standard error	Beta distribution		Significance
(Constant)	2.921	0.261		3.499	0.000**
Intrinsic psychological factors	0.501	0.053	0.486	3.861	0.000**
Environmental factors	0.374	0.084	0.286	5.813	0.001**
Recreational activity factors	0.186	0.062	0.202	3.800	0.000**

Note: *p<.05; **p<.01; ***p<.001

H2: The overall satisfaction of the bike track tourists has a significant impact on revisit intention.

This paper uses Pearson Correlation to test whether there is a significant relevance between “overall satisfaction of bike track” and “revisit intention” of the tourists. If these two are relevant, a simple regression analysis will be conducted to explore the extent of the impact between the two.

From Pearson Correlation analysis in Table 6, it is known that the “overall satisfaction of the bike track” has a moderately positive correlation with the variants the “revisit intention”, indicating that the overall satisfaction of the bike track will affect the tourists’ revisit intention. The highest correlation with the overall satisfaction of the bike track is “I will recommend this bike track with others” (0.787). The lowest correlation coefficient is “I will share the experience of the bike track with others” (0.688). Therefore, the higher the tourists’ overall satisfaction of the bike tracks, the higher the willingness to ride the bike track next time.

Table 6: Correlation Analysis Table of Overall Satisfaction and Revisit Intention

	Overall satisfaction of the bike track	
	Correlation coefficient	Significance
Willing to ride the bike track again in the future	0.778	0.000**
I will recommend this bike track with others	0.787	0.000**
I will share the experience of the bike track with others	0.688	0.000**

Note: *p<.05; **p<.01; ***p<.001

V. CONCLUSION

1. Conclusion

i. The status quo of tourists’ social background, satisfaction, and revisit intension

The majority of the tourists who ride this bike track are male. The results of this study are in agreement with Peiru Ye (2010), Linyan Gong (2009), Weigui Yu (2009), Xiping Chen (2008) and Mingfeng Liao (2004). Junxiong Gao, Yongsen Lin, Jinpeng Liang (2010) point out that originally women do not ride a bike because of the sunburn and its difficulty but now there is a substantial increase of cycling in women. Those women are mostly single, aged 26 to 35 years old, with college degree, industry - related occupation background, and most of them live in north, with monthly income of NT40,000 -50,000 dollars. The results of this study are consistent with those of Weiling Yu (2009). Individuals whose monthly income is more than NT50,000 dollars is higher involved in leisure activities than other groups. It can be seen that the higher income groups pay more intention in bicycle leisure activities.

For the tourists of Taoyuan Shihmen Reservoir Bicycle Track, the highest satisfaction of intrinsic psychological factors is “The scenery along the bike track is consistent with expectation”; the highest satisfaction of environmental factors is “Appropriate width of the bike track”; “Leisure and safety satisfaction of the bike track” of recreational activity factors is “satisfied”. For the tourists of Taoyuan Shihmen Reservoir Bicycle Track, the highest revisit intention is “I will share the experience of the bike track with others”, followed by “Willing to ride the bike track again in the future”.

2. Recommendations

Based on the results, the following recommendations are presented in this study:

a. Organize bike activities to enhance the participation of different ethnic groups:

In this study, it is found that female tourists have a low degree of participation in sports tourism, which shows that women have different leisure experiences with men for Shimen Reservoir Bike Track. Therefore, it is suggested that some relative activities should be organized and merchandise should be actively planned to raise the participation of cycling activities of women, in order to facilitate future planning for sports tourism itinerary of women.

b. Provide tourists sports tourism itinerary as a reference:

In this study, it is found that “route planning elasticity” is the most effective in the facet of sports tourism attraction. It is recommended that the Shimen Reservoir Tourism Management Unit could provide visitors with local travel itinerary recommendations to provide visitors with more diverse recreational experience.

c. Strengthen good surroundings along the bike track:

It is recommended that managers to improve the hygiene and cleanliness of the bike track surroundings, consider the needs of the bike track tourists, and plan high-quality bike tracks in order to increase revisit intentions.

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