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The Impact of Physical Environment and Regional Image on Tourist's Experiential Values and Feelings: An Example of Nanzhuang Area in Taiwan

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Abstract

With the booming global tourism activities, many countries around the world are actively promoting regional tourism. Thus, understanding the tourists' needs is important in developing tourism promotion strategies. With Nanzhuang Township, Miaoli County as the case study, this paper discusses the influence of the two independent variables, the tangible physical environment and the intangible regional image, tourists' experiential value and the feelings after tourism. This study conducted a questionnaire survey on tourists who have visited Nanzhuang Township, Miaoli County, by convenience sampling, in order to construct the model of regional experience marketing effect. A total of 743 effective samples were retrieved. After analysis by structural equation modeling (SEM), it is found that: (1) the physical environment has a positive and significant influence on the tourists' experiential value; (2) regional image has a positive and significant influence on the tourist's experiential value; (3) the experiential value has a positive and significant influence on satisfaction; (4) satisfaction has a positive and significant influence on trust and commitment; (5) trust has no significant influence on commitment. Regarding the two independent variables, regional image has more influence. In addition, after comparing the group models by clustering with the high and low frequency of the number of visits, it is found that there are some differences between the high frequency group and the low frequency group, where the regional image of the high frequency group has a greater influence on the experiential value and the physical environment of the low frequency group has a greater influence on the experiential value. The findings can serve as reference for the local government and the tourism operators to develop regional marketing strategies.

Keywords: physical environment, regional image, experiential value, satisfaction, trust, commitment

1. Introduction

In the recent years, people's demands for leisure continue to increase, and many countries have paid attention to regional marketing, concerning about whether the local policies meet people's leisure demands. Kotler, Donald, and Irving (1993) researched the competitions among major cities around the world, and regarded region as a market-oriented enterprise, which needs to actively market the local specialties. The main target of regional marketing is to create a new image for the region based on a clear understanding of the star industry and demographic characteristics to attract the tourists before developing marketing strategies and conveying the messages (Holcomb, 1993).

Regional image is the important factor to attract tourists. Qu, Kim, and Im (2011) indicated that regional image reflects a tourist's memory. The tourist stores these memories in his/her mind after tourism activities and experiences in the region, and the memories influence his/her future behaviors. Moreover, the atmosphere created by the environment influences the consumers' internal feeling (Kotler, 1973). The tourists' feelings may be intensified by the actual experience. Experience is not only entertainment, but also can leave the impression on the tourists (Mcluhan, 2000). When the homogeneity of the products and services offered by a region and those of other regions is high, the marketing competition will focus on developing consumption experience. The effect of the regional marketing activities can be measured by experience (Pine & Gilmore, 1998).

Based on the above, this study intends to discuss the influence of the physical environment and the regional image on the tourist's experiential value and the feeling after travel. Nanzhuang Township, Miaoli County in Taiwan is selected as the target for the empirical study. Nanzhuang has unique landscape, and it is a picturesque village. It has actively promoted tourism in recent years. There are many scenic spots in Nanzhuang Township and the local government has spared no efforts to promote the region. The question of whether this unique village attracts tourists by its beautiful landscape or regional image is worth further exploration.

This study conducted a questionnaire survey on tourists who have visited Nanzhuang Township, Miaoli County, in order to find out how the physical environment and regional image affects the tourist's experiential value, as well as how the experiential value influences satisfaction, trust and commitment. A relationship model is constructed, and whether the groups with different visiting frequencies have a significant difference on the relationship intensity between the dimensions is compared.

2. Literature Review

2.1 Physical Environment

Mehrabian and Russell (1974) proposed the influential relationship of the physical environment on the consumption behavior from the perspective of psychology. The individual emotional state, such as joyfulness, awakening, and dominance, would be triggered through the stimulation of the physical environment and the characteristic emotion factors related to personality, then further triggering the behavior response approach or avoidance. Thus physical environment will influence on the tourists' experiential value (Baker, 2006; Pine & Gilmore et al., 1998). Besides the facilities, the physical environment also contains the music, facilities, and atmosphere in the environment (Oakes, 2000; Morin, Dubé, & Chebat, 2007). According to Kaltcheva and Weitz (2006), the choice of store to shop is based on the stimulation of the physical environment to a certain extent. Beerli and Martín (2004) proposed that the dimension of the perception image on the tourism region includes physical environment, facilities, and atmosphere. The service situation model proposed by Bitner (1972) includes three physical environment factors, namely surroundings, space/function, and sign/decoration. Based on the above, this study divided the physical environment into four categories, namely natural resources, leisure facilities, space function and situation design, which are used items to measure the physical environment.

2.2 Regional Image

Regional image is the simplified belief, opinion and impression of people on a region based on a large amount of information (Kotler, 1993). The image of a region influences the tourists' feelings and behaviors (Noletta & Servidio, 2012; Keller, 1993; Biel et al., 1992). Regional image refers to the perception of tourists toward the area, similar to brand image of products (Keller, 2008). Park, Aworski, and MacInnis (1986) proposed 3 types of brand concept image, namely functionality, symbolism and experiential nature. This study explores regional image from the perspective of brand image, and uses functionality, symbolism and experiential nature as the items to measure regional image.

2.3 Experiential Value

Experiential value means that a product can create appropriate experiential feelings and emotions for the customers (Smith & Colgate, 2007). Gallarza and Saura (2006) suggested that experiential value is a factor directly influencing the customers' satisfaction so excellent services can determine customers' experiential value. Kilian (2009) argued that regional activities can attract visitors by the consumer experience because it enhances the region perception and positive feelings toward the region. Wang and Cheng (2004) proposed that marketing should focus on customers' experience to create valuable experiences and increase their impression on the region. Thus, good environment and tourists' experience are conducive to create the value for the tourists and the region (Gentile, Spiller, & Noci, 2007; Agarwal, 2004). According to the experiential value framework proposed by Holbrook (1994), Mathwick et al. (2001) divided experiential value into four categories: the consumers' return on investment, service superiority, aesthetic perception and enjoyment. Based on the above, this study uses return on investment, service superiority, aesthetic perception and enjoyment as the items to measure the experiential value.

2.4 Satisfaction

Satisfaction is a kind of emotional response to individual evaluation on the overall experience in the tourism destination (Anselmsson, 2006; Lin, 2007; Williams & Soutar, 2000). From the perspective of tourism, Bigne, Sanchez and Sanchez (2001) indicated that leisure satisfaction is the tourists' overall evaluation on the leisure process, including perception and emotion. It involves previous experiences and expectations. Hester (1975) mentioned that there are 11 factors influencing the tourists' use of park, including companion, facilities,

interaction with the natural environment, safety, appearance, convenience, psychological feelings, comfort, symbolic ownership, use strategy, and the cost. This study selects six items that are suitable to measure satisfaction, which are psychological feelings, facilities, natural landscape, convenience, comfort and appearance.

2.5 Trust

Trust is the essential factor to establish a good relationship with the customers and market share (Urban, Sultan & Qualls, 2000). Tourists have trust in a region because they believe it has certain quality (Bauer, Grether, & Leach, 2002; Garbarino & Johnson et al., 1999). A trustworthy region continuously maintains its value to enhance the tourists' revisit intention (Delgado & Munuera, 2005). Nooteboom (2002) argued that trust is considered as reasonable treatment of the other's reputation evaluation. Lewis and Weigert (1985) proposed that trust should contain three orientations, namely perception trust, emotion trust and behavior trust. This study uses the three orientations of perception trust, emotion trust and behavior trust as the items to measure trust.

2.6 Commitment

Commitment has multiple orientations, including the customers' admiration, loyalty and acceptance to the enterprise, and care for the future welfare of the organization (Garbarino & Johnson, 1999; Wong & Sohal, 2002; Garbarino & Johnson et al., 1999). Solberg and Nes (2002) indicated that relationship commitment refers to the cooperation with partners that will lead to long-term benefits. The consumers' loyalty refers to their repurchase of the products, and the commitment to the future and the main target of any organization is to develop and maintain the long-term relationship with the consumers (Callarisa, Bign, Moliner, & García, 2009). Bruggen, Dwyer, Schorr and Oh (1987) used 3 criteria to measure commitment: input, durability and consistency. This study uses these three commitment dimensions as the items to measure commitment.

3. Research Hypotheses

3.1 Relationship between the Physical Environment and the Tourists' Experiential Value

The surroundings and design factors are the important factors of the service industry (Baker, Parasuraman, Grewal, & Voss, 2002). The environment influences the consumers' impressions, which lead to subjective judgment (Baker et al., 2002). Baker (2006) found that the consumers generate positive influences on the experiential value by a good interaction with the surroundings. "Scene factor" in the dramaturgical theory indicates that the physical environment providing services, such as music, light, smell, touch, color, and arrangement, can enhance or control the consumers' behavior (Pine & Gilmore, 1998). Therefore, the value consciousness on the tourists emotions is motivated by the physical environment and atmosphere shaped by the region itself (Babin, Darden, & Griffin, 1994). Based on the above, the hypothesis is proposed as follows:

H1: The physical environment has a significant and positive influence on the tourists' experiential value.

3.2 Relationship between Regional Image and the Tourists' Experiential Value

Biel et al. (1992) suggested that regional image is the overall collection of the features of a region, and it is a series of links and association for a certain region. The positive regional image further influences the tourists' visit intention (Romaniuk & Sharp, 2003). When the regional image has more popularity, the tourists' perception value is more positive (Keller, 1993; Agarwal, 2004). Grewal, Krishnan, Baker and Borin (1998) confirmed that there is a positive relationship between the regional image and the tourist' experiential value on the region. Based on the above, the hypothesis is proposed as follows:

H2: Regional image has a significant and positive influence on the tourists' experiential value.

3.3 Relationship between the Tourists' Experiential Value and Tourist Satisfaction

Experiential value is the main part in the entire tourism experience process, and it influences the tourist satisfaction (Williams & Soutar, 2000). Lin (2007) explored the leisure behavior of the tourists in hot spring hotels in Taiwan, and found that the tourists' experience has a direct and positive influence on experiential value and satisfaction. King (2005) studied the leisure experience and satisfaction of the tourists on the leisure farm, and found that the tourists' leisure experience and satisfaction are positively correlated. Brakus, Schmit, and Zarantonello argued that brand experience produces the positive influence on the brand satisfaction, and brand experience makes the consumers highly satisfy with the brand. Wang (2003) studied the relationship between experiential marketing, experiential value and purchase intention of the Starbucks consumers. The results showed that there is a positive correlation between experiential marketing and purchase intention (Oliver et al., 1997). Based on the above, the hypothesis is proposed as follow:

H3: The tourists' experiential value has a significant and positive influence on tourist satisfaction

3.4 Relationship between Tourist Satisfaction and the Tourist Trust

From the perspective of post-purchase, higher customer's satisfaction represents more benefits obtained from the actual transactions by the customers (Shanker & Ganesan, 1994; Garbarino & Johnson et al., 1999). Trust thus occurs, showing a positive influence relationship between customer satisfaction and trust (Josee & Gaby, 2002). Flavián, Guinalíu, and Gurrea (2006) indicated that satisfaction can be regarded as a tool to enhance trust. Bauer, Grether, and Leach (2002) explored the use of the Internet to establish customer relations, and found that satisfaction has a positive influence on trust. Pavlou (2003) found that when the customers feel that their complaints are properly handled, they would feel satisfied and have stronger trust in the company. Based on the above, the hypothesis is proposed as follow:

H4: Tourist satisfaction has a significant and positive influence on tourist trust.

3.5 Relationship between Tourist Trust and Tourist Commitment

When there is strong trust relationship between the customers and the enterprise, the customers are more willing to maintain a long-term relationship with the enterprise and generate commitment (Morgan & Hunt, 1994). Trust on a certain salesperson is a factor influencing the repetitive purchase behavior, and it also influences the customers' loyalty (Musa, 2005). Therefore, establishment of trust may indirectly increase the consumers' loyalty (Willmott, 2003). The social exchange theory indicates that the customers' trust will improve the commitment of consumers and customers (Singh & Sirdeshmukh, 2000; Garbarino & Johnson et al., 1999). Floh and Treiblmaier (2006) proved the direct and positive influence on customer trust on loyalty. Wong &Sohal (2002) found that there is a positive relationship between brand trust and brand loyalty. Based on the above, the hypothesis is proposed as follow:

H5: Tourist trust has a significant and positive influence on tourist commitment

3.6 Relationship between Tourist Satisfaction and Tourist Commitment

Wetzels, Ruyter, and Birgelen (1998) found that there is a significant and positive relationship between satisfaction and emotional commitment, showing that the more satisfied customers have better emotional commitment to the suppliers. Bowen and Chen (2001) demonstrated a positive relationship between satisfaction and loyalty. Customer satisfaction is the antecedent cause to customer loyalty (Huang, 1998; Morgan & Hunt et al., 1994). Baker and Crompton (2000) indicated that under high satisfaction, loyalty to tourism and repetitive purchase intention will increase. Schultz and Bailey (2000) suggested that the customers' satisfaction is a good indicator to measure their loyalty because customers are loyal to a brand if they feel satisfied. Based on the above, the hypothesis is proposed as follow:

H6: Tourist satisfaction has a significant and positive influence on tourist commitment

3.7 Comparison of the Differences in the Groups with Different Tourism Frequencies

Wind (1978) argued that the consumers should be segmented based on their characteristics in order to have a better understanding of the differences in the groups of different characteristics. The strategy applicable to each segment can thus be proposed. Birgit (2001) used the tourists' image on the tourism destination as the segmentation variable to confirm the target market and find the population property and characteristics, as the basis to develop the marketing strategy.

This study uses different tourism frequencies as the segmentation variables of the market to assist the tourism operators and the local government in confirming the target groups, in order to provide appropriate products, activities or services to satisfy the consumers in different segments. Therefore, the research on differences in the groups with different tourism frequencies can provide an in-depth understanding of the influences of the physical environment and regional image on the tourists' experience effect. This study divides the tourists into the high frequency group and low frequency group based on the number of visits, in order to explore whether there is any difference in the relationship model and the path intensity in the groups. Based on the above, the hypothesis is proposed as follow.

H7: Groups with different visit frequencies have significant differences in the intensity of the relationship between all the dimensions

4. Research Design

4.1 Research Structure

Based on the research purposes and literature review, the conceptual framework is proposed to explore the relationship between the physical environment, regional image, experiential value, satisfaction, trust and

commitment in Nanzhuang Township, Miaoli County. The differences in the intensity of the relationship between all the dimensions in groups with different visit frequencies are compared. The research framework is shown as Figure 1.

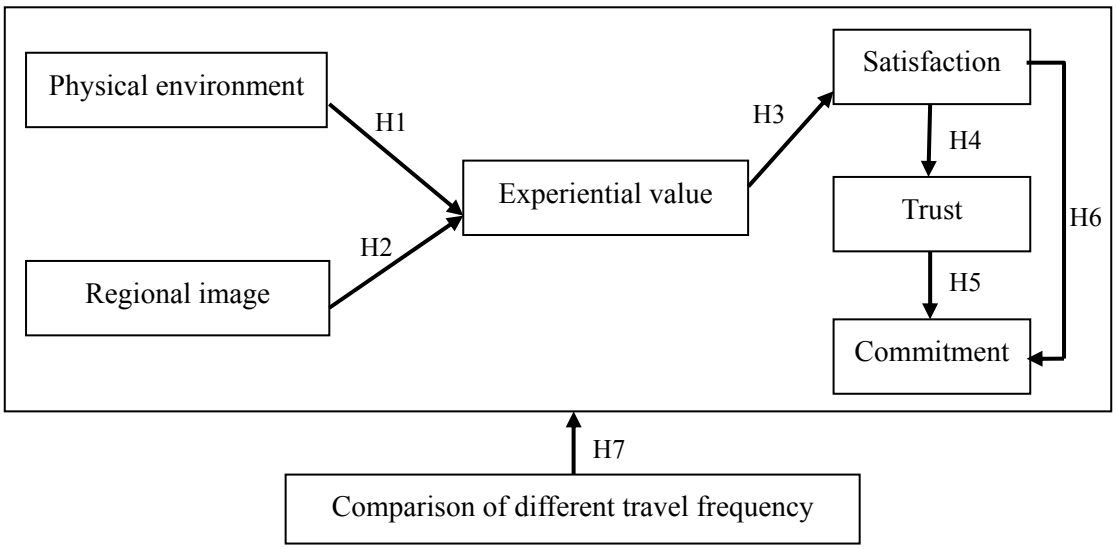

Figure 1. Research framework

4.2 Research Variables

Firstly, the first draft of the questionnaire is designed according to literature review. The questionnaire contains 7 parts: (1) the physical environment including 9 items that referencing the concepts of Beerli and Martín (2004) and Bitner (1972); (2) regional image including 6 items that referencing the concepts of Keller (2008) and Park, Aworski, and MacInnis (1986); (3) experiential value including 10 items that referencing the concepts of Holbrook (1994) and Mathwick et al. (2001); (4) satisfaction including 9 items that referencing the concepts of Hester (1975); (5) trust including 5 items that referencing the concepts of Lewis and Weigert (1985); (6) commitment including 5 items that referencing the concepts of Bruggen, Dwyer, Schorr and Oh (1987), and (7) basic information including demographic items. The first six parts are measured with 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The seventh part uses a nominal scale.

In order to obtain the effective measurement instrument, before distributing the formal questionnaires, pre-test and pilot test were performed, and the results were used to modify the questionnaire. In the pre-test, 30 tourists were selected by convenience sampling, and interviews were conducted. It was found that the purpose meaning of some questions was unclear so the statement was modified.

After the questionnaire was modified, 100 subjects were selected as the pilot samples with convenience sampling, and validity and reliability analyses were performed. The pilot results showed that Cronbach's α value of each dimension is between 0.772 and 0.939, which meets the standard of 0.7 or above. The correlation coefficients of the sub-items on the total items are all greater than 0.5, showing that there is good reliability between each dimension (Nunnally, 1978; Kerlinger, 1978). The results of the factor analysis reveal that the characteristic value of each dimension is greater than 1, and the accumulative explanatory variances are all greater than 0.5. Moreover, the factor loading of each variable is greater than 0.6, showing that each dimension has the convergent validity (Kaiser, 1958). Therefore, this questionnaire is feasible for formal survey.

5. Data Analysis and Result

5.1 Analysis on the Sample Structure

This study treated the tourists who have visited Nanzhuang Township, Miaoli County as subjects. A total of 800 questionnaires were distributed by convenience sampling, and 743 questionnaires were retrieved, with an effective return rate of 92.88%. In terms of demographic background, most respondents are women (54.0%), aged 25~34 years old (30.6%), followed by 35~44 years old (20.9%), live in central Taiwan (38.0%), followed by northern Taiwan (32%), have university education (58.1%), followed by high school or vocational school (32.3%), work in the service industry (35.1%), followed by IT industry (15.3%), have an average monthly

personal income of 10,000~30,000 NTD (44.0%), followed by 30,001~50,000 NTD (31.5%), and visit Nanzhuang once per year (32.8%).

5.2 Reliability and Validity Analysis on the Formal Survey

After the formal questionnaire survey, this study conducted the reliability and validity analyses on all the measurement dimensions. Cronbach's α value of each dimension shown in Table 1 is between 0.855 and 0.907, which meets the standard of 0.7 or above. The correlation coefficients of the sub-items on the total items are all close to 0.5, showing that there is good reliability between each dimension (Nunnally, 1978; Kerlinger, 1978). The exploratory factor analysis (EFA) found that the characteristic value of each dimension is greater than 1, and the accumulative explanatory variances are greater than 0.5. The factor loading of each question is greater than or close to 0.6, showing that the dimensions have convergent validity (Kerlinger, 1978). Furthermore, the values of CR composed by the potential variables are between 0.8 and 0.9, which is greater than 0.6, showing that the factors in each dimension have good internal consistency (Fornell & Larcker, 1981).

Table 1. Reliability and validity analysis for formal survey

Variable	Item to total Correlation Coefficient	Factor loading	Eigenvalues	Cumulative explained variance %	Cronbach α value	Composite reliability (CR)	Average extracted variance (AVE)
Physical environment							
The **design of the shops** in Nanzhuang Township is very unique.	.624	.717					
The **dinner environment** in Nanzhuang Township is very good.	.657	.743					
The shop atmosphere in Nanzhuang Township impresses me deeply.	.642	.736					
Guideposts and signs in Nanzhuang Township are very clear.	.602	.699					
The environment atmosphere in Nanzhuang Township is very attractive.	.643	.741	4.345	49.280	.865	0.8933	0.483
There are **leisure homestays** in Nanzhuang Township.	.544	.648					
There are **hiking trails** in Nanzhuang Township (i.e., Penglai River "Fish Watching Trail").	.524	.625					
Leisure atmosphere in Nanzhuang Township makes me comfortable and easy.	.593	.699					
The natural ecology in Nanzhuang Township **is maintained well**.	.533	.634					
Regional image							
Nanzhuang Township can satisfy my pursuit for **diversified demands of life**.	.650	.765					
Nanzhuang Township can satisfy my demands of **leisure and entertainment**.	.679	.789					
Nanzhuang Township has the abundant **tour routes**.	.637	.748	3.563	59.376	.863	0.8976	0.594
Nanzhuang Township has the **special** styles.	.696	.804					
Nanzhuang Township can bring me the **joyful feelings**.	.623	.740					
Nanzhuang Township is the **tourism space with the local features.**	.662	.776					
Experiential value							
I am **satisfied and happy** while travelling Nanzhuang Township.	.611	.694	5.449	54.490	.907	0.9227	0.545
I feel **very interesting in** Nanzhuang	.674	.748					

Township.							
I feel **relaxed and easy** in Nanzhuang Township.	.649	.727					
I think it is worthy to spend **money** in going to Nanzhuang Township.	.726	.787					
I think it is worthy to spend **time** in going to Nanzhuang Township.	.663	.734					
The surroundings in Nanzhuang Township make me feel **the beauty of Hakka culture**.	.708	.776					
In Nanzhuang Township, **the abundant local cultures** can be experienced.	.693	.766					
Service staffs in Nanzhuang Township can patiently to answer **all the questions put forward by the customers.**	.615	.688					
Nanzhuang Township provides the **good service quality.**	.640	.710					
The design of the streets in Nanzhuang Township has **the unique features.**	.673	.744					
Satisfaction							
The arrangements of the shops around Nanzhuang Township are **ordered**, which makes me satisfied.	.663	.748					
Nanzhuang Township has **varieties of products**, which makes me satisfied.	.701	.779					
The **environment and greening** of the curbside in Nanzhuang Township makes me satisfied.	.642	.732					
The overall environment in Nanzhuang Township is **clean, comfortable and healthful**, which makes me satisfied	.677	.760					
The geographic location of Nanzhuang Township is appropriate and **the traffic accessibility is high**, which make me satisfied.	.575	.669	4.589	50.990	.879	0.9029	0.510
The **facilities** in Nanzhuang Township are **improved**.	.651	.735					
I like the beautiful **natural landscapes** in Nanzhuang Township very much.	.483	.584					
I like **Hakka culture** in Nanzhuang Township very much.	.633	.727					
I like Nanzhuang Township very much because it can **reduce my pressure** and make me joyful.	.574	.671					
Trust							
I think that the overall presentation of Nanzhuang Township **conforms to my expectations**.	.796	.880					
The overall image of Nanzhuang Township is **trustworthy**.	.748	.851					
It is **worth** travelling Nanzhuang Township.	.618	.746	3.369	67.383	.878	0.9115	0.674
I think that the shop owners in the owners Nanzhuang Township are **professional**.	.703	.815					
The services provided in Nanzhuang Township are **ideal**.	.689	.806					
Commitment							
I will actively **recommend** Nanzhuang	.712	.834	3.171	63.417	.855	0.8963	0.634

Township to my relatives and friends.		
I am willing to **revisit** Nanzhuang Township.	.713	.834
I **affirm and evaluate** Nanzhuang Township positively.	.657	.781
I concern **the future development of** Nanzhuang Township very much.	.588	.731
If I should choose the tourist attraction, Nanzhuang Township will be my **preference**.	.666	.797

5.3 Confirmatory Factor Analysis (CFA)

In order to verify the efficiency of the measurement dimensions, this study conducts CFA on the measurement models of the dimensions using AMOS, and measured construct validity according to the principles proposed by Carmines and MacIver (1981), namely the ratio of Chi-square value on the degree of freedom is smaller than or equal to 3, the root mean square residual (RMR) and root mean square error of approximation (RMR) are smaller than 0.05, and the GFI (Goodness of fit), AGFI(Adjust goodness of fit), NFI(normed fit index), and CFI(comparative fit index) are greater than 0.9 (Bagozzi & Yi, 1988; Joreskog & Sorbom, 1989), and the RMR value is smaller than 0.08 (Hair et al., 1998). The results suggest that in the fit indexes of the measurement model, that is, x2/df value, GIF value, AGFI value, NFI value, RFI value, CFI value, RMSEA value and RMR value are 2.551, 0.867, 0.849, 0.893, 0.883, 0.932, 0.046 and 0.041, respectively. According to the above measurement standards, the measurement models of this study have good fitness, meaning that the measurement index has good construction validity and measurement efficiency.

5.4 Comparative Analysis on the Competing Model of the Multi-Groups

This study used the average visit frequency to Nanzhuang in the questionnaire as the standard to divide the tourists into two groups. Those who visit less than once per year (including one year) are in the high frequency group, and there are 397 samples; those who visit more than once per year are in the low frequency group, and there are 346 samples.

SEM was performed on the two groups using AMOS to explore whether there is a significant difference in the relationship between each dimension of the two groups (see Table 2). The fit indexes of this model are: x^2/df value is 1.603, RMR value is 0.044,GIF value is 0.850, AGFI value is 0.824, NFI value is 0.876, RFI value is 0.861, CFI value is 0.949, and RMSEA value is 0.029, which all meet the standards of a good model. This suggests that the proposed model has a good fit, showing that the model can be accepted. The analysis on the model shows that:

1) There is a significant difference in the intensity of influence of physical environment on the path of experiential value (H1) in the two groups (t=2.415). Both groups have positive influences, showing that the region with good physical environment can offer better experiential value to tourists, and the influence coefficient in the low frequency group is significantly greater.

2) There is a significant difference in the intensity of influence of regional image on the path of experiential value (H3) in the two groups (-3.125). From the perspective of influence coefficient, both groups have positive influences, suggesting that a good regional image can offer better experiential value, and the influence coefficient in the high frequency group is significantly greater.

3) There is no significant difference in the intensity of influence of experiential value on the path of satisfaction (H4) in the two groups. From the perspective of influence coefficient, both groups have positive influences, showing that the tourists' satisfaction can be greatly promoted if they gain good experiential value in the region.

4) There is no significant difference in the intensity of influence of satisfaction on the path of trust (H5) in the two groups. From the perspective of influence coefficient, both groups have positive influences, suggesting that the tourists' trust can be greatly promoted if they are well satisfied with the region.

5) There is no significant difference in the intensity of influence of trust on the path of commitment (H6) in the groups with high and low frequencies. From the perspective of influence coefficient, trust of both the high frequency group and the low frequency group has no direct influence on commitment of them.

6) There is no significant difference in the intensity of influence of satisfaction on the path of commitment (H7) in the two groups. Both groups have positive influences, indicating that the tourists' commitment can be promoted if they are satisfied with the region.

To sum up, there is a significant difference in two items of the path intensity of each dimension on the two groups, showing that the difference in visit frequency has slight difference in the path relationship intensity, so H7 is partially supported, as shown in Table 2.

Table 2. The competing model analysis for different travel frequency groups

Relationship path	Standardized regression weights		T test results
	Highly frequent group (397)	Low frequent group (346)	Highly vs. Low
H1: Physical environment → Experiential value	0.293 **	0.736 ***	**2.415** *
H2: Regional image → Experiential value	0.683 ***	0.251 **	**-3.125** **
H3: Experiential value →Satisfaction	0.950 ***	0.903 ***	0.425
H4: Satisfaction →Trust	0.926 ***	0.882 ***	-0.886
H5: Trust → Commitment	0.166	0.184	0.241
H6: Satisfaction → Commitment	0.661 ***	0.685 ***	0.465
H7: Comparing groups with different travel frequencies	partially support		

Model Fit

χ^2	d.f.	P	χ^2/d.f.	RMR	GFI	AGFI	NFI	RFI	CFI	RMSEA
2709.143	1690	.000	1.603	0.044	0.850	0.824	0.876	0.861	0.949	0.029

* : P<0.05, ** : P<0.01 , *** : P<0.001

6. Conclusions and Recommendations

6.1 Conclusion and Discussion

This study treated the tourists who have visited Nanzhuang Township, Miaoli County as subjects to explore whether the physical environment and regional image of Nanzhuang Township, Miaoli County have influences on the tourists' behavior intention through experiential value. The relationship model of the groups with different visit frequencies and variation analysis is established. The research results can provide reference to academic and practical applications, as follows:

(1) The physical environment has a significantly positive influence on the tourists' experiential value. This result is consistent with Baker (2006), and Pine and Gilmore et al. (1998). In other words, if the tourists feel positive toward the physical environment of the region, they can better recognize the experiential value of this region.

(2) Regional image has a significantly positive influence on the tourists' experiential value. This result is consistent with Keller (1993), Agarwal (2004), and Biel et al. (1992). In other words, if the tourists feel good about the regional image, they would have higher experiential value in the region.

(3) The tourists' experiential value has a significantly positive influence on the tourist satisfaction. This result is consistent with Lin (2007), Williams and Soutar (2000), and Oliver et al. (1997). In other words, the tourists' experiential value influences their satisfaction. When the experiential value is high, the tourists are more satisfied with the tourism in the region, and its influence coefficient is the highest among all the paths. When the experiential value is high, then satisfaction also increases significantly. There is a significant association between them.

(4) Tourist satisfaction has a significantly positive influence on tourist trust. This result is consistent with

Shanker, Ganesan (1994), Bauer, Grether, and Leach (2002), and Garbarino and Johnson et al. (1999). In other words, if the tourists are overall satisfied with the entire tourism region, their trust on the tourism region increases.

(5) Tourist trust has no significant positive influence on tourist commitment. This result is different from Morgan and Huant (1994), Wong and Sohal (2002), and Garbarino & Johnson et al. (1999). Trust does not always form commitment; this finding is worthy further discussion.

(6) Tourist satisfaction has a significantly positive influence on the tourist commitment. This result is consistent with Huang (1998), Wetzels, Ruyter, and Birgelen (1998), and Morgan and Hunt et al. (1994). In other words, if the tourists are more satisfied with the tourism region, their visit intention will increase.

(7) The path intensity of the influence of the physical environment on the experiential value has a significant difference between two groups. T test found that the influence of the physical environment on the experiential value in the low frequency group is the most significant. In other words, f the tourists in the low frequency group feels that the physical environment is better, and then their experiential value can be improved.

(8) The path intensity of the influence of regional image on experiential value has a significant difference between the two groups. T test found that the influence of the regional image on the experiential value on the high frequency group is the most significant. In other words, if the tourists in the high frequency group experience better regional image, their experiential value can be improved.

6.2 Managerial Implications

This study treated the tourists who have visited Nanzhuang Township, Miaoli County as subjects, and explored how the physical environment and the regional image of the tourism region influence the tourists' satisfaction, trust and commitment by experiential value. Besides establishing the model of the relationship between each dimension, this study also established the measurement variables having efficiency, and provided important research instruments and the relevant concepts for the academic and industrial fields.

The analysis on the model of the high frequency and low frequency groups was performed. From the perspective of the low frequency group, the physical environment is the key factor to positively influence satisfaction, which shows that the tourists pay the most attention to the physical environment. The local restaurants are suggested to exhibit the local features through the decoration and the design of the arrangements so that the local place can have competitive advantages, and the tourists can perceive values by the actual experience to promote their satisfaction.

As for the high frequency group, the regional image is the key factor to positively influence the experiential value. It is suggested to arrange multiple trips to increase the tourists revisit intention and make them experience different activities, featured products, and attentive services so as to present the best tourist attraction to create the good regional image.

6.3 Research Limitations and Suggestions

This study has reached specific results, but there are some limitations. First, in terms of questionnaire distribution, more tourists are from central and northern Taiwan, and fewer are from southern Taiwan; thus, there may be bias of the data analysis due to the sampling deviation. Future research can distribute the questionnaires according to the region ratio to increase the accuracy of the research results and to better understand the tourists' feelings and behavior. Second, Nanzhuang Township is a small village in the central part of Taiwan, thus, the results of this study may not be generalized for all cities. Future research is suggested to apply this model in various regions or cities so as to increase its generalization value.

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