

# THE EFFECT OF TOURISM ATTITUDES ON THE CHOICE OF SUSTAINABLE TOURISM DEVELOPMENT

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## **Introduction**

Since the report submitted to UNEP in 1987 officially used the term 'sustainable development,' several international organizations and many governments also have used this term, which is in turn widely used in such fields as environment, resource development, forestry, fishery, agriculture, and tourism business. It is basically used to specify the concept of resource development and saving under the long-term plan. In particular, the term 'sustainable development' has been introduced in Uruguay Round, Green Round, several environment ententes, and commercial treaties.

However, there have been few researches dealing with the issue of the attitude affecting tourist behaviors and crucial factors of the attitude in terms of sustainable tourism. Social scientists count three factors constituting human attitude, which are Cognition, affective, and behavioral factor (Kang, 1999). Also in the study of consumer behavior, researchers have tried to identify the relationship between attitude and behavior. But few studies discussed the nature of determinants of attitude and their relation to attitude

as well as structural relation in which an attitude is connected to a behavior through behavior intention.

In this respect a more basic approach to attitude affecting behavior is in need, and this study is going to discuss the following particular issues:

First, what is sustainable development, the new paradigm, which is in some sense contrasted with previous large-scale development and management?

Second, what is the structural relation between tourism attitude and behavior in terms of sustainable tourism?

Third, how does tourists' psychological behavior occur, which is correlated with tourism attitude, its determinants, a preferred direction for development, and selection behavior?

Fourth, what are pre-required for sustainable tourism that is mainly dependent upon the structural relationship among the factors mentioned above?

The goals of this study regarding the above issues are given as follows:

First, I will discuss the concept of the determinants suggested in the Fishbein Model with respect to sustainable tourism. Second, I will analyze the factors constituting each determinant, items to be evaluated, and evaluation techniques, and then will propose a theoretical framework with careful consideration of the concepts and with examination of the factors. Third, it will be examined how the structural relationship is established among the relation between tourism attitude and its determinants, the relation between tourism attitude and a preferred direction for development, and the selection behavior. Fourth, I will suggest a desirable direction for sustainable tourism development, after identifying how much the determinants of tourism attitude affect tourism attitude, a preferred direction for development, and selection behavior.

In this study I will use SPSS Win 8.0 to analyze the correlation among variables and factors, and, in addition, SAS is used. I will use LISREL(liner structural relations) 8.14 for structural relation among variables and for the estimation of the model. On the basis of previous studies I will measure the understanding of environment for a Cognition factor, participation for a

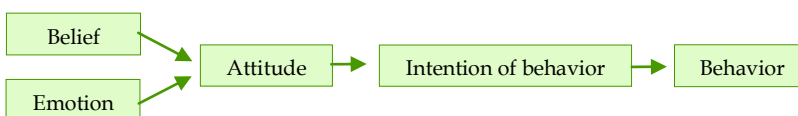
behavioral factor, and emotion to tourism for an affective factor.

## Theoretical Background

### Tourism Attitude and Evaluation of Tourism Attitude

Overall, social scientists and researchers of consumer behavior agree on the following definitions of attitude. First, attitude is defined as “what an individual feels positively-negatively, friendly-unfriendly, or approvingly-unapprovingly about a particular subject” (Freedman, Carlamith and Sears, 1977; Shin, 1993), or as a learned tendency of consistently responding favorably or unfavorably to a particular subject or group (Song, 1987; Kang, 1999). Second, under a socio-psychological view, it is defined as motivational, emotional, and Cognition process to one of many aspects of individual environment. In this process attitude has three factors, Cognition, affective, and behavioral one which are specified under the structural viewpoint (Crompton, 1979). Figure 1 illustrates this process. According to the structural characteristics of the relation between attitude and behavior, many theoretical models have been suggested as seen in Robertson, Zielinski and Ward’s (1984) Three-Factor Model, Richard, Kassarian, and Robertson’s (1981), Single-Factor Model, and Fishbein’s (1963) Multiple-Factor Model.

**Figure 1. Belief, emotion, attitude, intention of behavior, and behavior flow chart**



Source: J. F. Engel, R. D. Blackwell and P. W. Miniard, 1995: 364-5.

During last decade there have been many studies about correlational factors of tourism and attitudes of local residents as in Lindberg and Johnson (1997). Particularly, Godfrey (1998) studied on positive attitude to sustainable tourism in England and argued for the integration and concurrence of local tourism plans. He contended that we can predict behavior intention and behavior with identifying attitude. Defining the concept of attitude for the study of the relation among attitude, behavior intention, and behavior in accordance with determinants of attitude, attitude is a behavior tendency that people think, feel, behave, and state, considering the subject of their attitude. As Liu, Sheldon and Var (1987) pointed out, tourism attitude is evaluated with respect to local residents' positive or negative attitude to the change of their environment. This evaluation method for attitude has been paid attention as it contributes to predictability on marketing and consumer behavior. Specific evaluation methods include observation, qualitative survey, and self-report (Choi, 1996). Lankford (1994) also proposed that we should evaluate economical dependency on tourism, resident participation in the decision of tourism issues, one's birthplace, and the level of contact with tourists, in order to develop a scale of tourism impact attitude. Using NEP (New Environment Paradigm), Dunlap and Liere (1978, cited in Uysal, Jurowski and McDonald (1994) estimated residents' attitude to environment, and found that the over-use of nature by human beings, balance with nature, and growth limit would be factors for estimation. In that research, they use TIAS (Tourism Impact Attitude Scale) which is Likert scale's attitude estimation technique. So far, most relevant studies have focused on consumer attitude and tourism attitude, but not on the attitude toward sustainable tourism. For this reason, I will use TIAS, and evaluate the attitude toward sustainable tourism, a type of tourism, which is the way of keeping cultural remains safe.

## Composition and Evaluation of Determinants of Tourism Attitude

### Composition and evaluation of Recognition of Environment

Recognition of environment is a combination of the concept of environment (WTO, 1997) and the concept of recognition (Lee, 1994). It can be interpreted as what people understand both natural and socio-cultural environment and make a judgement on related issues. It is a value-oriented concept that people get to know, understand, and judge about what is wrong or right with all environmental issues related with their life. Several views on it have been suggested:

- (i) Human beings are predominant.
- (ii) Nature is predominant.
- (iii) Human beings are considered to be subsumed in nature (Won, 1990).

The issues of tourism and environment are treated under either an ecological view (the ethics of nature) or a technique-oriented view (the ethics of human) (Kim T-K, 1991; Im, 1993). They are also divided into ecological, esthetical, economical, and social aspects (Kim S-I, 1999), and according to Dunlap and Lieré's (1978) NEP, they are divided into harmony with nature, human dominance of nature, and limit of growth (Shin, 1999). Under an environmentalists' view, outcome, behavior, and recognition of environment have been researched. To level up the understanding of tourism, we need a recognition program (Stabler and Goodall, 1997). The relation between human and environment is represented by interaction between human beings' perceptual finding and environmental offerings (Piersklla and Lee, 1998), and factors and evaluation items for measuring environment recognition are suggested. Overall, the recognition of environment and its factors are measured in terms of protection, management, preservation, conservation, meaningfulness, symbolic meaning, harmony with nature, human dominance of nature, limit of growth, ecological importance, importance of technique, ecological aspect, economical aspect, esthetical

aspect, and sociological aspect. Following Shin (1999) and Dunlup and Liere (1978), I will take harmony with nature, human dominance of nature, and limit of growth in this study. I will use the term "balance" instead of harmony with nature, the term "human-centeredness" instead of human dominance of nature, and the term "environment-centeredness" instead of limit of growth.

### Composition and Evaluation of Participation

Mill and Morris (1986) claim that customer participation is a major factor in the service business, in which the service activities are regarded as what is produced and consumed at the same time. Emphasizing customer participation, they contend that it is necessary to develop a system for the effective allocation of cost and for the tourism convenience based on basic principles of sustainable tourism development. See Cheon and Lee (1999) for a similar suggestion. In this system we should design a pricing policy in regard to the internalization of environment cost as well as participation including a change in the consumption patterns (Chart for Sustainable Tourism, 1995). In Agenda 21 for Travelling and Tourism (1996), it is stated that the sustainable development of environment requires overall participation in all areas of society.

As a result, the correlation between behavior and attitude makes our attention more paid to behaviors for environment or attitudes to environment as a psychological implication about participation in decision-making (Heberlein, 1989; Ajzen and Driver, 1992). Im (1996) also argued that local residents directly take a part in tourism development. In a study on the characteristics of nature tourists with an approach of multinomial logit, Luzar, Christopher and Brenda (1998) analyzed some factors affecting the degree of participation in nature tourism in the state of Louisiana and concluded that the participation in nature tourism is represented by attitudes to environment and socio-economical variables. Considering previous studies, I found researchers tried to suggest various ways of participation in environment, which are taken to affect attitude, intention, and behavior.

## Composition and Evaluation of Tourism Emotion

In The Great Dictionary of the Korean Language (1991, 1994, 1996), **감동** 'emotion' is defined as a mental process in which one sees and feels an object and clearly judge whether the object is good or bad or if it is true or false, or it is a feeling, mood or thought about an object. Engel, Blackwell and Miniard (1995) defined emotion as an evaluative concept to emotional factors of attitudes, which also only means individual feelings or emotional response (an emotional factor of attitudes). Along with these definitions of emotion, we can state that tourism emotion is an individual feeling about tourism or his/her emotional response to tourism. Theobald (1998) counts three approaches to one's feeling about tourism, which are an economical, a technical, and a unified approach. D'Amore (1988), D'Amore and Jafari (1988), International Union of Tourist Organizations (1974, 1980), and William (1998) considered a positive aspect of the socio-cultural influence of tourism. On the other hand, Belisle and Hoy (1980) took the tourism emotion as a positive influence of tourism on society and the elimination of misunderstanding and prejudice observed between residents and tourists. Liu, Sheldon and Var (1987) estimated, as subordination variables, environmental effect, tourism and cultural change, in order to understand physical environment and self-desire. Regarding tourism emotion as what one feels and thinks about tourism, only emotion itself is taken to be a factor in the Single-Factor Model of attitudes. Therefore, positive or negative attitudes can be said to be the product of the tourism emotion.

And in order to measure such emotion, researchers measure happiness, interests, pleasure, joy, satisfaction, and love (Allen, Machleit and Kleine, 1992; Engel, Blackwell and Miniard, 1995). Mathieson and Wall (1983) divide emotional factors of tourism into seven elements, which are the characteristics of resources in a tourism region, basic resources, tourism facilities and services, political, economical and social structure, geographical condition and environment, a substructure, and accessibility. Theobald (1998) considers economy, environment, peace, and recognition as the main factors of emotion. In this study I will limit my focus to such factors of tourism emotion, and

account for those factors in terms of industry, effects, and emotion.

## **The Relation Between Determinants of Tourism Attitude and Selection Behavior for Sustainable Tourism Regions**

### The Notion of Sustainable Tourism

Bramwell (1991) stated that for sustainable tourism, the desires of current tourists should not infringe on future generation for their satisfaction. Jacobs (1990) says future generation should have a chance to use natural environment and get some benefit from it, as current generation does. World Commission on Environment and Development (1987) suggests a sort of strategic paradigm depending on controlled development that can satisfy tourists' desire. In Baker (1997), sustainable tourism means a form of tourism that can make it possible to preserve and maintain natural environment and cultural inheritance and hand over them to descendants without damaging them.

Sustainable tourism is a form of tourism that balances with the ecosystem on the basis of the beauty and characteristics of natural resources, according to Edwards and Bands (1990). Inskip (1991) regards sustainable tourism as a type of tourism that gives chances to future generation and at the same time meet current tourists' need on the tourism region. Witt and Moutinho (1994) thinks it as a tourism level or form that does not yield any environmental damage in the long run. Inskip (1990) sees it as the tourism balancing with the ecosystem in accordance with environmental receptive capacity. May (1991) considers it a type of tourism that eventually brings up active preservation of environment and sustainability of the ecosystem more than other alternative types of tourism.

Lee and Byon (1992) regards sustainable tourism as a type of tourism that assumes preservation and improvement of chances for the future, and, in turn, both tourists' and local residents' satisfaction. Lee and Byon suggest that all tourism resources are developed in such a way that maintaining the cultural uniqueness, the basic ecological process, biological varieties, and the



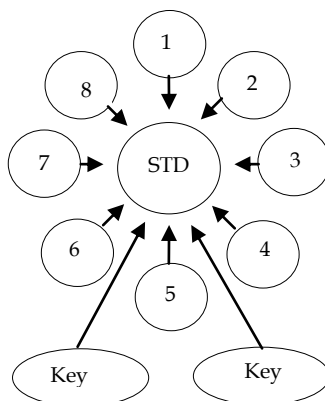
preservation system for environment, it satisfies economical, social, and esthetic desire, and, then, tourists will eventually enjoy the resources developed in that way. Chucky (1997) says that sustainable tourism is a form of tourism that makes a tour site a very attractive one which tourists want to visit again and at the same time which keeps harmonizing with environment.

To summarize, sustainable tourism is a type of tourism and management of it, in which a tourism region is preserved so well that future tourists can have chances to equally enjoy the region. It also refers to the capacity of a tourism object that is maintained with great competitiveness and can stand against a new tourism object. Now let me turn to some conditions for sustainable tourism.

#### Some Conditions for Sustainable Tourism

Tourism development must go on in harmony with environment, since comparing with other industries, tourism is highly dependent upon environmental quality and sensitive to it (Ritchie, Wawkins, and Ritchie, 1991). For sustainable development, there are some conditions as illustrated in Figure 2. We can approach sustainable tourism development through considering its structural factors.

**Figure 2. Condition Model of STD**



<The conditions on sustainable tourism development (STD)>

- Consider the attention to environment for each level of tourism plan and development.
- Maintain a cooperative relationship with groups of environment activists for preservation and recovery of qualitative environment.
- Keep balancing with environmental, economical, and social needs.
- Enforce a policy related to natural and cultural resources.
- Recognize tourism as a key factor in the master plan for the use and the development of the region.
- Do some unified research on the receptiveness of a tourism region, designing various research techniques.
- Develop and enforce a specific program to manage a tourism region.
- Develop a training program for environment preservation and enforce the program systematically.

Key: Do EIA to an old tourism development program.

Key: Develop an appropriate infrastructure in consideration for receptiveness.

### Structural Factors of Sustainable Tourism Development

The World Organization for Tourism defines sustainable tourism development in three terms. First, it must preserve environment and improve the quality of life of local residents, offering qualitative experiences to tourists. This is the “qualitative” aspect. Second, it should provide visitors with sustainability of culture which in turn creates sustainability of natural resources. This is the “sustainability” aspect. Third, it must meet the need from tourism businesses, local residents, and environmental organizations. Consequently, it contrasts with the traditional approaches to tourism in that it emphasizes “balance” through the cooperation among a tourism region, its residents, and tourists and through establishing their common goals, according to Chucky (1997), and in that it has to do with preservation of environment and culture, as in touring ecological sites, safari, trekking, and climbing tour, according to Inskip (1990). It is suggested that the tour regions which have already been developed and also those which are to be

developed must need the evaluation of environmental effects and the management of a tourism region on the basis of evaluation results. Thus, this study focuses on a tourism region which has a beautiful scenery, well-preserved and well-maintained cultural inheritance, or a well-protected ecosystem with well-preserved local culture.

### The Relationship Between Determinants of Tourism Attitude and Selection of Sustainable Tourism Region

Luzar (1998) finds with using NEP measurement that tourism attitude is a meaningful influential decision factor to participation in ecological tourism. Kang (1999) proposes that attitude affects behavior intention, being an element that represents varieties of intended behaviors and measured actual behaviors. Schlegelmilch and Bohen (1996) define environmental consciousness as a multiple structure composed of behavior component, attitude, and recognition component.

Burton (1997) says that the active participation in ecological tourism reflects the degree of the participation in environmental activities. Steven and Kim (1991) reports the difference in communication among tourism organizations in an ideological aspect and in a recognition aspect. Weiler and Witt (1997) view that tourism and cultural inheritance must be balanced. Ajzen (1991) states that perceived behaviors can be controlled by intention and decision on behavior, and Engel, Blackwell, and Miniard (1995) argue that intention is a criterion enough to predict a behavior. As Park (1995) takes the Multi-Factor Model as a research model, in which service quality, satisfaction, attitude, and repurchase intention are interrelated, according to Yokoyama (1992), the characteristics of a tourism region is equivalent to what tourists see, feel, and experience in the region as well as the physical, social, and behavioral characteristics with regard to tourism. Thus, choosing a tourism region, tourists get to compare and estimate the characteristics of tourism regions and select a preferred region and tourism behaviors. The change of determinants of tourism attitude is led to the change of behaviors.

Crompton (1979) found that after conceptualizing and analyzing the role

of attitude in the course of the selection of a tourism region, attitudes influence the selection of a potential target region as part of evoked set as well as the final selection of a target region.

To wrap up, there have been many studies on the relationship among determinants of tourism attitude, attitudes, a preferred direction for development, and selection behavior. In terms of tourism psychology, tourism attitude, which is the internal element of tourists, very much influences both a direction for the development of sustainable tourism region and a behavior (the stage of tourists' final decision). Through studying selected correlations, I will show what necessary factors for realization of sustainable tourism are. With the analysis of a direction for the development of sustainable tourism regions, I will discuss the internal psychology of tourists who visit sustainable tourism regions, in terms of tourism psychology. For a macroscopic view, I will identify attitude factors which are taken to be a sort of a black box in terms of tourism psychology. This identification will enable us to find out what factors eventually affect the change of tourism attitudes and tourists' belief. For a microscopic view, this study will show the attraction strategy for putting tourists to sustainable tourism regions, the division of a sustainable region in parts, marketing mix, decision on market targets, targeting, and positioning. Thus, the analysis of the structural relationship between attitude and selection behavior in this study will contribute to the development of a policy or a program for the development of sustainable tourism regions and a proper inflow of tourists.

## **Research Design and Method**

### **Design of Research Model**

As factors of the recognition of environment among determinants of tourism attitude, Shin (1999) counts harmony with nature (balance), human dominance of nature (human-centeredness), and growth limit (environment-centeredness), on the basis of the research result by Dunlap and Liere's (1978)

NEP scale. Taking environment and tourism in consideration for factors of participation, I choose the implementation of a public hearing as the systematic aspect as in Kim S-I (1999), and choose the contact aspect and the product aspect on the basis of the result given by Lankford and Howard (194), Allen and Gibson (1987) and Luzar (1998), as Kang (1999) does. The industry aspect and the effect aspect is selected for factors of tourism emotion with reference to Liu, Sheldon and Var (1998). For the emotion aspect I take the scale of estimated emotion that Allen (1992) and Engel, Blackwell and Miniard (1995) suggest. And as for factors of tourism attitude I choose socio-cultural factors, referring to economical, social, environmental factors given by Akis, Perristianis and Warner (1996). I also adopt the institutional factor from Kim S-I's (1999) indicator of sustainable development. For the preferred direction for development, I take as a subordinating measure item types of sustainable tourism regions regarding nature and cultural environment among Inskeep's (1991) types of tourism regions.

### **Research Hypotheses**

The research hypotheses in this study are selected on the basis of the research model, in order to analyze the influential relationship among determinants of tourism attitude such as environment recognition, participation, tourism emotion, tourism attitude, a preferred direction for development, and selection behavior. The hypotheses are given as the followings:

Hypothesis 1: Environment recognition, participation, and tourism emotion will give the positive influence to sustainable tourism attitude.

Hypothesis 2: Sustainable tourism attitude will give the positive influence to a preferred direction of development.

Hypothesis 3: A preferred direction of development will give the positive influence to selection behavior.

## **Hypothesis Testing and Analysis of the Results**

### **Verification of Reliability on Environment Recognition, Participation, and Tourism Attitude**

The cumulative variance is 58.01% in environment recognition, as illustrated in Table 1. The factor loading of all factors is over 0.64, and the coefficient of correlation of an individual item and of all items are both over 0.62. The Cronbach's  $\alpha$  is in-between 0.7221~0.7664. The cumulative variance is 56.72% in measurement of participation. The coefficient of correlation of an individual item and of all items are both over 0.60. The Cronbach's  $\alpha$  of all factors is over 0.7373. The cumulative variance is 65.0% in tourism feeling. Besides the needs of conservation and income increase, the factor loading of other factors is over 0.65. The coefficient of correlation of an individual item and of all items are both over 0.66. The Cronbach's  $\alpha$  of each factor is over 0.7490.

### **Reliability test of Endogenous variable**

In Table 2, the factor loading of life contribution factor in tourism attitude is 0.44, but the correlation of all items is low. After getting rid of this factor, the cumulative variance is 65.02%. The factor loading of an individual item is over 0.65. The coefficient of correlation of an individual item and of all items are over 0.64 with the exceptions of guide observance, norm observance, expense validity. The Cronbach's  $\alpha$  of an individual item is over 0.65. The cumulative variance is 62.0% in the preferred development direction of tourism destination. The factor loading of an individual item is over 0.70, somewhat higher. The coefficient of correlation of an individual item and of all items are both over 0.51 besides explanation guide.

**Table 1. Estimated Reliabilities and Factor analysis of environment recognition and participation**

Variable	Item	Dimension			Item-Total Correlation	Cronbach's $\alpha$
		Abusing Environment	Balance of Environment	Human over Nature		
Environment Cognition	growth restraint	78 *			0.6851	0.7664
	resources control	76 *			0.7134	
	danger of destruction	75 *			0.7169	
	limit come to	68 *			0.7276	
	dependence to result		78 *		0.6716	0.7302
	carefully in dealing		76 *		0.7244	
	growth harmony		68 *		0.6774	
	carefully in choice behavior		65 *		0.6791	
	dominate by mankind			80 *	0.6192	0.7221
	mankind orientated			76 *	0.6618	
possibility of recovery			69 *	0.6517		
leading to change			64 *	0.7062		
Eigenvalues	3.7581	1.7878	1.4154			
Proportion(%)	31.32	14.90	11.80			
Cumulative(%)	31.32	46.22	58.01			
Participation	Item	System/Product	Contact		Item-Total Correlation	Cronbach's $\alpha$
	public opinion	77 *			0.6721	0.7373
	law's strict	74 *			0.6654	
	use of outgo	69 *			0.6864	
	preference of visiting	66 *			0.7111	
	take expert advice	53 *			0.7207	
	conservation participant		85 *		0.7141	0.7600
	donate to fund raising		82 *		0.6087	
	conservation feasibility		72 *		0.7080	
	Eigenvalues	3.2274	1.3103			
Proportion(%)	40.34	16.38				
Cumulative(%)	40.34	56.72				
Tourism Motion	Item	Viewpoint of Industry	Viewpoint of Emotion	Viewpoint of Effect	Item-Total Correlation	Cronbach's $\alpha$
	economic effect	84 *			0.7956	0.8426
	inviting employment	84 *			0.8048	
	development effect	82 *			0.7550	
	increase of income	54 *			0.8415	
	interest in activity		79 *		0.6935	0.7490
	pursuit to happiness		73 *		0.6659	
	pride of participating		72 *		0.6889	
	pursuit to satisfaction		65 *		0.7148	
	understanding to environment			83 *	0.7286	0.7901
wealth by development			71 *	0.7447		
necessity to conservation			56 *	0.7305		
opportunity to co-operation			47 *	0.7493		
Eigenvalues	5.1220	1.6856	0.9920			
Proportion(%)	42.68	14.05	08.27			
Cumulative(%)	42.68	56.73	65.00			

Besides natural tourism destination, the factor loading is over 0.54 in development direction. The Cronbach's  $\alpha$  of an individual item is over 0.7371. The cumulative variance is 86.17% in selective behavior. The factor loading of an individual factor is over 0.88. The coefficient of correlation of an individual item and of all items are both are over 0.92, a rather high correlation. The Cronbach's  $\alpha$  is 0.9458.

### **Appraisal of proposed model**

The keys to find out an identified model are unknown parameter derived from the model and a number of data to solve an equation. The numbers of unknown parameters to figure out are 8 matrix coefficient ( $\lambda_x, \lambda_y, \gamma, \beta, \phi, \psi, \delta, \epsilon$ ). A number of given data is equal to a number of an equation based on observed variables. In that case a parameter has an indigenous value as the result of a number of given data  $>$  a number of an parameter, this type of model is called an overidentified model. As an overidentified model can explain various data with a small number of parameter, it is the model with rationality and frugality of scientific goal space (Yang, 1998). As a number of data for the model of this study is 264 which is four times as much as unknown parameters, the model of this study is an overidentified model.

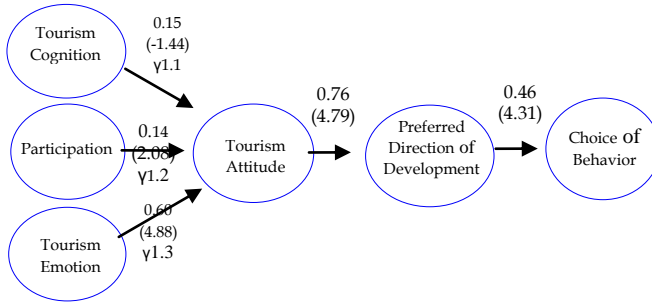
The assessment of fit in the model is the degree of freedom 1.167, and  $\chi^2$  759.08 ( $p = 1.00$ ) which means fit. Because the assessment of fit in the proposed model is good fit, the other fit index don't be needed. In addition, because the modified index derived from unknown parameter is under 6, presentation of free parameter isn't be needed and goodness of fit is sufficient. As  $\chi^2$  in this model is 759.08,  $p=1>0.05$ , it is a proper model accepting null hypothesis. The degree of freedom in this model is 1.167 which means high degree of parsimony.



**Table 2. Factor analysis and Estimated Reliabilities of endogenous variable**

Variable	Item	Dimension				Item-Total Correlation	Cronbach' s $\alpha$
		Viewpoint of Society-Environment		Viewpoint of System			
		Raw Data	Adjusted Data	Raw Data	Adjusted data		
Tourism Attitude	participation of culture	86 *	87 *			0.7085	0.8480
	learning of culture	79 *	80 *			0.6745	
	survey travel of participation	74 *	76 *			0.6465	
	participation of education	73 *	75 *			0.7138	
	contribution of life	44 *	reject			0.3411	
	keeping to guide			78 *	76 *	0.3629	0.6500
	keeping to norm			76 *	74 *	0.4978	
	feasibility of expenditure			65 *	71 *	0.5270	
	Eigenvalues	3.6861	3.5375	1.01	1.0139		
	Proportion(%)	46.08	50.54	48	14.48		
Cumulative(%)	46.08	50.54	12.6	65.02			
			8				
			58.7				
			6				
Preferred Direction of Development	Item	Development Direction		Preference		Item-Total Correlation	Cronbach' s $\alpha$
	explanation & guide	80 *				0.4972	0.7582
	conservation of culture	72 *				0.5564	
	protection of environment	71 *				0.6082	
	disposition of human power	70 *				0.5069	
	preference of nature tourism site			85 *		0.4806	0.7371
	preference of culture tourism site			81 *		0.5303	
	preference of sustainable tourism site			66 *		0.5775	
Eigenvalues	3.2265		1.1140				
Proportion(%)	0.4609		0.1591				
Cumulative(%)	0.4609		0.6201				
Choice of Behavior	Item	Choice of Behavior				Item-Total Correlation	Cronbach' s $\alpha$
	revisit	95 *				0.9310	0.9458
	revisit by accompany	95 *				0.9159	
	recommendation	92 *				0.9188	
	revisit of equity	88 *				0.9493	
Eigenvalues	3.4470						
Proportion(%)	0.8617						
Cumulative(%)	0.8617						

**Figure 3. The proposed model for this study**

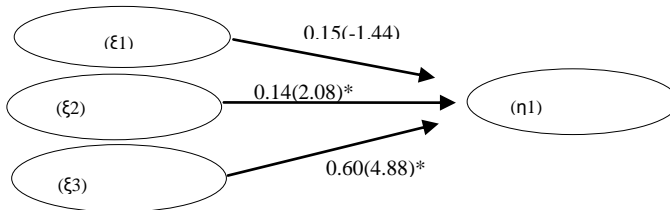


※ ( ) : t values

**Hypothesis Test and Result Interpretation**

As the result of testifying hypothesis 1, the null hypothesis is not accepted in environment recognition. Therefore,  $\gamma 1.1$  0.15 (t value -1.44) in lower than 95% significant level (environment recognition) gives the positive influence to sustainable attitude. In participation, the null hypothesis is accepted. Therefore,  $\gamma 1.2$  0.14 (t value 2.08) in higher than 95% significant level (participation) gives the positive influence to sustainable attitude. In tourism emotion, the null hypothesis is accepted. Therefore,  $\gamma 1.3$  0.60 (t value 4.88) in higher than 95% significant level (tourism emotion) gives the positive influence to sustainable attitude.

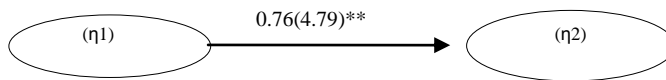
**Figure 4. Hypothesis 1 test model**



numbers: path coefficient, numbers of ( ): t values, \*\* :  $p < 0.01$

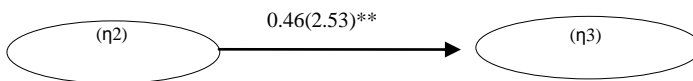
As the result of testifying hypothesis 2, the null hypothesis is accepted because  $\beta_{2.1} 0.76$  (t value 4.79) in higher than 99% significant level (sustainable tourism attitude) gives the positives influence to a preferred direction of development.

**Figure 5. Hypothesis 2 test model**



As the result of testifying hypothesis 3, the null hypothesis is accepted because  $\beta_{3.2} 0.46$  (t value 4.31) in higher than 99% significant level (a preferred direction of development) gives the positive influence to a choice behavior.

**Figure 6. Hypothesis 3 test model**



## Result Interpretation

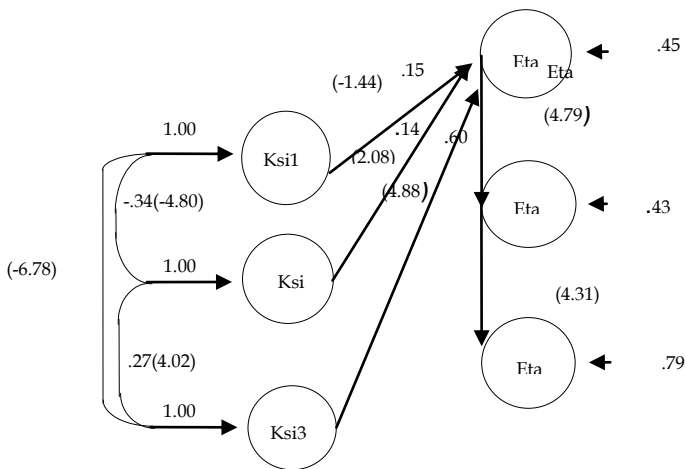
Endogenous variable and cause variable in the model

In environment recognition variable (cause variable), parameter estimated value is between -0.64 and 0.35, and significant influence in higher than 99% significant level is presented. parameter estimated value in many variables gives negative (-) value which means negative influence relation.

In tourism attitude variable (endogenous), parameter estimated value is

between 0.48 and 0.75, and significant influence in higher than 99% significant level is presented.

**Figure 7. basic structure of the proposed model in Tourism attitude determinant factors, ( ) : t value**



Especially, exploration participation is presented highly in parameter estimated values 0.75(t value 6.81). Preferred direction of development in 99% significant level presents significant influence in parameter estimated values 0.50 - 0.66. Selection behavior in 99% significant level presents significant influence in parameter estimated values 0.83 - 0.98.

Result of parameter estimated in the model(path coefficient)

As the result of analyzing path coefficient, path coefficient between participation and tourism attitude, and between tourism emotion and attitude presents significant influence in parameter estimated values 0.14 - 0.60 ( $p < 0.01$ ) besides the relation between environment recognition and tourism

attitude. Path coefficient in the structural relation among endogenous variables is given significantly in parameter estimated values 0.46 and 0.76 ( $p < 0.01$ ).

**Table 3. Result of parameters presumption in the model (endogenous and cause variable)**

Variable	Cause Measure Variable	Parameter Estimate Value	Std. Errors	t Values	Rank	Variable	Effect Measurement Variable	Parameter Estimate Value`	Std. Errors	t Values	Rank	
Environment Cognition	$\lambda\chi_1$	0.33	0.10	3.18**	11	Tourism attitude	$\lambda y_1$	0.48	0.10	4.63**	7	
	$\lambda\chi_2$	0.31	0.11	2.95**	12		$\lambda y_2$	0.65	0.11	6.05**	3	
	$\lambda\chi_3$	0.32	0.10	3.08**	10		$\lambda y_3$	0.70	0.11	6.44**	2	
	$\lambda\chi_4$	0.35	0.10	3.37**	9		$\lambda y_4$	0.64	0.11	5.93**	4	
	$\lambda\chi_5$	-0.36	0.10	-3.48**	8		$\lambda y_5$	0.75	0.11	6.81**	1	
	$\lambda\chi_6$	-0.45	0.10	-4.29**	7		$\lambda y_6$	0.54	0.11	5.14**	6	
	$\lambda\chi_7$	-0.62	0.10	-6.10**	3		$\lambda y_7$	0.62	0.11	5.82**	5	
	$\lambda\chi_8$	-0.62	0.10	-6.08**	3	preferred Direction of Development	$\lambda y_8$	0.50	0.11	4.40**	7	
	$\lambda\chi_9$	-0.51	0.10	-4.96**	6		$\lambda y_9$	0.59	0.12	4.97**	4	
	$\lambda\chi_{10}$	-0.65	0.10	-6.38**	1		$\lambda y_{10}$	0.66	0.12	5.41**	1	
	$\lambda\chi_{11}$	-0.64	0.10	-6.35**	2		$\lambda y_{11}$	0.66	0.12	5.45**	1	
	$\lambda\chi_{12}$	-0.58	0.10	-5.67**	5		$\lambda y_{12}$	0.64	0.12	5.29**	3	
Participation	$\lambda\chi_{13}$	0.21	0.09	2.45*	5	Development	$\lambda y_{13}$	0.57	0.12	4.91**	5	
	$\lambda\chi_{14}$	0.21	0.09	2.45*	5		$\lambda y_{14}$	0.56	0.12	4.80**	6	
	$\lambda\chi_{15}$	0.21	0.09	2.45*	5		Choice of Behavior	$\lambda y_{15}$	0.88	0.10	9.10**	3
	$\lambda\chi_{16}$	0.21	0.09	2.45*	5			$\lambda y_{16}$	0.98	0.10	10.01**	1
	$\lambda\chi_{17}$	1.41	0.06	22.93**	1	$\lambda y_{17}$		0.94	0.10	9.62**	2	
	$\lambda\chi_{18}$	0.42	0.09	4.98**	2	$\lambda y_{18}$		0.83	0.10	8.50**	4	
	$\lambda\chi_{19}$	0.28	0.09	3.28**	3	*: $p < 0.05$ , **: $p < 0.01$						
	$\lambda\chi_{20}$	0.28	0.09	3.28**	3							
Tourism Emotion	$\lambda\chi_{21}$	0.56	0.10	5.90**	10							
	$\lambda\chi_{22}$	0.52	0.10	5.45**	12							
	$\lambda\chi_{23}$	0.63	0.09	6.66**	4							
	$\lambda\chi_{24}$	0.67	0.09	7.19**	2							
	$\lambda\chi_{25}$	0.66	0.09	7.01**	3							
	$\lambda\chi_{26}$	0.60	0.09	6.32**	6							
	$\lambda\chi_{27}$	0.57	0.10	6.00**	8							
	$\lambda\chi_{28}$	0.62	0.09	6.64**	5							
	$\lambda\chi_{29}$	0.71	0.09	7.65**	1							
	$\lambda\chi_{30}$	0.55	0.10	5.82**	11							
	$\lambda\chi_{31}$	0.60	0.09	6.32**	6							
	$\lambda\chi_{32}$	0.57	0.09	6.00**	8							

**Table 4. result of parameter estimated values in the model (path coefficient)**

Structural Variable	Parameter Estimate Value	Std. Errors	t Values
$\gamma_{1.1}$ (Environment Cognition → Tourism Attitude)	0.15	0.10	-1.44
$\gamma_{1.2}$ (Participation → Tourism Attitude)	0.14	0.07	2.08*
$\gamma_{1.3}$ (Tourism Emotion → Tourism Attitude)	0.60	0.12	4.88**
$\beta_{2.1}$ (Tourism attitude → Preferred Direction of Development)	0.76	0.16	4.79**
$\beta_{3.2}$ (Preferred Direction of development → Choice of Behavior)	0.46	0.11	4.31**

\* :  $p < 0.05$ , \*\* :  $p < 0.01$

Result of error presumption in the model (endogenous and exogenous variable)

As the result of error presumption, environment recognition variable is given significantly in parameter estimated values between 1.58 and 1.90 ( $p < 0.01$ ), participation variable is given significantly in parameter estimated values between 1.92 and 1.96 ( $p < 0.01$ ), and tourism emotion variable is given significantly in parameter estimated values between 1.50 - 1.73 ( $p < 0.01$ ).

As the result of error presumption in endogenous variables, tourism attitude variable is given significantly in parameter estimated values between 1.51 and 1.77 ( $p < 0.01$ ), preferred direction of development variable is given significantly in parameter estimated values between 1.57 and 1.75 ( $p < 0.01$ ), and selection behavior variable is given significantly in parameter estimated values between 1.05 and 1.32 ( $p < 0.01$ ).

**Table 5. Result of Error Presumption in the Model (Cause and Effect Variables)**

Variable	Cause Measure Variable	Parameter Estimate Value	Std. Errors	t Values	Rank	Variable	Effect Measure Variable	Parameter Estimate Value	Std. Errors	t Values	Rank
Environment Cognition	δ1	1.89	0.17	11.16**	3	Tourism Attitude	ε1	1.77	0.16	10.99**	1
	δ2	1.90	0.17	11.18**	1		ε2	1.57	0.15	10.48**	4
	δ3	1.90	0.17	11.18**	1		ε3	1.51	0.15	10.27**	5
	δ4	1.88	0.17	11.12**	4		ε4	1.60	0.15	10.54**	6
	δ5	1.87	0.17	11.09**	5		ε5	1.44	0.14	10.02**	7
	δ6	1.80	0.17	10.87**	6		ε6	1.71	0.16	10.84**	2
	δ7	1.62	0.16	10.19**	9		ε7	1.61	0.15	10.59**	3
	δ8	1.62	0.16	10.20**	9	Preferred Direction of Development	ε15	1.22	0.14	8.94**	2
	δ9	1.74	0.16	10.67**	7		ε16	1.05	0.13	7.85**	4
	δ10	1.58	0.16	10.05**	12		ε17	1.13	0.13	8.37**	3
	δ11	1.59	0.16	10.07**	11	Choice of Behavior	ε18	1.32	0.14	9.44**	1
	δ12	1.67	0.16	10.39**	8		ε8	1.75	0.16	10.79**	1
Participation	δ13	1.95	0.17	11.47**	1		ε9	1.66	0.16	10.48**	4
	δ14	1.96	0.17	11.47**	2		ε10	1.57	0.15	10.15**	6
	δ15	1.96	0.17	11.47**	2		ε11	1.56	0.15	10.12**	7
	δ16	1.96	0.17	11.47**	2		ε12	1.59	0.16	10.25**	5
	δ17	-	-	-	-		ε13	1.67	0.16	10.52**	3
	δ18	1.82	0.16	11.47**	7	ε14	1.69	0.16	10.59**	2	
	δ19	1.92	0.17	11.47**	5	** : p<0.01					
δ20	1.92	0.17	11.47**	5							
Tourism Emotion	δ21	1.68	0.16	10.84**	3						
	δ22	1.73	0.16	10.94**	1						
	δ23	1.61	0.15	10.65**	8						
	δ24	1.55	0.15	10.49**	11						
	δ25	1.57	0.15	10.54**	10						
	δ26	1.64	0.15	10.74**	6						
	δ27	1.68	0.15	10.82**	3						
	δ28	1.61	0.15	10.65**	8						
	δ29	1.50	0.14	10.34**	12						
	δ30	1.69	0.16	10.86**	2						
	δ31	1.64	0.15	10.74**	6						
	δ32	1.68	0.15	10.82**	3						

## Conclusion

This study makes the following implications.

First, this study proved the validity of the correlations in Fishbein's research model of attitude. This means those tourists' attitude operate as behavior intention, which in turn transfers to behavior. When we develop a sustainable tourism region, we have to consider this relation in the development of a training program and the application time of education, public relations, and guidance programs.

Second, we confirmed the degree of the correlation between the determinants of tourism attitude and the tourism attitude in our proof analysis. Participation which is composed of institutions, products, and contact is found to affect tourism attitudes directly. Management and development of tourism regions need the establishment of policies, theories, directions, and rules from the persons concerned with tourism policies or administration, the developers of tourism regions, environmental activists, local residents, and tourists.

Third, it was proved that tourism emotion, one of the determinants of tourism attitude, is highly correlated with tourism attitude. Tourism emotion has three aspects, the industry, the effect, and the emotion aspect, among which the industry aspect has most influence on sochi-environmental tourism attitude. The result shows that in order to create sustainable tourism attitude, we need to try hard to establish an economical and developmental plan that helps to improve local economy.

Fourth, the emotion aspect and the effect aspect in tourism attitude are correlational with institutional tourism attitude. In other words, in order to make sustainable tourism possible, we need to publicize the necessity of environment preservation with establishing the center for environment education and having people participate in various programs for cooperation.

Fifth, they have to offer some brochures or pamphlets including detailed information in tourism regions. For this, we have to introduce a management program that makes regulations and directions well observed through the understanding of environmental issues: Do not force them to follow



regulations and directions passively.

Sixth, socio-cultural tourism attitude is highly correlational with a preferred direction for development and selection behavior. Tourism attitude toward participation in cultural events, study, exploration, and participation in education has an influential relation with preference, a direction for development, and selection behavior. Thus, although it goes without saying that preservation of culture and environment is a must, we need to provide tourism regions focusing on nature, culture, and/or ecosystem, to offer detailed explanations on them, and to dispose guides who can introduce the characteristics of the regions.

Seventh, institutional tourism attitude is highly correlational with a preferred direction for development and selection behavior. This fact demonstrates that we need to provide regulations and directions appropriate for tourism regions focusing on nature, culture, and ecosystem, and that we have to design an operational system for the use of income from tourism business for sustainable tourism. And tourism emotion is highly influential to sustainable tourism attitudes.

But this study is not without shortcomings. First, this study has some problems with the analysis of the determinants of tourism attitude with the Three-Factor Model for attitude and Fishbein's model for the relationship among attitude, intention, and behavior. Second, I found we have to be cautious in the selection of terms on the application of NEP to measure environment recognition. Third, it was also hard to make the respondents understand the selected terms.

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