

Characteristics of Participation in Eco-tourism by Lifestyle: Focused on the Case of University Students in Korea*

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Abstract : The purpose of this study is to investigate differences per lifestyle type according to characteristics of participation in eco-tourism by classifying lifestyle types of university student consumers. Also, the influences exerted on characteristics of participation in eco-tourism by the variables of demographical characteristics, lifestyle types and characteristics of eco-tourism were analyzed. The results indicated by the research can be summarized as follows. First, significant differences were found in terms of sociability inclination factors and leisure inclination factors. In other words, the group of people who had participated in eco-tourism were more of sociability-inclined and leisure-inclined lifestyle types than the group of people who had not participated in eco-tourism. Second, logistic analysis on the types of influences exerted on participation in eco-tourism by demographical characteristics, characteristics of eco-tourism and lifestyle types, it was found that significant influences were exerted by such variables of propensity of learning in eco-tourism, leisure inclination factors and school year. Third, regression analysis on the types of influences exerted on intention to participate in eco-tourism by demographical characteristics, characteristics of eco-tourism and lifestyle types, propensity of awareness on eco-tourism, tendency of preferring eco-tourism, sociability inclination factors and progress inclination factors were selected as significant variables.

Keywords : eco-tourism, lifestyle types, sociability inclination factors , leisure inclination factors, learning in eco-tourism, participate in eco-tourism

1. Introduction

Today, consumption activities of consumers are changing into the paradigm, which requires to

consider pleasantness and sustainability at the same time as efficiency and economic factors. This change is targeted to achieve improvement in the quality of life and sustainable society. Quality of

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environment is closely connected to these targets. In the same perspectives, purpose of travel by consumers is changing from experiencing fun in the well-developed tourist facilities to observing and experiencing nature by returning to it in the tourist market to sell intangible services. This trend is the result of changes in social values desiring to escape from the conventional form of crowded and uniformed tourism, therefore to experience natural environment as it is, to enjoy the opportunity of mental recharging and to obtain educational experiences of greater significance.

Tourism of the 21st century requires multifaceted policies and new paradigm in order to satisfy environmental desires of human, to create leisurely and pleasant life and to achieve environmentally friendly or sustainable tourism. Many countries and regions throughout the world have already achieved rapid growth in eco-tourism to promote economic benefits of the region at the same time as giving consideration to natural environments. Dimanche and Smith (1996) reported that 5~10% of the world's tourism market is being occupied by eco-tourism. The market scale of eco-tourism is being estimated to be of US\$ 2 ~ 10 billion per annum and is increasing at the rate of 12.51%, which is approximately 2 ~ 3 times higher than conventional tourism (Joh & Kim, 2007; recited). According to World Resources Institute, eco-tourism is recording the growth rate of approximately 10 ~ 30% per annum, while the conventional tourism industry is displaying the annual average growth rate of approximately 4% (Reingold, 1993; Seoul Development Institute, recited, 2004). Therefore, the reality is that the importance of eco-tourism can no longer be overlooked.

Korea achieved significant economic growth after rapid industrialization. However, in terms of tourism development, too much focus was being placed in quantitative development centering on supplies without consideration given to the environment. As a result, the traditional tourist sites became congested and exposed to environmental problems. Such destruction of natural environment and ecosystem in tourist sites promotes consumers' awareness on preciousness of nature and importance of nature preservation, therefore is evoking their strong desire of returning back to the nature. Eco-tourism is practical and active travel activities to achieve improvement in the quality of life and promotion of sustainable society. As such, development of eco-tourism and sustainable consumption in tourism market are mutually linked with each other, therefore will produce positive effect of reducing damages to the environment.

Studying status of demand by domestic consumers on eco-tourism, 1 out of 10 Korean people visited migratory bird sanctuary, wet land and tidal flat, etc. (Korea Tourism Research Institute, 2001) during the course of 1 year in 1999. Also, approximately 3 million people had the experience of visiting tidal flats along the West Coast at least once a year (Ministry of Maritime Affairs and Fisheries, 2001). As such, interest and preference on eco-tourism are gradually increasing within Korea.

Accurate market research is necessary in order to activate domestic eco-tourism. For this, it is essential to identify characteristics of potential consumers who wish to experience eco-tourism in the future with positive attitude towards eco-tourism and consumers who have already experienced eco-tourism. In particular,

understanding lifestyle of consumers for eco-tourism enables marketing activities targeted to the selected consumer groups that prefer eco-tourism in the overall tourism market. In other words, it becomes possible to attract a greater number of consumers for eco-tourism by administering appropriate marketing strategies through market segmentation. As such, lifestyle of tourism-related consumers serves as an important basis of market segmentation.

In the past, the academic circle has continuously been administering studies on eco-tourism. However, there is still insufficiency in understanding on characteristics of lifestyle of consumers for eco-tourism. Papers produced on eco-tourism consumers of Korea are targeted on motivations and attitude of participating in eco-tourism (Park & Yang, 2006; Kang et. al, 2003; Joh & Kim, 2007) and awareness on eco-tourism (Lee, 2006; Heo et. al, 2006). Therefore, sufficient information on consumers of eco-tourism is not being provided. Therefore, this study aims to identify characteristics of consumers and potential consumers of eco-tourism and to further segment eco-tourism market on the basis of the findings, therefore to activate eco-tourism. In particular, by more accurately identifying lifestyle types of consumers for eco-tourism, it is possible to establish new marketing strategies and supplement the existing studies performed on consumers of eco-tourism.

For this, this study intends to identify lifestyle types of university student consumers with possibly higher frequency of participation in tour activities, to analyze differences in lifestyle of those participating in and not participating in eco-tourism and to examine differences in life style according

to degree of intention to participate in eco-tourism, therefore to discuss the kind of impacts to be exerted by characteristic variables of lifestyle, characteristic variables of eco-tourism and demographical characteristic variables on participation in eco-tourism.

2. Theoretical Study

1) Lifestyle

Alder, the psychoanalyst (1969), defined the concept of lifestyle as uniqueness, unity and consistency of an individual with which behaviors of the individual can be predicted. Also, Engel, Blackwell and Miniard (1995) defined lifestyle as the pattern of how people live and consume time and money, that it is obtained by the influence of individual culture, social class, reference group and families and as the expression of individual values and personalities. Lifestyle, which the unique living pattern displayed by the constituting members of society and the characteristic that distinguishes one person from another, reflects values, motifs, emotions, personalities, families, reference groups, social classes and cultures, etc. of individuals. Consumer lifestyle exerts impact on individual desires and consumption behaviors. Different lifestyles of consumers resultantly lead to different decisions for purchase.

The methods of analyzing types of lifestyle are largely divided into macroscopic and microscopic methods. The macroscopic method of analysis places importance on understanding lifestyle of overall society and local communities, therefore to analyze social trend and to study forecast on social

trend, etc.

The main objective of microscopic analysis is to achieve market segmentation through understanding lifestyles of individuals (Chae, 1992). In general, it is applied with studies carried out on marketing or consumer behaviors (Park, 1996). Representative studies carried out by using microscopic analysis method include AIO and LOV analysis, etc. In detail, AIO (activity, interest and opinion) analysis method administers analysis on 3 perspectives, such as everyday activities, interest in surrounding objects and opinions on individual and social issues. It discusses how individuals spend their time, what are the elements of special consideration in surrounding environment and what are their thoughts on themselves and the surrounding world (Lee et. al, 2003). LOV (list of values) analysis method measures sense of accomplishment, being well-respected by others, fun and enjoyment in life, excitement, security, self-fulfillment, sense of belonging and warm relationship with others. It is widely used as a method to analyze individual values (Joung & Kim, 2002).

Lifestyle is the variable that explains consumption and purchasing patterns of consumers, which cannot be explained with demographical variables. Therefore, it is frequently used in forecasting purchasing behaviors of consumers on specific products. Wells (1971) categorized tourism consumers according to lifestyle types such as static travellers, overseas travellers, historic travellers, recreational travelers and post payment travellers, therefore proposed the usefulness of study on lifestyle in understanding tourist behaviors.

2) Eco-tourism

Eco-tourism is a type of alternative tourism to provide high-quality tourism experiences and to minimize negative impact, such as social, economic and environmental problems caused by mass tourism. It has been used in mixture with such terminologies as nature tourism, environment tourism, green tourism and sustainable tourism.

Concept of eco-tourism, which is being differently defined by scholars, is established on the premise of the concept of nature-based tourism and pure experiences of culture and environment that are significant in participatory and experimental values (Seoul Development Institute, 2004). In the paper 'Future of Eco-tourism', Ceballis-Lascurai (1988) defined eco-tourism as 'trip to undamaged nature in order to study, appreciate and enjoy cultural properties, sceneries and wildlife'. In 1990, ASTA (American Society of Travel Agent) officially used the term of 'eco-tourism' and defined it as the 'type of travel aimed to protect nature and culture of the local area and to make contribution towards local economy with facilities and environmental education provided in order to enable travelers to understand and appreciate nature without causing negative impact on ecosystem or local culture'. Looking at the definitions made in researches of Korea, Korea Tourism Organization (1996) defines it as 'a type of nature tourism to appreciate and enjoy endangered flora and fauna while protecting and preserving them'.

The concept of eco-tourism encompasses not only ecological nature tourism, but also economic, cultural, historical and educational aspects of the local area (Kim, 2002). By minimizing impact exerted on natural environment of tourist sites, eco-tourism enables local residents to obtain

greater economic benefits and eventually produces multiple effects through activation of local economy. In addition, by respecting local culture and emphasizing educational contents of first-hand experiences, eco-tourism provides a small group of tourists explanations on ecosystem and direct experience of natural environment. Therefore, tourism consumers can obtain awareness on necessity of nature preservation and develop positive attitude towards eco-tourism.

Previous studies on characteristics of consumers for eco-tourism indicated that people participating in eco-tourism were consumers of high-educational background, professional occupations and high-income group. They had sufficient experiences of travel and were active in searching information for trips. They also preferred to travel alone or with family and tended to plan for trips in advance (Kang, Kim & Choi, 2003; Joh & Kim, 2007). Also, as the motives of travel, they placed importance in experiencing, understanding and learning from nature. The motives also included for recreational purpose, to experience the new and for self-development, etc. (Park & Yang, 2006; Joh & Kim, 2007).

As such, a large portion of studies on consumers of eco-tourism is focusing on demographical characteristics and attitudes of consumers and motives for eco-tourism. There is no instance of a study carried out on introduction of lifestyle of consumers as a variable in analyzing characteristics of consumers for eco-tourism. In eco-tourism, study on lifestyle groups enables to predict behaviors of consumers and to administer appropriate marketing strategies on them. Therefore, it will be useful in establishing strategies to activate eco-tourism.

3. Method of Study

1) Subjects of Study

This study intends to examine awareness and experiences of university student consumers on eco-tourism and to investigate their participation and intention to participate in eco-tourism in accordance with different lifestyle types. Detailed subjects of study are as of the following.

Firstly, types of lifestyle displayed by university student consumers are examined.

Secondly, characteristics of eco-tourism by university student consumers are examined. Also, differences in characteristics of eco-tourism between the group with experiences in eco-tourism and the group without the experiences are investigated.

Thirdly, differences in lifestyle types according to status of participation in eco-tourism and differences in lifestyle types according to the level of intention to participate in eco-tourism are examined.

Fourthly, impact caused by characteristics of eco-tourism, characteristics of lifestyle and demographical characteristics on the status of participation in eco-tourism and intention of consumers in participating in eco-tourism is investigated.

2) Methods of Data Collection and Measuring

For this study, questionnaire survey was carried out on university students enrolled in universities located in Seoul and metropolitan area. The survey paper consisted of questions to measure university

student consumer's lifestyle, behaviors for and awareness of eco-tourism. The survey was administered through convenience sampling on 264 students for 15 days from the 9th of April, 2007.

Demographical variables used in this study were the university student consumers gender, age, school year, monthly average allowance, monthly average income of household, educational level of the head of household and occupation of the head of household.

The questionnaire consisted of 13 questions in total on characteristic variables of eco-tourism by referring to studies administered by Heo et. al (2006). The questions were on propensity of learning in eco-tourism, propensity of awareness on eco-tourism, propensity to put up with inconvenience in eco-tourism, tendency of preferring eco-tourism, intention to participate in eco-tourism, status of participating in eco-tourism and source of information for eco-tourism. Firstly, the question on propensity of learning in eco-tourism consisted with 3 sub-questions of 'are you aware of eco-tourism?', 'have you been in contact with publicity for eco-tourism?' and 'have you participated in education of eco-tourism?' in 5-point Likert scales. For the question on propensity of awareness on eco-tourism, 5 sub-questions of 'do you think experiencing ecosystem has greater values than other popular tour activities?', 'do you think you will develop greater awareness on nature protection after experiencing eco-tourism?', 'do you think tourism should be maintained to minimize development of artificial facilities?', 'do you think activation of eco-tourism will make positive contribution towards natural environment preservation?' and 'do you think you will obtain

effects of mental recharging through the experience of touring in nature?' were given in 5-point Likert scales. The questions on propensity to put up with inconvenience in eco-tourism, tendency of preferring eco-tourism and intention to participate in eco-tourism consisted with 1 sub-question each of 'are you willing to put up with unpleasant facilities or services in order for nature preservation?', 'do you think eco-tourism will be better than popular tour activities?' and 'do you have intention to participate in eco-tourism?' respectively in 5-point Likert scales. Cronbach's α value, which indicates internal reliability of the 11 questions above on characteristics of eco-tourism, was given as .78. As for the source of information for eco-tourism, the respondent was to choose 1 out of TV, computer/ Internet, publicity materials from government and environmental organizations, newspaper/ magazine, families/ friends and others. The question on experiences of eco-tourism was to be answered with 'yes' or 'no' to measure nominal scale. Therefore, in difference analysis and regression analysis, propensity of learning in eco-tourism, propensity of awareness on eco-tourism, propensity to put up with inconvenience in eco-tourism, tendency of preferring eco-tourism and intention to participate in eco-tourism asked with the 5-point scale of interval scale were used as the variables.

For questions on lifestyle, total of 23 questions were given in 5-point Likert scales by using AIO method, the representative method of measuring lifestyle, with reference given to study carried out by Seo and Baek (2006) and Joh (1996). Among 23 questions, 21 were selected as questions to pattern lifestyle through factor analysis are as of the following. 'I am satisfied with my current job', 'I

am currently satisfied with my life', 'I evaluate myself positively', 'I tend to enjoy socializing with others', 'I actively participate in activities in my surroundings, such as monthly neighborhood meeting, etc.', 'I actively participate in meetings and gatherings with friends', 'Trend, design and brand image are important to me', 'Quality of products in famous department stores and brand shops is good', 'I pay attention to my appearance in order for my image', 'I have strong personality in choosing clothes and shoes, etc.', 'I have pondered on the direction of economic development in our society', 'I have strong opinions on social issues', 'I am highly interested in politics and express political viewpoints', 'I am not conscious of what others think and do as I feel like to, 'I do not like being restricted by rules and regulations', 'I have rebellious temperament', 'I tend to be active in enjoying hobbies', 'I tend to travel a lot', 'I believe men should be actively involved in housework and raising children', 'I believe women with children can be both good mothers and successful at work' and 'I believe equal opportunities must be given to both men and women for employment'.

3) Analysis Methods

Descriptive statistical analysis was administered in order to understand demographical characteristics and characteristics for eco-tourism of survey targets. Also, factor analysis was carried out to pattern lifestyle. Principal component analysis was administered on questions drawn up through factor analysis and Varimax rotation was administered in order to simplify interpretation of the factors. After dividing university student consumers into the groups with and without

intention of participation in eco-tourism, t-test and analysis of variance (ANOVA) were administered to verify differences in characteristics of lifestyle and eco-tourism. In case differences between the classified groups were found in ANOVA, Duncan verification, one of the post-verification methods, was used to identify the differences in detail. Lastly, logistic analysis and multiple regression analysis were administered with status of participation in eco-tourism and intention of participation as dependent variables and demographical characteristics, characteristics of eco-tourism and lifestyle characteristics as independent variables. SPSS Window (version 11.0) program was used for all analyses carried out in this study.

4. Results

1) General Characteristics of Study Targets

General characteristics of study targets are as shown in <Table 1>. Study targets consisted with 56.82% of female students and 43.18% of male students. In terms of age group, students aged between 20~22, 23~25 and 26~29 were of 39.39%, 42.05% and 18.56% respectively. The average age was 23.42. 0.76% and 25.76% of study targets were in the 1st and 2nd year of university respectively, while the highest percentage of 42.42% was the 3rd year students. Students in the 4th year were of 31.06%. Their average monthly allowance was KRW 316,587. Allowance of KRW 100,000~250,000, KRW 260,000~400,000 and KRW 410,000 or more were of 33.33%, 54.92% and 11.74% respectively.

As for monthly average household income of study targets, KRW 1 million ~ less than 2 million,

Table 1. General Characteristics of Study Targets

Characteristics of University Student Consumers	Overall(N=264) Frequency(%)/ Average Value	Characteristics of Households	Overall(N=264) Frequency(%)/ Average Value
Gender		Monthly Average Income of Household	
Male	114(43.18)	KRW 1 million ~ less than 2 million	42(15.91)
Female	150(56.82)	KRW 2 million ~ less than 3 million	82(31.06)
Age		KRW 3 million ~ less than 4 million	52(19.70)
20-22	104(39.39)	KRW 4 million ~ less than 5 million	38(14.39)
23-25	111(42.05)	KRW 5 million or more	50(18.94)
26-29	49(18.56)	Educational Level of Head of Household	
Average	23.42	Graduated from high school or less	140(53.03)
School Year		Graduated from university	105(39.77)
1st	2(0.76)	Completed graduate school or higher	19(7.20)
2nd	68(25.76)	Occupation of Head of Household	
3rd	112(42.42)	Office worker. public service worker	86(32.58)
4th	82(31.06)	Professional occupation	16(6.06)
Monthly Average Allowance		Self-employed	93(35.23)
KRW 100,000 - 250,000 or less	88(33.33)	Manufacturing work	28(10.61)
KRW 260,000 - 400,000 or less	145(54.92)	Simple laborer. military	41(15.53)
KRW 410,000 or more	31(11.74)	personnel. others	
Average	KRW 316587		

KRW 2 million ~ less than 3 million, KRW 3 million ~ less than 4 million, KRW 4 million ~ less than 5 million and KRW 5 million or higher were of 15.91%, 31.06%, 19.70%, 14.39% and 18.94% respectively. In terms of educational level of the head of household, 53.03%, 39.77% and 7.20% were respectively graduated from high school or less, graduated from university and completed graduate school or higher. As for occupation of the head of household, 32.58% were office workers and public service workers, while 6.06%, 35.23%, 10.61% and 15.53% were respectively engaged in professional occupations, self-employed, manufacturing workers and simple laborers ?

military personnel and others.

2) Lifestyle Patterning

In order to draw up factors to pattern lifestyle of university student consumers, factor analysis was administered through principal component analysis. As a result, 7 lifestyle factors were derived by administering factor analysis on 21 questions with the exception of 2 questions, of which the factor loading was 0.5 or lower.

Also, Cronbach's α was administered in order to measure reliability per each of the 7 factors. The result is as shown in <Table 2>. Reliability of personal satisfaction factors, sociability inclination

factors, consumption inclination factors, society inclination factors, freedom inclination factors, leisure inclination factors and progress inclination factors was 0.80, 0.86, 0.77, 0.82, 0.68, 0.50 and 0.76 respectively. The total variance explained with

the total of 7 factors was found to be 70.6%.

Factor 1 is personal satisfaction factor. They were named 'personal satisfaction factors', because these factors are related to being satisfied with one's current work and life as well as evaluating

Table 2. Result of Factor Analysis on Lifestyle Questions

Questions	Classification	Factor Loadings	Eigen (Descriptive Power)	Cronbach's α
Factor 1 Personal Satisfaction Factors	I am satisfied with my current job.	0.859	1.883 (8.97)	0.80
	I am currently satisfied with my life.	0.856		
	I evaluate myself positively.	0.688		
Factor 2 Sociability Inclination Factors	I tend to enjoy socializing with others.	0.811	2.366 (11.27)	0.86
	I actively participate in activities in my surrounding, such as monthly neighborhood meeting, etc.	0.863		
	I actively participate in meeting and gatherings with my friends.	0.856		
Factor 3 Consumption Inclination Factors	Trend, design and brand image are important to me.	0.811	4.329 (20.62)	0.77
	Quality of products in famous department stores and brand shops is good.	0.754		
	I pay attention to my appearance in order for my image.	0.804		
	I have strong personality in choosing clothes and shoes, etc.	0.670		
Factor 4 Society Inclination Factors	I have pondered on the direction of economic development in our society.	0.814	2.212 (10.53)	0.82
	I have strong opinions on social issues.	0.899		
	I am highly interested in politics and express political viewpoints.	0.813		
Factor 5 Freedom Inclination Factors	I am not conscious of what others think and do as I feel like to.	0.631	1.270 (6.05)	0.68
	I do not life being restricted by rules and regulations.	0.835		
	I have rebellious temperament.	0.814		
Factor 6 Leisure Inclination Factors	I tend to be active in enjoying hobbies.	0.740	1.052 (5.01)	0.50
	I tend to travel a lot.	0.746		
Factor 7 Progress Inclination Factors	I believe men should be actively involved in housework and raising children.	0.813	1.713 (8.15)	0.76
	I believe women with children can be both good mothers and successful at work.	0.788		
	I believe equal opportunities must be given to both men and women for employment.	0.837		

Result of factor analysis produced the overall descriptive power of 70.60%.

oneself positively. The explained variance was approximately 9%. Factor 2 was named 'sociability inclination factors' because these factors are related to people who enjoy associating with others and display strong intention to actively participate in various gatherings. Variance explained by these factors was found to be 11%. Variance explained by factor 3 of consumption inclination factors was approximately 21%. These factors were named as such from the perspective of having high level of interest in design, brand image, famous department stores, pursuit for quality, outer appearance and distinct individuality. Factor 4 was society inclination factors. This name was given because of the propensity of having high level of interest and opinions on economic and political issues in our society. The explained variance for these factors was approximately 11%. Factor 5 were freedom inclination factors and the explained variance was 6%. This was the propensity of being rebellious, not wanting to be restricted by rules and regulations and not being conscious to other people's opinions. Factor 6 was leisure inclination factors and this name was given because of the propensity of actively enjoying activities of hobbies and travel. The explained variance was 5%. Lastly, progress inclination factors referred to the propensity of believing that both men and women should actively participate in housework and raising children and to be treated equally. The descriptive power was found to be 8%.

3) Difference in Characteristics of Eco-tourism per Participating Group

First of all, frequency analysis was administered to examine awareness on and behavior of participation in eco-tourism displayed by study

targets. As shown in <Table 3>, the results indicated that majority of the study targets gave negative responses of 'absolutely no' and 'no' to the question on propensity of learning in eco-tourism. The average point was also 1.98. As such, it showed that learning behavior of university student consumers in eco-tourism was very poor.

On the other hand, majority of study targets gave responses of 'yes' and 'absolutely yes' to the questions on propensity of awareness. The average point was higher at 3.94. Therefore, it indicated that university student consumers were very positive about regarding eco-tourism to be more valuable in terms of nature preservation and tourist activities than popular tourism. However, for the question on willingness to put up with unpleasant services and facilities for nature preservation in eco-tourism, the average point was 3.02. 31.06% of responses were 'yes' and 'absolutely yes', while 30.18% of responses were 'no' and 'absolutely no'. As such, percentages of positive and negative responses were similar. This result can be interpreted that, while study targets regarded eco-tourism as a positive form of tourism for environmental preservation, they were reluctant to participate in eco-tourism if the facilities were inconvenient or unpleasant. Therefore, appropriate level of development in convenience facilities will be necessary together with environmental preservation in the course of eco-tourism development. In relations to the tendency of preferring eco-tourism to popular tourism, majority of the responses were positive with the average point of 3.50. The average point for intention to participate in eco-tourism was 3.96, which was the highest point among all items of characteristic analysis in relations to eco-tourism. This can be

Table 3. Analysis on Characteristics of Eco-tourism by University Student Consumers

Classification		No Frequency (%)	So-so Frequency (%)	Yes Frequency (%)	Absolutely Yes Frequency (%)	Average
Propensity of Learning in Eco-tourism	86(32.58)	117(44.32)	44(16.67)	16(6.06)	1(0.38)	1.98
Propensity of Awareness on Eco-tourism	1(0.38)	7(2.65)	43(16.29)	164(62.12)	49(18.56)	3.94
Propensity to Put up with Inconvenience in Eco-tourism	16(6.06)	65(24.62)	101(38.26)	63(23.86)	19(7.20)	3.02
Tendency of Preferring Eco-tourism	4(1.52)	32(12.12)	94(35.61)	96(36.36)	38(14.39)	3.50
Intention to Participate in Eco-tourism	5(1.89)	8(3.03)	60(22.73)	111(42.05)	80(30.30)	3.96
Source of Information	Frequency (%)	Source of Information		Frequency (%)		
TV	93(35.23)	Newspaper, Magazines		28(10.61)		
Computer, Internet	7(2.59)	Families, Friends		5(1.89)		
Publicity Materials from Government and Environmental Bodies	42(15.91)	Others		39(14.77)		
Experience of Eco-tourism	Yes Frequency (%)	No Frequency (%)		Tota		
	33 (12.5)	231(87.5)		264(100)		

interpreted that there is a large number of potential consumers for eco-tourism. In the survey on information source for eco-tourism, responses were given in the order of TV, computer/ Internet and publicity materials from government and environmental bodies, indicating that majority of university study consumers obtained information on eco-tourism through mass media. For the question on the status of participation in eco-tourism, 12.5% of the study targets responded they had participated in eco-tourism, while 87.5% did not have experiences of participating in eco-tourism. The percentage of people with no experience in eco-tourism was found to be very high.

Secondly, t-test was carried out to analyze what kind of differences were displayed in characteristics of eco-tourism between people with and without experiences in eco-tourism. As shown

in <Table 4>, the results showed significant differences in the propensity of learning in eco-tourism and propensity to put up with inconvenience in eco-tourism. In other words, people with experiences of participation in eco-tourism produced higher average points than those without the experience. This result indicates that university student consumers who had participated in eco-tourism obtained knowledge and education on eco-tourism and were more willing to tolerate inconvenient facilities for nature preservation than those without experiences of participation.

This result proves that publicity and educational programs must be essentially given to consumers for eco-tourism. For activation of eco-tourism, government, local autonomous bodies and eco-tourism developers must establish management plans for educational programs in order to uplift awareness of consumers on preservation of

Table 4. Differences in Characteristics of Eco-tourism between People with and without Experiences of Participating in Eco-tourism

	Participated (n=33) Average (Standard Deviation)	Not Participated (n=231) Average (Standard Deviation)	t Value
Propensity of Learning in Eco-tourism	2.68(0.96)	1.88(0.77)	5.43***
Propensity of Awareness on Eco-tourism	3.86(0.82)	3.95(0.63)	-0.72
Propensity to Put up with Inconvenience in Eco-tourism	3.36(0.96)	2.97(1.01)	2.13*
Tendency of Preferring Eco-tourism	3.64(0.96)	3.48(0.93)	0.90
Intention to Participate in Eco-tourism	4.06(1.06)	3.94 (0.89)	0.69

* P<.05 **P<.01 ***P<.001

ecosystem and environment.

4) Differences in Lifestyle Types per Eco-tourism Consumer Group

In order to analyze lifestyle types of eco-tourism consumers, differences in characteristics of lifestyle were analyzed in accordance with status of participation in eco-tourism and degree of intention to participate in eco-tourism. Firstly, t-test was carried out in order to analyze differences in lifestyle according the status of participation in eco-tourism. Results of analysis are as shown in <Table 5>. In terms of sociability inclination factors, significant difference was found between people with and without experiences of participation in eco-tourism. In other words, people of sociable lifestyle displayed the relatively higher level of participation in eco-tourism. In terms of freedom inclination factors, there was also significant difference between the two groups of study targets. The result indicated that consumers with more freedom-inclined lifestyle had higher level of participation in eco-tourism.

Also, in terms of leisure inclination factors, there was very significant difference found between

people with and without experiences of participation in eco-tourism. In other words, consumers who were actively engaged in activities of hobbies and travel had the tendency of actively participating in eco-tourism. This result is interpreted that consumers who enjoy leisure activities also show high level of interest in eco-tourism. Therefore, in order to activate eco-tourism, it is necessary to establish strategies of attracting customers by publicity and promotional activities targeted to the existing customers who are interested in or had participated in tour activities on a number of occasions rather than to consumers who do not display active attitude towards tour activities.

Secondly, in order to analyze differences in lifestyle types in accordance with the intention to participate in eco-tourism, ANOVA was administered after dividing degree of intention to participate in eco-tourism into three groups of low, medium and high. It was followed by Duncan verification as post-verification. As shown in <Table 6>, the results showed very significant differences in terms of sociability inclination factors and progress inclination factors.

Table 5. Differences in Lifestyle Types between People with and without Experiences of Participating in Eco-tourism

	Participated (n=33)	Not Participated (n=231)	t Value
	Average (Standard Deviation)	Average (Standard Deviation)	
Personal Satisfaction Factors	3.58(0.77)	3.34(0.74)	1.68
Sociability Inclination Factors	3.88(0.71)	3.52(0.85)	2.30*
Consumption Inclination Factors	3.16(0.71)	3.21(0.74)	-0.40
Society Inclination Factors	3.46(0.94)	3.19(0.78)	1.84
Freedom Inclination Factors	3.29(0.76)	2.99(0.77)	2.10*
Leisure Inclination Factors	3.59(0.77)	3.00(0.79)	4.06***
Progress Inclination Factors	4.22(0.88)	4.20(0.71)	0.19

* P<.05 **P<.01 ***P<.001

Table 6. Analysis on Differences of Lifestyle Types according to Intention to Participate in Eco-tourism

Classification	Intention to Participate in Eco-tourism Low (N=13)		Intention to Participate in Eco-tourism Medium (N=60)		Intention to Participate in Eco-tourism High (N=191)		F Value
	Average (Standard Deviation)	Duncan	Average (Standard Deviation)	Duncan	Average (Standard Deviation)	Duncan	
Personal Satisfaction Factors	3.05 (0.84)	a	3.34 (0.65)	a	3.40 (0.76)	a	1.46
Sociability Inclination Factors	2.69 (1.03)	a	3.46 (0.77)	b	3.66 (0.82)	b	9.10 ***
Consumption Inclination Factors	2.87 (0.92)	a	3.19 (0.77)	a	3.23 (0.70)	a	1.57
Society Inclination Factors	3.18 (1.20)	a	3.17 (0.83)	a	3.24 (0.77)	a	0.19
Freedom Inclination Factors	3.36 (0.78)	a	2.98 (0.73)	a	3.02 (0.79)	a	1.29
Leisure Inclination Factors	3.31 (1.07)	a	2.98 (0.85)	a	3.09 (0.78)	a	1.02
Progress Inclination Factors	3.74 (1.37)	a	3.91 (0.70)	a	4.32 (0.64)	b	10.60 ***

* P<.05 **P<.01 ***P<.001

In terms of sociability inclination factors, the group of consumers with high intention to participate in eco-tourism produced the highest point of 3.66. It was followed by the point of 3.46,

which was from the group with medium level of intention for participation. The group with low intention to participate in eco-tourism produced the point of 2.69. As such, the result showed that

consumers with higher degree of intention to participate in eco-tourism were associated with sociable lifestyle. This result is the same as that produced in analysis of differences between people with and without experiences of participating in eco-tourism shown in <Table-5>. Therefore, it can be analyzed that the most representative lifestyle of people with experiences of participating in eco-tourism and high degree of intention to participate in eco-tourism is the sociability-inclined type. As for progress inclination factors, the group with high intention to participate in eco-tourism produced the highest point of 4.32, followed by 3.91 from the group with medium intention and 3.74 from the group with low intention for participation. This result showed that consumers with more progress-inclined lifestyle had higher intention of participation in eco-tourism. This suggests the importance of utilizing progressive contents in advertisement or promotional strategies to attract potential consumers into becoming actual consumers of eco-tourism.

5) Logistic Analysis on Status of Participation in Eco-tourism

In order to identify influences of related variables exerted on the status of participation in eco-tourism by study targets, logistic regression analysis was carried out with status of participation in eco-tourism as dependent variable and demographical characteristics of <Table 1>, lifestyle types of <Table 2> and characteristics of eco-tourism of <Table 3> as independent variables. Prior to regression analysis, step-wise technique was used to reduce the problems of multicollinearity in variables and to propose more ideal regression model. In other words, the optimal model was designed by selecting necessary variables and excluding unnecessary independent variables. As shown in <Table 7>, the model for this study was designed to be statistically significant with the significance of Chi-square value as .000. Among all cases, approximately 87.9% were correctly categorized. With the significance of -2LL high as well, suitability of this model was also found to be high.

Table 7. Results of Logistic Analysis on Status of Participation in Eco-tourism

Variables	B	S.E.	Wald	Exp(B)
<i>Characteristics of Eco-tourism</i>				
Propensity of Learning in Eco-tourism	0.95***	0.23	17.10	2.58
<i>Lifestyle Types</i>				
Leisure Inclination Factors	0.86 ***	0.28	9.58	2.36
<i>Demographical Characteristics</i>				
School Year	-0.52 *	0.26	3.96	0.59
Constant			-5.35 ***	
-2 Log likelihood			160.60 ***	
Model Chi-Square			38.34 ***	
Predicted Correctly			87.9%	

* P<.05 **P<.01 ***P<.001

The selected variables were propensity of learning in eco-tourism for characteristics of eco-tourism, leisure inclination factors for lifestyle types and school years for demographical characteristics. The results of analysis showed higher level of participation in eco-tourism by consumers who had received publicity information and education on eco-tourism, consumers with leisure-inclined lifestyle and consumers in lower school year.

Therefore, it is necessary to promote consumers' active participation in education by organizing publicity and educational programs in order for activation of eco-tourism. In particular, with the study targets being university students, it is worth considering to provide students with educational opportunities by offering courses on environmental preservation and management of ecosystem in schools of easy access. Also, it is proposed to administer publicity and advertising activities by using the easily approached channels of TV and Internet. Most of all, considering that lifestyle of consumers is leisure-inclined type, appropriate

marketing strategies are required through market segmentation targeted to the related consumer groups.

6) Analysis on Influences Exerted on Intention to Participate in Eco-tourism

In order to identify influences of related variables exerted on the intention to participate in eco-tourism, multiple regression analysis was carried out with intention to participate in eco-tourism as dependent variable and the above-mentioned variables for demographical characteristics, lifestyle types and characteristics of eco-tourism as independent variables. Result of analysis is as shown in <Table 8>. For regression analysis, the optimal model was designed as well by eliminating unnecessary variables through step-wise analysis. Also, in relations to the problem of multicollinearity in independent variables, tolerance and VIF values were checked to be 0.1 or higher and less than 2 respectively. Therefore, it was confirmed that there was no problem of

Table 8. Regression Analysis on Intention to Participate in Eco-tourism

Variables	Intention to Participate in Eco-tourism	
	Non-standardized Coefficient (B)	Standardized Coefficient (β)
<i>Characteristics of Eco-tourism</i>		
Propensity of Awareness on Eco-tourism	0.50	0.36 ***
Tendency of Preferring Eco-tourism	0.33	0.34 ***
<i>Lifestyle Types</i>		
Sociability Inclination Factors	0.14	0.13 ***
Progress Inclination Factors	0.16	0.13**
Constant	-0.35	
R ²	0.691	
Modified R ²	0.478	
F Ratio	59.190***	

* P<.05 **P<.01 ***P<.001

multicollinearity among independent variables.

The variables to exert significant influences on intention to participate in eco-tourism were propensity of awareness on eco-tourism and tendency of preferring eco-tourism for characteristics of eco-tourism and sociability inclination factors and progress inclination factors for lifestyle types. In other words, consumers who had positive ideas about eco-tourism, recognized that eco-tourism would make positive contribution towards environmental preservation and believed that eco-tourism would be better than popular tourism were found to have higher degree of intention to participate in eco-tourism. Also, in terms of lifestyle types, it was analyzed that consumers of sociable and progressive lifestyle displayed higher intention of participation in eco-tourism. On the other hand, among the four variables to exert influences on the intention to participate in eco-tourism, the variable with the highest influence was propensity of attitude toward eco-tourism. Therefore, it is necessary to establish plans of building positive attitude and changes of consumers in relations to eco-tourism.

5. Conclusion

In this study, awareness and behavioral characteristics of university student consumers on eco-tourism were investigated and differences per lifestyle type according to characteristics of participation in eco-tourism were examined by classifying lifestyle types of university student consumers. Also, the influences exerted on characteristics of participation in eco-tourism by

the variables of demographical characteristics, lifestyle types and characteristics of eco-tourism were analyzed.

Firstly, it was found that the level of learning on eco-tourism by university student consumers was very low. On the other hand, their levels of awareness on and intention to participate in eco-tourism were very high. The tendency of preferring eco-tourism was also found to be higher than the average, indicating that university student consumers had positive ideas about eco-tourism. However, they were not favorable to eco-tourism associated with having to endure inconvenience. University student consumers obtained information on eco-tourism most frequently from TV followed by Internet and publicity materials from government and environmental bodies. Also, it was analyzed that the rate of participation in eco-tourism by study targets would be very low. The result of analyzing differences in characteristics of eco-tourism between people with and without experiences of participating in eco-tourism indicated significant difference in accordance with propensity of learning in eco-tourism and propensity to put up with inconvenience in eco-tourism. As a whole, the group of people with experiences of participation showed higher level of knowledge and learning experiences on eco-tourism than the group without the experiences of participation. The group with experiences of participation in eco-tourism was also analyzed to be more tolerant towards unpleasant facilities and services in order for nature preservation.

Secondly, differences per lifestyle type between the groups with and without experiences of participating in eco-tourism. As a result, significant differences were found in terms of sociability

inclination factors and leisure inclination factors. In other words, the group of people who had participated in eco-tourism were more of sociability-inclined and leisure-inclined lifestyle types than the group of people who had not participated in eco-tourism. Also, in terms of differences per lifestyle type according to degree of intention to participate in eco-tourism, sociability inclination factors and progress inclination factors were analyzed to be significant variables. That is, the group with higher degree of intention for participation were of more sociable and progressive lifestyle types than the group with lower degree of intention for participation.

Thirdly, through logistic analysis on the types of influences exerted on participation in eco-tourism by demographical characteristics, characteristics of eco-tourism and lifestyle types, it was found that significant influences were exerted by such variables of propensity of learning in eco-tourism, leisure inclination factors and school year. In other words, consumers with higher level of knowledge on eco-tourism, who received education on eco-tourism, of leisure-inclined lifestyle and in lower school year were found to have higher possibility of participation in eco-tourism.

Fourthly, through regression analysis on the types of influences exerted on intention to participate in eco-tourism by demographical characteristics, characteristics of eco-tourism and lifestyle types, propensity of awareness on eco-tourism, tendency of preferring eco-tourism, sociability inclination factors and progress inclination factors were selected as significant variables. Differently put, consumers who placed positive values on eco-tourism, who recognized that eco-tourism would make positive contribution

towards nature preservation and who believed that eco-tourism would be better than popular tourism were analyzed to have higher degree of intention to participate in eco-tourism. Also, it was analyzed that consumers of more sociable and progressive lifestyle types displayed higher degree of intention to participate in eco-tourism.

Proposals raised on the basis of the results of this study are as follows. Firstly, the result that there was significant difference in lifestyle according to the status of participation and intention to participate in eco-tourism indicates there is high relevance between lifestyle of university student consumers and their characteristics of participation in eco-tourism. This confirms the importance of lifestyle in studies related attitudes and behaviors of consumers for eco-tourism. The significance lies in the fact that additional follow-up studies in the related fields will be activated. Secondly, it was found that learning in eco-tourism is an important factor to consider for activation of eco-tourism. Therefore, it is necessary to establish educational programs on attitudes and behaviors required of tourism consumers in order for environmental and cultural preservation as well as sustainable resource preservation. Thirdly, it was found that awareness on and tendency of preferring eco-tourism had relevance to the intention to participate in eco-tourism. Causes to provoke consumers' desire to participate in tourism activities are consumers' preference of and awareness on tourism. Therefore, government, local autonomous bodies and eco-tourism developers to be in charge of eco-tourism development must put in effort to promote consumers' positive attitude to and awareness on eco-tourism through effective advertising and

marketing strategies. Fourthly, the lifestyle type of people who had participated in eco-tourism was analyzed to be leisure-inclined. Therefore, it is required to develop and administer marketing strategies targeted to the leisure-inclined consumer group and to encourage their participation in eco-tourism. Since these consumers enjoy traveling, it is particularly necessary to promote re-visitation by these consumers through maintaining continuous relationship with frequent travellers.

The significance of this study lies in the fact that it analyzed and investigated lifestyle types and characteristics of eco-tourism, the subjects not successfully discussed in previous studies on eco-tourism. However, as the limitation of this study, the target of this study was restricted to university student consumers in Seoul and metropolitan region. In order to understand wider market and key consumers of eco-tourism in greater detail, follow-up studies are necessary to make use of comprehensive data covering various age groups and wider regions.

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대학생소비자 라이프스타일 유형에 따른 생태관광 참여특성에 관한 연구*

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요약 : 본 연구는 생태관광 참여특성에 따라 라이프스타일 유형에 어떠한 차이가 있는지를 조사하였고, 인구통계적특성, 라이프스타일 유형, 생태관광특성 변수가 생태관광 참여특성에 어떠한 영향력을 미치는가를 분석하였다. 분석결과는 다음과 같다. 첫째, 생태관광 참여자집단과 비참여자 집단에 따른 라이프스타일 유형별 차이분석 결과는 사교지향요인과 여가지향요인에서 유의한 차이를 보였다. 즉, 생태관광 참여자 집단은 비참여자 집단보다 사교지향적이며 여가지향적인 라이프스타일을 소유하고 있는 것으로 나타났다. 또한 생태관광 참여의향수준에 따른 라이프스타일 유형 차이분석에서는 사교지향요인과 진보지향요인이 유의한 변수로 분석되어졌다. 즉, 참여의향수준이 높은 집단은 그렇지 않은 집단에 비해 좀더 사교적이며 진보적인 라이프스타일인 것으로 나타났다. 둘째, 인구통계적 특성, 생태관광특성, 라이프스타일유형이 생태관광 참여에 어떠한 영향력을 미치는가에 대한 로지스틱 분석에서는 생태관광 학습성향, 여가지향요인, 학년변수가 유의미한 영향력이 있는 것으로 나타났다. 즉, 생태관광에 대한 지식이 많고 교육받은 경험이 있을수록, 라이프스타일이 여가지향적인 소비자일수록 그리고 학년이 낮을수록 생태관광에 참여할 확률이 높은 것으로 밝혀졌다. 셋째, 인구통계적 특성, 생태관광특성, 라이프스타일유형이 생태관광 참여의향에 어떠한 영향력을 미치는가에 대한 회귀분석에서는 생태관광 인식성향, 선호성향, 사교지향요인, 진보지향요인이 유의한 변수로 선정되었다. 다시 말해 생태관광에 대하여 긍정적인 가치를 가지고 있으며 생태관광이 자연환경보전에 긍정적으로 기여 할 것이라고 인식 하며, 생태관광이 대중적관광보다 더 좋을 것이라고 생각하는 소비자가 생태관광에 참여할 의향이 높은 것으로 분석되었다.

주요어 : 생태관광, 라이프스타일, 사회지향요인, 여가지향요인, 생태관광 학습, 생태관광참여

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