

A STUDY ON FOREIGN TOURISTS' BEHAVIOR AND CONSUMER SATISFACTION IN KAMAKURA

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Abstract: Recently in Japan, it is crucial to increase inbound tourists. From a view point of tourism marketing, this study aims to analyze relationship between foreign tourists' consumer satisfaction, importance of information gathering and tourists' behavior. First of all, foreign tourists' survey on behaviors and attitudes are conducted in Kamakura, where is a popular sightseeing area in Japan. Secondary, the degrees of tourists' satisfaction are cross-aggregated by Asian and non-Asian and by tourists' Japanese skills. Finally, the LISREL models are estimated in order to explain relationship between tourists' satisfaction and consumer value related to behaviors quantitatively. As a result, it is indicated that average degrees of satisfaction for Asian tourists are relatively lower than those for non-Asian. Especially, degree of satisfaction for signs is low both for Asian and non-Asian. The model estimation results show that to improve service and comprehensibility of signs is necessary to increase foreign tourists' satisfaction.

Key Words: Inbound tourists, Consumer satisfaction, Consumer value, Travel information

1. INTRODUCTION

About 5.2 million foreign tourists have visited Japan in 2003. On the other hand, about 16 million Japanese tourists visited foreign countries for sightseeing (JNTO, 2004). Japanese government is now promoting "Visit Japan Campaign" in order to double the number of foreign visitors until 2010. Not a few local governments are, therefore, trying to attract foreign tourists by improving signs, providing information and increasing the number of tour guides in foreign languages. It is reported that foreign tourists who come to Tokyo do not only visit traditional sightseeing spots like hot spring areas, temples and shrine, but also go shopping in Shinjuku and Akihabara to purchase cutting-edge electric materials. However, it is not cleared whether they are satisfied and what they find their travel values.

So far in Japan, interests for not a few urban planners have been focused on transportation planning and estimation both of the number and the attractiveness of tourists in sightseeing areas (Mizokami, S. *et al.*, 2000, Takahashi, K. *et al.*, 1990). In sightseeing spots where roads are congested like in Kamakura, for example, several TDM measurements have been proposed and demonstrated (Takahashi and Kubota, 2004, Sakamoto, K. *et al.*, 1997). In order to clarify the impacts of tourism measurements in those areas, both travel surveys have been conducted, and the attractiveness of sightseeing spots have been analyzed by, for example, LISREL models (Kako, Y. *et al.*, 1991). It is also researched how travel information affects Japanese tourists' behavior (Yoshida, H. 1993). Another interest of tourism research is to conduct tourists' surveys and to provide travel information by using portable digital devices like GPS, PDA or handy phones (Asakura, Y. *et al.*, 2003, Uemura, Y. *et al.*, 2003, Fujisawa,

A. *et al.*, 2001). Through these researches, it is indicated that ITS-related techniques are useful to assist comfort sightseeing activities and to track tourists' positions. However, it is not clarified what kind of information media foreign tourists refer and consumer satisfaction; when and where foreign tourists feel satisfied or unsatisfied when they are sightseeing. Further more, in order to increase consumers' values in tourism resources, it is necessary to clarify relationship between consumer satisfaction and travelers' behavior related to consumer values such as costs or royalties (Shimizu, 2005).

The purpose of this study is, therefore, to clarify foreign tourists' attitudes and behaviors by conducting their behavior, in order to show what will affect their degree of satisfaction. Kamakura city is selected as the study area, where is one of the most popular sightseeing area for those foreigners who stay around Tokyo (Tanno, A., 2004). This study aims to show the followings; (1) the difference of consumer satisfaction and consumer value between Asian and non-Asian, (2) how and where they are satisfied or unsatisfied about sightseeing spots, signs and services, (3) how richness of travel information affects consumer satisfaction. In the following chapter, survey and analysis methods are described. In chapter 3, characteristics of the study area is outlined. After survey results are shown in chapter 4, relationship between consumer satisfaction and consumer value are modeled by LISREL in chapter 5 in order to show difference of attitudes between Asian and Non-Asian tourists. Finally in chapter 6, conclusions and future researches are remarked.

2. METHODOLOGY OF SURVEY AND ANALYSIS

2.1 Survey Methods

In this study, Kamakura city is selected as a study area where locates western suburb of Tokyo. As indicated below, Kamakura is one of the major sightseeing areas in Japan, and many foreign tourists who stay around Tokyo make one day round trips to visit Kamakura. Face-to-face survey is conducted to foreign tourists who visit Tourist Information Center of Kamakura city by preparing interview sheets in four languages (Japanese, English, Chinese and Korean) in Saturday, Sunday and holidays from September to November in 2004. Foreign students of Keio University and its Japanese language school are also targeted as informants. This is because we would like to compare foreign tourists' attitudes and behavior by length they stay in Japan and by their Japanese skills. Two kinds of interview surveys before and after tourists' trips are conducted. Schedules, budgets, purposes, pre-trip information about sightseeing activities and tourists attributes are asked before trips. Actual schedules, sightseeing spots they visited, activity constraints, expenses, evaluation for overall sightseeing activities are checked after their trips. GPS devices are also used in order to trace tourists' locations and to calculate duration of time they stay in the study area.

In order to show differences of attitudes between Asian and Non-Asian tourists, the followings survey is conducted. Adding to tourists' attributes such as nationality, skills of Japanese, age and existence of Japanese escorts, degree of satisfaction for sightseeing spots, signs and services are investigated. Here, degrees of satisfaction are asked regarding the following items; (1) historic spots/temples and shrines, (2) scenery/natural environment, (3) streets and avenues around houses and stores, (4) stores and restaurants, (5) tourist information center services, (6) comprehensibility and appropriateness of explanations on signs for the towns, (7) comprehensibility and appropriateness of explanations on signs for the stations, (8) comprehensibility and appropriateness of explanations on signs for tourist facilities, (9) tourist facility services, (10) availability of restaurants, (11) convenience of

public transport. These items are evaluated according to five grade scale between “very convenient (very comprehensive, very satisfied)” and “very inconvenient (very incomprehensive, very unsatisfied). These indices are assumed to represent consumer satisfaction. In order to analyze relationship between travel satisfaction and fulfillment of information during sightseeing, it is also asked what kind of travel information they check before and during their trips. Types of travel information that foreign tourists checked are as followings; (1) historical and cultural background information about Kamakura, (2) major tour routes and sightseeing information, (3) historic sites, temples, shrines, and cultural facilities information, (4) restaurants and shopping information, (5) natural walkways, parks, and seashore information, (6) transportation (mass transit and road information).

2.2 Methodologies and Assumptions of Analysis

In this study, according to a tourism marketing theory (Kotler, P. *et al*, 2003), we focus to estimate relationship between consumers’ values related to sightseeing behaviors and consumer satisfaction (Figure 1). This is because it is necessary to understand what kind of consumer satisfaction would motivate to increase consumers’ value in order to improve attractiveness in sightseeing spots. Here, consumers’ values related to sightseeing activities are assumed such indices as diversity of trip purposes, budget and/or expense, duration of stay, expected benefits, royalties of sightseeing behavior and so on. Structural equation models are applied in order to evaluate overall sightseeing and to estimate relationship among travel behavior, tourists’ information and degree of satisfaction. Here, degree of satisfaction for sightseeing activities are assumed to be evaluated according to relationship among “satisfaction for sightseeing spots”, “comprehensibility of signs” and “convenience for services”. It is also assumed that these three kinds of attitudes are evaluated by foreign tourists’ Japanese skills, experience of visit to Kamakura, amount of travel information and tourists’ behaviors like purposes, expenses and time spent in Kamakura. Further more, the assumed structure is compared between Asian and Non-Asian tourists. Therefore, proposed structural equation models are estimated according to these two types.

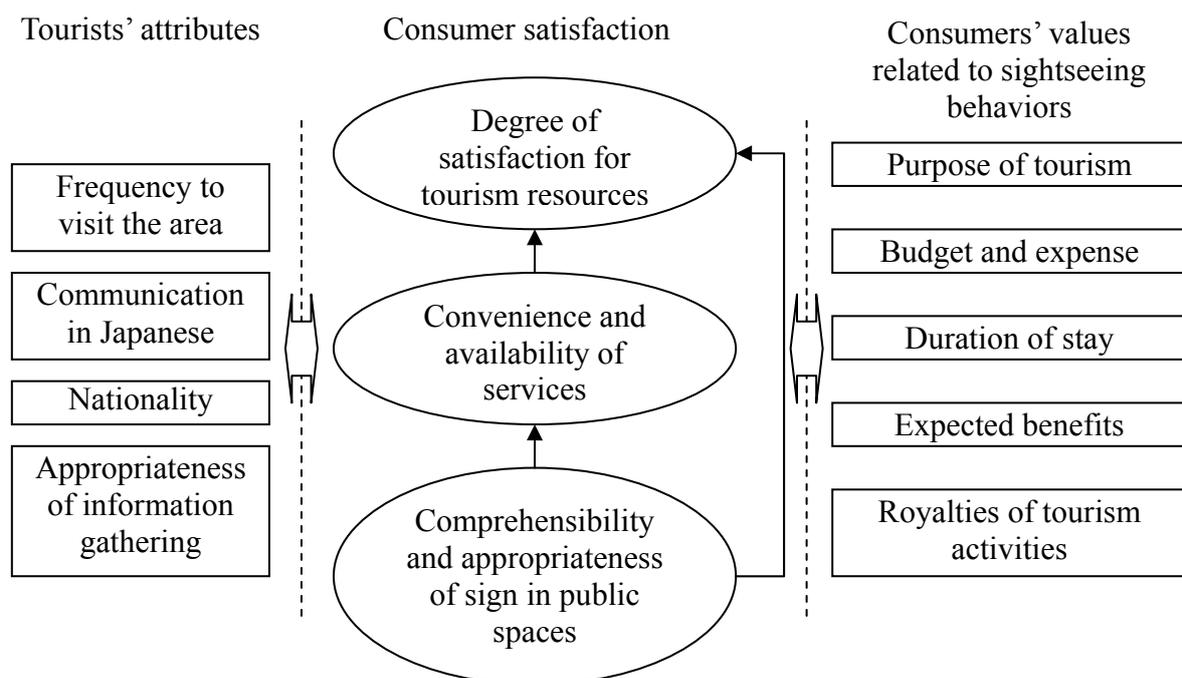


Figure 1. Assumed Structures of Consumer Satisfaction and Travelers' Values

3. THE STUDY AREA

About 18 million Japanese tourists and about 600 thousand foreign tourists are estimated to visit Kamakura city in 2004. As tourists can visit Kamakura from about 1.5 hours from the center of Tokyo, the study area is one of the most popular sightseeing areas to make one day round trip in Tokyo (Figure 2). According to Tourist Information Center of Kamakura, 39% of foreign tourists are from Northern America (92% of them are from the U.S.A.) and 28% of them are from Western Europe from March to October in 2004. 21% of them are from Asian countries. It is also shown that Asian visitors are not only from China and Korea, but also from Thai and India (Figure 3). Although the number of all foreign tourists is not surveyed at Tourist Information Center, we can understand variety of foreign tourists are visiting the study area. Therefore, it can be said that fine-tuned services are needed for foreign tourists whose nationalities are divergent in the study area.

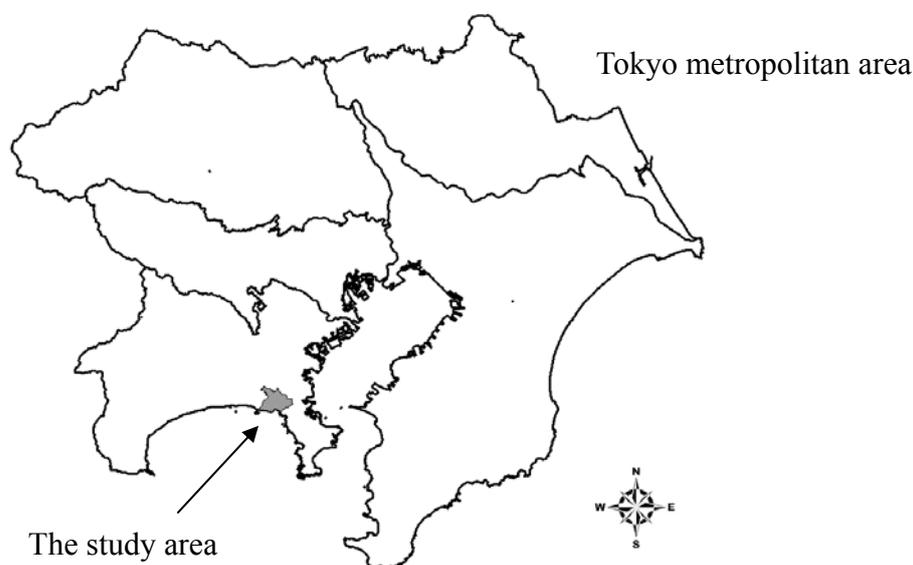


Figure 2. Location of the Study Area

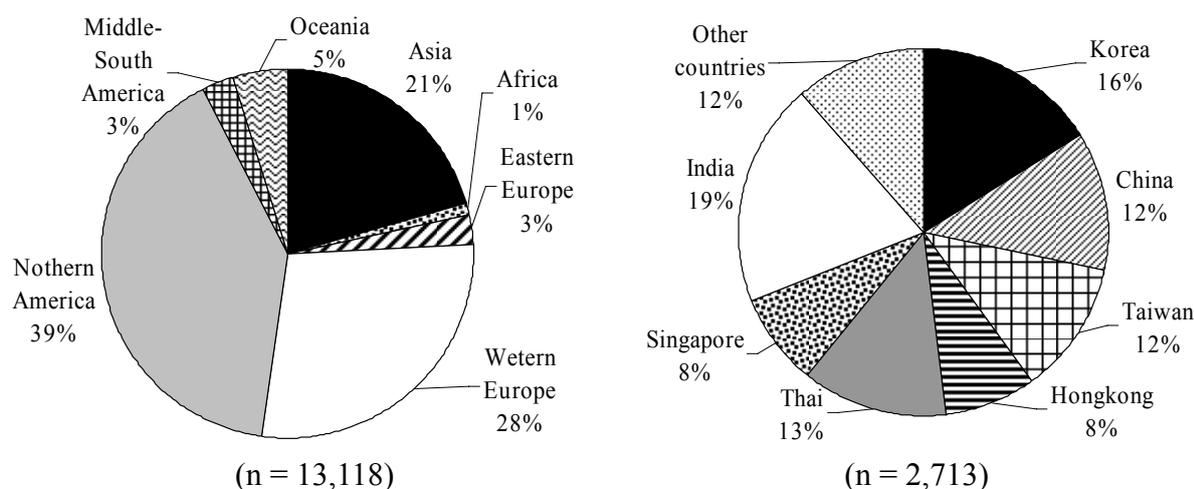


Figure 3. Share of Nationality of Foreign Tourists (left) and of Asian Tourists (right) in Kamakura from March to October, 2004 (unit: %, source: Kamakura City Tourist Information Center, 2004)

4. OUTLINES OF THE FOREIGN TOURIST SURVEY

In this chapter, results of the foreign tourist survey are demonstrated. First of all, 341 informants answered the interview survey. Among them, 231 tourists are from Non-Asian countries, 110 tourists are Asian countries. 43 visitors of them are foreign students. In this study, it is assumed that Asian tourists have common travel utilities regardless that they are students or not. Therefore, foreign students are basically analyzed together with Asian tourists in this study.

4.1 Foreign Tourists' Behavior Related to Consumer Value

In this study, consumer value of tourists is assumed to be described by monetary and time cost and mixture of trip purposes. First of all, Table 1 shows that average budget is about 5,000 yen and average actual expense is about 4,300 yen. Although average budget of Asian tourists is about 5,176 yen, their average expense is less of that. When we trace tourists' locations by using GPS, it is indicated that average hour that tourists stay in Kamakura is about 5.4 hours. Difference of average hour of stay in Kamakura by types of nationalities is not significant. Indices regarding mixture of trip purposes are described later together with degree of satisfaction.

Table 1. Average Budgets, Actual Expenses and Time Spent in Kamakura of Foreign Tourists

	Budget (unit: yen)	Actual expense (unit: yen)	Average travel time (unit: hours)
Non-Asian (n = 231)	5,058.8	3,806.8	5.3
Asian (n = 67)	5,175.5	4,384.2	5.5
Foreign students (n = 43)	4,595.2	4,524.1	5.9
Total	5,009.9	4,326.3	5.4

4.2 Travel Information which Tourists Checked

Secondary, what kind of information tourists checked before and during sightseeing is shown in Table 2. Many tourists tend to refer guidebooks and tourist brochures available in English or in their native languages. It is interesting that not a few non-Asian tourists gather information by word of mouth. On the other hand, brochures available at airports or tourists agency bureaus seems not popular to them.

Table 2. Information Sources which Tourists Checked before Sightseeing
(multiple choice, unit: %)

	Non-Asian (n=231)	Asian (n=110)
Guidebooks for tourists	48.9	31.8
Internet	15.2	30.9
Word of mouth	34.2	20.9
Airport and tourist agency brochures	7.8	4.5
Tourist information magazines of Japanese friends	9.5	5.5
Didn't gather information about Kamakura	3.9	8.2
Other	6.9	10.0

It is indicated that nearly half of foreign tourists gather information about historical and cultural background information about Kamakura and historic sites, temples, shrines, and cultural facilities before they visit the study area (Table 3). In several guidebooks or brochures published in abroad, information about restaurants, shopping, natural walkways, parks and major tour routes seems not introduced sufficiently. Therefore, not a few foreign tourists answer that they should have gathered this information before their trip to Kamakura (Table 4). Regarding en-route information that foreign tourist would like to gather during sightseeing, it is indicated that tourists would like gather information not only about historical and cultural background information about Kamakura, but also about natural walkways, parks and major tour routes (Table 5). As shown here, it can be said that types of tourism information that foreign tourists can gather before their trips seems to be restricted. Major difference of information sources between non-Asian and Asian tourist is that not a few non-Asian tourists can gather travel information by word of mouth.

Table 3. Information that Tourists Gathered before Sightseeing (multiple choice, unit: %)

	Non-Asian (n=231)	Asian (n=110)
Historical and cultural background information	48.1	42.7
Major tour routes and sightseeing information	25.1	36.4
Historic sites, temples, shrines, and cultural facilities information	51.9	41.8
Restaurants and shopping information	5.2	7.3
Natural walkways, parks, and seashore information	11.3	11.8
Transportation	21.6	20.0
Other	6.5	3.6

Table 4. Information that Tourists Think They Should Have Gathered before Sightseeing (multiple choice, unit: %)

	Non-Asian (n=231)	Asian (n=110)
Historical and cultural background information	26.4	35.5
Major tour routes and sightseeing information	22.5	50.9
Historic sites, temples, shrines, and cultural facilities information	26.0	27.3
Restaurants and shopping information	9.5	10.0
Natural walkways, parks, and seashore information	18.6	23.6
Transportation	17.7	25.5
Other	4.8	0.9
No special request	32.0	25.5

Table 5. Information that Tourists Would Like to Gather during Sightseeing (multiple choice, unit: %)

	Non-Asian (n=231)	Asian (n=110)
Historical and cultural background information	22.1	31.8
Major tour routes and sightseeing information	14.7	35.5
Historic sites, temples, shrines, and cultural facilities information	16.9	27.3
Restaurants and shopping information	7.8	10.9
Natural walkways, parks, and seashore information	16.0	18.2
Transportation	10.0	28.2
Other	3.9	0.9
No special request	30.7	19.1

Table 6. Major Purposes to Visit Kamakura (multiple choice, unit: %)

	Non-Asian (n=231)	Asian (n=110)
Historic spots (including temples and shrines)	90.5	90.0
Nature (hiking or marine sports)	17.7	33.6
Shopping/Food	12.1	10.0
Cultural facilities (art galleries, museums, etc.)	11.7	20.9
Business	0.9	0.9
Other	2.2	3.6

Major purposes to visit the study area are shown in Table 6. It can be found that about 90% of tourists visit historic spots like temples and shrines. It is interesting that about 34% of Asian visitors answered “nature (hiking or marine sports)” as one of their major purposes, and about 21% of Asian visit cultural facilities. On the other hand, about 18% and 12% of non-Asian visit these sightseeing spots. It is considered that these differences might be occurred because not a few Asian tourists can visit historic spots in their home countries, they tend to find divergence of visit purposes in such a historical area.

4.3 Consumer Satisfaction

Regarding consumer satisfaction, average degrees of satisfaction on “historic spots/temples and shrines”, “scenery/natural environment” and “tourist information center services” are relatively higher than the other indices. As for “stores and restaurants”, “availability of restaurants” and “overall travel experience”, average degrees of satisfaction of non-Asian visitors are larger than those of Asian tourists and the difference of t-value is statistically significant at 5%.

As shown in Table 8, more than 60% of non-Asian and more than 40% of Asian visitors answer satisfaction level 5 for “Historic spots/temples and shrines” and “Scenery/natural environment”. Regarding “Availability of restaurants”, “Convenience of public transport” and “Overall travel experience”, more than 40% of non-Asian visitors remark satisfaction level 5, although 11 to 14% of Asian visitors answer satisfaction level 5 for these indices.

Table 7. Average Degree of Satisfaction by Residential Area

	Non-Asian (n=231)	Asian (n=110)
Historic spots/temples and shrines	4.3	4.1
Scenery/natural environment	4.4	4.1
Streets and avenues around houses and stores	4.1	3.5
Stores and restaurants*	4.0	3.5
Tourist information center services	3.8	3.9
Comprehensibility and appropriateness of explanations on signs for the towns	3.3	3.2
Comprehensibility and appropriateness of explanations on signs for the stations	3.4	3.3
Comprehensibility and appropriateness of explanations on signs for tourist facilities	3.4	3.4
Tourist facility services	3.8	3.7
Availability of restaurants*	3.9	3.3
Convenience of public transport	3.9	3.4
Overall travel experience*	4.1	3.2

Note: * means that difference of average degree of satisfaction between Asian and non-Asian is statistically significant in t-value at 5% level

Table 8. Breakdown results of consumer satisfaction
(Samples: Non-Asian, n=231. Asian, n=110)

	Types	Level of satisfaction				
		1	2	3	4	5
Historic spots/temples and shrines	Non-Asian	7.9	0.8	7.9	22.2	61.1
	Asian	1.5	3.0	21.2	30.3	43.9
Scenery/natural environment	Non-Asian	5.1	0.8	8.5	23.7	61.9
	Asian	2.9	2.9	16.2	33.8	44.1
Streets and avenues around houses and stores	Non-Asian	4.4	3.7	18.4	29.4	44.1
	Asian	1.4	10.1	29.0	30.4	29.0
Stores and restaurants	Non-Asian	5.3	2.3	20.6	27.5	44.3
	Asian	1.4	11.0	38.4	32.9	16.4
Tourist information center services	Non-Asian	9.9	6.3	19.0	25.4	39.4
	Asian	1.4	5.5	28.8	30.1	34.2
Comprehensibility and appropriateness of explanations on signs for the towns	Non-Asian	5.0	16.3	36.3	25.0	17.5
	Asian	2.6	24.7	35.1	29.9	7.8
Comprehensibility and appropriateness of explanations on signs for the stations	Non-Asian	5.6	15.5	34.8	22.4	21.7
	Asian	3.9	13.0	46.8	24.7	11.7
Comprehensibility and appropriateness of explanations on signs for tourist facilities	Non-Asian	4.7	12.8	38.3	27.5	16.8
	Asian	2.5	15.2	44.3	27.8	10.1
Tourist facility services	Non-Asian	1.4	6.9	32.4	31.0	28.3
	Asian	1.3	1.3	39.2	38.0	20.3
Availability of restaurants	Non-Asian	3.4	6.7	29.5	15.4	45.0
	Asian	2.5	19.0	39.2	26.6	12.7
Convenience of public transport	Non-Asian	4.1	7.6	24.1	22.8	41.4
	Asian	6.4	15.4	23.1	41.0	14.1
Overall travel experience	Non-Asian	1.3	5.1	17.1	33.5	43.0
	Asian	5.0	21.3	30.0	32.5	11.3

5. ESTIMATION RESULTS OF SIMULTANEOUS EQUATION MODELS

In this chapter, simultaneous equation models are estimated in order to indicate relationship between tourists' consumer satisfaction and behavior-related consumer values. First of all, what kind of variables employed to estimate structural equation modeling (SEM) model is explained. Secondary, estimation results of the proposed model is shown. Thirdly, structure and parameters of the models are compared between non-Asian and Asian tourists.

The SEM is a confirmatory method, which should be guided by a priori hypothesis about the structures to be modeled. A SEM-model is a set of simultaneous equations specified by direct links between variables. In general, the structural model captures the relationships between the exogenous and endogenous variables and between the endogenous variables themselves. It is defined by

$$\eta = B\eta + \Gamma\xi + \zeta \quad (1)$$

in which the (m) endogenous latent variables denoted by η are a function of each other and of the (q) exogenous latent variables denoted by ξ . The unexplained portions of the endogenous variables (the errors in equations), have a variance-covariance matrix defined by $\Psi = E[\zeta\zeta']$. In the general case, both η and ξ are considered latent endogenous and exogenous variables respectively, because of measurement errors or because they are hypothetical constructs impossible to measure. Observable variables where no measurement errors or inconsistencies are detected can also be included without loss of generality. The following two measurement models represent the relationships between the latent variables η and ξ , and its indicators x and y .

$$x = \Lambda_x\xi + \delta \quad (2)$$

$$y = \Lambda_y\eta + \varepsilon \quad (3)$$

where x is a set of (p) observed manifest variables considered as indicators of the explanatory variables (ξ), and δ is a vector representing the measurement errors in x . The matrix Λ_x ($p \times m$) consists of regression weights of x on ξ . This is referred as the measurement equations. A similar approach can be conducted to define the structure for the endogenous latent variables following the equivalent measurement equation. The measurement errors (δ and ε) are uncorrelated with η , ξ and ζ but may be correlated among themselves. Some of the unknown parameters (i.e. elements of B , Γ , Ψ , Λ_x , Λ_y) are fixed by the modeler following some a priori hypotheses (this approach is referred to as confirmatory factor analysis or restricted model). To set the scale (metric) of the latent variables equal to the one of the observed variables and give "meaning to the latent variable" it is required to set some of the loading factors (λ) equal to one, therefore one element in each column of Λ_x and Λ_y is set equal to 1.

5.1 Variables Employed to Estimate LISREL Models

Variables to estimate models are shown in Table 9. In order to explain consumer value of tourists behavior, actual expense, mixture of trip purpose and sightseeing time are assumed to represent the value in this study. Here, mixture of trip purpose means the total number of trip

purposes as shown in Table 8. Regarding satisfaction for tourism resources, comprehensibility and appropriateness of explanations on signs and convenience and availability of services, indices shown in Table 7 are employed. Degree of importance of information gathering is expressed in three scales, in order to estimate relationship between these indices and degree of satisfaction for these items. Here, it is assumed that if tourists gathered information before trips, the information is important, and if tourists answered that they do not need to gather information, it is not important. Adding to age and gender, dummy variables for Asian, Japanese skill and visit experience to Kamakura are used.

5.2 Estimation Results

(1) The model applied for all foreign tourist samples

Estimation result of LISREL model for all foreign tourist samples is shown in Figure 4. Among tourists' personal attributes, gender and the number of person accompanied with the informants are not statistically significant in t-value at 5% level. As parameters between Asian dummy variable and degree of satisfaction for signs and convenience for services are negative, it is indicated that Asian tourists tend to feel dissatisfied for them. As tourists' age increase, degree of satisfaction for services increases but degree of satisfaction for sign decreases, because the former parameter is positive and the later is negative. The same tendencies are shown in case that tourists can not understand Japanese at all. These results may mean that in order to increase satisfaction for the elder tourists or for tourists who cannot understand Japanese at all, it is necessary to improve signs in order to assist their mobility. What is interesting is that tourists who have experiences to visit Kamakura before, they tend to dissatisfied with the convenience of services.

Regarding importance of information gathering, historical and cultural background information, major tour routes and sightseeing information and natural walkways, parks, and seashore information are positively correlated to degree of satisfaction for signs. As these indices mean whether tourists gathered or should have gathered information on these issues, it may be implied that satisfaction for signs increases if foreign tourists can prepare travel information well. On the other hand, information gathering index on historic sites, temples, shrines, and cultural facilities information positively correlate to degree of satisfaction for services. These results indicate that when foreign tourists gather information on sightseeing appropriately, their satisfaction for signs and services can increase. It is considered, therefore, that information provision is one of the important issues in order to increase foreign tourists' consumer satisfaction.

As shown in Figure 1, degree of satisfaction for tourism resources is assumed to be affected hierarchically by degree of satisfaction for convenience and availability of services and comprehensibility of signs. And tourists' travel value represented by actual expense, mixture of trip purpose and time spent for sightseeing. In this model, mixture of trip purpose and time spent for sightseeing are not statistically significant in t-value at 5% level. Direct path from degree of satisfaction for convenience of signs to degree of satisfaction for tourism resources is not statistically significant in t-value at 5%. Therefore, such a hierarchical structure is estimated that degree of satisfaction for tourism resources is at highest tier of the structure, which is affected by degree of satisfaction for convenience and availability of services and degree of satisfaction for signs locates at bottom of the structure. As parameter of path from degree of satisfaction for tourism resources to actual expense, it is naturally indicated that tourists' expense increase when their satisfaction for tourism resources rises.

Table 9. Explanation of Variables Employed to Estimate the LISREL Model

Variable (symbols)	Explanation
Consumer value of tourists	
Actual expense	Actual expense for over all travel (unit: yen per person)
Mixture of trip purpose	The number of trip purposes
Sightseeing time	Time to spend for sightseeing in Kamakura (unit: hours)
Consumer satisfaction of tourists	
Satisfaction for tourism resources	
Historic spots/temples and shrines (CS1)	“very satisfied” = 5, “satisfied” = 4, “average” = 3, “dissatisfied” = 2 and “very dissatisfied” = 1
Scenery/natural environment (CS2)	
Streets and avenues around houses and stores (CS3)	
Stores and restaurants (CS4)	
Convenience and availability of services	
Tourist facility services (CS5)	“very satisfied” = 5, “satisfied” = 4, “average” = 3, “dissatisfied” = 2 and “very dissatisfied” = 1
Availability of restaurants (CS6)	
Convenience of public transport (CS7)	
Comprehensibility and appropriateness of explanations on signs	
Tourist information center services (CS8)	“very satisfied” = 5, “satisfied” = 4, “average” = 3, “dissatisfied” = 2 and “very dissatisfied” = 1
for the towns (CS9)	
for the stations (CS10)	
for tourist facilities (CS11)	
Importance of information gathering	
Historical and cultural background information (II1)	“gathered before trip” = 2, “should have gathered before trip” = 1 and “no need to gather information” = 0
Major tour routes and sightseeing information (II2)	
Historic sites, temples, shrines, and cultural facilities information (II3)	
Restaurants and shopping information (II4)	
Natural walkways, parks, and seashore information (II5)	
Transportation (II6)	
Personal attributes of tourists	
Age (AGE)	Age of tourists
Gender	“Male” = 1 and “Female” = 0
Type of nationality (TYPE)	“non-Asian” = 0 and “Asian” = 1
Level of Japanese (LJ)	“cannot understand Japanese at all” = 1 and “else” = 0
Visit experience (VISIT)	“first visit to Kamakura” = 1 and “else = 0”
Person #	The number of person who travel with the informant

Note) Symbols in the parentheses are used to represent variables from Figure 5 to 7.

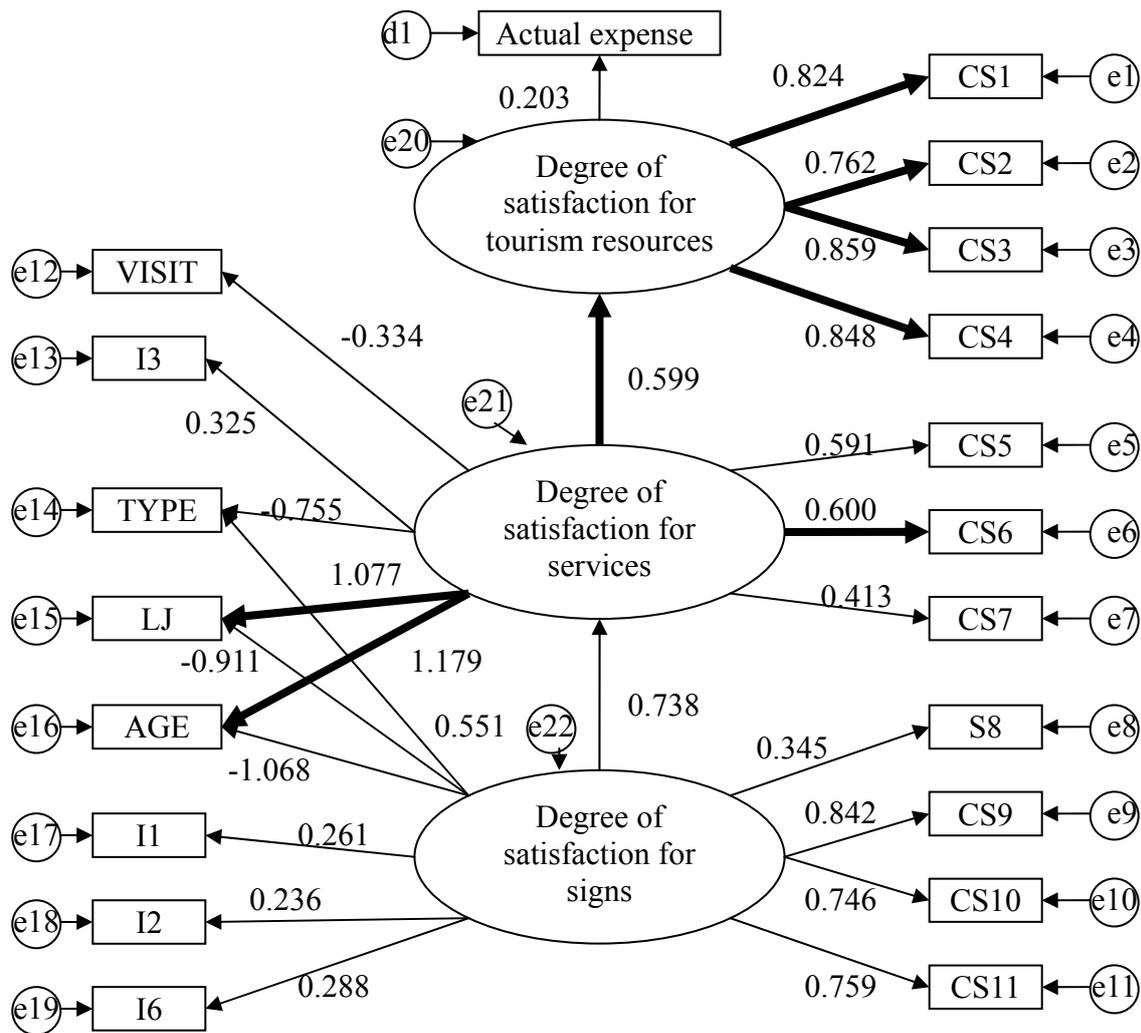


Figure 4. Estimation Result of LISREL for All Roreign Tourists (standardized parameters) n = 341, CFI = 0.885, AGFI = 0.885

Note: 1) **→** and \rightarrow mean statistically significant at 1% and 5%, respectively. 2) e* and d* mean error terms. 3) Meanings of Symbols are described in Table 9.

(2) Comparison of structural equation models between non-Asian and Asian tourists.

Secondary, structural equation models are compared between non-Asian and Asian tourists. Model estimation results of non-Asian and Asian tourists are shown in Figure 5 and Figure 6, respectively. As shown in Figure 6, in case of Asian tourists, consumers' values such as mixture of trip purposes and sightseeing time are statistically significant in t-value at 5%, and actual expense is affected by these two indices. Parameters of paths from "degree of satisfaction for signs" to "degree of satisfaction for services" and paths from "degree of satisfaction for services" to "degree of satisfaction for tourism resources" between non-Asian and Asian tourists are then compared. Statistically significant differences are indicated between these two groups in t-value at 5% level.

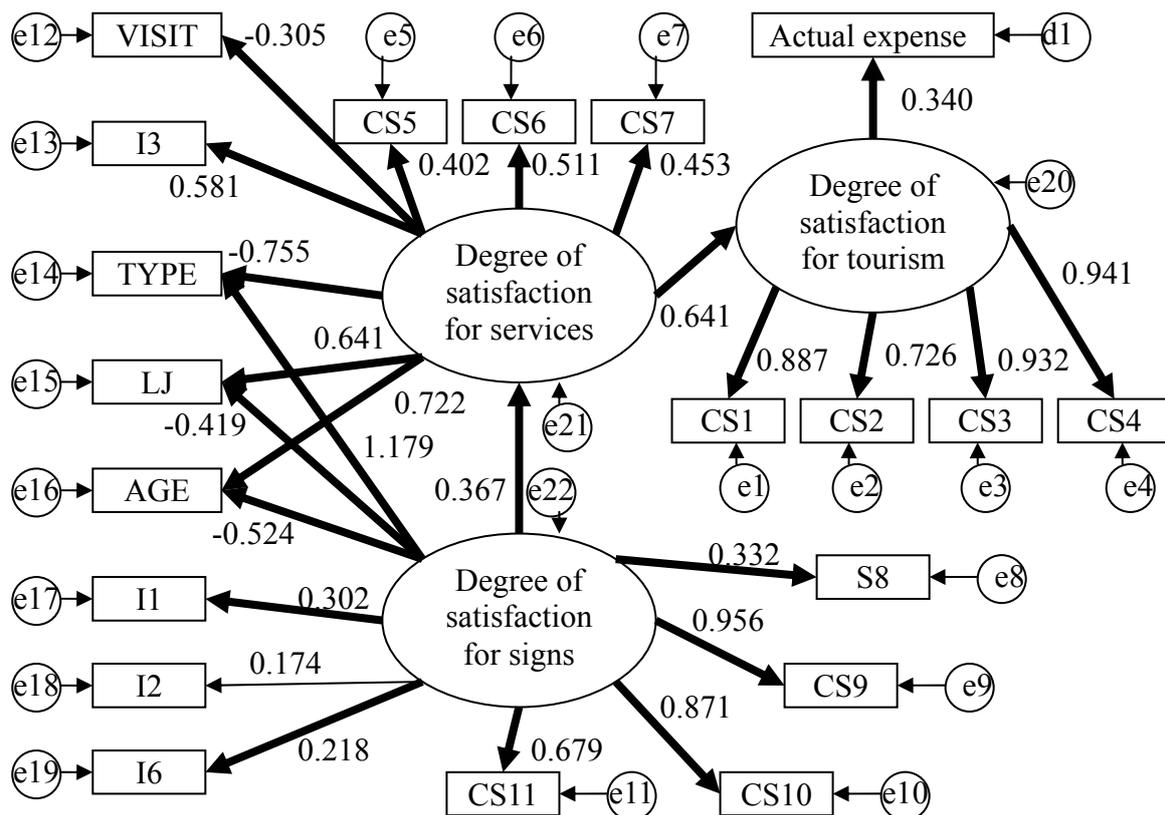


Figure 5. Estimation Result of LISREL for Non-Asian Tourists (standardized parameters) n = 231, AGFI = 0.908, CFI = 0.908

Note: 1) \rightarrow and \rightarrow mean statistically significant at 1% and 5%, respectively. 2) e* and d* mean error terms. 3) Meanings of Symbols are described in Table 9.

In case of non-Asian tourists, standardized parameter of path from “degree of satisfaction for services” to “degree of satisfaction for tourism resources” is higher than parameter of path from “degree of satisfaction for signs” to “degree of satisfaction for services”. On the other hand, in case of Asian tourists, standardized parameter of path from “degree of satisfaction for services” to “degree of satisfaction for tourism resources” is lower than parameter of path from “degree of satisfaction for signs” to “degree of satisfaction for services”. These results indicate that Asian tourists tend to attach importance to degree of satisfaction for signs more than non-Asian tourists.

6. CONCLUSIONS

In this study, in order to show relationship between consumer satisfaction and consumer value related to travel behavior for foreign tourists, a survey on attitudes and behaviors of foreign visitors in Kamakura is conducted. Cross aggregation analysis indicates that there are statistically significant differences between Asian and non-Asian tourists in some indices regarding consumer satisfaction. Structural equation models are applied to describe it quantitatively. Model structure and parameters are then compared between Asian and non-Asian tourists. As a result of that, structural difference of relationship between consumer satisfaction of tourists and consumer value related to sightseeing behavior among these two groups is indicated. On the other hand, it is shown that degree of satisfaction for signs in public spaces is relatively lower than degree of satisfaction for services and tourism resources.

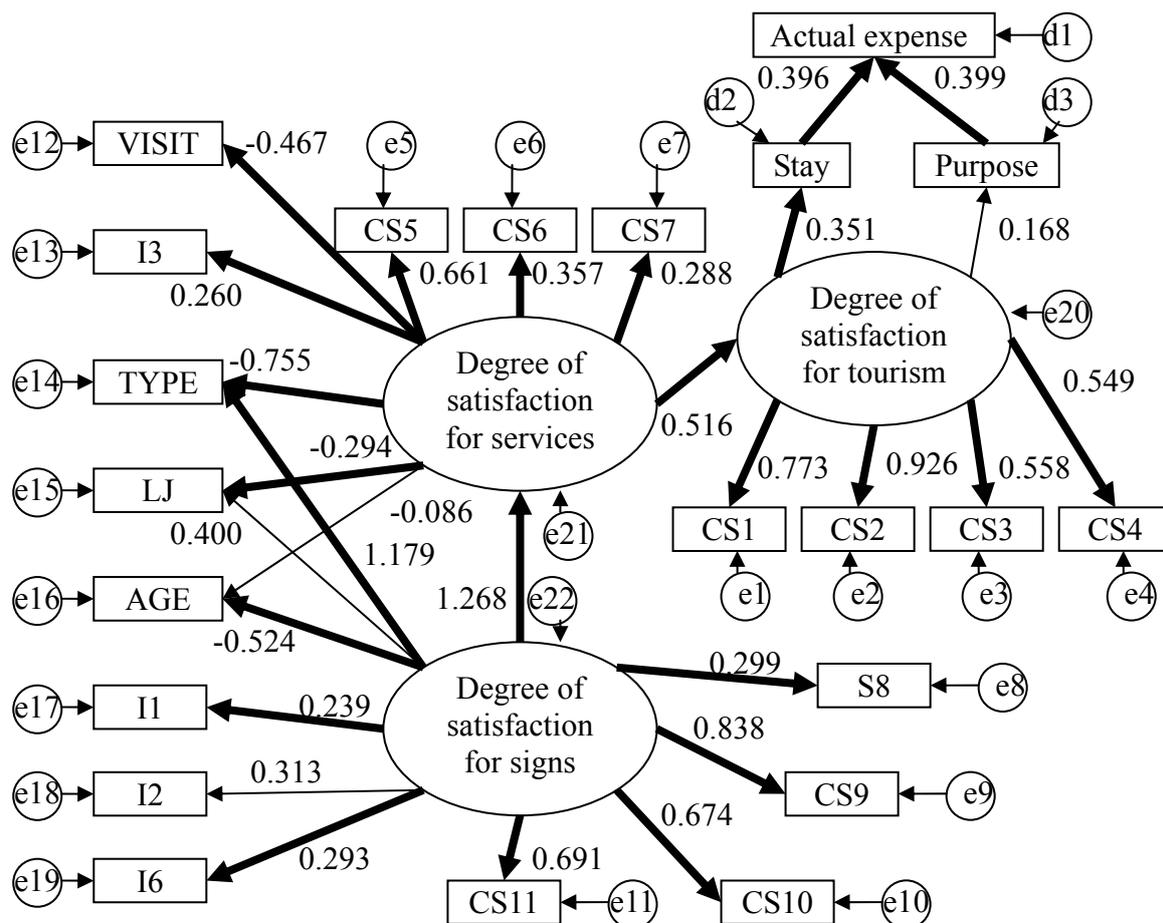


Figure 7. Estimation Result of LISREL for Asian Tourists

(standardized parameters) n = 110, AGFI = 0.909, CFI = 0.910

Note: 1) \Rightarrow and \rightarrow mean statistically significant at 1% and 5%, respectively.
 2) e* and d* mean error terms. 3) Meanings of Symbols are described in Table 9.

When considering that Asian tourists feel inconvenient with signs when sightseeing, it can be implied that to improve comprehensibility and appropriateness of explanations of signs in the study area is necessary in order to increase attractiveness. In the following sections, political implications and future directions of inbound tourism study are described.

6.1 Political Implications

One of the most important issues in tourism measurement, not only of Kamakura city but also of Japanese government, is how to increase the number of Asian tourists. And for this purpose, to improve attractiveness of sightseeing spots for them is also crucial. As shown in the survey results in this study, degrees of satisfaction for overall sightseeing in Kamakura for Asian tourists are relatively lower than those for non-Asian tourists. It can also be considered that another reason why degree of satisfaction of Asian tourists is partly because their purpose and travel information media are different from those of non-Asian tourists as shown in Table 2, 3, 4 and 7. Particularly, not a few Asian tourists tend to visit sightseeing spots to enjoy nature (hiking or marine sports), shopping/food and cultural facilities (art galleries, museums, etc.), but they don't gather information of them before their trips. It is assumed that such kind of information is lacked in travel guide books or brochures in Asian languages, although detailed survey is necessary to conclude this point. Anyway, it can be implied that information media

for Asian tourists bears improvement.

Secondary, as indicated Figure 5, 6 and 7, foreign tourists' skill of Japanese affects degree of satisfaction, especially when they can not understand Japanese at all. It is also shown that degree of satisfaction for services decreases as Asian tourists' age rises. Besides, degree of satisfaction for sign decreases as non-Asian tourists' age rises. So far, in the study are, travel information is provided only at Tour Information Center in front of Kamakura Station and there is few signs written in foreign languages in town. It seems necessary not only to increase signs in foreign languages, but also to provide guidance service for those foreign tourists who are unfamiliar with environment in the study area. For example, several guidance services are available by handy phones with GPS for Japanese tourists, and it is possible for them to gather information about sightseeing spots, restaurants, routes and so on, when they use such kind of services. But such kind of system is unavailable for foreign tourists. Man-to-man guide service for foreign tourists is also insufficient. It is implied that fine-tuned guidance services for them should be exploited by enhancing and utilizing information technology and human resources, such as senior labor forces that retired their jobs.

6.2 Future Directions of Inbound Tourism Study

In this study, consumer satisfaction evaluation models are estimated by using the LISREL model. However, in order to estimate parameters to maximize expected utility of consumer satisfaction, the Bayesian approach such as the Markov-chain Monte Carlo ordered probit model seems to be more appropriate. This is mainly because that model parameters may not be estimated by using traditional estimation methods such as the maximum likelihood method. Comparative study of consumer satisfaction between foreign tourists and Japanese visitors is also a crucial issue in the next step.

In the survey conducted in this study, foreign tourists' locations are traced by using GPS, but its data is used only for calculate time tourists spent in the study area. Because commercial areas around Kamakura station are congested especially in the weekend, it is considered that congested roads may stress tourists. By accumulating GPS survey data, it is necessary to analyze relationship between congestion level and consumer satisfaction. Asian samples are consist of tourists who visited privately and foreign students, but it is said that many Asian tourists visit sightseeing spots as package tour tourists, especially from eastern Asia (Kawamura, 2004). Because it is crucial issue where foreign tourists berth for tourism bureau of Kamakura city, it is necessary to conduct same kind of survey for group tour tourists in the next step. Additionally, the authors would like to compare activity and scheduling between foreign tourists and Japanese tourists, in order to develop travel information service for foreign tourists through paper guidebooks/free papers and through handheld devices such as handy phones or PDA with GPS.

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