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DETERMINANTS OF RURAL TOURISM AND MODELING RURAL TOURISM DEMAND IN KOREA

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DETERMINANTS OF RURAL TOURISM AND MODELING RURAL TOURISM DEMAND IN KOREA

By

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ABSTRACT

DETERMINANTS OF RURAL TOURISM AND MODELING RURAL TOURISM DEMAND IN KOREA

By

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Tourism development has been suggested as an effective strategy for revitalizing rural communities in Korea that have experienced serious structural and economic problems. The Korean government is playing a leading role in the development of rural tourism. Since the 1990s, tourists' demand for rural tourism has been increasing due to factors such as larger disposable incomes, a more mature travel market, changing tastes and preferences, and increased leisure time resulting from the introduction of a five-day work week system in Korea. This increasing demand coupled with large government investments justifies the need to study rural tourism, especially studies focused on the demand side of tourism.

This study was designed to investigate the determinants of rural tourism and to model rural tourism demand in Korea. Rural tourists were identified and profiled and compared with tourists who do not engage in any forms of rural tourism. Then, rural tourists were segmented based upon their motivations for participating in rural tourism. Three different rural tourism motivational market segments were identified; *Rural-centric*

Tourists, *Passive Rural Tourists*, and *VFR Rural Tourists*. The profiles of these three motivational market segments revealed significant differences in their socioeconomic characteristics, rural tourism trip characteristics, and participation in different types of tourism.

Decisions whether or not to engage in rural tourism include two different decision processes which may or may not occur simultaneously: a participation decision and a frequency of participation decision. Factors that affect tourists' decisions of whether or not to participate in rural tourism and how frequently to participate were examined and it was determined that the factors that influence the two decisions are different. The factors that affect the frequency of participation in rural tourism are significantly different across the three motivational rural tourism market segments.

Comparing two different econometric models, the Poisson-hurdle Model and the Tobit Model verified that tourists' participation and frequency decisions are different in terms of the importance of different factors although they may occur simultaneously. The evidence indicates that the two rural tourism decision processes need to be considered separately when developing marketing strategies for creating new demand and for increasing the existing rural tourism demand.

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CHAPTER 1

INTRODUCTION

Rural Problems in Korea

Since the 1970s, Korea has experienced rapid economic growth by concentrating on industrialization primarily in urban areas. However, during this period rural areas did not receive the same level of attention. This disparity of focus has occasioned a matching disparity in incomes and/or wage rates between rural and urban areas and has in part been responsible for the rapid population outflow from rural to urban areas. These unbalanced economic development strategies during the past three decades have created structural problems in rural Korea, including a labor shortage caused by depopulation, an age imbalance in the rural population, and stagnation of the rural economies.

In the 1990s, the Korean rural economy worsened due to the open agricultural market policy. This policy severely reduced the economic opportunities of many rural communities in Korea, resulted in a decline in the number of farmers, and led to restructured farm ownership, forcing some farm families to augment their incomes with off-farm jobs, to stop farming, to sell agricultural land to speculators, or to declare bankruptcy. Table 1 illustrates how farm populations and farm households have changed

since 1970.

Table 1. Farm Population and Percentage of Total Population

	1970	1980	1990	2000	2001	2002	2003
Farm Population[a]	14,421	10,827	6,661	4,031	3,933	3,591	3,530
Percentage of Total Population	45.8	28.4	15.5	8.6	8.3	7.5	7.4
Farm Household[a]	2,483	2,155	1,767	1,383	1,354	1,280	1,264
Percentage of Total Households	42.4	27.0	15.6	9.7	9.1	8.5	8.3
Farm Population per Household	6.1	5.8	3.8	2.9	2.9	2.8	2.8

Source: Ministry of Agriculture and Forestry, 2004
[a] In thousands

The number of farm households in Korea has declined since the 1970s. The farm household population as a percentage of Korea's total population fell sharply from 45.8 percent in 1970 to 15.5 percent in 1990 and to 7.4 percent by 2003. A sharp decrease has also occurred in the size of farm households: from an average of 6.1 persons in 1970 to 2.8 persons in 2003. Migration of the rural population, reduced cropping index, and a decline in the competitiveness of domestic agricultural products, have seriously damaged rural economies and have produced marked differences of income between different regions of the country, and between urban and rural areas.

In addition to reduced rural population, the stagnation of the rural economy is

another major problem in rural Korea. The annual average rate of growth of farm household income was only 0.8 percent between 1995 and 1997 (Ministry of Agriculture and Forestry of Korea [MAF], 2004). During that same period, the annual average rate of growth of farm income was a negative 4.4 percent. According to the recent baseline projections of Korean agriculture (Korea Rural Economy Institute [KREI], 2002), farm income is forecast to stagnate further and become unstable during the next decade.

The Korean government now supports rural communities in many ways, including direct payments, which consists of financial support paid directly to rural community governments, which in turn use the money to support local farmers (MAF, 2004). Since the late 1990s, the Korean government has turned its attention to the diversification of farm household income sources, especially off-farm income. Today, the Korean government is continuously implementing programs to increase non-farm incomes of farm households, through the creation and/or extension of off-farm job opportunities in rural areas. Table 2 illustrates the changes in farm revenue between 1985 and 2000.

Table 2. Changes in Farm Household Revenue

	1985	1990	1994	2000	Percentage of Annual Increase/Decrease (%)	
					85-94	94-00
Farm Household Revenue[a]	11,827	16,238	21,775	21,245	7.0	-0.4
Agricultural Revenue	7,627	9,225	11,067	10,034	4.2	-1.6
Off-farm Revenue	2,186	4,184	6,628	6,843	13.1	0.5
(Percent[b])	(18.5)	(25.8)	(30.4)	(31.5)		
Comparison with Revenue of Urban Households (%)	112.8	97.4	99.5	80.5	-	-

Source: Korea National Statistical Office, 2001

[a] Unit = 10,000 won (Average conversion rate: US$1.00 = ₩881.47 in 1985, ₩707.97 in 1990, ₩803.62 in 1994, ₩1130.36 in 2000 provided by Kiup Bank)

[b] Numbers within parenthesis indicate percentage of total farm household revenue.

Although the absolute value of farm revenue has increased during the last 15 years, farm revenue, relative to the revenue of urban households, has decreased from 112.8 percent in 1985 to 80.5 percent in 2000. The annual growth rate of off-farm revenue was 13.1 percent between 1985 and 1994, which is much higher than the annual growth rate of agricultural revenue, 4.2 percent during that same period. Since 1994, the annual growth rate of agricultural revenue is a negative 1.6 percent.

Rural communities in Korea are similarly facing serious problems: including depopulation, disproportionate aging of the rural population, lack of a labor force, and the government's agricultural open market policy, according to the Uruguay Round

agreement[1] by GATT. These problems have resulted in stagnation of the rural economy, as well as degradation of the quality of rural life. For more than three decades, rural communities in Korea have had difficulty solving these problems, and the rural environment has been negatively impacted.

Tourism as a Strategy for Rural Development

Rural communities, as well as the Korean national government, have recognized the need to revitalize rural areas, including energizing the rural economy and upgrading the living conditions and quality of life in rural Korea. Tourism development has been suggested as the best strategy for rural revitalization; this has apparently worked successfully in many countries (Ribeiro & Marques, 2002; Wilkerson, 1996), and tourism has many potential benefits for rural areas, including different elements of economic development (Frederick, 1992; Lewis, 1998).

Some contend that rural tourism is less costly and easier to establish than other rural economic development strategies, such as manufacturing (Wilson et al., 2001).

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[1] The Uruguay Round (UR) are multilateral trade negotiations launched at Punta del Este, Uruguay in September 1986, concluded in Geneva in December 1993, and signed by Ministers in Marrakesh, Morocco in April 1994. The UR agreements weakened competitiveness of agriculture in Korea. The import of many agricultural products (about 285 of them, including rice) were restricted, however, the UR agreements liberalized agricultural trade.

Others believe that it can be developed with relatively little investment credit, training, and capital (Shaw & Williams, 2002). Because jobs in the tourism industry often do not require advanced training, local residents with few skills can readily work as food servers, retail clerks, and hospitality workers. Rural tourism also works well with existing rural enterprises, such as farms, and can be developed locally with participation from local governments and small businesses. Its development is not necessarily dependent upon outside firms or companies. Rural tourism adds income to farms and other households, provides job alternatives, diversifies the rural economy, and makes possible the provision of certain infrastructure. Rural tourism not only offers business opportunities to local residents, but can also serve as a vehicle for marketing a locale to potential residents and firms. Tourists may return later to retire or start a business in rural areas.

In addition to economic benefits, rural tourism can enhance the quality of life in rural communities and can support local culture in rural areas by encouraging restoration of local and regional historic and cultural sites. Additionally, rural tourism can bring a transfer of ideas from urban to rural areas, provides urban people with rural living experiences, and fosters conservation efforts.

Rural tourism and recreation are among the fastest growing sectors within the tourism industry. Besides the obvious need for revitalization of rural communities, many

external factors have induced the recent surge in rural tourism and recreation, including the increasing rates of automobile and weekend travel, larger disposable incomes, a mature travel market, changing tastes and preferences, and increased leisure time resulting from the introduction of a five-day work week system (Alexander & McKenna, 1998).

In many developing countries, rural tourism has become an important element of agricultural diversification. In Taiwan, rural tourism has a positive impact on farmers' incomes and the standard of living in rural areas (Hong, 1998). Thailand has also promoted tourism as a major source of national income. Under the Seventh (1992-1996) and Eighth (1997-2001) Development Plans of Thailand, tourism is seen as an essential component to reach an important objective; that is, "to develop the free, stable and balanced growth of the national economy, to promote opportunities, to develop human potential in the development process, and to reap fair returns from such development" (Rattanasuwongchai, 1998). In Indonesia, rural tourism plays an important role in the growth of both agriculture and tourism simultaneously. This involves a valuable synergy for both sectors, which emphasize a goal of value-added improvement (Iwantoro, 1998).

Tourism and Rural Development in Korea

Like many other countries, rural tourism is a promising strategy for assisting in generating and diversifying revenues for Korean farmers; it will also help to give Korean agriculture an increased range of functions. In other words, rural tourism development not only generates revenue for rural society; it can also enhance the welfare of both urban and rural people through the growth of farm incomes, conserving the rural environment, improving living conditions, and making more intensive use of rural resources, with benefits for urban people including the provision of leisure resorts and opportunities to study and enjoy nature (Choi, 1998).

Recognizing both the current challenges confronting rural communities especially rural agricultural sector and the benefits of rural tourism, the Korean government has allocated considerable funds and effort into rural tourism development since 1984. The development of rural tourism has been promoted by both the government and agricultural cooperatives. The government does much of the planning, and the cooperatives provide much of the financial support.

Rural tourism in Korea has focused primarily on the development and marketing of tourism farms. There were 382 tourism farms in 1997, each averaging a land area of 2.5 hectares. Average investment costs were 656 million won (US$690,000) per farm,

more than half of which derived from the owners' private savings. According to the objectives of the Korean rural tourism program, tourism farms should serve as a major income source for farmers, and should contribute to rural employment. The government also believed that rural tourism should contribute to conservation of the rural environment and should promote sustainable rural development (Bae & Kim, 2003; Jung, Byun & Kim, 2004). Different rural tourism development policies and strategies have been implemented over the last 20 years. In its early stages, rural tourism development and marketing mainly consisted of tourism farms that sold farm produce directly. However, after 1988, the government's rural tourism strategy became more diverse. Some tourism farms were rented rather than owned; some developed multiple facilities, with a complex of accommodation, restaurant and leisure pursuits, etc; while others specialized in nature study, as places where young people could develop their mental and physical abilities, or as a holiday resort.

To encourage development of tourism in rural areas, in 1984 the Korean government began offering credit to qualifying villages (Choi, 1998). Table 3 illustrates the basic requirements that rural communities must meet in order to qualify for tourism development financial aid from the Korean government. Between 1984 to 1987 farmers and other qualified individuals engaged in rural tourism development were each extended

credit to a limit of 20 million won (US$22,000) per village, with an annual interest rate of 10 percent, and repayment installments scheduled over four years, with a one-year grace period. This credit limit was increased to 50 million won (US$55,000) for designated tourism areas in 1988. In 1992, credit was raised to 200-to-250 million won (US$220,000-275,000) for both existing and new designated areas, with a lower interest rate over eight years and repayment in seven years with a three-year grace period.

Table 3. Types of Rural Tourism Development and Requirements for Korean Government Financial Aid Between 1984 and 1997[a]

YEAR	1984	1988	1992	1997
Type of development	• Direct sale of farm goods • Rental farms for tourism	• Direct sale of farm goods • Rental farms for tourism • Tourism farm complex	• Tourism farm for studying nature • Weekend farming allotments • Tourism farm park for sports and leisure • Mountain resorts	• Tourism to study nature • Weekend farming allotments • Health and exercise • Rural resting • Tourism farms for the aged
Qualification	• Must be residents of designated area • Joint participation by more than five households	• Farmers and non-farmers both qualify • Newcomers may qualify	• Joint participation by more than five households (all should contribute farmland) • Joint participation by farmers in partnership with cooperatives of farmers, also of fishermen and rural development corporations, or farm-land improvement associations	• Residence over one year on farm and partnership with three farm households • Corporate type farming group organized with at least five farm households, Farming group, or Producer cooperatives in partnership with farmers • Mayor or magistrate of a county, and rural development corporation • Farming group, corporate type farming group of more than five farmers

[a] Kyu-Seob, Choi, 1998

Before 2000, Korean rural tourism was mainly developed by the Ministry of Agriculture and Forestry. However since 2000, many different government agencies have participated in rural tourism development.

Table 3. Types of Rural Tourism Development and Requirements for Korean Government Financial Aid Between 1984 and 1997[a] (cont'd)

YEAR	1984	1988	1992	1997
Financial assistance	• Limit 20 million Won[b] (5 million Won per household) • Interest: 10% per annum (repayment in four years with a one-year grace period)	• Limit 100 million Won[b] in a new tourism area, limit 50 million Won in already designated area • Interest: 8% per annum (repayment in five years with a three-year grace period)	• Limit 150 million Won[b] in a new tourism area, limit 200 million Won in already designated area • Interest: 5% per annum (repayment over seven years with a three-year grace period)	• Limit 200 million Won[b] in a new tourism area, limit 250 million Won in already designated area • Interest: 8% per annum (repayment in five years with a five-year grace period)

[a] Kyu-Seob, Choi, 1998

[b] Average conversion rate: US$1.00 = ₩731.42 in 1988, ₩780.84 in 1992, ₩951.11 in 1997. (Conversion rate for 1984 is not available, provided by Kiup Bank)

In addition to government support, institutional support for rural resorts was begun in 1990 and for home-stay villages[2] in 1991. Rural resorts were given credit amounting to 250 million won (US$275,000) and 30 million home-stay villages were given 30 million won (US$33,000) apiece.

Since 2000, many different government agencies have become active in rural tourism development focusing more on the village level. Table 4 describes various Korea's rural tourism development programs, including: the characteristics of the

[2] "Home-stay village" is a village consisted of houses that provide home-stay for tourists.

program, the amount of government support, and the number of villages selected for tourism development by different government agencies.

Table 4. Rural Tourism Development Programs by the Korean Government

Competent Authority	Name of the Program	Program Description	Amount available per village (National expenses)	Selection
Ministry of Agriculture and Forestry	Greenfarm Village	Public participation method. Improvement of infrastructure of rural area for tourism development	200,000,000 Won[a] (100,000,000)	2002-18 villages 2003-26 villages
Ministry of Government Administration and Home Affairs	A-Reum Village[b]	Public participation method. A comprehensive village development aimed at generating revenue	1,000,000,000 Won	2001-9 villages 2002-14 villages 2003-NA
Ministry of Environment	Eco Village	Public participation method. Development of a village with great ecosystem	NA	2002-11 villages 2003-13 villages
Ministry of Maritime Affairs and Fisheries	Sea Village	Recommendation by a self-governing body. Development of advanced sea village	500,000,000 Won	2002-8 villages 2003-11 villages
Rural Development Administration	Theme Village	Public participation method. Development of rural tourism using theme of the village	100,000,000 Won (50,000,000)	2002-9 villages 2003-18 villages

[a] Average conversion rate: US$1.00 = ₩1290.79 in 2001, ₩1251.62 in 2002, ₩1191.68 in 2003 provided by Kiup Bank

[b] A-Reum is intrinsic Korean meaning beautiful.

Rural tourism in Korea has been gaining popularity among urban dwellers recently. However, there is still difficulty and limitations confronting efforts for encouraging today's rural tourism development in Korea. The first, tourism development, financing and marketing policies and programs are not well organized and no government agency has overall responsibility and control over rural tourism development. This number and diversity of the agencies involved has resulted in duplication and overlapping effort. For rural tourism planning in Korea to proceed in an organized manner there needs to be scientific studies and a more analytical understanding of rural tourism in Korea, An accurate analysis of tourism demand should precede any development and investment in rural tourism programs and marketing strategies.

Problem Statement

Careful analysis of rural tourism demand and supply is a crucial part of the decision-making regarding investments by either the government or private sectors. A more scientific analysis and projections of rural tourism is necessary to bring about a more effective deployment of capital. The study of demand will improve marketing decisions by suggesting policy implications and strategies for promoting tourism products and services (Uysal & Roubi, 1999). To successfully capitalize on the economic benefits

of rural tourism, tourism decision-makers at all levels must be aware of changes and developments affecting the tourism demand. Gartner and Lime (2000) suggest that the need for risk reduction in decisions is more critical in the tourism industry than in other industries. Since government has taken charge of rural tourism development in Korea, the need for more studies examining tourism demand are needed to help reduce budget risk.

More analytical demand monitoring and forecasting is especially important when it comes to the design and investment in tourism products and services. Tourism products and services are characterized as uniquely perishable. Matching demand with 'perishable' or 'changing' capacity is very important. Demand for rural tourism can be influenced by government policies as well as changes in preference, tastes and consumption behaviors. Rather than mass tourism, recently there has been interest in alternative tourism, among which rural tourism has become one of the most promising forms.

Younger generations of Koreans differ from older generations in terms of demographics lifestyle and their propensities to engage in tourism (Korea National Tourism Organization [KNTO], 2005). To cope with unique characteristics of tourism products and to provide prompt tourism services to ever more demanding tourists, tourism administrators and operators need monitor and attempt to understand the interaction of supply and demand trends. Strategic planners, policy makers, financial

officers, and market analysts of rural tourism need to develop and apply state-of-the-art methods to monitor, assess and project the demand for different forms of rural tourism and understand demand by different market segments.

Numerous studies have focused on tourism demand, but rarely on specifically on rural tourism. Generally, research on tourism demand consists of two related elements: market demand forecasts and forecasting the factors that influence tourism demand. Most tourism demand studies focus on market demand forecast; for example, regional demand for tourism or demand per consumer. This can be estimated using the number of visits, total visits, visitor days to a certain attraction, etc. Time series models are the most frequently used method to forecast market demand (Gonzalez & Moral, 1995; Smeral, Witt, & Witt, 1992; Smeral & Witt, 1996). Based on the results of these market demand forecasts, government or agencies frequently formulate tourism development plans, including resource allocation, compilation of the budget, investment, and employment.

However, it is even more difficult to forecast market demand for rural tourism in Korea for a number of reasons. First, rural tourism in Korea is still at the introductory stage, so there is little time series data available from the past. Also demand for rural tourism is highly influenced by government policies, investments and other external factors which are not well understood because there have not been many scientific studies.

Demand studies should not only be focused on providing future use estimates, they must also enhance understanding of the collection of factors that affect rural tourism demand. According to the literature, these factors include: income, discretionary time, travel expenditure, price, socio-demographic characteristics, etc. (Crouch & Shaw, 1990; Eugenio-Martin, 2003; Hangin & Junsen, 1995). By analyzing and understanding those factors, the Korean government can better create and positively influence rural tourism demand. It is useful for tourism planners and local governments to understand how tourism demand changes in response to changes in various demand factors.

Researchers have investigated factors that affect tourism demand, primarily through the development of regression models Regression analysis offers a number of advantages (Frechtling, 1996). First, it explicitly addresses relationships evident in the real world, such as the effects of prices, income changes, etc., on tourism demand. Second, it aids assessment of the effects of alternative plans (i.e. marketing plans, government policies) on tourism demand and provides several statistical measures of accuracy. Morlay (1997), Smeral and Witt (1996), Syriopoulos (1995), Turner et al. (1995), Witt et al. (1995), and Zalatan and Burge (1980) have all conducted significant studies on tourism demand employing regression models.

To achieve more accurate representations of the important relationships

characterizing the real world, economic researchers have developed models consisting of systems of interdependent and simultaneous equations, called structural models. The structural models describe the behavior of consumers and other economic factors, as well as the technical relationships such as production functions or demand functions. Structural models have been incorporated into several studies concerning tourism activity (Gonzalez & Moral, 1995; Smeral, et al., 1992; Smeral & Witt, 1996).

Since the 1990s, many researchers have studied rural tourism in Korea, especially with a focus on tourism development. Most of those studies, however, have focused only on the supply side of rural tourism. To develop tourism in rural areas more effectively, pertinent studies focused on learning more about the consumers of rural tourism and about the demand for rural tourism should also be conducted. Few studies have focused on rural tourism demand in Korea, and the early studies of tourism demand have some problems and limitations. Previous studies based upon individual observations primarily modeled the quantity decision; models and/or techniques employed for the research were insufficiently sophisticated or comprehensive to provide significant results. Also, research results have not been applied to the development of rural tourism, such as policy-making by the government or agencies. Not considering the changing situations of the market, every year the same variables were applied to forecast tourism demand,

making it difficult for decision makers to accurately estimate the rural tourism demand that might exist in the future.

A systematic examination of both the supply and demand sides of rural tourism and recreation is necessary, if rural communities in Korea are to be able to plan properly to serve an evolving tourism marketplace. As such, this study proposes to examine the real state of rural tourism in Korea by investigating factors that affect consumers' decisions about rural tourism. No one technique or model exactly forecasts tourism demand. Instead, a comprehensive and specifically designed model, regarding the type of data, the required accuracy, the available time, the easiness of the technique, and the characteristics of the type of tourism industry, is essential to fully investigate the factors that influence tourism demand.

In terms of building demand models for this study, two different modeling techniques were used focusing on consumers' decision-making. The Tobit Model and the Poisson-hurdle Model were selected because of their systematic sophistication in dealing with censored data and modeling count data. When it comes to consumers making decisions about whether or not to engage in rural tourism, their behavior includes two different decision processes: participation decision and consumption decision. First, this study proposes to begin at the point where consumers decide to engage in tourism and

examine which factors affect that decision, in an effort to identify recognizable differences between participants and non-participants in rural tourism. Second, this study proposes to consider the next consumer step: the consumption decision. This step could be explained by merely quantifying how many times people choose to participate in rural tourism. The factors which affect the consumption decision are also examined. It is important to note that these two decision processes may occur either simultaneously or independently. Additionally, this study proposes to discuss various determinants that influence consumers' decisions concerning rural tourism.

This proposed study is comprised of four parts. The first part of the study and dissertation will identify and profile the rural tourism market in Korea. This will involve a comparison of the profiles of rural tourism participants and those who do not participate in rural tourism. The next part will determine whether the Korean rural tourism market can be segmented using motivations for participating in rural tourism. The next part will determine the factors that affect rural tourism participation and consumption decisions. The fourth and last part will develop a model for rural tourism participation and consumption decision-making. Participation decisions refer to the decision to participate in rural tourism. Consumption decisions are the amount of participation (number of rural tourism trips) in rural tourism. The analysis of rural tourism demand will attempt to

determine whether participation and consumption decisions are made simultaneously. This will be accomplished by analyzing what variables influence each decision. A Poisson-hurdle Model will be employed; the model assumes that consumers first chose whether or not to participate in rural tourism, and then decide the frequency of participation. This model assumes that the two decisions can be influenced by different factors in contrast to a Tobit Model which assumes that the two decisions are influenced by the same factors.

Objectives, Research Questions, and Hypotheses

Four objectives are formulated for the study. Research questions and hypotheses related to each objective are described.

Objective One

To identify and profile the rural tourism market in Korea

Research Questions

- Who are Korean rural tourists?
- Do Korean rural tourists have a different profile than non-rural tourists?

Hypothesis 1: Persons who participate in rural tourism differ from persons who do not participate in rural tourism with respect to:

- Socioeconomic characteristics including: location of residence, gender, age, marital status, monthly household income, education, occupation, length of work week, childhood residence, and relationship to agriculture,
- Participation in different types of tourism: nature/ecotourism, cultural/heritage tourism, industrial/social tourism, and pleasure tourism,
- Perceptions of rural resources.

Objective Two

To segment the rural tourism market and profile different rural tourism market segments in Korea

Research Questions

- Do Korean rural tourist markets differ in terms of motivational factors?
- Do the motivational market segments have different profiles in terms of trip behavior and characteristics?

Hypothesis 2: Rural tourism motivational market segments differ in terms of:

- Socioeconomic characteristics including: location of residence, gender, age, marital status, monthly household income, education, occupation, length of work week, childhood residence, and relationship to agriculture,
- Rural tourism trip characteristics: length of trip, travel party composition, size of travel party, age makeup of travel parties, type of transportation, type of lodging, information source, trip spending, and trip satisfaction,
- Importance of factors in determining rural tourism destinations, and satisfaction with those factors,
- Participation in different types of tourism: nature/ecotourism, cultural/heritage tourism, industrial/social tourism, and pleasure tourism,
- Perceptions of rural resources.

Objective Three

To better understand the factors that affect participation in rural tourism and frequency of participation in rural tourism in Korea

Research Questions

- What factors affect decisions to participate in rural tourism in Korea?

- What factors then affect the frequency of participation?

Hypothesis 3: Tourists' characteristics will influence their participation in rural tourism.

- Socioeconomic characteristics will affect decision of whether to participate in rural tourism.
- Participation in non-rural tourism will affect decision of whether to participate in rural tourism.
- Perceptions of rural resources will affect the decisions of whether to participate in rural tourism.

Hypothesis 4: Tourists' characteristics will influence the frequency of their participation in rural tourism in Korea.

- Tourists' socioeconomic characteristics will affect the frequency of their participation in rural tourism.
- Tourists' participation in non-rural tourism will affect the frequency of their participation in rural tourism.
- Tourists' perceptions of rural resources will affect the frequency of their participation in rural tourism.
- Tourists' motivation for participating in rural tourism will affect the frequency of their participation in rural tourism.

Objective Four

To develop a demand model for Korean rural tourism that combines decisions as to whether or not to participate in rural tourism and how frequently to participate

Research Questions

- Do decisions as to whether or not to participate in rural tourism occur simultaneously or independently with decisions about frequency of participation?

Hypothesis 5: The factors which affect tourists' participation and the factors which affect tourists' frequency decision will be different.

Hypothesis 6: The Poisson-hurdle Model and the Tobit Model have the different outcomes when it comes to the factors that affect the decisions of rural tourists.

CHAPTER 2

LITERATURE REVIEW

This chapter provides a review of literature dealing with rural tourism and different "demand" factors that researchers have evaluated. It provides a review of literature pertaining to rural tourism including: (1) definitions of rural tourism, (2) foundations of rural tourism development and strategies, (3) studies of rural tourism conducted in Korea and (4) recreation and tourism demand forecasting. Special emphasis is placed on studies of rural tourism in Korea and research conducted in other countries that are particularly relevant to this study.

Definition of Rural Tourism

What is 'rural?' There is no one commonly accepted definition for 'rural' (Willits, Beatler, & Timbers, 1990). In Webster's dictionary, 'rural' is defined as "of or pertaining to the country, as distinguished from a city or town; living in the country; and farming/agricultural" (Webster's Revised Unabridged Dictionary, 1998). 'Rural' applies to sparsely settled or agricultural country. The definition of 'rural' in the Korean dictionary is "a village or area where people make a living by farming, including raising

stock, sericulture, horticulture, forestry, and fruit-growing" (Yahoo Korea Dictionary, 2004).

Within the literature, there are three different criteria that are used to determine whether a place is 'rural' (Lane, 1994). The first criterion relates to the size of a population and the population density of an area. The size of a population classified as 'rural' varies in different countries. For example the USA classifies a 'rural' population as one with fewer than 50,000 people and a population density of fewer than 1,000 people per square mile (United States General Accounting Office, 1993), Canada classifies a 'rural' population as one with fewer than 1,000 people and a population density of fewer than 400 people per square kilometers (Gartner, 2004), England classifies a 'rural' population as one with fewer than 10,000 people (Office of the Deputy Prime Minister, Landscape Access Recreation, 2004), and in Korea a 'rural' population is one with fewer than 20,000 people (Kim & Seo, 2002).

The second criterion used to distinguish rural areas relates to land uses and economic activities. This standard applies worldwide. The economy of many rural areas is dominated by agriculture and forest-based activities. Generally, over 80 percent of the world's rural land remains as natural environment (Lane, 1994). The third criterion used of define 'rural' is whether or not if retains a social structure with a traditional

community identity and heritage.

According to Dernoi (1991), 'rural' refers to a non-urban territory in which human (land-related economic) activity is taking place. Long (1998) proposes a definition of 'rural' that reflects a lifestyle one is likely to encounter while visiting a 'rural' community; rural may be perceived as a place of safety, with solid values, surrounded by open space and natural beauty, where one is treated respectfully and in a friendly manner.

What then constitutes 'rural tourism?' Generally, 'rural tourism' is tourism that takes place in the countryside. It is defined as "a demand for touristic use of a rural area" (Gartner, 2004, p. 153). Oppermann (1996) defines 'rural tourism' as tourism occurring in a "non-urban territory where human activity is occurring, primarily agriculture; a permanent human presence seems a qualifying requirement" (p. 88). For example, bed and breakfasts, farm vacations, recreation trail networks, and harvest festivals, are all sources of 'rural tourism' that can be found in small towns. Oppermann (1996) emphasizes that the type of accommodations used by rural tourists is one key aspect in differentiating rural tourism from other types of tourism.

Lane (1994) suggests that 'rural tourism' exists as a concept, and reflects the differing and complex pattern of rural environment, economy, history and location.

'Rural tourism' is directly related to the particular characteristics of rural areas, and it is assumed that the principal motivation for visiting the countryside is to experience its rurality. This motivation justifies the definition of 'rural tourism' as an identifiable type of tourism, with rural tourism being an end onto itself – to experience the countryside.

Considering the demand and supply of rural tourism, it can be defined more specifically. Demand-side rural tourism is based on the nature of the visitor and is defined as "a visit by a person to any place other than his or her usual work or home environment and that is outside a Standard Metropolitan Statistical Area" (Greffe, 1994, p. 23). On the other hand, supply-side rural tourism is more focused on a visitors' place of stay. Rural tourism is also associated with a particular form of accommodation that offers tourist opportunities to participate in farm-related activities, such as vegetable gardening or caring for farm animals.

Lobo (2001) defines 'rural tourism' as "recreational experience involving visits to rural settings or rural environments for the purpose of participating in or experiencing activities, events or attractions not readily available in urbanized areas. These may not necessarily be agricultural in nature." Rural tourist activities might include a country-side tour; purchasing honey from a local farm; or visits orchards, cheese factories, greenhouses, pumpkin patches, road-side fruit and vegetable stands, nurseries, etc. Rural

tourism can also include activities such as: participating in fall color tours; fishing in local streams, rivers, or lakes; visiting a maple sugaring house in the spring; taking photographs of beautiful scenery; painting the landscape; hiking a trail; or visiting an abandoned rail lines, conservation area, or local, state, or national park. Persons who participate in these and similar activities are participating in various forms of rural tourism (Buck, 2004).

'Agricultural tourism' is specified by the act of visiting a working farm or any agricultural horticultural or agribusiness operation for the purpose of enjoyment, education, or active involvement in the activities of the farm or operation (Lobo, 2001; Buck, 2004). It includes taking part in a broad range of farm-based activities, including farmers' markets, 'petting' farms, roadside stands, and 'pick-your-own' operations; engaging in overnight farm or ranch stays and other farm visits; and visiting agriculture-related festivals, museums, and other such attractions. Agricultural tourism operations provide a bridge between urban and rural dwellers. Agricultural tourism, or agri-tourism, is one alternative for improving the incomes and potential economic viability of small farms and rural communities. 'Farm tourism' is defined as a subset of rural tourism and is in many ways an incarnation of the traits typical to rural enterprises: small-scale, with local roots, and anchored in local traditions. It also seems to be the oldest form of rural

tourism (Nilsson, 2002).

The concept of rural tourism has evolved substantially in recent years. One aspect of this change is reflected in the vocabulary used to describe various types of rural tourism activities. For example, some studies refer to outdoor-based tourism as 'ecotourism,' while other publications use the term 'nature-based tourism' or 'green tourism' (Stancliffe, 1992). Although these two terms are not technically synonymous; the term 'ecotourism' suggests activities that promote conservation of nature, while 'nature-based tourism' is evocative of a broader spectrum of outdoor-based recreation, including hunting, fishing, camping, and the use of recreational vehicles. These new terms reflect new perspectives in the tourism industry.

The definition of rural tourism varies between countries reflecting the specific types and characteristics of rural tourism within each country. For example, in Israel 'country vacations' center on bed and breakfasts, while tourists participate in 'agri-tourism' in Italy, 'farm tourism' in Korea, and 'green tourism' in Japan (Fleischer & Pizam, 1997; Park, Ryu, & Lee, 2001; Arahi, 1998). Rural tourism is a multi-faceted activity: it is not just farm-based tourism (Alexander, Kumar, & Day, 1998). It includes farm-based holidays but also comprises special interest nature holidays and eco-tourism walking, climbing and riding holidays, adventure, sport and health tourism, hunting and

angling, educational travel, arts and heritage tourism, and in some areas ethnic tourism.

Nature-based tourism/ecotourism (sometimes called recreation-based tourism) refers to the process of visiting natural (usually rural) areas for the purpose of enjoying the scenery, including plant and animal wildlife. Nature-based tourism may be either passive, in which observers tend to be strictly observers of nature, or active (increasingly popular in recent years), where participants take part in outdoor recreation or adventure travel activities (Stancliffe, 1992).

Heritage tourism is also often included within the scope of rural tourism, and refers to leisure travel that has as its primary purpose the experiencing of places and activities that represent the past. The principal concerns of heritage tourism are historical authenticity and the long-term sustainability of attractions (Gartner, 2004).

When studying rural tourism, it is essential to first define exactly what is involved in rural tourism, because a lack of clarity in terms of definition can influence data collection, resulting in partial information on rural tourism with regard to both scope and scale (Sharpley & Roberts, 2004). Based on the reviewed literature, a broad definition of rural tourism will be used for this study. In this study, rural tourism includes the following types of activities: (1) participation in agricultural tourism; including a farm stay, a farm experience, a weekend visit to a farm, an agriculture and food festival, a

traditional cultural experience, seaside activities such as clam digging or shell collecting, etc.; (2) a visit to rural areas for the purpose of tourism; including an overnight stay at a bed and breakfast or a recreational forest in a rural area, mountain climbing, camping, trekking, fishing, nature study, estuary exploration, visiting historic sites, etc.; (3) visiting family or friends living in rural areas.

The Foundation of Rural Tourism Development and Related Strategies

The roots of rural tourism are very similar throughout the world, no matter when it comes into practice (Fleischer & Pizam, 1997). In the early days, rural tourism was developed and encouraged primarily for the purpose of revitalization and diversification of rural areas. A decline in the ability of farming and related agricultural support businesses limited the ability of farmers and rural residents to generate sufficient income causing many farmers to seek new sources of income and to diversify their farms. Also, a systematic and substantial decrease in the rural populations, the aging of these populations, now characterizes many rural areas (Fleischer & Pizam, 1997; Ribeiro & Marques, 2002).

Tourism has long been suggested as a strategy of revitalizing rural economies. According to some authors, rural tourism can add income to farms and other households,

provides job alternatives, diversifies the rural economy, and makes the provision of certain infrastructure possible (Oppermann, 1996). Therefore, many rural communities turned to tourism to stimulate new economic development (Blaine, Mohammad, & Var, 1993).

Governments have been primarily responsible and have taken an active role in the development of rural tourism in many countries. For example, government policy in the US has focused on rural tourism as an economic development tool in the overall strategic planning for rural revitalization. As a result, numerous rural communities, agencies, and organizations throughout the United States have actively encouraged and promoted rural tourism (Blaine et al., 1993). There are numerous success stories that appear to demonstrate positive results from tourism development efforts in rural communities in the United States (Kieselbach & Long, 1990; Borich & Fleming, 1993; Bowling, 1992; Edgell & Cartwright, 1990; Long & Nuckolls, 1992). Gunn (1988) identified three components needed for successful tourism development including a gateway where basic services are found, attractions that exert the pull or reason for visitation, and transportation linkage that connects service centers to attractions and gateways to market. Many, but not all rural communities in the USA have all three of the components mentioned above (Gartner, 2004).

Rural tourism has been used as a means of addressing rural problems in Japan. After World War II, Japanese rural communities experienced population loss, the aging of their populations, and stagnant income growth. Rural tourism was developed as a strategy for revitalization (Arahi, 1998). Similarly, rural tourism has become an essential part of agricultural development in Taiwan (Hong, 1998). Rural tourism has also been used as a rural revitalization strategy, as well as a major source of national income in Indonesia and Thailand, where natural resources are abundant (Iwantoro, 1998; Rattanasuwongchai, 1998).

Rural tourism is not new; however, interest in rural tourism has increased rapidly during the past several years. The recent surge in rural tourism has come from the demand-side, due in part to increased disposable incomes, improved lifestyles, increased health awareness, a mature travel market, changing tastes and preferences, and increases in automobile and weekend travel (Hill, 1993; Alexander & McKenna, 1998).

Urbanization and nostalgia for rural character has also played a role in the development of rural tourism (Collin & Baum, 1995). Some contents that the more entrenched urbanities become, the more likely they are to reach out and visit rural settings (Hill, 1993). People living in urban areas have become more interested in experiencing rural amenities, such as high quality of life; tranquility; closeness to nature;

natural features, such as mountains, rivers, and lakes; and man-made resources, such as parks, recreation facilities, and historic and cultural sites (Kieselbach & Long, 1990; Fleischer & Pizam, 1997). In addition to economic benefits for rural communities, rural tourism also offers lots of benefits to urban people.

Lane (1994) offers some tourism market trends that will accelerate the growth of rural tourism in the future. He points to a growing interest in rural life, including heritage and tradition, an increasing health consciousness giving a positive appeal to rural lifestyles and values, market interest in high performance outdoor equipment, search for solitude and relaxation in a quiet natural place, and an aging but active population retiring earlier but living and traveling far into old age. As increasing attention has been paid to rural tourism as a specific form of tourism development, so too has the scope of research into tourism in rural areas become more diverse.

Rural Tourism Development Strategies

There are opportunities as well as obstacles to rural tourism development (Hill, 1993). Opportunities for rural tourism development include general tourism growth, increased family vacationing, environmental interest, the recent dispersion of travel through growing auto travel, a mature travel market, changing tastes and preferences,

urbanization, and growing weekend travel. On the other hand, there are also obstacles to rural tourism development, which include weak drawing power, dispersion of attractions and services, meager secondary economic impacts, internal community conflicts, and destination life cycles. Hill (1993) made several suggestions for capitalizing on rural tourism opportunities and overcoming various obstacles. The major challenges he identifies are developing attractions, encouraging entrepreneurship, informing markets, reacting to changing tastes, providing quality service and preserving attractions and attractiveness.

Different authors have investigated strategies for successful tourism development in rural areas. Wilson et al. (2001) addressed the importance of the community context and rural tourism "entrepreneurs" role in tourism development and promotion in rural areas. According to Wilson, the ten most important conditions for successful tourism development in rural areas include: a complete tourism package, good community leadership, support and participation of local government, sufficient funds for tourism development, strategic planning, coordination and cooperation between rural tourism entrepreneurs, information and technical assistance for tourism development and promotions, good convention and visitors bureaus, and widespread community support for tourism. Cooperation of all elements of the industry and the community has also been

emphasized by Hunt (1992). Additionally, he has suggests a broad-based program that details development, marketing and management as a strategy for successful development of rural tourism.

Tourism has been considered as a vehicle for economic regeneration and employment creation in the UK, too. A number of local authorities have sought to capture the potential economic benefits afforded by tourism and a number of studies have investigated the ways to maximize the benefits. Thomas and Long (2001) presented the development of employee skills as a key issue for effective tourism development. They examined the link between employee skills development and the contribution of tourism to regeneration in rural areas.

The issue of sustainability is receiving much more emphasis as it relates to rural tourism policy and development. Rural tourism in southeastern Europe has developed particularly within the context of aspirations towards sustainability. The EU membership emphasizes sustainable development of tourism (Hall, 2004), and many studies on rural tourism development conducted in Europe are more likely to focus on conservation of rural environment than on economic contribution from the tourism development.

Has Rural Tourism Development Always Resulted in the Desired Outcomes?

Numerous studies have provided various types of evidence that rural tourism development is an effective way to revitalize and diversify rural communities. Getz and Carlson (2000) have suggested that tourism has the potential to enhance the viability of rural communities. Other studies have suggested that population loss and other negative socioeconomic effects may be prevented or postponed through tourism development (Alexander & McKenna, 1998; Nilsson, 2002).

Contrary to the general held belief that rural tourism brings great benefits to rural areas, some authors have presented results indicating otherwise. Ribeiro and Marques (2002) have demonstrated that a wide gap and considerable contradictions have been emerging between the rhetoric and the real benefits that tourism has been producing in the local societies and economies of Portugal. And a survey of rural operators and tourists in Southern Germany has revealed that farm tourism provides only a small side-income for farmers (Oppermann, 1996).

Hjalager (1996) has discussed the impact of rural tourism on agricultural holdings and has concluded that the financial returns most often do not measure up either to the expectations of the politicians or to those of the farmers. In some respects, rural tourism contributes positively to the innovation of the tourist product since its small scale,

'green' issues and special facilities differentiate the product from others.

A number of authors argue that rural tourism development may not always be the best strategy for solving rural problems. The successful development of rural tourism depends upon planning and the existence of infrastructure, attractions, essential services, management, maintenance, and an accessible market. In the absence of any one of these elements, a rural region may find that tourism is not a cost-effective option, or that other development tools, such as investment in infrastructure and education, must precede the development of rural tourist attraction and services (Edgell & Carwright, 1990). Only when proper conditions prevail, can tourism be a contributor to rural economic development in the areas.

Rural Tourism Studies Conducted in Korea

Since 2000, the "demand" for rural tourism in Korea has increased due in part to changing socio-environmental factors, the introduction of a five-day work week system has increased the leisure time of Korean citizens, and industrialization and urbanization have increased tourists' desire to experience rural life. Many studies have been conducted about participation in rural tourism in Korea (Bae & Kim, 2003; Cha, 2002; Cho et al., 2003; Hwang, Cho, & Kang, 2003; Jang, 2004; Jung et al., 2004; Kim, 2004; Lee, 1996;

Park et al., 2001; Park, Lee, & Park, 2002).

In the early stages of rural tourism development in Korea, studies focused mainly on factors contributing to successful instances rural tourism development in other countries (Park, 2002; Park et al., 2003; Yoo & Choi, 2001) with the purpose of providing the Korean government with knowledge and ideas for successful rural tourism development. As the demand for rural tourism has increased, more studies have been conducted on these three topics: (1) rural tourism development policy, (2) strategy for development and management of 'Tourist Farms,' and (3) tourist preferences concerning rural tourism.

Rural Tourism Development Policy

Three relatively recent studies have dealt specifically with rural tourism policy implications (Jung, 2001; Kim, 2004; Park, 2004). Kim (2004) suggests directions for policy-making in each of several tourism components: rural amenities, rural tourism entrepreneurs, rural tourism marketing, transportation infrastructure, and rural tourism demand. Park et al. (2003) evaluated previous policies for rural tourism development and concluded that those policies led people to recognize the need for rural tourism development. However, he also noted some problems with the existing policies, such as

lack of infrastructure, including poor road or rail networks, indifferent accommodation in rural areas, and only supply-side-focused development. Jung (2001) stressed sustainable development in rural areas and suggested policy-orientation for green tourism development.

Strategies for the Development and Management of 'Tourist Farms' in Korea

Since the 1980s, the Korean government has developed 'Tourist Farms' and has supported them for the purpose of tourism development in rural areas. Many studies have been conducted to suggest strategies for the development and management of 'Tourist Farms' in Korea (Cha, 2002; Choi, 1998; Jung et al., 2004; Park et al., 2001; Park et al., 2002). As a basis for policy-making, the actual conditions and management status of 'Tourist Farms' have been examined by researchers, and plans for improvement have been suggested. When developing 'Tourist Farms' in Korea, location and management skills have been considered to be the most important components (Choi, 1998). Some studies analyzed the preferences of visitors to 'Tourist Farms.' Cha (2002) analyzed the demand and supply of the market for 'Tourist Farms,' and market analysis has shown that profits are higher when rural communities provide weekend activities and recreation facilities, as well as offering better scenery. Park et al. (2001) studied rural tourism

development strategies, with a particular focus on 'Tourist Farms.' They examined the role of niche markets in the development of tourism in rural areas and concluded that niche marketing would be a good strategy and that public/private sector partnerships are necessary.

When developing rural tourism, particularly 'Tourist Farms,' the biggest problems have been identified as being the length of time taken to obtain planning permission and acquisition of capital (Choi, 1998). At the planning stage, there exists a complex business of obtaining approval of the application, by city-, county- and provincial councils. Delays often arise in this process, and further difficulties arise because of a lack of staff with specialized pertinent training. Approval of credit can also take considerable time, since it depends upon the budget of the central government, which is approved in May each year. These constraints make it difficult to maintain a desired schedule.

The general problems of rural tourism development have been identified as a lack of management skills among farmers and local government staff, poor infrastructure including road access, lodging, etc., a limited tourism season, a poor rate of return on investments, and farmers' lack of information about visitors' wants (Choi, 1998). Several strategies towards the resolution of these problems have been suggested in the existing

literature. First, the main body of development should be rural residents, and a development leader is necessary. The literature shows that if the external public sector is too powerful in the leadership of the development process, it is unlikely to succeed (Park et al., 2001). Second, external support from government, professional, and private organizations are necessary, and partnership between the public and private sectors is essential when carrying out rural tourism programs. Third, it is necessary to establish laws governing rural tourism development, as are found in many industrialized countries (e.g. Germany, the Netherlands, the United Kingdom, and Japan); this kind of support is intended not only to increase the welfare of citizens and farmers but also to preserve rural resources. Fourth, development of rural tourism should be sustainable; in some countries, the term 'green tourism' has been used instead of 'rural tourism.' Lee (1996) introduced the concept of 'green tourism' into the development of 'rural tourism.' Rural tourists prefer activities in a natural environment, such as staying overnight in rural areas and camping, as well as natural facilities such as trails, promenades, beaches and forests (Jung et al., 2004). This means that program planners for rural tourism should develop environment-friendly activity programs. Fifth, rural tourism programs should be diversified and have distinctiveness. Kang (2004) has examined some recent rural tourism development programs, conducted by several government agencies, and has

criticized those programs; he has found them to be almost identical in their ideas and contents and not distinctive and has determined that they do not have clear objectives. Kang has suggested that rural tourism in Korea has experienced quantity expansion but not quality improvement. Based upon his evaluation of some existing rural tourism programs, he has emphasized the necessity of programs themselves being distinctive. Rural tourism products must offer distinctive content, leading to brand development; distinctive process, such as a distinguished style of delivery, and distinctive people, including the leader of the development (Kang, 2004).

Lastly, the demand for rural tourism needs to be maintained. In the beginning, rural tourism was an option of rural development, and the government purposely created a demand for rural tourism and invested substantially in infrastructure. For further development, the demand for rural tourism needs to be supported, and sophisticated analysis of rural tourism is necessary, particularly regarding tourists' preferences.

Rural Tourism Participation Related Studies

According to the report "Annual Survey of General Household on Travel Behaviors" conducted by the Korea National Tourism Organization, it is apparent that tourists are increasingly likely to participate in nature-based tourism or experiential

tourism with their families (KNTO, 2005). Previous studies have addressed many possibilities for increasing rural tourism demand in Korea (Cho et al., 2003; Park, 2001). Rural tourism will be accelerated by changing lifestyles, development of the transportation network, and the demand for safe food. Cho et al. (2003) analyzed urban residents' preferences for rural tourism in Korea using survey data. The results showed that only 20.1 percent of urban residents have participated in rural tourism; however 64.6 percent of respondents intend to participate in rural tourism in future. Compared to non-participants, those who have already participated in rural tourism have greater intentions to participate in rural tourism. In Park's research (2001), 87.6 percent of respondents indicated such intention. From the results of a 'Tourist Farm' owner survey, the number of visitors to 'Tourist Farms' increased in 2001 and 2002 (KREI, 2002). Of farm owners, 71.4 percent responded that their sales increased during those years.

Promotion is considered to be an essential element of the successful development of rural tourism (Jang, 2004). It is important to provide information about rural tourism to support the demand. Hwang et al. (2003) analyzed the use of Internet sites developed to promote rural tourism. He found that only 7.5 percent of urban residents had visited such sites, those who have done so found those web-sites to be extremely useful resource.

Tourism and Recreation Demand Studies

Tourism and recreation demand has been a popular issue for academic researchers and industry practitioners for quite some time. Demand monitoring and forecasting activity is particularly important in tourism management in part because it is often quickly and substantially impacted by many different factors both inside and outside a country. Study of tourism demand is a prerequisite for sound tourism planning. For successful tourism management, tourism decision-makers at all levels must be aware of changes and developments affecting tourism trends. Since it is very important to the economies and society, many studies of tourism demand have been undertaken. Tourism demand forecasting helps to answer questions such as: (1) How many tourists are likely to arrive at a destination in a given time period?, (2) Which areas represent the best marketing opportunities for a destination?, and (3) Which factors are most influential in determining future visitation to a destination? (Uysal & Crompton, 1985, p. 7)

Previous literature that has focused on tourism demand can be broadly divided into three groups. The first group focuses on tourism demand forecasting issues. The second group of studies aims to identify the factors that influence tourism demand, and the majority of studies concerning tourism demand fall into this group. The third group of tourism demand studies focuses on the models and techniques of forecasting tourism

demand.

Tourism Demand Forecasting Studies

Tourism in the past few decades has witnessed a tremendous growth and expansion worldwide. It has been considered as the major source of income in the form of foreign exchange earnings in both Italy and Spain (Goeldner, Ritchie, & McIntosh, 1999; Lim, 1997), with the tourism industry being the top employer in Canada, Japan, the UK, and the USA (Hawkins & Ritchie, 1992). Numerous studies has been undertaken to forecast international tourism demand and to analyze its characteristics (Sheldon & Var, 1985; Bakkal, 1991; Witt & Witt, 1992). Demand estimates have also been produced for different tourism niche markets, such as international business tourism and international conference attendance (Kulendran & Witt, 2003; Witt et al., 1995).

Compared to the number of studies focused on international tourism demand, studies focused on the demand for domestic tourism have been relatively few (Chen, 2000; Witt, Newbould, & Watkins, 1992; Durden & Silberman, 1975). Hu (2002) has asserts that the lack of domestic tourism demand studies have resulted from the very minor direct effects of domestic tourism on countries' balances of payments. In addition, domestic travel has been difficult to monitor in part because it does not involve the

crossing of international borders (Cooper et al., 1998; Latham, 1998).

Tourism demand can be estimated using many different indicators, including: the number of visitations (Gonzalez & Moral, 1996; Durden & Silberman, 1975; Qiu & Zhang, 1995), tourist expenditures (Gonazlez & Moral, 1996; Qiu & Zhang, 1995; Smeral, 1988; Cai, Hu, & Feng, 2001), length of stay (Silberman, 1985), and so on. In fact, those standards are interdependent of each other; for example, tourist expenditures can be expressed as the product of three factors: the number of tourists, the average length of stay, and the average expenditure per day.

Demand forecasting provides critical information for tourism decision-makers to anticipate potential growth and risks in the near future for a specific economy, region, and, in the case of international tourism, country.

Studies Focused on the Identification of the Factors That Influence Tourism and Recreation Demand

The second group of studies aims at identifying the factors that influence tourism and recreation demand and estimating the elasticity of demand with respect to these factors (Zalatan & Burdge, 1980; Silberman, 1985; Smeral, 1988; Sumathi, 1990; Morley, 1991; Smeral et al., 1992; Qiu & Zhang, 1995; Gonzalez & Moral, 1995, 1996; Smeral &

Witt, 1996; Jorgensen & Solvoll, 1996; Lim, 1999). Although a growing number of researchers are skeptical concerning accuracy of tourism forecasting methods, studies of the factors influencing tourism and recreation demand and the degree of the effect, can provide more specific and useful information to tourism managers and decision-makers for effective operating and planning.

According to the literature, demand for tourism especially domestic tourism depends significantly upon the level and growth of gross national product (Smeral, 1988). Economic growth influences tourism demand through mechanisms caused by the interdependence of certain elements of the socioeconomic system, such as increase of disposal income, rapid development of traffic infrastructure, increase in urbanization, etc., so the factors that influence tourism demand can be found in a wide scope.

Silberman (1985) estimated the effects of cost and other factors on the length of stay of visitors to Virginia Beach (VB), Virginia. He included a wide range of factors including: economic variables (price, distance, annual family income), demographic characteristics (age, gender, marital status, number of children, party size, employment status), vacation characteristics (lodging, number of trips to VB during the summer, type of activities engaged in, etc.) and destination characteristics (visitor's image of VB). His study determined that the following variables were significantly associated with length of

stay: direct cost per day, distance traveled, annual household income, effect of the recession, more than one trip to VB, staying at a campground, advanced planning, planning to visit again, participating in sports, learning about VB from advertising, and the contribution to image of being a classy site and/or being a rundown site. Regarding price elasticity, visitors' length of stay was not shown to be very sensitive or responsive to changes in cost per day. This means that the demand for VB depends mainly upon all of the non-price factors described above. Based on the results of the study, Silberman made several suggestions about the direction of the advertising campaign, changes in the tax structure, and a proposed capital improvement project. Sumathi (1990) identified that travel cost is the most important variable explaining the number of recreation trips to Price County, Wisconsin. He also analyzed the effect of advertising on recreation demand in the study.

The factors that influence tourism demand can also vary by season or destination. Jorgensen and Solvoll (1996) analyzed how the demand for inclusive tour charters (ITC) among Norwegians in one particular period of time was influenced by: disposable income, expectation of future prosperity, price level, and weather conditions. They concluded that Norwegians' demand for ITCs is income- and price-sensitive, but the degree of sensitivity varies from season to season; less income-sensitive during off-peak periods while less

price-sensitive during peak period. Gonzalez and Moral (1995) forecast international tourism demand in Spain using explanatory variables of income, price, changes in tourist tastes, and seasonality. Lim (1999) reviewed many published empirical studies on modeling international tourism demand and integrated the findings according to the important explanatory variables used (income, transportation costs, and tourism prices), the proportion of significant findings, and the effect size of these major explanatory variables.

In conclusion, tourism and recreation demand is assumed to depend mainly upon levels of income and the price of tourism. But the literature reveals that other factors can also be important such as socioeconomic factors, such as the preferences of visitors and the popularity of the tourist destination under consideration; marketing expenditures; the increase in the length of 'second holidays'; the possibility of vacations outside of the high season; increase in standards of living in developed countries; and some destination-specific factors (Gonzalez & Moral, 1996).

Knowledge of the factors that influence tourism and recreation demand provides useful insights for understanding the tourism decision-making process and leads to relevant policy suggestions for both the public and private sectors engaged in tourism development and marketing.

Table 5. Previous Studies of the Factors That Influence Tourism and Recreation Demand

Author	Demand Indicator	Factors Influencing Tourism and Recreation Demand
Durden and Silberman (1975)	Number of tourists entering Florida	- Income - Travel cost - Weather conditions
Zalatan and Burdge (1980)	Travel abroad by U.S. residents	- Change of living cost of destination country - Commonality of language - Cost of international tourism
Silberman (1985)	Length of stay at Virginia Beach	- Economic variables (direct cost per day, distance traveled, annual household income) - Vacation characteristics (lodging, number of trips to VB during the summer, type of activities engaged in, etc.) - Destination characteristics (visitor's image of VB) - Others (effect of the recession, plan to revisit, etc.)
Smeral (1988)	Real revenue from international tourism	- Price - Income (travel budget)
Bockstael, Strand, McConnell, and Arsanjani (1990)	Participation and frequency in Sportfishing	- Trip cost - Boat availability (inboard/outboard) - Recreational budget - Age
Creel and Loomis (1990)	Number of trips for deer hunting in California	- Travel cost - Travel time - Average length of trip - Number of years previously hunted in the zone - Characteristics related to deer hunting - Household income
Gonzalez and Moral (1995)	Tourist arrivals and expenditures in Spain	- Price of client countries and competitor countries - Income

Table 5. Previous Studies of the Factors That Influence Tourism and Recreation Demand (cont'd)

Author	Demand Indicator	Factors Influencing Tourism and Recreation Demand
Qiu and Zhang (1995)	Tourist arrivals and expenditures in Canada from the USA, the UK and France, and Germany and Japan	- Per capita income - Exchange rate - Travel price index - Immigration - Crime rate - Special events - Changes in residents' tastes - Improvement in the quality of transportation
Jorgensen and Solvoll (1996)	Number of inclusive tour charters in Norway	- Disposable income - Expectation of future prosperity - Price level - Weather conditions
Chase, Lee, Schulze, and Anderson (1998)	Willingness to pay for three national parks in Costa Rica	- Income - Price (entrance fee) - Demographic (age, education, nationality)
Train (1998)	Anglers' choice of fishing trip and fishing site	- Destination specific variables (fish stock, aesthetics rating, log of size of each site, number of campgrounds, number of State Recreation Access areas, listed in *Angler's Guide to Montana*, number of restricted species) - Travel cost
Lim (1999)	International tourism demand (tourist arrivals/ departures and expenditures/ receipts)	- Income - Transportation costs - Tourism prices
Cai, Hu and Feng (2001)	The annual expenditure of urban domestic travelers	- Per capita GDP
Daniel and Ramos (2002)	Tourist arrivals in Portugal from Spain, the UK, Germany, France, and the Netherlands	- Income (manipulated from GDP, CPI, and population) - Price (cost of living in and cost to travel to Portugal)

Tourism and Recreation Demand Models

A variety of modeling techniques have been tested in terms of their ability to estimate and forecast tourism and recreation demand. Researchers have proposed different types of demand model for different circumstance depending upon the study objective or the type of data used.

Both qualitative and quantitative approaches have been developed and used to forecast tourism demand. The qualitative approaches include more traditional methods such as the Delphi model, and the Judgment-Aided model. These methods are characterized by the use of accumulated experience of individual experts, or groups of people assembled together to predict the likely outcome of an event (Uysal & Crompton, 1985). Quantitative approaches, which are more frequently used, include Time Series model, the Gravity and Trip Generation model, and the Multivariate Regression model. Uysal and Crompton (1985) reviewed the methods commonly used to forecast tourism demand and suggested that a combination of qualitative and quantitative methods produces the most accurate forecasts.

Gonzalez and Moral (1995, 1996) analyzed external demand for Spanish tourist services within the framework of Structural Time Series Models which were formulated directly from unobserved components such as trends and seasonalities. A Gravity Model

approach was employed to analyze the determinants of Florida tourist flows by Durden and Silberman (1995).

Some researchers have raised concerns about the methods used to forecast tourism demand. These concerns have been summarized by Hu (2002) and include: (1) a lack of effort in providing actual forecasts, instead of building and evaluating forecasting models, (2) poor forecasting performance, (3) a low frequency of data collection when forecasting tourism demand, and (4) difficulty in specifying proper forecasting models.

A number of studies have evaluated the relative forecasting performance of various demand models (Witt, Song, & Louvieris, 2003; Gonzalez & Moral, 1995; Witt et al., 1995). For example Gonzalez and Moral (1995) analyzed the performance of alternative methods for forecasting international tourism demand for Spain. They compared the forecasting performance of the Structural Time Series Model with that of two alternative models, the Transfer Function and Error Correction Models. Li, Song, and Witt (2004) criticized the previous approaches to forecasting tourism demand, particularly single-equation approaches, and tested a linear approach, known as the Almost Ideal Demand System, in the context of international tourism demand. To forecast or model tourism demand at the destination level, the general-to-specific modeling approach has been suggested as a useful tool (Song & Witt, 2003).

Daniel and Romos (2002) forecasted inbound international tourism demand to Portugal, applying cointegration analysis (the Almost Ideal Demand System, and the Structural Time Series Model) and the Error Correction Model, which have not been commonly used to model tourism demand. They indicate that demand models used in a majority of prior studies have been simple time-series econometric models, estimated using multiple least-squares regression. They argue that this method is not appropriate for tourism, since a number of non-stationary, explanatory variables have been used and recommend more advanced techniques either by improving traditional methods or developing new methods. Song and Wong (2003) have addressed the concern that traditional tourism demand analyses, which uses ordinary least squares or maximum likelihood methods, do not allow for behavioral changes of tourists over time, and they have proposed a new methodology, a time-varying parameter approach to tourism demand modeling. And, finally, the ability of various econometric and univariate time-series models to generate accurate forecasts of international tourism demand have been evaluated by Witt et al. (2003).

Modeling techniques for tourism demand vary depending upon the types of dependent variables that are used—continuous, discrete, or count data. For example, to model tourism demand, measured as tourist expenditure (a continuous type of data),

ordinary least squares or maximum likelihood methods can be used.

Logit modeling is a widely accepted method for coping with discrete choice data. Logit models provide a framework to explore the trade-off between the attributes of the various alternatives, each of which is associated with a utility. A logit model can be extended into several different specific models for a case. Herriges and Phaneuf (2002) have examined the ability of the repeated nested logit and repeated mixed logit models to capture patterns of correlation and substitution in multiple site recreation demand applications. By employing the multinomial logit model, Carvalho et al. (1998) have tried to find a better way to model the choice processes used by travelers when faced with various travel alternatives having different characteristics.

In many tourism and recreation studies, the dependent variable is often a count of the number of trips taken or visits made during the course of a season or year. If tourism or recreation demand is estimated by the frequency of trips to a destination, which are count natured data, then a Poisson Model is appropriate to use for modeling the demand. For example, Creel and Loomis (1990) have demonstrated that count data estimators may better fit data from a count data process than would a continuous distribution-based estimator of modeling demand for deer hunting in California. In their study, recreation demand was estimated based upon the total number of trips taken for deer hunting in

California. Four count data models (Poisson, truncated Poisson, negative binomial, and truncated negative binomial maximum likelihood estimation) and three continuous data models (ordinary least squares, nonlinear normal, and truncated nonlinear normal maximum likelihood estimation) were employed for their study. They concluded that the count data models predicted substantially better results than the continuous data models. In addition, the Poisson Model was found to be clearly superior in terms of predicting the total number of trips taken, while the truncated nonlinear normal maximum likelihood estimation was found to be clearly inferior.

The literature reveals that there is no single model or technique that is best for estimating tourism and recreation demand. The most appropriate model or technique varies depending upon the forecasting objectives, the tourism or recreational activity to be forecasted and the type of data that is available. It is very important to select the most appropriate forecasting method for each specific case of forecasting.

The Tobit Model and the Poisson-Hurdle Model

Various econometric models have developed to estimate tourism and recreation demand. In the majority of tourism demand studies, econometric models have been used for forecasting purposes. However, in this study, rural tourism demand would be modeled

by applying and comparing the results of two econometric models, namely the Tobit Model, and the Poisson-hurdle Model.

Many authors believe that tourism and recreation demand involves a two-stage decision-making process. The first decision is whether or not to take a trip, which determines the probability of participation. Tourists that do decide to participate (e.g., in rural tourism) must then decide their level of participation/consumption including the number and length of trips. Bockstael et al. (1990) separated travelers' participation and quantity decisions in sportfishing, and Creel and Loomis (1990) applied this concept to deer hunting in California. However, early studies of tourism demand focused individual primarily on quantity/consumption decisions. However, different authors argue that models that only considering quantity/consumption, and only include those who have already decided to participate. To develop more valid demand models, decisions on whether to participate and how much/often to participate must be included. The Tobit Model and the Poisson-hurdle Models are appropriate for verifying the necessity of developing two-stage decision making demand models.

The Tobit Model

The difficulty associated with utilizing individual observations for estimating tourism demand functions is that often a large portion of randomly selected respondents/cases do not participate in the type of tourism being modeled/forecasted. For instance, if a researcher wanting to collect information about participation and demand for rural tourism in Korea randomly selects respondents from the population and conducts a survey. A relatively large percentage will not participate. The demand for rural tourism for that segment of the population is "0."

The treatment of non-participants is crucial. At the least, incorrect treatment of non-participants will lead to biased estimates of demand coefficients (Maddala, 1986). The demand of non-participants in tourism needs to be censored as zero. The Tobit Model is the oldest and best known of the econometric model to estimate relationship with "censored" data (McCracken & Brandt, 1987; Dardis, Horacio, & Patro, 1994; Hellerstein, 1992). The general Tobit Model is defined as:

$$y_i^* = x_i' \beta + \varepsilon_i \sim N(0, \sigma^2) \qquad (1)$$

$$y_i = \max(0, y_i^*)$$

where y_i^* is a latent variable referring to the frequency of participation in rural

tourism including zero trips, x_i is the vector of independent variables for individual i, y_i is the observed value of participation, and ε_i is the error term.

From a behavioral perspective, Tobit assumed that all persons/consumers are potential users of a good and that consumption levels and market participation are influenced by the same variables in the same way. This model does not separate participation decision from quantity decision; however, the decomposition of Tobit analysis provides a substantive economic implication related to modeling demand (McDonald & Moffitt, 1980). In this model, the dependent variable y_i consists of conditional expectation (positive consumption) and unconditional expectation (zero or positive consumption):

$$E(y_i \mid y_i > 0) = \beta' x_i + \sigma \frac{\theta(\beta' x_i / \sigma)}{\Phi(\beta' x_i / \sigma)} \tag{2}$$

$$E(y_i) = \Phi\left(\frac{\beta' x_i}{\sigma}\right)\beta' x_i + \sigma\theta\left(\frac{\beta' x_i}{\sigma}\right)$$

where θ and Φ denote the standard normal density function and the distribution function. The effect of a change in x_i on $E(y_i)$:

$$\frac{\partial E(y_i)}{\partial x_i} = \Phi\left(\frac{\beta' x_i}{\sigma}\right)\frac{\partial E(y_i \mid y_i^* > 0)}{\partial x_i} + E(y_i \mid y_i^* > 0)\frac{\partial \Phi(\beta' x_i / \sigma)}{\partial x_i} \tag{3}$$

The total change in $E(y_i)$ comprises two parts. The first part of the right-hand side of the equation (3) shows the change in $E(y_i)$ when y_i is positive, weighted by the probability of being positive, and the second part of the equation shows the change in the probability of being positive, weighted by the expected value of y if positive. These two parts refer to the quantity decision and the participation decision.

The Poisson-Hurdle Model

In standard utility theory, everyone is assumed to be a potential consumer of all goods. Zero consumption may be due to an individual's non-participation. A lack of participation or nonuse may be due to some limiting or inhibiting factor such as a low income or a lack of discretionary time. The Double-hurdle Model, an alternative to the widely used Tobit Model, is the statistical counterpart to the aforementioned theoretical structure and has been applied to many demand studies (Blaylock & Blisard, 1993; Blundell & Meghir, 1987; Cragg, 1971). This model postulates that, to observe positive consumption, the individual must pass two hurdles: (1) be a potential consumer of the goods and (2) actually consume the goods. This allows for the possibility that zero consumption is a result of the participation or consumption decision. Hence, potential travelers may have zero consumption.

The Double-hurdle Model is useful for modeling demand in cases where a separation of participation and consumption (amount/quantity) decisions is an important issue. The process of estimating demand using the Double-hurdle Model involves two steps: (1) using a probit selection model for participation, and (2) truncated regression for the consumption function including only participants. One advantage of the Double-hurdle Model over the Tobit Model is that the former allows variables to have differing effects on consumption and participation decisions.

It is important to consider the nature of the data when modeling demand and applying a statistical model. The dependent variable has been measured as a non-negative integer in many demand studies such as doctor and hospital visits (Cameron & Trivedi, 1986; Cameron et al., 1988), daily beverage consumption recorded by glass or bottle (Mullahy, 1986), incidents of pollution-induced illness (Portney & Mullahy, 1986), and daily homicide counts (Grogger, 1990). The estimation and application of count regression models have seen increasing use in the analysis of outcomes naturally measured as non-negative integers.

The Poisson-hurdle Model is a modified count data model of the Double-hurdle Model. Count data models have been applied to the study of tourism demand because such demand is non-negative and occurs in integer quantities. These models have the

advantage of naturally fitting the 'count' nature of trip frequency data. Shaw (1988) first suggested the count data model, the Poisson Model, for recreation demand (Englin & Shonkwiller, 1995). In the field of tourism and recreation, Hellerstein (1989, 1991) applied this model to canoe trips, and Creel and Loomis (1990) applied it to deer hunting. Some modified Poisson Models have been applied to boating trips (Gurmu & Trivedi, 1996), hiking (Englin & Shonkwiler, 1995; Lutz, Englin, & Shonkwiler, 2000), and mountain biking (Fix, Loomis, & Eichhorn, 2000).

Accounting for the non-negative integer nature of the dependent variable improves accuracy in estimation over distributions that allow negative or fractional values. In the case of tourism demand, trip frequency cannot be negative and therefore should be censored at zero in the data set; failure to control for this censoring will lead to biased estimation. The Poisson Model is one of the most simple count data models and can be written as:

$$\Pr(Y_i = j) = F_p(j) = \frac{\exp(-\lambda)\lambda^j}{j!} \qquad (4)$$

where $i = 1, 2, \ldots,$ n observations, Y_i is the i^{th} observation on the count variable of interest, $j = 0, 1, 2, \ldots$ are the possible values of Y_i (i.e. the set of nonnegative integers),

and λ is the Poisson parameter to be estimated. This model can be extended to a regression setting most easily by allowing for different λ_i which can vary according to

$$\lambda_i = \exp(X_i \beta) \tag{5}$$

that extends (4) to the regression case where X_i is a 1 by h vector of observed covariates and β is an h by 1 vector of unknown parameters to be estimated. The exponential specification is used to restrict λ_i to be positive as is required for a proper distribution.

As in the continuous linear demand model, the number of trips demanded/taken is specified as a function of factors such as price, substitutes, income, and other possible demographic characteristics. However, the continuous model specifies an additive or multiplicative error term while the Poisson Model does not (Hellerstein & Mendelsohn, 1993). The Poisson distribution is described by only one parameter λ, and the mean is equal to the variance in the simple Poisson distribution.

In this study, rural tourism demand is estimated by the number of rural tourism trips taken, 'count' natured data, with about one half of survey respondents having not participated, needing to be censored as zero. Considering these aspects and recommendations and observations in the literature, the Poisson Model is appropriate for

estimating rural tourism demand. However, simple Poisson Model does not separate the decision processes, and the purpose of this study is to model rural tourism demand by separating tourists' decision processes, with those being participation (whether or not the samples participated in rural tourism) and frequency decision (if the samples participated in rural tourism, how often did they participate).

Based on the literature it was determined that, rural tourism demand in Korea can be estimated by applying the Poisson-hurdle Model, a modified form of the Double-hurdle Model for count data, and it separates the participation and frequency decisions for modeling demand. The basic idea underlying the hurdle formulations is that a binomial probability model governs the binary outcome of whether a count variate has a zero or a positive realization. If the realization is positive, the hurdle is crossed, and conditional distribution of positives is governed by a truncated-at-zero count data model. The Poisson-hurdle Model for estimating rural tourism demand can be defined as

$$\Pr(Y_i = 0) = e^{-\lambda_i} \tag{6}$$

$$\Pr(Y_i = j | Y_i > 0) = \frac{\exp(-\lambda_2)\lambda_2^j}{j!}[1 - F_p(0)]^{-1} = \frac{\lambda_2^j}{(\exp(\lambda_2) - 1)j!} \tag{7}$$

Equation (6) presents a binary probability model for rural tourism participation

decision (yes or no); λ_1 is the parameter of a Poisson distribution governing the probability of observing a positive count. Equation (7) is the Poisson probability model for rural tourists' frequency of participation decision, which is truncated on the left at the value of 0. The truncated probability function differs from the standard probability function by the factor $[1 - F_p(0)]^{-1}$. Since $F_p(0)<1$, multiplication of the standard probabilities by $[1 - F_p(0)]^{-1}$ inflates them, accounting for the unobserved zeros.

The log-likelihood for this model can be written as

$$\ln L = \sum_{i=1}^{m} Y_i X_i \beta - \ln[\exp(\lambda_i) - 1] - \ln(Y_i!) \qquad (8)$$

where m is the number of observations in the truncated sample.

The Poisson parameter λ_1 of participation decision (Equation 6) and λ_2 of frequency decision (Equation 7) can be estimated respectively from a different estimating process

$$\lambda_1 = e^{c_1 \tau_1} \qquad (9)$$

$$\lambda_2 = e^{c_2 \tau_2} \qquad (10)$$

where t_1 and t_2 are parameter vectors, c_1 and c_2 are vectors of the independent

variables of participation and frequency of participation. If $\lambda_1 = \lambda_2$, the Poisson-huddle Model is identical to the standard Poisson Model.

The standard Poisson Model assumes that conditional variance equals conditional mean. However, this mean-variance equality has proven problematic since real data frequently exhibit 'overdispersion', that is, conditional variation greater than the mean. The conditional mean is consistently estimated using the standard Poisson Model in the presence of overdispersion. Or the observed data may show a higher relative frequency of zeros, or some other integer, than is consistent with Poisson. The Poisson-hurdle Model, which is applied in this research, allows for overdispersion by separating the two decision processes.

Comparing the results of the Poisson-hurdle Model and the Tobit Model proves the importance of separation between participation and quantity decisions when studying rural tourism. The Tobit Model assumes that the same variables affect both decisions; on the other hand, the Poisson-hurdle Model provides no restriction on the variables that affect the two decision processes. A likelihood ratio test could be done to compare the two. If the results of the test indicate a significant difference, this could imply that separation of the two decisions as applied to rural tourism is meaningful.

CHAPTER 3

METHODS

This chapter discusses the procedures followed in the conduct of the survey. The first and second sections of the chapter identify and describe the data collection method employed, and how the sample and survey locations for the study were selected. The third section describes how the survey instrument was designed. The last sections of the chapter detail the survey administration, including how the survey facilitators were trained, verification and coding procedures for the completed surveys, and the preparation of data for the analysis.

Data Collection Method

A self-administered survey was used for collecting data. Several different survey methods were initially considered including a telephone survey, a mail survey, and a self-administered survey. A mail survey was determined to be inappropriate, because in Korea the rate of response to mail surveys is low and it takes considerable time to generate responses. It was felt that since the survey was to gather information about participation in rural tourism during the previous year the slow rate of response to mail surveys could

introduce recall bias in addition to response biases. A telephone survey method was deemed not to be appropriate because of the questionnaire length (six pages) and it included questions requiring time for respondents to provide accurate answers (e.g., how many trips they took in the last year and how much they spent on those trips).

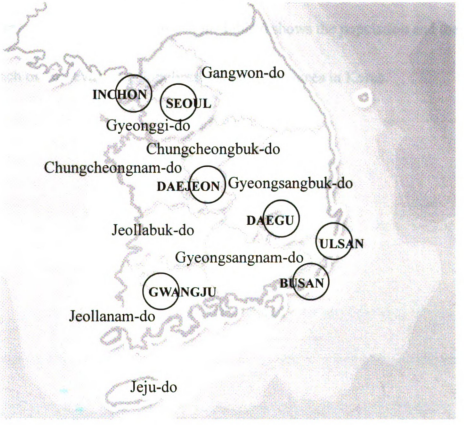
Considering the purpose, survey content and length and the population of being surveyed, it was decided that a self-administered questionnaire distributed by the survey facilitators would be the most effective data collection method. This method has several advantages. First, the survey deals with rural tourism, a specific type of tourism, which is not widely understood in Korea. The survey facilitator could therefore help respondents by answering any queries that might arise. The response rate of self-administered questionnaires is typically higher than either of the other two data collection methods. It was also determined that this method would enable the researchers to collect the data within the two month time frame.

Study Population, Sample, and Survey Locations

The study population consists of the general population of Korea. Korea has nine provinces and seven megalopolises (Figure 1). Seoul is the capital and the biggest megalopolis; the other six include Inchon, Daejeon, Daegu, Ulsan, Gwangju, and Busan.

Each megalopolis is marked with a circle and named with a capital letter in Figure 1. The nine provinces are Gyeonggi-do, Gangwon-do, Chungcheongbuk-do, Chungcheongnam-do, Gyeongsangbuk-do, Gyeongsangnam-do, Jeollabuk-do, Jeollanam-do, and Jeju-do.

Figure 1. Megalopolises and Provinces in Korea



The sample size for the study was 1,200, a figure based upon the time schedule and budget of the project, and because a sample size of 1,200 was considered statistically sufficient to generalize study results across the entire targeted population[3] (Churchill, 1999; Lohr, 1999). A proportionate sampling method was employed to allocate the sample across the country. Jeju-do was excluded from sampling because Jeju-do is a predominately a rural area. The sample size for each geographic region of Korea was proportionate to a region's population. Table 6 shows the population and the sample size for each of the seven megalopolises and nine provinces in Korea.

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[3] The basic formula to determine sample size (n) is $n = z^2 \frac{\sigma^2}{e^2}$ where z indicates confidence level, σ is the standard deviation of the variables in the population, and e is the sampling error. A sample size of 1,000 allows a 3.2 percent sampling error for binomial response with a 95 percent confidence level.

According to Churchill (1999), typical sample size for national studies of human populations is 1,000-1,500.

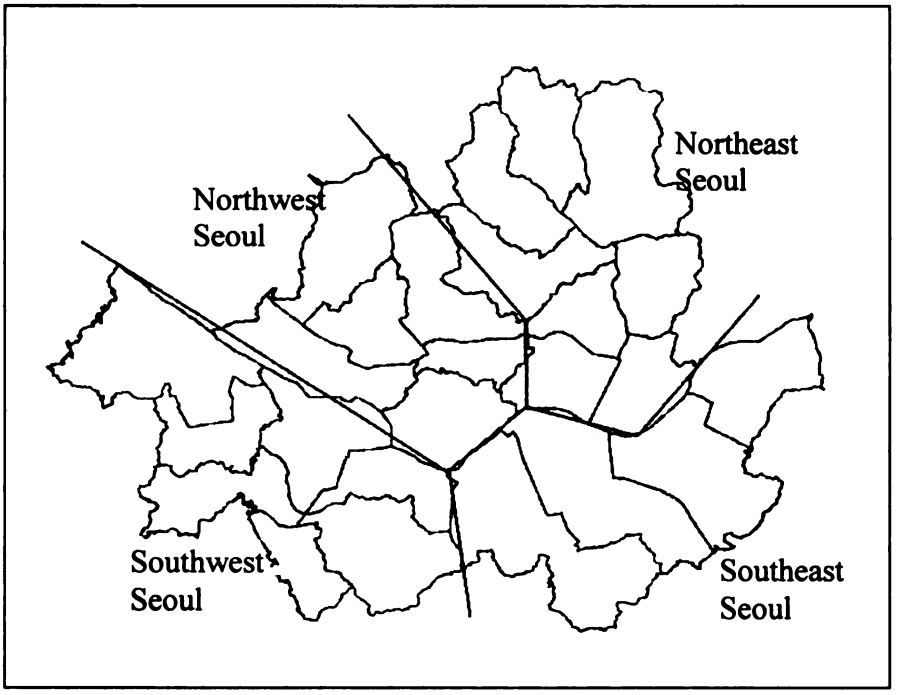
Table 6. Population and Sample Size for Megalopolises and Provinces in Korea[a]

	Population (n)	Percentage of the Population (%)	Sample Size (n)	Percentage of the Sample (%)
Megalopolises				
Seoul	9,895,217	21.4	260	21.7
Busan	3,662,884	7.9	96	8.0
Daegu	2,480,578	5.4	65	5.4
Inchon	2,475,139	5.4	65	5.4
Gwangju	1,352,797	2.9	36	3.0
Daejeon	1,368,207	3.0	36	3.0
Ulsan	1,014,428	2.2	27	2.2
Provinces				
Gyeonggi-do	8,984,134	19.5	236	19.7
Gangwon-do	1,487,011	3.2	39	3.3
Chungcheongbuk-do	1,466,567	3.2	39	3.2
Chungcheongnam-do	1,845,321	4.0	49	4.0
Jeollabuk-do	1,890,669	4.1	50	4.1
Jeollanam-do	1,996,456	4.3	53	4.4
Gyeongsangbuk-do	2,724,931	5.9	72	6.0
Gyeongsangnam-do	2,978,502	6.5	78	6.5
Jeju-do	513,260	1.1	0	0.0
Nationwide	46,136,101	100.0	1,200	100.0

[a] Source: Census data collected by the Korea National Statistical Office in 2000

Each region was further divided into administrative districts for the purpose of distributing the sample across regions. For example, the size of the sample for Seoul is 260, and this was allocated across four regions: the northeast (32.9% of the population in Seoul), the northwest (17.3%), the southeast (19.7%), and the southwest (30.1%). According to this proportioning, the number of surveys to be conducted was 85 for the northeast, 45 for the northwest, 51 for the southeast, and 78 for the southwest.

Figure 2. Administrative Districts in Seoul



Within each geographic region, different survey locations including residences and gathering places were selected to minimize bias. Researchers and trained survey facilitators discussed, and decided on, several places as being places that attracted a representative sample of that areas general population. Those locations included private residences (e.g., houses and apartments) and some public places such as parks, shopping malls, bus stops, and subways. In each administrative district, a project leader assigned survey sites so that surveys could be conducted across the district.

Table 7 shows the sample size and actual number of completed surveys for each geographic region. Since the objective was to gather information on rural tourism, rural

areas were excluded from the sampling. So, while surveys were conducted at many different places in the megalopolises, and also in the top three populated urban areas in the eight provinces, no surveys were conducted in rural areas. .

Table 7. Sample Size and Number of Completed Surveys by Megalopolises and Provinces in Korea

	Sample Size (n)	Percentage of the Sample (%)	Number of Completed Surveys (n)	Percentage of the Completed Surveys (%)
Megalopolises				
Seoul	260	21.7	311	30.1
Busan	96	8.0	83	8.0
Daegu	65	5.4	79	7.7
Inchon	65	5.4	56	5.4
Gwangju	36	3.0	37	3.6
Daejeon	36	3.0	58	5.6
Ulsan	27	2.2	25	2.4
Provinces				
Gyeonggi-do	236	19.7	134	13.0
Gangwon-do	39	3.3	31	3.0
Chungcheongbuk-do	39	3.2	25	2.4
Chungcheongnam-do	49	4.0	27	2.6
Jeollabuk-do	50	4.1	45	4.4
Jeollanam-do	53	4.4	29	2.8
Gyeongsangbuk-do	72	6.0	48	4.7
Gyeongsangnam-do	78	6.5	44	4.3
Total	1,200	100.0	1,032	100.0

The difference between the sample size and the number of the completed surveys in each geographic region is due to the fact that the permanent residence of some respondents is different from the area in which a survey of them was conducted – they reside in areas other than where they were surveyed. The differences are most prominent in the provinces in which the megalopolises are located. For example, some of the respondents who completed surveys in Seoul reside in Gyeonggi-do, which is a neighboring province. Table 8 shows the sample size and number of completed surveys by each of the eight provinces, including megalopolises. For the analysis, these differences were adjusted by weighting the samples according to the proportion of the number of population in each area.

Table 8. Sample Size and the Number of Completed Surveys by Eight Provinces in Korea

Province	Sample Size (n)	Percentage of the Sample (%)	Number of Completed Surveys (n)	Percentage of the Completed Surveys (%)
Gyeonggi-do (Seoul, Inchon)	561	46.8	501	48.5
Gyeongsangnam-do (Busan, Ulsan)	201	16.8	152	14.7
Gyeongsangbuk-do (Daegu)	137	11.4	127	12.3
Chungcheongnam-do (Daejeon)	84	7.0	85	8.2
Chungcheongbuk-do	39	3.3	25	2.4
Jeollanam-do (Gwangju)	89	7.4	66	6.4
Jeollabuk-do	50	4.2	45	4.4
Gangwon-do	39	3.3	31	3.0
Nationwide	1,200	100.0	1,032	100.0

The Survey Instrument

A six-page, self-administered questionnaire (Appendix A) was developed to collect the data necessary to accomplish the study's objectives. The variables used in the questionnaire were determined mainly by (1) the data requirements for different objectives, and (2) by reviewing surveys previously conducted by different organizations in Korea, such as the Korea Rural Economic Institute (2001. 8) and by the Ministry of Agriculture and Forestry (2004. 6). The variables required for modeling demand were determined based upon the findings of the literature review. Exploratory variables were also included on the survey such as perceptions of rural resources, and length of work week.

Before the final survey instrument was finalized, a draft questionnaire was pretested by survey facilitators administering it to friends and families. Thirty pretest surveys were completed, and based upon the results, further refinements were made in the instrument.

The final survey instrument is comprised of four sections: (a) history and involvement of rural tourism during the past year, (b) trip spending on rural tourism, (c) understanding and interests related to agriculture and rural areas, and (d) socioeconomic information.

The first section of the survey collected information on: (1) frequency of rural tourism participation during the past year, (2) rural tourism trip characteristics including destination, length of trip, travel party composition, type of transportation, type of lodging, information source, and satisfaction with the rural tourism trip, (3) reasons why they participate in rural tourism, and (4) importance of the factors in determining rural tourism destinations and satisfaction with those factors. The information collected in this section was used later to segment rural tourism markets and to profile each segment.

In the history and involvement section, respondents are first asked whether they participated in rural tourism during the previous year (2003). At the beginning of the questionnaire, three different examples of rural tourism are provided. These examples include a wide range of different types of rural tourism. The first type includes agricultural tourism, including farm stays, farm experiences, visiting weekend farms, participating in agriculture or food festivals, experiencing traditional culture, and seaside activities such as clam digging or shell collecting. These activities are defined in this study as intrinsic rural tourism. The second type of rural tourism includes recreational and entertainment activities that generally occur in rural areas, such as staying at B&Bs, visiting recreational forests, mountain climbing, camping, trekking, hiking, fishing, and so on. The last category consists of visiting relatives or friends living in rural areas.

Respondents who indicated on the survey that they had participated in any of those three types of rural tourism were classified as rural tourists. Rural tourists were asked how many times they participated in rural tourism within the year (2003), and how many nights their rural tourism trips taken during different seasons lasted. They were also asked to select and describe their most representative rural tourism trip. Detailed information was collected about this trip including: type of lodging and transportation used, information sources, and the reasons why they went on the trip.

In the next section, information about rural tourism trip spending was collected. Respondents were asked to report their spending on the trip they deemed to be most representative including: foods and groceries, transportation, entertainment, lodging, shopping, and other expenses. Respondents were asked to report spending at their destination and spending occurring at places other than their destination. This information concerning trip spending was incorporated as part of profiles of different rural tourism market segments.

The survey also asked about four types of tourism they participated in during the previous year not including rural tourism. The four types were nature/ecotourism, cultural/heritage tourism, industrial/social tourism, and pleasure tourism. For each type respondents were asked to describe the number of trips and length of trips (nights) they

took during the previous year. Participation in these different types of tourism was later tested to determine the impacts upon respondents' decisions of whether and how often to participate in rural tourism in Korea.

The third section of the questionnaire collected information about their understanding and interests related to agriculture and rural areas. Respondents' perceptions of rural resources, their willingness to pay taxes to preserve rural resources, and the maximum amount they are willing to pay for this tax are included in this section. Respondents' understanding and interests related to agriculture and rural areas were evaluated as independent variables when modeling rural tourism demand.

Finally, the survey collected information about the respondents including their socioeconomic characteristics such as residence, age, gender, marital status, education level, occupation, monthly income, length of work week, childhood residence, relationship to agriculture, and travel propensity. This information was used profile rural tourists in Korea and compare them to non-participants in rural tourism.

Survey Administration

This section describes the different aspects of survey administration, including training of the survey facilitators, review of the completed surveys, coding and data

preparation.

Training Survey Facilitators

Eight students, primarily graduate students, at Sejong University were employed as survey facilitators. They underwent training regarding their different responsibilities, which included: (1) identifying and selecting respondents, (2) explaining the purposes of the survey to potential respondents, (3) providing assistance to respondents when needed, and (4) reviewing responses for completeness and correctness.

Training of the survey facilitators included: (1) how to randomly select potential respondents in a manner that did not introduce biases including systematic sampling procedures, (2) how to introduce and explain the survey, (3) content and flow of the survey, and (4) how to check for completeness and correctness of the surveys that were collected from respondents.

A systematic sampling method was employed to select respondents within a particular survey location, assigned by the project leader. At each location, a survey facilitator established a place for selecting respondents and asked every n^{th} person who passed by or through that place to participate in the survey. For example one survey facilitator at a shopping mall counted every tenth person who entered at the main

entrance and asked about their willingness to participate in the survey.

The survey facilitators disclosed their identities as college students conducting a survey sponsored by the Ministry of Agriculture and Forestry. They then explained the purpose of the study and estimated amount of time required to complete a survey. If a potential respondent showed interest in participating in the survey, the survey facilitator provided them a questionnaire on a clipboard and waited until he or she completed the survey. Those who chose not to participate in the survey were thanked and were not contacted again.

Prior to beginning the survey, the survey facilitators gave brief descriptions of the content of the questionnaire. They explained the four sections. For each section, they demonstrated the flow of the survey to help respondents complete the surveys.

Survey facilitators checked each survey immediately after it was turned in by a respondent. They checked completeness (e.g., that all required questions were answered). If they identified problems, they worked with respondents to make the necessary corrections. The most common error was skipping required questions.

Checking and Coding the Completed Surveys and Data Preparation

Completed surveys were submitted to the project leader on a continuing basis.

The project leader reviewed the surveys focusing on completeness and correctness. If there were significant number problems associated with surveys produced by a particular survey facilitator the project leader provided them additional training.

On a daily basis, the project leader also tracked the number of surveys completed in the different geographic areas and made comparisons with the targeted number of surveys. If necessary, the project leader reallocated facilitators to different geographic areas to makeup for discrepancies.

The surveys reviewed by the project leader were coded on a daily basis. Using Microsoft Access, an electronic data entry form was developed that was similar in appearance to the original survey instrument. This approach reduced coding errors by establishing response ranges and by providing an easy-to-navigate format. The project leader and survey administrators executed the data entry.

After the data were entered and coded, frequencies were run to identify possible outliers. When outliers were identified, the coded data were compared to the data on the survey forms and corrections were made.

CHAPTER 4

OVERVIEW OF RURAL TOURISM PARTICIPATION AND PARTICIPANTS

This chapter provides an overview of survey respondents and their participation in rural tourism. The results are presented in three sections. In the first section, various characteristics of the survey respondents are presented along with comparisons of respondents with the Korea's general population. The second section describes their participation in rural tourism and profiles their rural tourism trips. The third section makes comparisons between survey respondents who do and do not participate in rural tourism.

A Description of the Survey Respondents

A total of 1,032 complete and usable survey responses were analyzed. Ten different socioeconomic variables including location of residence, gender, age, marital status, monthly household income, education level, occupation, length of work week, childhood residence, and relationship to agriculture were used to profile the respondents. Table 9 reports the results of these analyses.

Two thirds of the respondents (68.4%) reside in Seoul and the other megalopolis

areas. A large majority (76.1%) is under 39 years of age and almost three quarters (78.6%) of the respondents hold either college/university or advanced degree. Nearly half of the respondents (49.3%) make less than 2,000,000 won (about US$1,678.00) in monthly household income. Just over sixty percent of the respondents (60.8%) were raised as children in an urban environment.

On average respondents have higher monthly household incomes, higher education levels, and are younger compared to the general population in Korea. One reason why the education level of respondents is higher is because respondents are younger and the education level in Korea has increased dramatically over the last thirty years. Higher education levels also correlate with higher monthly household incomes.

Table 9. Characteristics of the Respondents and Comparisons with the Korean Population

Socioeconomic Characteristics	Number of Respondents (N=1,032)	Percentage of Respondents (%)	Korean General Population (%)
Location of Residence			
Seoul and the Surrounding Areas[a]	445	43.1%	41.4%
Megalopolises	338	32.8%	27.0%
Provinces	249	24.1%	31.5%
		100.0%	100.0%
Gender			
Male	465	45.6%	50.1%
Female	555	54.4%	49.9%
		100.0%	100.0%
Age			
20-29	402	39.6%	25.9%
30-39	370	36.4%	27.0%
40-49	174	17.1%	22.7%
50-59	64	6.3%	14.1%
60 or Over	6	0.6%	10.3%
		100.0%	100.0%
Marital Status			
Married	514	50.6%	NA
Single	501	49.4%	
		100.0%	
Monthly Household Income[b]			
Less than ₩1,000,000	36	3.6%	12.1%
₩1,000,000-₩1,999,999	206	20.4%	29.7%
₩2,000,000-₩2,999,999	255	25.3%	25.5%
₩3,000,000-₩3,999,999	206	20.4%	32.7%[c]
₩4,000,000-₩4,999,999	123	12.2%	
₩5,000,000 or over	182	18.1%	
		100.0%	100.0%

Source: Census data collected by the Korea National Statistical Office in 2000.

Percentage of gender and age for the population was calculated only for people aged 20-70.

Percentage of marital status for the population was calculated for people age 15 and over.

Percentage of education level for the population was calculated for people age 6 and over.

Percentage of monthly income for the population is from "Reports for Income Distribution Structure and Minimum Wage System in Korea" by the Korean Confederation of Trade Unions (2002. 6).

[a] Seoul and the surrounding areas include Inchon and Kyunggi-do. See the map on page 73.

[b] Unit = won (₩1,191.68 = US$1.00 in 2003 provided by Kiup Bank).

[c] 32.7 percent of the Korean general population make over ₩3,000,000 in monthly household income (US$2,517.00).

Table 9. Characteristics of the Respondents and Comparisons with the Korean Population (cont'd)

Socioeconomic Characteristics	Number of Respondents (N=1032)	Percentage of Respondents (%)	Korean General Population (%)
Education			
Middle School	11	1.1%	28.4%
High School	206	20.3%	44.8%
College/University	691	67.9%	25.0%
Graduate School	109	10.7%	1.9%
		100.0%	100.0%
Occupation			
Professional	163	16.9%	
Clerical	298	30.9%	
Producer/Engineer	79	8.2%	
Service	134	13.9%	
Public Servant/Teacher	121	12.5%	NA
Own Business	80	8.3%	
Student	38	3.9%	
Retired/No job	4	0.4%	
Other	48	5.0%	
		100.0%	
Length of Work Week[d]			
Five Days a Week[e]	393	49.2%	NA
More Than Five Days a Week	406	50.8%	
		100.0%	
Childhood Residence			
Urban Area	620	60.8%	NA
Rural Area	399	39.2%	
		100.0%	
Relationship to Agriculture			
Families or Relatives Engaged in Agriculture	635	63.7%	NA

Source: Census data collected by the Korea National Statistical Office in 2000.

[d] A five-day work week was first implemented in July 2002 and was gradually introduced in Korea. Companies with more than 1,000 employees adopted the five-day work week by July 2004, and those with 300 employees or more will implement the system on July 1, 2005. The remaining workplaces will adopt the system in 2011.

[e] Includes the cases of respondents who worked five days every other week.

Rural Tourism Participation and Trip Characteristics

Table 10 shows that half of the respondents (50.3%) participated in some form of rural tourism during the previous year (2003). They took, on average, three (3.14) rural tourism trips; over half of rural tourists (65.1%) made two or fewer trips annually. Fourteen percent of rural tourists only took a day trip, and 85.9 percent took an overnight trip; with the average number of trip nights being 4.4. Rural tourists spent almost seven days (6.96) on their rural tourism trips annually.

Table 11 describes the characteristics of rural tourism trips taken by respondents. It describes one specific rural tourism trip that each respondent took during the past year (2003). A majority of participants (83.2%) stayed overnight while on their rural tourism trips. Just over half of the rural tourists (55.2%) profiled that they took a trip with their families; while 86.4 percent of rural tourism trips with family and friends/relatives. Three and four person parties comprise the largest percentage of rural tourism travel parties, consistent with the fact that more than half of the respondents took trips with their families. More than a third of the travel parties (36.8%) were comprised solely adults, and 41.0 percent contained both adults and children.

The most frequently used mode of transportation was cars (77.8%), followed by buses (13.4%). Regarding the type of lodging on overnight trips, a small percentage

(13.6%) of rural tourists stayed in a hotel or motel, while over one third (36.3%) stayed in a bed and breakfast or pension similar to a guest house in Korea. A relatively high percentage (23.6%) stayed with friends' or relatives' places, and ten percent stayed in shelters built within recreational forests.

When planning rural tourism trips, 40.6 percent of rural tourists obtained information from the recommendations of friends or relatives, almost equal to the number who used the Internet (39.2%) for such purposes. Over two thirds (69.1%) were either satisfied or very satisfied with their rural tourism trips, while less than five percent (4.5%) were either dissatisfied or very dissatisfied.

Table 10. Participation in Rural Tourism[a]

Participation Characteristics	Percentage / Mean
Participate in Some Form of Rural Tourism	50.3%
Do Not Participate in Any Form of Rural Tourism	49.7%
	100.0%
Annual Number of Rural Tourism Trips[f]	3.14[b] (1.81)[c]
1	39.5%
2	25.6%
3-4	19.5%
5-9	10.0%
10 or More	5.4%
	100.0%
Annual Number of Rural Tourism Trip Nights[f]	3.82[d] (2.17)[c]
Day Trip	14.1%
1	14.1%
2	22.2%
3-4	24.5%
5-9	18.3%
10 or More	6.8%
	100.0%
Annual Number of Rural Tourism Participation Days[f]	6.96[e] (3.50)[c]
1	5.6%
2	14.1%
3-4	32.0%
5-9	29.1%
10 or More	19.2%
	100.0%

[a] Rural tourism, defined for this study, includes participation in agricultural tourism, visiting a rural area for the purpose of tourism, and visiting family or friends living in rural areas.

[b] The annual number of rural tourism trips was calculated with persons who participated in rural tourism. The average, 3.14, was taken 0.74 in spring, 1.06 in summer, 0.74 in fall, and 0.61 in winter.

[c] The mean calculated with all respondents is shown in parenthesis.

[d] The annual number of rural tourism trip nights was calculated with persons who participated in rural tourism. The average, 3.82, was taken 0.67 in spring, 1.69 in summer, 0.70 in fall, and 0.75 in winter.

[e] The annual number of rural tourism participation days was calculated with persons who participated in rural tourism. The average, 6.96, was taken 1.40 in spring, 2.75 in summer, 1.44 in fall, and 1.37 in winter.

[f] The total percentage was calculated from rural tourism participants (out of 50.3%).

Table 11. Characteristics of Rural Tourism Trips Taken by Respondents[a]

Trip Characteristics	Percentage
Length of Trip[b]	
Day Trip	16.8%
Overnight	83.2%
	100.0%
Travel Party Composition	
Families	55.2%
Friends/Relatives	31.2%
Colleagues	7.5%
Association Members	2.8%
Alone	2.2%
Other	1.2%
	100.0%
Size of Travel Party (mean)	(8.06)
1	3.2%
2	11.9%
3-4	40.7%
5-9	27.6%
More Than 10	16.6%
	100.0%
Age Makeup of Travel Parties	
All Adults Party	36.8%
All Female Adults Party	10.9%
All Male Adults Party	11.3%
Adults and Children Party	41.0%
	100.0%
Type of Transportation	
Car	77.8%
Bus	13.4%
Train	6.3%
Plane	2.0%
Other	0.5%
	100.0%

[a] Respondents described the most representative rural tourism trip they took.

[b] The percentage difference from the previous table (Table 10) is because this table describe only one specific rural tourism trip for each respondent.

Table 11. Characteristics of Rural Tourism Trips Taken by Respondents (cont'd)

Trip Characteristics	Percentage
Type of Lodging[c]	
Friends/Relatives	23.6%
Bed & Breakfast	21.0%
Pension[d]	15.3%
Motel/Hotel	13.6%
Recreational Forest[e]	10.0%
Farm Stay[f]	5.7%
Tourist Farm[g]	2.1%
Campground	1.7%
Second Home	1.4%
Other	5.6%
	100.0%
Information Sources	
Recommendations of Friends/Relatives	40.6%
Internet	39.2%
TV	5.7%
Newspaper/Magazine	3.0%
Travel Agent	0.4%
Other	11.1%
	100.0%
Trip Satisfaction	
Very Satisfied	8.7%
Satisfied	60.4%
Neutral	26.4%
Dissatisfied	2.4%
Very Dissatisfied	2.1%
	100.0%

[c] Percentage for type of lodging was calculated with overnight trip participants (out of 83.2%).

[d] A new type of lodging which is becoming popular in Korea. It is similar to a guest house.

[e] A shelter built within a forest.

[f] Stay at a general farm house.

[g] A type of farm house developed for tourists to provide rural tourism experiences and to sell products (e.g. herb farm).

In general, the most important reasons why survey respondents participate in rural tourism are to relax or spend leisure time (3.34[4]) and to enjoy the natural environment (3.03). Many of the respondents take rural tourism trips to visit recreational forests (2.63) or to visit historic sites (i.e. temples) in rural areas (2.40). To visit family or friends living in a rural area (2.49) is another major reason for taking rural tourism trips. Table 12 describes reasons why respondents participate in rural tourism.

Other less important reasons for participating in rural tourism trips, including going fishing (1.75) or for an agricultural experience (1.97) are still important reasons for some people. Almost nine percent (8.9%) of rural tourists responded that going fishing is either a very important or an important reason to participate in rural tourism, and 14.5 percent an agricultural experience is either a very important or an important reason for their trips. This suggests that the rural tourism market may be segmented based on the reasons why they participate.

[4] The reasons why respondents participated in rural tourism were collected using a five-point Likert scale (1=Not Important, 5=Very Important), and the numbers within the parentheses indicate the mean scores of the reasons.

Table 12. Reasons Why Respondents Participate in Rural Tourism[a]

Reason	Mean	Very Important 5	4	3	2	Not Important 1
To enjoy relaxation or to spend leisure time	3.34	26.2%	33.7%	10.6%	6.9%	22.5%
To enjoy natural scenic beauty in a rural area	3.03	20.4%	28.5%	13.9%	8.5%	28.7%
To visit a recreational forest	2.63	10.0%	24.7%	17.1%	14.3%	33.9%
To visit family or friends living in a rural area	2.49	14.6%	15.8%	9.6%	23.3%	36.6%
To visit a temple or historic site in a rural area	2.40	8.5%	19.3%	13.7%	20.8%	37.8%
For nature based recreation (*trekking, hiking, camping, rafting*)	2.36	8.1%	19.3%	11.6%	22.7%	38.3%
To make or eat local foods	2.36	6.9%	20.4%	14.1%	18.9%	39.7%
To experience sea village life (*estuary exploration, sea village stay, gathering marine products*)	2.27	10.0%	14.6%	10.0%	22.5%	42.8%
For nature study (*field study, visit a nature study facility*)	2.15	3.7%	15.8%	14.1%	24.7%	41.8%
To experience nature (*picking mushrooms, wild greens, or chestnuts, etc.*)	2.12	5.2%	11.4%	15.6%	26.0%	41.8%
To visit a travel farm	2.09	2.7%	14.8%	14.1%	25.8%	42.6%
To attend an alumni association, gathering a holiday, or a ceremonial occasion	2.09	9.1%	9.8%	7.1%	29.3%	44.7%
To buy agricultural produce	2.03	3.5%	11.4%	13.5%	27.7%	43.9%
For a health experience (*mud-walled hut, room with under-floor heating system, etc.*)	2.00	3.1%	11.8%	12.7%	27.2%	45.3%
For an eco-experience (*observing birds or plants, etc.*)	1.98	3.3%	10.8%	11.8%	29.1%	45.1%
To experience farm life (*baking and eating potatoes/sweet potatoes/corn*)	1.98	3.1%	11.2%	11.8%	28.7%	45.3%

[a] Reasons why respondents participated in rural tourism were measured using a five-point Likert scale (1=Not Important, 5=Very Important).

Table 12. Reasons Why Respondents Participate in Rural Tourism[a] (cont'd)

Reason	Mean	Very Important 5	4	3	2	Not Important 1
For an agricultural experience (*rice-planting, treading barley plants, digging potatoes, etc.*)	1.97	3.7%	10.8%	9.8%	30.1%	45.7%
To participate in a local agriculture/food festival (*strawberry festival, ginseng festival*)	1.91	2.9%	9.6%	10.2%	30.1%	47.2%
To experience a farm stay	1.82	1.7%	7.3%	10.6%	31.6%	48.7%
To join a group tour	1.82	3.5%	8.7%	7.7%	26.4%	53.8%
To visit a weekend farm	1.81	2.3%	6.9%	10.0%	31.2%	49.5%
To attend local community events in a rural area	1.81	2.7%	6.2%	9.8%	32.0%	49.3%
To experience folk play (*flying a kite, sledding, etc.*)	1.78	2.3%	6.4%	9.6%	30.6%	51.1%
To attend a winter festival (*snow festival, smelt festival*)	1.78	3.5%	5.8%	10.2%	26.6%	53.9%
To go fishing	1.75	2.9%	6.0%	8.9%	28.1%	54.1%

[a] Reasons why respondents participated in rural tourism were measured using a five-point Likert scale (1=Not Important, 5=Very Important).

Respondents also indicate the importance of the factors in selecting their rural tourism destinations and the degree of their satisfaction with those factors. As reported in Table 13, rural tourists consider the quality of natural environment as the most important factor when determining rural tourism destinations, followed by accessibility/ transportation. For many rural tourists the quality and types of agricultural product or activities available are considered less important.

The degree of satisfaction with different destination selection factors is much lower than the importance with which respondents rated those factors (3.33 vs. 3.99 respective means). Rural tourists were the most satisfied with the quality of the natural environment, followed by the food available at the destination, while they were very dissatisfied with toilet and parking facilities and the types of activities available on their trip. Figure 3 shows the difference between importance and respondents' satisfaction with each factor.

Table 13. The Importance of Various Factors in Determining Rural Tourism Destinations, and Respondents' Satisfaction with Those Factors

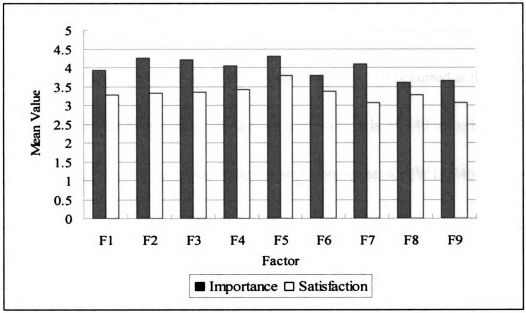
Importance of Factors[a]	Mean	Very Important 5	4	3	2	Not Important 1
Natural Environment	4.31	44.9%	43.7%	9.6%	1.4%	0.4%
Transportation/Accessibility	4.25	40.2%	47.5%	9.9%	2.2%	0.2%
Lodging Facilities	4.21	39.1%	46.1%	12.0%	2.4%	0.4%
Other Facilities (Toilet/Parking)	4.10	36.8%	40.4%	19.6%	2.8%	0.4%
Food	4.04	30.3%	47.8%	18.7%	2.2%	1.0%
Travel Information about a Rural Area	3.94	22.2%	54.0%	20.0%	3.6%	0.2%
Residents' Kindness	3.78	22.1%	41.0%	30.2%	5.9%	0.8%
Types of Activities Available	3.66	17.1%	43.1%	31.2%	6.0%	2.6%
Quality and Types of Agricultural Products	3.60	18.8%	35.6%	34.6%	8.1%	2.8%

Satisfaction with Factors[b]	Mean	Very Satisfied 5	4	3	2	Very Dissatisfied 1
Natural Environment	3.80	19.5%	45.7%	30.9%	3.0%	0.8%
Food	3.43	8.8%	34.9%	47.6%	8.4%	0.4%
Residents' Kindness	3.37	8.6%	30.0%	51.8%	8.8%	0.8%
Lodging Facilities	3.35	8.6%	31.8%	46.6%	12.2%	0.8%
Transportation/Accessibility	3.32	4.8%	38.7%	41.7%	13.1%	1.6%
Quality and Types of Agricultural Products	3.29	5.3%	27.5%	58.1%	8.4%	0.6%
Travel Information about a Rural Area	3.29	3.6%	32.4%	53.6%	9.7%	0.6%
Other Facilities (Toilet/Parking)	3.07	6.3%	22.1%	47.0%	22.3%	2.4%
Types of Activities Available	3.06	4.7%	19.4%	55.1%	18.4%	2.4%

[a] Importance for each factor was measured using a five-point Likert scale (1=Not Important, 5=Very Important).

[b] Satisfaction for each factor was measured using a five-point Likert scale (1=Very Dissatisfied, 5=Very Satisfied).

Figure 3. The Importance of Various Factors in Determining Rural Tourism Destinations, and Respondents' Satisfaction with Those Factors



Notes: Importance and satisfaction for each factor was measured using a five-point Likert scale (1=Not Important/Very Dissatisfied, 5=Very Important/Very Satisfied).

Descriptions of factors: F1="Travel Information about a Rural Area," F2="Accessibility/Transportation," F3="Lodging Facilities," F4="Food," F5="Natural Environment," F6="Residents' Kindness," F7="Other Facilities," F8="Quality and Types of Agricultural Products," and F9="Types of Activities Available."

Table 14 illustrates respondents' spending in six expense categories, while on rural tourism trips; their spending occurred both at their primary destinations and at other places on the trip. Nearly three quarters of spending (71.2%) occurred at their primary destinations. Average spending during rural tourism trips is 45,740 won (US$38.38) per person per day. Rural tourists spend the most on food expenses (₩16,746, US$14.05), followed by travel expenses (₩8,719, US$7.32), and lodging expenses (₩8,512, US$7.14).

Table 14. Average Spending on Rural Tourism Trips Taken by Respondents[a]

Trip Spending[b]	At the Primary Destination (Mean)	At Other Places (Mean)
Food Expenses	11,932	4,814
Travel Expenses	5,531	3,188
Entertainment Expenses	3,518	1,296
Lodging Expenses	6,828	1,684
Shopping Expenses	2,615	1,027
Other Expenses	2,147	1,132
Total Spending	32,573	13,167

[a] The numbers indicate trip spending per person per day.

[b] Unit = won (₩1,191.68 = US$1.00 in 2003 provided by Kiup Bank).

Comparisons Between Rural Tourists and Non-Rural Tourists

The first objective for this study was to identify and profile rural tourism markets in Korea and *Hypothesis 1* is: *Those who participate and/or do not participate in rural tourism in Korea differ with respect to socio-economic characteristics, participation in non-rural tourism, and perceptions of rural resources.* This section distinguishes rural tourists by comparing them with persons who do not participate in rural tourism.

Tables 15, 16, and 17 provide the results of tests performed relative to Hypothesis #1. Table 15 reveals a significant statistical relationship between whether a person participates in rural tourism and their socio-economic characteristics, including location of residence, age, marital status, monthly household income, education level, length of work week, childhood residence, and relationship to agriculture (at a significance level of 0.05).

Residents of Seoul and the surrounding areas and provinces are more likely to participate in rural tourism than those in other megalopolis areas. Rural tourists are on average older on average (35.1) than non-rural tourists (32.8). Rural tourists are more likely to be married (58.3%) than non-rural tourists (43.1%). Regarding monthly income, 32.8 percent of rural tourists receive more than 4,000,000 won in monthly income (about US$3,357.00), compared to 27.7 percent of non-rural tourists. Education levels of rural

tourists, while high, are somewhat lower than those of non-rural tourists. Just over three quarters (76.6%) of rural tourists hold a college/university degree or an advanced degree, while 80.6 percent of non-rural tourists have attained similar levels of academic achievement. Rural tourists put in shorter work weeks than non-rural tourists; 52.7 percent of rural tourists work five days a week compared to 45.6 percent of non-rural tourists. As would be expected, a higher percentage of rural tourists were raised in rural areas (44.4%) and have families or relatives engaged in agriculture (66.3%) than non-rural tourists (34.4% and 58.4%, respectively).

Table 16 presents the difference in tourism propensity for persons who do and do not participate in rural tourism. Analyses reveal that propensity to participate in forms of non-rural tourism is related to participation in rural tourism. In other words, persons who participate in rural tourism are engaged in other different types of tourism. In general, respondents prefer to travel for both relaxation and activity (48.9% of rural tourists and 41.1% of non-rural tourists), and non-rural tourists are more likely to travel for relaxation only. Rural tourists and non-rural tourists differ significantly regarding the number of domestic tourism trips participated in each year at a significance level of 0.1[5]. One third

[5] The conventional significance levels in academic research are the 1 percent level, the 5 percent level, and the 10 percent level (Aaker et al., 1998; Aczel, 2002).

of rural tourists (31.8%) took more than five domestic trips annually, while only 19.0 percent of non-rural tourists did so.

The results indicate that rural tourism may be a substitute for and is competition to other types of tourism including nature/ecotourism, industrial/social tourism, and pleasure tourism but not with cultural/heritage tourism. Non-rural tourists on average make more trips lasting more nights and days than rural tourists.

No statistically significant relationships were found between respondents' participation in rural tourism and their perceptions of rural resources, although rural tourists perceive rural resources to be more important than non-rural tourists in general (Table 17). Whether this was because they engaged in rural tourism (e.g. education, awareness) or it was a reason why they went on rural tourism trips was not determined. Respondents were asked to indicate the most important function of rural resources out of five functions provided; statistically different results between rural tourists and non-rural tourists were revealed. Rural tourists believe that "being places of natural scenic beauty, green zones, and rural experience" (31.2%), followed by "as a production of safe agricultural products" (23.7%) are the most important function of rural resources. On the other hand, non-rural tourists consider the most important function of rural resources to be "as a place for production of safe agricultural products" (31.0%).

Very interestingly, rural tourists are more likely to be willing to pay taxes to preserve rural resources (64.1%) than are non-rural tourists (59.1%); however, no significant difference was found between the two groups in the maximum amount they were willing to pay.

Table 15. Socioeconomic Comparisons of Rural Tourists and Non-Rural Tourists

Socioeconomic Characteristics	Rural Tourists (50.3%)	Non-Rural Tourists (49.7%)	χ^2	*p-value*
Location of Residence				
Seoul and the Surrounding Areas	45.3%	40.9%	7.092	**0.029****
Megalopolises	28.9%	36.6%		
Provinces	25.8%	22.5%		
	100.0%	100.0%		
Gender				
Male	47.2%	43.9%	1.119	0.290
Female	52.8%	56.1%		
	100.0%	100.0%		
Age				
20-29	34.1%	45.0%	19.246	**0.001*****
30-39	36.8%	36.0%		
40-49	20.2%	14.1%		
50-59	8.1%	4.5%		
60 and Over	0.8%	0.4%		
	100.0%	100.0%		
Marital Status				
Married	58.3%	43.1%	23.702	**0.000*****
Single	41.7%	56.9%		
	100.0%	100.0%		
Monthly Household Income[a]				
Less than ₩1,000,000	3.0%	4.1%	14.454	**0.013****
₩1,000,000-₩1,999,999	16.0%	24.8%		
₩2,000,000-₩2,999-999	26.8%	23.8%		
₩3,000,000-₩3,999,999	21.4%	19.5%		
₩4,000,000-₩4,999,999	12.6%	11.8%		
₩5,000,000 and over	20.2%	15.9%		
	100.0%	100.0%		

[a] Unit = won (₩1,191.68 = US$1.00 in 2003 provided by Kiup Bank).
*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Table 15. Socioeconomic Comparisons of Rural Tourists and Non-Rural Tourists (cont'd)

Socioeconomic Characteristics	Rural Tourists (50.3%)	Non-Rural Tourists (49.7%)	χ^2	*p-value*
Education				
Middle School	1.5%	0.8%	9.013	**0.029****
High School	21.9%	18.6%		
College/University	63.8%	72.0%		
Graduate School	12.8%	8.6%		
	100.0%	100.0%		
Occupation				
Professional	17.1%	16.7%	9.834	0.277
Clerical	29.7%	32.0%		
Producer/Engineer	8.0%	8.4%		
Service	14.7%	13.1%		
Public Servant/Teacher	11.8%	13.3%		
Own Business	10.1%	6.5%		
Student	4.6%	3.3%		
Retired/No job	0.2%	0.6%		
Other	3.8%	6.1%		
	100.0%	100.0%		
Length of Work Week				
Five Days a Week[b]	52.7%	45.6%	4.089	**0.043****
More Than Five Days a Week	47.3%	54.4%		
	100.0%	100.0%		
Childhood Residence				
Urban Area	56.0%	65.6%	9.873	**0.002*****
Rural Area	44.0%	34.4%		
	100.0%	100.0%		
Relationship to Agriculture				
Families or Relatives Engage in Agriculture	66.3%	58.4%	7.093	**0.029****

[b] Includes the cases of respondents who worked five days every other week.

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Table 16. Respondents' Participation in Different Types of Tourism

Tourism Participation	All	Rural Tourists (50.3%)	Non-Rural Tourists (49.7%)	χ^2/ *t-value*	*p-value*
Tourism Propensity					
Prefer to Travel for Relaxation	30.1%	28.9%	31.3%	8.721	**0.033****
Prefer Active and Experiential Tours	11.7%	11.5%	11.9%		
Prefer to Travel for Relaxation, as Well as for Experience	45.1%	48.9%	41.1%		
No Preference	13.1%	10.7%	15.7%		
	100.0%	100.0%	100.0%		
Number of Domestic Tourism Trips					
None	11.3%	2.8%	19.8%	97.626	**0.000*****
1-2	33.6%	30.2%	36.9%		
3-4	29.2%	34.2%	24.3%		
5-9	17.7%	23.5%	12.0%		
10 or More	8.2%	8.3%	7.0%		
	100.0%	100.0%	100.0%		
Number of International Tourism Trips					
None	72.1%	71.8%	72.4%	0.868	0.929
1	18.1%	17.8%	18.4%		
2	6.1%	6.7%	5.5%		
3-5	3.0%	3.0%	3.1%		
6 or More	0.7%	0.7%	0.6%		
	100.0%	100.0%	100.0%		

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Table 16. Respondents' Participation in Different Types of Tourism (cont'd)

Tourism Participation	All	Rural Tourists (50.3%)	Non-Rural Tourists (49.7%)	χ^2/ *t-value*	*p-value*
NON-RURAL TOURISM TRIPS					
Nature/Ecotourism Trips					
Annual Number of Trips	1.22	1.05	1.39	-1.732	**0.085***
Annual Number of Trip Nights	1.40	1.28	1.52	-0.984	0.327
Annual Number of Tourism Participation Days	3.11	2.33	3.89	-2.433	**0.016****
Cultural/Heritage Tourism Trips					
Annual Number of Trips	0.50	0.48	0.53	-0.612	0.540
Annual Number of Trip Nights	0.24	0.28	0.21	1.107	0.269
Annual Number of Tourism Participation Days	0.75	0.75	0.74	0.043	0.966
Industrial/Social Tourism Trips					
Annual Number of Trips	0.42	0.38	0.46	-1.307	0.192
Annual Number of Trip Nights	0.44	0.37	0.52	-1.658	**0.099***
Annual Number of Tourism Participation Days	0.86	0.74	0.98	-1.675	**0.095***
Pleasure Tourism Trips					
Annual Number of Trips	1.10	0.89	1.30	-2.827	**0.005*****
Annual Number of Trip Nights	1.12	0.91	1.34	-2.486	**0.013****
Annual Number of Tourism Participation Days	2.22	1.81	2.64	-3.010	**0.003*****

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Table 17. Differences in Perceptions of Rural Resources Between Rural Tourists and Non-Rural Tourists[a]

Perceptions of Rural Resources	All	Rural Tourists (50.3%)	Non-Rural Tourists (49.7%)	χ^2/ *t-value*	*p-value*
Functions of Rural Resources					
A Place of Natural Scenic Beauty, Green Zones, or Rural Experience	4.01	4.04	3.98	1.053	0.292
A Preserving Ecosystem for Animals, Plants, Birds, and Fish	3.81	3.82	3.80	0.319	0.750
To Preserve Local Communities and Traditional Cultures	3.73	3.75	3.72	0.639	0.523
To Maintain Territorial Integrity[b]	3.54	3.51	3.57	-0.938	0.348
Production of Safe Agricultural Products	3.85	3.88	3.82	1.093	0.275
Willing to Pay a Tax to Preserve Rural Resources	61.6%	64.1%	59.1%	2.738	**0.098***
Maximum Tax They Were Willing to Pay[c]					
₩10,000 or Less	42.1%	42.8%	41.4%	1.196	0.879
₩20,000 - ₩30,000	29.4%	29.4%	29.5%		
₩40,000 - ₩50,000	15.5%	16.0%	14.9%		
₩60,000 - ₩100,000	11.8%	10.5%	13.2%		
More Than ₩100,000	1.2%	1.3%	1.0%		
The Most Important Function of Rural Resources					
A Place of Natural Scenic Beauty, Green Zones, or Rural Experience	27.0%	31.2%	22.9%	12.893	**0.012****
A Preserving Ecosystem for Animals, Plants, Birds, and Fish	18.2%	19.3%	17.1%		
To Preserve Local Communities and Traditional Cultures	9.4%	8.9%	9.9%		
To Maintain Territorial Integrity[b]	18.0%	16.9%	19.1%		
Production of Safe Agricultural Products	27.4%	23.7%	31.0%		

[a] Respondents' perceptions of rural resources were measured using a five-point Likert scale (1=Not Important, 5=Very Important).

[b] Including flood or landslide prevention or as a natural bank.

[c] Unit = won (₩1,191.68 = US$1.00 in 2003 provided by Kiup Bank).

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

The Results of the Testing of Hypothesis One

The findings of the study reveal that there are significant differences between those who participated and do not participate in rural tourism in Korea with respect to socioeconomic characteristics, including: location of residence, age, marital status, monthly household income, education level, length of work week, childhood residence, and relationship to agriculture at a significance level of 0.05. Significant differences between rural tourists and non-rural tourists were also found for participation in non-rural tourism, including in nature/ecotourism, industrial/social tourism, and pleasure tourism at a significance level of 0.1.

However, there are no significant differences between those who participated and do not participate in rural tourism with respect to their perceptions of rural resources. The results of the testing hypothesis one are presented in Table 18.

Table 18. Results of the Testing of Hypothesis One

Hypothesis One: *Those who participated and do not participate in rural tourism in Korea differ with respect to:*		
Socioeconomic Characteristics		
Location of Residence	Accepted	$p<0.05$
Gender	Rejected	
Age	Accepted	$p<0.01$
Marital Status	Accepted	$p<0.01$
Monthly Household Income	Accepted	$p<0.05$
Education	Accepted	$p<0.05$
Occupation	Rejected	
Length of Work Week	Accepted	$p<0.05$
Childhood Residence	Accepted	$p<0.01$
Relationship to Agriculture	Accepted	$p<0.05$
Participation in Different Types of Tourism		
Tourism Propensity	Accepted	$p<0.05$
Number of Domestic Tourism Trips	Accepted	$p<0.01$
Number of International Tourism Trips	Rejected	
Number of Nature/Ecotourism Participation Days	Accepted	$p<0.05$
Number of Cultural/Heritage Tourism Participation Days	Rejected	
Number of Industrial/Social Tourism Participation Days	Accepted	$p<0.1$
Number of Pleasure Tourism Participation Days	Accepted	$p<0.01$
Perception of Rural Resources		
Functions of Rural Resources:		
A Place of Natural Scenic Beauty, Green Zones, or Rural Experience	Rejected	
A Preserving Ecosystem for Animals, Plants, Birds, and Fish	Rejected	
To Preserve Local Communities and Traditional Cultures	Rejected	
To Maintain Territorial Integrity	Rejected	
Production of Safe Agricultural Products	Rejected	
Willing to Pay a Tax to Preserve Rural Resources	Accepted	$p<0.1$
Maximum Tax They Were Willing to Pay	Rejected	
The Most Important Function of Rural Resources	Accepted	$p<0.05$

CHAPTER 5

MODELING RURAL TOURISM DEMAND

This chapter identifies and profiles motivational rural tourism market segments and presents a model of rural tourism demand in Korea. The first section describes the formation and profiling of three rural tourism motivational market segments related to: socioeconomic characteristics, rural tourism trip characteristics, participation in different types of tourism, and perceptions of rural resources. The second section describes the determinants of rural tourists' decisions about participation and the frequency of participation in rural tourism. The last section presents the demand model for rural tourism in Korea.

Motivational Segmentation of Rural Tourism Market in Korea

Formation of Rural Tourism Motivational Market Segments

Motivational market segments were formulated on the basis of the importance ratings that survey respondents assigned to reasons why they participated in rural tourism trips. Twenty-five different activity focused reasons[6] are included in the segmentation

[6] Table 12 reports the importance of reasons for rural tourism trips.

analyses.

Cluster analysis was used to identify possible motivational market segments. The cluster analysis technique allows the analyst to sort respondents/cases (e.g. based on the importance of various motivations for rural tourism trips) into groups, in which the degree of association among the groups is maximal if they belong to the same group and minimal otherwise. If it is assumed that a specific number of clusters are expected—with "k" being defined as that number—then the k-means clustering technique can be applied, which results in exactly "k" different clusters of the greatest possible distinction.

Before the clustering technique was employed, a Factor Analysis was conducted the importance respondent's assigned to the twenty-five motivations/reasons for rural tourism trips. Factor Analysis results in factor scores which are composite measures created for each observation on each factor extracted in the Factor Analysis. These factor scores are including in cluster analyses to segment rural tourism markets. Factor scores are also used to investigate the determinants of quantity decision by rural tourists, when applying the Poisson-hurdle Model later in this study.

A principal component analysis, the most common form of factor analysis with the varimax rotation method was employed. This rotation method is usually necessary to facilitate the interpretation of factors, and orthogonal rotation of the factor axes

maximizes the variance of the squared loadings of a factor on all variables in a factor matrix. This has the effect of differentiating the original variables by extracted factor. A varimax rotated solution produces results that make it as easy as possible to identify each variable with a single factor. Two criteria were used in this study to determine the number of factors to extract; latent root criterion and percentage of variance criterion. Only factors having eigenvalues greater than one are considered significant, and those factors must account for at least 60 percent of the total variance.

The Factor Analysis began by using the importance ratings assigned all the 25 motivations/reasons for participating in rural tourism. The Factor Analysis was repeated until a solution that satisfied both criteria was achieved. Table 19 illustrates the results of the initial factor analysis using the importance assigned to reasons participating in rural tourism trips.

Table 19. Results of the Initial Factor Analysis Performed on the Importance Assigned to Reasons for Participating in Rural Tourism Trips

Reasons for Participating in Rural Tourism Trips	Factor Loading	Eigen-values[a]	% of Variance[b]	Cronbach's α
Factor One				
For nature study	.747	10.374	19.6%	.893
For an eco-experience	.739			
To experience a farm stay	.721			
To experience nature	.716			
For an "agricultural experience"	.660			
To visit a travel farm	.620			
To experience farm life	.617			
Factor Two				
To attend a winter festival	.710	1.877	14.6%	.857
To join in a group tour	.704			
For a health experience	.570			
To visit a weekend farm	.562			
To attend local community events in a rural area	.552			
To experience a folk play	.535			
To participate in a local agriculture/food festival	.490			
To go fishing	.377			
Factor Three				
To enjoy relaxation or to spend leisure time	.817	1.309	14.0%	.844
To enjoy natural scenic beauty in a rural area	.811			
To visit a recreational forest	.596			
To visit a temple or historic site in a rural area	.570			
To make or eat local foods	.546			
To experience sea village life	.445			
For nature based recreation	.401			
Factor Four				
To visit friends or relatives living in rural areas	.803	1.041	10.2%	.691
To attend an alumni association, holiday, or a ceremonial occasion	.754			
To buy agricultural produce	.512			

Note: All 25 reasons provided in the questionnaire were used for the initial analysis.

[a] Only factors with eigenvalues greater than one are shown.

[b] The total percentage of variance is 58.4 percent.

Four variables that had loadings of less than 0.5 were then eliminated. These variables include: to participate in a local agriculture/food festival, to go fishing, to experience sea village life, and for nature based recreation. This process was repeated four additional times until both the criteria—latent root criterion and percentage of variance criterion—were met. This resulted in the final factor solutions that met both criteria; nine variables were excluded for the analysis to achieve these criteria. Table 20 illustrates the final results of factor analysis using the importance assigned to reasons for participating in rural tourism trips.

Table 20. Final Results of Factor Analysis Performed on the Importance Assigned to Reasons for Participating in Rural Tourism Trips

Reason for Participating in Rural Tourism Trips	Factor Loading	Eigen-values[a]	% of Variance[b]	Cronbach's α
To Participate in Rural Recreation Activities				
For an eco-experience	.758	7.075	44.2%	0.908
For a nature experience	.750			
To experience a farm stay	.748			
For nature study	.741			
For an "agricultural experience"	.718			
To experience farm life	.690			
To visit a travel farm	.676			
To visit a weekend farm	.616			
To experience a folk play	.601			
To Enjoy Rural Setting				
To enjoy relaxation or to spend leisure time	.830	1.762	11.0%	0.798
To enjoy natural scenic beauty in a rural area	.825			
To visit a recreational forest	.663			
To visit a temple or historic site in a rural area	.630			
To eat local food	.559			
To Visit Friends or Relatives				
To attend an alumni association, holiday, or a ceremonial occasion	.820	1.209	7.6%	0.687
To visit friends or relatives living in rural areas	.815			

Note: Of 25 reasons provided in the questionnaire, 16 were used for the analysis.

The item "To experience nature" was excluded because it loaded on all three factors.

The item "To attend local community events in a rural area," was excluded because it would have decreased the reliability alpha for the respective factor.

The items including: "To experience sea village life," "To buy agricultural produce," "For a health experience," "To participate in a local agriculture/food festival," "To join in a group tour," "To attend a winter festival," and "To go fishing" were excluded because their factor loadings were too low.

[a] Only factors with eigenvalues greater than one are shown.

[b] The total percentage of variance is 62.8 percent.

To assess the appropriateness of factor solution, the Kaiser-Meyer-Olkin (KMO) measure[7] of sampling adequacy and Bartlett's test of sphericity[8] were examined. The results of the KMO measure of sampling adequacy test indicated an acceptable level (.928), since a value of .60 or above indicates that a factor is acceptable (Tabachnick and Fidel 1989). Bartlett's test of sphericity was also found to be significant at a level of .000.

The final factor solution resulted in the identification of three factors. Based on the factor loadings they are labeled "To Participate in Rural Recreation Activities," "To Enjoy Rural Setting," and "To Visit Friends or Relatives." These are the primary motivational dimensions for rural tourism trips.

A clustering technique was used to identify different segments within the rural tourism market in Korea. Both hierarchical and nonhierarchical clustering procedures were used in combination. Hierarchical procedures use stepwise clustering procedures to divide respondent cases into clusters, while, nonhierarchical procedures produce only a single cluster solution for a set of cluster seeds. Instead of using the treelike construction process found in the hierarchical procedures, cluster seeds are used to group respondent

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[7] The Kaiser criterion is a common rule of thumb for dropping the least important factors from the analysis. The Kaiser rule is to drop all components with eigenvalues under 1.0.

[8] The Bartlett test of sphericity is a statistical test for the overall significance of all correlations within a correlation matrix.

cases within a pre-specified distance of the seeds.

The first step in the clustering process was to use the hierarchical procedure to identify the most appropriate number of clusters. Then, the k-means clustering technique was employed utilizing the hierarchical results as a basis for generating the seed points.

To determine the final cluster solution, Ward's method was applied. Ward's method is a hierarchical clustering procedure in which the similarity used to join clusters is calculated as the sum of squares between the two clusters summed over all variables. This method has the tendency to result in clusters of approximately equal size due to its minimization of within-group variation. Table 21 contains the results of this hierarchical cluster analysis, including the cases being combined at each stage of the process and the agglomeration coefficient[9].

[9] The agglomeration coefficient is the within-cluster sum of squares. Small coefficients indicate that fairly homogeneous clusters are being merged, and joining two very different clusters results in a large coefficient or a large percentage change in the coefficient. It can be used as a rule for selecting the final cluster solution (Hair et al., 1998).

Table 21. Agglomeration Schedule of Hierarchical Cluster Analysis Using Ward Method

	Cluster Combined			Stage Cluster First Appears		
Stage	Cluster 1	Cluster 2	Agglomeration Coefficient	Cluster 1	Cluster 2	Next Stage
1	783	1023	.000	0	0	23
2	1001	1018	.000	0	0	5
3	828	1017	.000	0	0	18
			Stage 4 to 514 are omitted			
515	94	885	9.637	481	0	518
516	4	19	10.584	514	507	517
517	4	7	13.085	516	513	518
518	4	94	15.443	517	515	0

The agglomeration coefficient shows rather large increases when moving from three to two clusters (13.085-10.584=2.50, a 23.6% increase), and large percentage change in the coefficient means joining two very different clusters. This indicates that a three cluster solution is most appropriate. Coincidentally, the literature reviewed in Chapter 2 also identified three rural tourism cluster/segments including persons who engage in rural tourism to participate in agricultural tourism, for the purpose of visiting rural areas, and to visit family or friends living in rural areas.

In K-means clustering technique was then used to identify the rural tourism segments. Table 22 presents the results of the nonhierarchical cluster analysis including the mean values on the three clustering variables (three factor scores) and cluster sizes.

Table 22. Results of Nonhierarchical Cluster Analysis by Motivations of Rural Tourism Trips (using factor score)

	Cluster 1 (n=164)	Cluster 2 (n=205)	Cluster 3 (n=150)
Factor 1 To Participate in Rural Recreation Activities	-.92131	-.05229	4.35649
Factor 2 To Enjoy Rural Setting	-1.70421	2.29254	-2.75491
Factor 3 To Visit Friends or Relatives	2.55066	-1.59859	-1.29371

To examine the distinctiveness across clusters, Analysis of Variance (ANOVA) was conducted. Table 23 presents the results of ANOVA for variables/factors used to form the clusters. The *F* values of three variables are significant with .000, indicating a significant difference among with respect to their motivations for engaging in rural tourism.

Table 23. Results of Analysis of Variance

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	Df		
Factor 1 To Participate in Rural Recreation Activities	112.674	2	.558	516	201.965	.000
Factor 2 To Enjoy Rural Setting	172.748	2	.331	516	521.587	.000
Factor 3 To Visit Friends or Relatives	57.4379	2	.784	516	73.230	.000

Cluster one comprises respondents whose most important reasons for rural tourism trips are to visit family or friends and to attend a special occasion, such as a wedding or family reunion. Further analyses show that members of this cluster are less likely than other clusters to participate in rural tourism activities not directly related to their primary purpose for traveling. This cluster constitutes 31.6 percent of the respondents and has been named the "VFR Rural Tourist."

Cluster two is comprised of persons whose primary purpose for rural tourism trips is to participate in classic tourism activities, such as relaxing in nature, and/or visiting recreational forests or historic sites. Members comprising this cluster prefer to vacation in rural areas; however, they do not plan a trip primarily for the purpose of participating in a specific recreational or tourism related activity. This cluster constitutes the largest (39.5%) of the rural tourism market. Because of their activity related propensities and motivations this cluster is named the "Passive Rural Tourist."

Cluster three comprise respondents whose primary trip purpose is to participate in an activity that is specifically related to the rural context including such as eco-experiences, a nature based experience, a farm stay, or a stay at a travel farm. About thirty percent of rural tourists (28.9%) are included in this cluster. Considering their primary purpose of trips is to participate in rural-centric, this cluster has been named the "Rural-

centric Tourist."

Profiles of Three Motivational Market Segments of Rural Tourism

Another objective of this study is to segment the rural tourism market and to profile different rural tourism markets in Korea. The following hypothesis guided this step in the research: *Hypothesis 2: Different motivational market segments in rural tourism in Korea differ with respect to socioeconomic characteristics, rural tourism trip characteristics, participation in different types of tourism, and perceptions of rural resources.* The results of the test of this hypothesis are presented in Tables 24, 25, 26, 27, 28, and 29.

Comparisons of the Socioeconomic Characteristics of the Three Rural Tourism Motivational Market Segments

Statistical comparisons (Chi Square Tests) and of the three rural tourism market segments on their socioeconomic characteristics including: location of residence, gender, age, marital status, education level, monthly household income, occupation, length of workweek, childhood residence and relationship to agriculture are reported in Table 24. The results revealed significant differences across the segments on four socioeconomic

variables: age, marital status, education level, and childhood residence at a significance level of 0.1.

Passive Rural Tourists are on average, younger than other rural tourists. More than three quarters (78.6%) of this segment are under 40 years of age, compared to 62.4 percent of *Rural-centric Tourists* and 68.9 percent of *VFR Rural Tourists*.

Passive Rural Tourists (52.7%) are more likely to be single, compared to tourists in the other segments. About two thirds of *Rural-centric Tourists* (68.7%) and *VFR Rural Tourists* (62.9%) are married.

The education level achieved by *Passive Rural Tourists* is higher on average than the other two segments. About 17 percent (16.6%) of *Passive Rural Tourists* hold an advanced degree, compared to 11.4 percent of *Rural-centric Tourists* and 9.2 percent of *VFR Rural Tourists*.

Rural-centric Tourists are more likely to have been raised in rural areas than tourists in either of the other segments have been. Over 50 percent of *Rural-centric Tourists* (54.7%) were raised in rural areas, compared to 35.1 percent of *Passive Rural Tourists* and 45.4 percent of *VFR Rural Tourists*.

Profile of the Rural-centric Tourists

Rural-centric Tourists mostly reside in urban areas (75.2%). They are older and on average have lower monthly household incomes and education levels. Two thirds (68.7%) are married, and 52.3 percent work more than five days a week. More than half of the tourists in this segment (54.7%) were raised in rural areas, and nearly three quarters (72.0%) have families or relatives engaged in agriculture.

Profile of the Passive Rural Tourists

Nearly a half of the *Passive Rural Tourists* (49.3%) reside in Seoul or surrounding areas, which represents 45.9 percent of the population in Korea. Nearly half of the tourists in this segment (46.9%) were raised as children in urban areas. *Passive Rural Tourists* are younger on average; 78.6 percent are under 40, and more than half of them (52.7%) are single. Tourists comprising this segment have higher education levels—80.0 percent hold a college/university degree or an advanced degree—and have higher monthly incomes than do tourists in either of the other segments. Slightly more than 38 percent (38.1%) of *Passive Rural Tourists* generate more than 4,000,000 won in monthly household income, compared to 28.1 percent of *Rural-centric Tourists* and 30.3 percent of *VFR Rural Tourists*. Also, the *Passive Rural Tourist Segment* includes more white-

collar employees and students (63.7%) than do the other two segments, and this helps to explain why the average length of work week of *Passive Rural Tourists* is shorter.

Profile of the VFR Rural Tourists

VFR Rural Tourists are similar in many regards to *Rural-centric Tourists*. However, a higher percentage of *VFR Rural Tourists* (26.8%) reside in provinces. *VFR Rural Tourists* are more likely to be married (62.9%), and more than fifty percent (52.3%) work five days a week. Nearly two thirds of tourists in this segment (64.7%) have families or relatives engaged in agriculture. Overall, the *Passive Rural Tourist Segment* differs, in terms of socioeconomic characteristics, from other segments. The *Rural-centric Tourists Segment* and the *VFR Rural Tourist Segment* are similar in terms of socioeconomic characteristics.

Table 24. Socioeconomic Characteristics of the Three Rural Tourism *Motivational Market Segments*

Socioeconomic Characteristics	**Rural-centric Tourist Segment** (28.9%, n=150)	**Passive Rural Tourist Segment** (39.5%, n=205)	**VFR Rural Tourist Segment** (31.6%, n=164)	χ^2	*p-value*
Location of Residence					
Seoul and the Surrounding Areas[a]	27.7% (43.2%)	43.0% (49.3%)	29.4% (42.1%)	3.280	0.512
Megalopolises	32.0% (32.0%)	34.0% (24.9%)	34.0% (31.1%)		
Provinces	27.6% (24.8%)	39.6% (25.8%)	32.8% (26.8%)		
Gender					
Male	30.0% (48.0%)	42.1% (49.3%)	27.9% (43.8%)	1.103	0.576
Female	29.1% (52.0%)	38.8% (50.7%)	32.1% (56.2%)		
Age					
20-29	22.7% (26.2%)	50.6% (42.5%)	26.7% (30.5%)	25.204	**0.001*****
30-39	29.0% (36.2%)	39.8% (36.1%)	31.2% (38.4%)		
40-49	34.3% (23.5%)	29.4% (14.6%)	36.3% (24.5%)		
50-59	48.8% (13.4%)	34.1% (6.8%)	17.1% (4.6%)		
60 and Over	25.0% (0.7%)	0.0% (0.0%)	75.0% (2.0%)		
Marital Status					
Married	35.0% (68.7%)	32.7% (47.3%)	32.3% (62.9%)	19.542	**0.001*****
Single	22.4% (31.3%)	51.0% (52.7%)	26.7% (37.1%)		
Monthly Household Income[b]					
Less Than ₩1,000,000	40.0% (4.1%)	33.3% (2.5%)	26.7% (2.6%)	9.780	0.460
₩1,000,000-₩1,999,999	32.5% (17.8%)	37.5% (14.9%)	30.0% (15.8%)		
₩2,000,000-₩2,999,999	32.8% (30.1%)	32.8% (21.8%)	34.3% (30.2%)		
₩3,000,000-₩3,999,999	27.1% (19.9%)	43.0% (22.7%)	29.9% (21.1%)		
₩4,000,000-₩4,999,999	25.4% (11.0%)	52.4% (16.3%)	22.2% (9.2%)		
₩5,000,000 and Over	24.8% (17.1%)	43.6% (21.8%)	31.7% (21.1%)		

Note: Segment (column) percentages are shown in parentheses, for example, 43 percent of *Intrinsic Rural Tourists* reside in Seoul and the surrounding area.

[a] Seoul and the surrounding areas include: Inchon and Kyunggi-do. See the map on page 73.

[b] Unit = 1,000 won (₩1,191.68 = US$1.00 in 2003 provided by Kiup Bank).

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Table 24. Socioeconomic Characteristics of the Three Rural Tourism *Motivational Market Segments* (cont'd)

Socioeconomic Characteristics	**Rural-centric Tourist Segment** (28.9%, n=150)	**Passive Rural Tourist Segment** (39.5%, n=205)	**VFR Rural Tourist Segment** (31.6%, n=164)	χ^2	*p-value*
Education					
Middle School	28.6% (1.3%)	28.6% (1.0%)	42.8% (2.0%)	10.806	**0.095***
High School	38.6% (28.9%)	35.1% (19.0%)	26.1% (19.1%)		
College/University	26.9% (58.4%)	40.3% (63.4%)	32.8% (69.7%)		
Graduate School	26.2% (11.4%)	52.3% (16.6%)	21.5% (9.2%)		
Occupation					
Professional	34.6% (20.6%)	39.5% (16.2%)	25.9% (14.9%)	20.547	0.197
Clerical	21.3% (22.0%)	44.0% (31.2%)	34.8% (34.7%)		
Producer/Engineer	28.9% (8.1%)	26.3% (5.1%)	44.8% (12.1%)		
Service	31.4% (16.2%)	44.3% (15.7%)	24.3% (12.1%)		
Public Servant/Teacher	32.1% (13.2%)	42.9% (12.1%)	25.0% (9.9%)		
Business Owner	35.4% (12.5%)	37.5% (9.1%)	27.1% (9.2%)		
Student	22.7% (3.7%)	63.7% (7.1%)	13.6% (2.1%)		
Retired/No Job	0.0% (0.0%)	0.0% (0.0%)	100.0% (0.7%)		
Other	27.8% (3.7%)	38.9% (3.5%)	33.3% (4.3%)		
Length of Work Week					
Five Days a Week[c]	26.3% (46.3%)	42.2% (58.1%)	31.5% (52.3%)	3.796	0.150
More Than Five Days a Week	34.0% (53.7%)	34.0% (41.9%)	32.0% (47.7%)		
Childhood Residence					
Urban Area	23.9% (45.3%)	46.9% (64.9%)	29.2% (54.6%)	13.605	**0.001*****
Rural Area	36.8% (54.7%)	32.3% (35.1%)	30.9% (45.4%)		
Relationship to Agriculture					
Families or Relatives Engaged in Agriculture	32.1% (72.0%)	38.4% (63.2%)	29.5% (64.7%)	5.945	0.203
Families or Relatives Not Engaged in Agriculture	25.8% (28.0%)	43.5% (36.8%)	30.7% (35.3%)		

[c] Includes the cases of respondents who worked five days every other week.
*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Characteristics of Rural Tourism Trips Taken by Members of the Three Rural Tourism Motivational Market Segments

The three segments were next compared statistically with respect to their rural tourism trip characteristics and activities including: length of trip, travel party composition, size of travel party, age makeup of travel parties, type of transportation, type of lodging, information source, and trip satisfaction. The results are shown in Table 25. The results revealed significant differences (at significance level of 0.1) across segments on all but one (trip satisfaction) of the trip characteristics.

VFR Rural Tourists take fewer day and more day trips (18.9%) than the *Rural-centric Tourists* (12.7%) or *Passive Rural Tourists* (11.2%). The average travel party size of *VFR Rural Tourists* (9.91 persons) is larger than that of the *Rural-centric Tourists* (7.69 persons) and the *Passive Rural Tourists* (7.02 persons). Private automobile is the most frequently used mode of transportation for all three of the segments. *Passive Rural Tourists* are more likely to travel by train and *Rural-centric Tourists* are more likely to travel by bus.

Rural-centric Tourists (40.0%) and *VFR Rural Tourists* (35.3%) are likely to stay overnight at friends' or relatives' houses while on their overnight rural tourism trips than are *Passive Rural Tourists* (10.4%). *Rural-centric Tourists* are much more likely to stay at

"Farm Stay" or "Tourist Farm," than are *Passive* or *VFR Rural Tourists*. Nearly two thirds of the "Farm Stay" users (70.4%) who responded to the survey and exactly half of "Travel Farm" users (50.0%) are *Rural-centric Tourists*. On the other hand, more than half of "Motel and Hotel" users (57.8%) and nearly two-thirds of "Pension[10]" users (61.2%) are *Passive Rural Tourists*.

The Internet and recommendations of friends or relatives are the two most frequently used source of information about rural tourism trips; however, the percentage of tourists using each source differs significantly among the three segments. *Rural-centric Tourists* (55.1%) and *VFR Rural Tourists* (49.2%) are more likely to obtain information from friends or relatives, while *Passive Rural Tourists* (58.6%) are more likely to use the Internet to obtain information about rural tourism trips.

Rural Tourism Trip Characteristics of the Rural-centric Tourist Segment

Rural-centric Tourists are more likely to take overnight rural tourism trips (87.3%) with their families (64.9%), and the average size of their travel parties is 7.7 persons. More than ninety percent of the *Rural-centric Tourists* take rural tourism trips by car (73.2%) or bus (19.5%). The most frequently used type of lodging for this segment is

[10] "Pension" is a new type of lodging which is getting popular in Korea. It is similar to a guest house.

friends' or relatives' houses (40.0%), followed by B&Bs (16.3%), and farm stay (14.1%). More than eighty percent of *Rural-centric Tourists* (83.1%) obtain information about rural tourism trips from friends or relatives and the Internet.

The average rural tourism trip satisfaction of *Rural-centric Tourists* is the lowest (3.62[11]) of the three segments. Two thirds of *Rural-centric Tourists* (64.0%) are either very satisfied or satisfied with their rural tourism trips; however, 7.3 percent are either very dissatisfied or dissatisfied.

Rural Tourism Trip Characteristics of the Passive Rural Tourist Segment

Almost ninety percent of *Passive Rural Tourists* (88.8%) take overnight rural tourism trips. *Passive Rural Tourists* are more likely to take rural tourism trips with families (43.2%) or friends/relatives (46.4%), and almost fifty percent (47.7%) travel in a group of more than five persons. Nearly half of this segment (44.6%) travel with a group made up exclusively of adults.

Similar to the other segments, the most frequently used mode of transportation by *Passive Rural Tourists* is private automobile (78.9%). *Passive Rural Tourists* are more

[11] Respondents' satisfaction regarding rural tourism trips was measured using a five-point Likert scale (1=Very Dissatisfied, 5=Very Satisfied).

likely to stay at a general type of lodging, such as hotel and motel (20.2%) or pension (22.4%) and to obtain information primarily through the Internet (58.6%).

The average rural tourism trip satisfaction of *Passive Rural Tourists* is the highest (3.79) of the three segments. Three quarters of *Passive Rural Tourists* (75.5%) are either satisfied or very satisfied with their rural tourism trips, while 3.4 percent are either dissatisfied or very dissatisfied.

Rural Tourism Trip Characteristics of the VFR Rural Tourist Segment

Compared to either of the other segments, a higher percentage of *VFR Rural Tourists* (18.9%) take day-long rural tourism trips. Nearly two thirds of this segment (63.9%) take rural tourism trips with their families. Over eighty percent (82.4%) travel by car, and one third (35.3%) stay at friends' or relatives' houses while on rural tourism trips, as would be expected.

Similar to other segments, recommendations of friends and relatives (49.2%) and the Internet (39.4%) are the two most frequently used source of information about rural tourism trips. Two thirds of *VFR Rural Tourists* (65.4%) are either satisfied or very satisfied with their rural tourism trips, while 3.2 percent are either dissatisfied or very dissatisfied.

Table 25. Characteristics of Rural Tourism Trips by Three Rural Tourism *Motivational Market Segments*[a]

Trip Characteristics	**Rural-centric Tourist Segment** (28.9%, n=150)	**Passive Rural Tourist Segment** (39.5%, n=205)	**VFR Rural Tourist Segment** (31.6%, n=164)	χ^2	*p-value*
Length of Trip					
Day Trip	26.0% (12.7%)	31.5% (11.2%)	42.5% (18.9%)	4.791	**0.091***
Overnight	29.4% (87.3%)	40.8% (88.8%)	29.8% (81.1%)		
Travel Party Composition					
Alone	54.5% (4.0%)	18.2% (1.0%)	27.3% (1.9%)	39.941	**0.000*****
Families	34.3% (64.9%)	31.1% (43.2%)	34.6% (63.9%)		
Friend/Relatives	21.5% (23.1%)	58.9% (46.4%)	19.6% (20.5%)		
Colleagues	23.7% (6.0%)	34.2% (6.5%)	42.1% (10.5%)		
Association Members	21.4% (2.0%)	42.9% (2.9%)	35.7% (3.2%)		
Size of Travel Party					
1	54.5% (4.1%)	18.2% (1.0%)	27.3% (2.0%)	26.742	**0.001*****
2	19.0% (8.1%)	54.0% (16.7%)	27.0% (11.2%)		
3-4	34.5% (47.3%)	34.0% (34.0%)	31.5% (42.1%)		
5-9	25.2% (23.6%)	49.6% (34.0%)	25.2% (23.0%)		
10 or More	28.7% (16.9%)	33.3% (14.3%)	38.0% (21.7%)		
Age Makeup of Travel Parties					
All Adults Party	24.7% (31.1%)	49.0% (44.6%)	26.3% (32.0%)	11.451	**0.075***
All Female Adults Party	29.1% (10.8%)	41.8% (11.3%)	29.1% (10.5%)		
All Male Adults Party	31.6% (12.2%)	40.4% (11.3%)	28.0% (10.5%)		
Adults and Children Party	32.8% (45.9%)	32.4% (32.8%)	34.8% (47.0%)		

Note: Segment (column) percentages are shown in parentheses, for example, 12.7 percent of *Intrinsic Rural Tourists* took "Day long" rural tourism trips.

[a] Respondents described the most representative rural tourism trip they took.

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Table 25. Characteristics of Rural Tourism Trips by Three Rural Tourism *Motivational Market Segments*[a] (cont'd)

Trip Characteristics	**Rural-centric Tourist Segment** (28.9%, n=150)	**Passive Rural Tourist Segment** (39.5%, n=205)	**VFR Rural Tourist Segment** (31.6%, n=164)	χ^2	*p-value*
Type of Transportation					
Car	27.5% (73.2%)	40.7% (78.9%)	31.8% (82.4%)	16.240	**0.039****
Train	31.3% (6.7%)	50.0% (7.8%)	18.7% (3.9%)		
Bus	42.6% (19.5%)	28.0% (9.3%)	29.4% (13.1%)		
Plane	10.0% (0.6%)	80.0% (4.0%)	10.0% (0.6%)		
Type of Lodging[b]					
Farm Stay[c]	70.4% (14.1%)	22.2% (3.3%)	7.4% (1.7%)	93.872	**0.000*****
Bed & Breakfast	23.9% (16.3%)	54.4% (27.4%)	21.7% (16.8%)		
Travel Farm[d]	50.0% (3.7%)	30.0% (1.6%)	20.0% (1.7%)		
Motel/Hotel	15.6% (7.4%)	57.8% (20.2%)	26.6% (14.3%)		
Pension[e]	9.0% (4.4%)	61.2% (22.4%)	29.8% (16.8%)		
Friends/Relatives	47.0% (40.0%)	16.5% (10.4%)	36.5% (35.3%)		
Campground	28.6% (1.5%)	42.8% (1.6%)	28.6% (1.7%)		
Recreational Forests[f]	23.4% (9.6%)	48.9% (12.6%)	27.7% (9.2%)		
Second Home	50.0% (3.0%)	12.5% (0.5%)	37.5% (2.5%)		

Note: Segment (column) percentages are shown in parentheses, for example, 73.5 percent of *Intrinsic Rural Tourists* traveled by "car" on rural tourism trips.

[a] Respondents described the most representative rural tourism trip they took.

[b] Percentage for type of lodging was calculated with overnight trip participants (out of 83.2%).

[c] Stay at a general farm house.

[d] A type of farm house developed for tourists to provide rural tourism experience and to sell produce (e.g. herb farm).

[e] A new type of lodging which is getting popular in Korea. It is similar to a guest house.

[f] A shelter built within a forest.

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Table 25. Characteristics of Rural Tourism Trips by Three Rural Tourism *Motivational Market Segments*[a] (cont'd)

Trip Characteristics	**Rural-centric Tourist Segment** (28.9%, n=150)		**Passive Rural Tourist Segment** (39.5%, n=205)		**VFR Rural Tourist Segment** (31.6%, n=164)		χ^2/F	*p-value*
Information Source								
TV	44.8%	(9.5%)	20.7%	(3.1%)	34.5%	(8.2%)	54.180	**0.000*****
Newspaper/Magazine	60.0%	(6.6%)	13.3%	(1.1%)	26.7%	(3.2%)		
Internet	19.2%	(28.0%)	56.6%	(58.6%)	24.2%	(39.4%)		
Travel Agent	50.0%	(0.8%)	50.0%	(0.5%)	0.0%	(0.0%)		
Recommendation of Friends/Relatives	36.6%	(55.1%)	34.1%	(36.7%)	29.3%	(49.2%)		
Trip Satisfaction								
Very Satisfied	29.5%	(8.7%)	41.0%	(8.8%)	29.5%	(8.5%)	10.187	0.252
Satisfied	27.1%	(55.3%)	44.5%	(66.7%)	28.4%	(56.9%)		
Neutral	32.1%	(28.7%)	32.1%	(21.1%)	35.8%	(31.4%)		
Dissatisfied	50.0%	(4.0%)	33.3%	(2.0%)	16.7%	(1.2%)		
Very Dissatisfied	45.4%	(3.3%)	27.3%	(1.4%)	27.3%	(2.0%)		

Note: Segment (column) percentages are shown in parentheses, for example, 9.5 percent of *Intrinsic Rural Tourists* were very satisfied with their rural tourism trips.

[a] Respondents described the most representative rural tourism trip they took.

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Rural Tourism Trip Spending by Three Rural Tourism Motivational Market Segments

Statistically significant differences (at a significance level of 0.1) concerning rural tourism trip spending were found among the three motivational market segments. Trip spending was calculated as spending per person per day on rural tourism trips. Table 26 illustrates the results of Analysis of Variance (ANOVA) tests. *Rural-centric Tourists* (₩50,442) and *Passive Rural Tourists* (₩50,863[12]) spend more, on average, on their rural tourism trips than *VFR Rural Tourists* (₩35,033) do.

The trip spending of rural tourists was measured in two parts, spending at the primary destination and spending at other places. Significant differences, concerning where trip spending occurred, were found among three motivational market segments. Overall, nearly two thirds of the total spending on rural tourism trips occurred at the primary destination. The percentage of spending occurring at places other than the primary destination was higher for *Rural-centric Tourists* (33.7%), compared to 26.3 percent of *Passive Rural Tourists* and 26.9 percent of *VFR Rural Tourists*.

ANOVA tests were applied to six categories of trip spending including; food expenses, travel expenses, entertainment expenses, lodging expenses, shopping expenses, and other expenses. The results revealed significant differences among the three

[12] Unit = won (₩1,191.68 = US$1.00 in 2003 provided by Kiup Bank).

motivational market segments in five categories of trip spending, with the exception being entertainment expenses. The percentages of trip spending across the six categories were found to be markedly similar between *Passive Rural Tourists* and *VFR Rural Tourists*. *Passive Rural Tourists* and *VFR Rural Tourists* also spent more on lodging and travel expenses and less on shopping and other expenses, than *Rural-centric Tourists*. One third of the total spending of *Rural-centric Tourists* (33.2%) was on lodging and travel expenses, compared to 40.3 percent of *Passive Rural Tourists* and 38.7 percent of *VFR Rural Tourists*. On the other hand, 20.1 percent of the total spending of *Rural-centric Tourists* was on shopping and other expenses, compared to 13.4 percent of *Passive Rural Tourists* and 11.9 percent of *VFR Rural Tourists*.

Table 26. Rural Tourism Trip Spending by Three Rural Tourism *Motivational Market Segments*[a]

Trip Spending[b]	**Rural-centric Tourist Segment** (28.9%, n=150)		**Passive Rural Tourist Segment** (39.5%, n=205)		**VFR Rural Tourist Segment** (31.6%, n=164)		*F*	*p-value*
	Spending	Percent	Spending	Percent	Spending	Percent		
Food Expenses	18520	36.7%	18289	36.0%	13196	37.7%	2.381	**0.093***
Lodging Expenses	8449	16.7%	10123	19.9%	6558	18.7%	2.663	**0.071***
Travel Expenses	8309	16.5%	10376	20.4%	7024	20.0%	3.126	**0.045****
Other Expenses	5138	10.2%	3094	6.1%	1814	5.2%	4.160	**0.016****
Entertainment Expenses	5048	10.0%	5207	10.3%	4112	11.7%	0.730	0.483
Shopping Expenses	4978	9.9%	3715	7.3%	2330	6.7%	4.220	**0.015****
Total Spending	50442	100.0%	50863	100.0%	35033	100.0%		
Total Spending at the Primary Destination	33434	66.3%	37506	73.7%	25617	73.1%	3.869	**0.021****
Total Spending at Other Places	17008	33.7%	13357	26.3%	9416	26.9%	2.990	**0.051***
Total Spending	50442	100.0%	50863	100.0%	35033	100.0%	3.742	**0.024****

[a] Respondents described the most representative rural tourism trip they took.

[b] Unit = won (₩1,191.68 = US$1.00 in 2003 provided by Kiup Bank).

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

The Importance of Various Factors in Determining Rural Tourism Destinations, and Respondents,' in Three Rural Tourism Motivational Market Segments, Level of Satisfaction with Those Factors

Rural tourism participants were asked to rate the importance of a variety of factors when determining a rural tourism destination. They were also asked about their level of satisfaction with those factors during that trip. Nine factors were provided in the questionnaire including: "Travel Information About a Rural Area," "Accessibility and Transportation," "Lodging Facility," "Food," "Natural Environment," "Residents' Kindness," "Other Facilities Such as Toilets or Parking," "Quality and Types of Agricultural Products," and "Types of Activities Available."

Rates of importance and satisfaction on each factor were compared among the three motivational market segments. Analyses of variances disclosed significant differences among the three motivational market segments in five of the nine factors[13]. "Natural Environment," "Accessibility and Transportation," and "Lodging Facilities" were the three most important factors of all three motivational segments; however, the degree of importance was significantly different among the three segments. All three segments rated "Quality and Types of Agricultural Products" and "Types of Activities

[13] Those five factors include: "Accessibility/Transportation," "Lodging Facilities," "Natural Environment," "Other Facilities such as Toilets or Parking," and "Quality and Types of Agricultural Products."

Available" as the least important factors.

Significant differences were found among the three motivational market segments in the satisfaction ratings of four factors: *Rural-centric Tourists* are more satisfied with the factors "Quality and Types of Agricultural Products" (3.52[14]), "Residents' Kindness" (3.50), and "Types of Activities Available" (3.24) than are *VFR Rural Tourists* (3.23, 3.37, and 3.01 for those three factors, respectively) and *Passive Rural Tourists* (3.15, 3.27, and 2.95 for those three factors, respectively). *Passive Rural Tourists* are more satisfied with "Lodging Facilities," (3.46) than are *Rural-centric Tourists* (3.36) and *VFR Rural Tourists* (3.26).

In general, three motivational market segments were more satisfied with "Natural Environment" and "Food," while less satisfied with "Types of Activities Available" and "Other Facilities such as Toilet and Parking."

[14] Mean value of satisfaction rating of the item was measured using a five-point Likert scale (1=Very Dissatisfied, 5=Very Satisfied).

Table 27. Importance of Various Factors in Determining a Rural Tourism Destination, and Respondents' Satisfaction with Those Factors by Three Rural Tourism *Motivational Market Segments*

Factors	**Rural-centric Tourist Segment** (28.9%, n=150)	**Passive Rural Tourist Segment** (39.5%, n=205)	**VFR Rural Tourist Segment** (31.6%, n=164)	*F*	*p-value*
Importance[a]:					
Natural Environment	4.26	4.40	4.24	2.639	**0.072***
Accessibility/Transportation	4.13	4.33	4.28	3.368	**0.035****
Lodging Facilities	4.05	4.30	4.25	4.726	**0.009*****
Food	4.00	4.09	4.01	0.694	0.500
Other Facilities (Toilet/Parking)	3.98	4.23	4.06	4.051	**0.018****
Travel Information About a Rural Area	3.87	4.01	3.93	1.549	0.214
Residents' Kindness	3.85	3.80	3.68	1.477	0.229
Quality and Types of Agricultural Products	3.80	3.52	3.48	4.920	**0.008*****
Types of Activities Available	3.74	3.66	3.58	1.098	0.334
Satisfaction[b]:					
Natural Environment	3.76	3.88	3.74	1.619	0.199
Food	3.54	3.39	3.39	1.902	0.150
Quality and Types of Agricultural Products	3.52	3.15	3.23	12.404	**0.000*****
Residents' Kindness	3.50	3.27	3.37	3.612	**0.028****
Lodging Facilities	3.36	3.26	3.46	2.490	**0.084***
Accessibility/Transportation	3.26	3.30	3.42	1.556	0.212
Types of Activities Available	3.24	2.95	3.01	5.678	**0.004*****
Travel Information About a Rural Area	3.23	3.31	3.32	0.703	0.496
Other Facilities (Toilet/Parking)	3.07	3.06	3.10	0.064	0.938

[a] Importance for each factor was measured using a five-point Likert scale (1=Not Important, 5=Very Important).

[b] Satisfaction for each factor was measured using a five-point Likert scale (1=Very Dissatisfied, 5=Very Satisfied).

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Participation in Different Types of Tourism by Three Rural Tourism Motivational Market Segments

First, the three rural tourism motivational market segments were compared regarding their tourism propensity, and the number of domestic and international tourism trips taken during the last year. Then, the three segments' participation in different types of tourism trips was compared. The number of tourism trips taken in a year (2003) was counted for five different types of tourism: rural tourism, nature/ecotourism, cultural/heritage tourism, industrial/social tourism, and pleasure tourism. Table 28 illustrates the results of separate chi-square tests and the analyses of variance tests.

The results revealed a statistical significant relationship (at a significance level of 0.1) among the three motivational market segments concerning the number of international tourism trips. *Rural-centric Tourists* took more international tourism trips (1.55[15]) than did *Passive Rural Tourists* (1.44) and *VFR Rural Tourists* (1.39).

It is not found to be statistically significant, but the average number of domestic rural tourism trips was the highest for *Rural-centric Tourists* (5.28[16]), followed by

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[15] When calculating the average number of international tourism trips, more than six times was censored as six.

[16] When calculating the average number of domestic tourism trips, more than ten times was censored as ten.

Passive Rural Tourists (5.21) and *VFR Rural Tourists* (4.67).

In regards to their tourism propensity, rural tourists take trips for relaxation, as well as for experiences in general. About 30 percent of rural tourists in all three motivational market segments responded that they travel for relaxation only. The percentage of rural tourists who travel to participate in specific activities is higher for *Rural-centric Tourists* (16.2%), compared to *Passive Rural Tourists* (11.3%) and *VFR Rural Tourists* (7.2%).

Rural tourists' participation in different types of tourism was measured by annual number of trips, annual number of trip nights, and annual number of participation days. The annual numbers of participation days in four types of tourism, with the exception of pleasure tourism, were significantly different among the three motivational market segments. The annual number of participation days of *Rural-centric Tourists* was the highest in rural tourism (8.40), followed by those in industrial/social tourism (1.01), and in cultural/heritage tourism (0.96). The annual number of participation days in nature/ecotourism was the highest for *Passive Rural Tourists* (2.71), compared to both of the other segments: 2.66 days for *Rural-centric Tourists* and 1.55 days for *VFR Rural Tourists*. In general, all three of the motivational market segments participated in rural tourism the most, followed by nature/ecotourism and pleasure tourism.

Table 28. Participation in Different Types of Tourism by Three Rural Tourism *Motivational Market Segments*

Tourism Participation	**Rural-centric Tourist Segment** (28.9%, n=150)	**Passive Rural Tourist Segment** (39.5%, n=205)	**VFR Rural Tourist Segment** (31.6%, n=164)	χ^2	*p-value*
Tourism Propensity					
Prefer to Travel for Relaxation	28.1% (27.7%)	41.8% (29.9%)	30.1% (28.8%)	6.468	0.373
Prefer Active and Experiential Tours	41.3% (16.2%)	39.7% (11.3%)	19.0% (7.2%)		
Prefer to Travel for Relaxation, as well as for Experience	27.1% (45.3%)	40.1% (48.5%)	32.8% (52.9%)		
No Preference	29.6% (10.8%)	38.9% (10.3%)	31.5% (11.1%)		
Number of Domestic Tourism Trips	5.28[a]	5.21	4.67		
1-2	26.8% (28.6%)	38.6% (29.3%)	34.6% (35.8%)	6.386	0.604
3-4	28.9% (35.0%)	40.5% (34.8%)	30.6% (35.8%)		
5-9	29.4% (24.5%)	44.5% (26.4%)	26.1% (21.0%)		
10 or More	36.2% (11.9%)	40.4% (9.5%)	23.4% (7.4%)		
Number of International Tourism Trips	1.55[b]	1.44	1.39		
None	28.0% (68.0%)	40.4% (71.6%)	31.6% (75.6%)	14.190	**0.077***
1	27.8% (16.7%)	47.8% (21.0%)	24.4% (14.5%)		
2	44.1% (10.0%)	23.5% (3.9%)	32.4% (7.2%)		
3-5	53.3% (5.3%)	26.7% (2.0%)	20.0% (2.0%)		
6 or More	0.0% (0.0%)	75.0% (1.5%)	25.0% (0.7%)		

Note: Segment (column) percentages are shown in parentheses, for example, 27.7 percent of *Intrinsic Rural Tourists* prefer to travel for relaxation.

[a] The average number of domestic tourism trips taken by Intrinsic Rural Tourists for a year (2003). More than ten times was censored as ten.

[b] The average number of international tourism trips taken by Intrinsic Rural Tourists for a year (2003). More than six times was censored as six.

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Table 28. Participation in Different Types of Tourism by Three Rural Tourism *Motivational Market Segments* (cont'd)

Tourism Participation: DIFFERENT TYPES OF TOURISM TRIPS	**Rural-centric Tourist Segment** (28.9%, n=150)	**Passive Rural Tourist Segment** (39.5%, n=205)	**VFR Rural Tourist Segment** (31.6%, n=164)	*F*	*p-value*
Rural Tourism Trips					
Annual Number of Trips	3.73	2.73	3.11	2.632	**0.073***
Annual Number of Trip Nights	4.67	4.00	2.82	5.866	**0.003*****
Annual Number of Tourism Participation Days	8.40	6.73	5.93	4.554	**0.011****
Nature/Ecotourism Trips					
Annual Number of Trips	1.17	1.16	0.80	1.912	0.149
Annual Number of Trip Nights	1.49	1.55	0.74	5.602	**0.004*****
Annual Number of Tourism Participation Days	2.66	2.71	1.55	4.778	**0.009*****
Cultural/Heritage Tourism Trips					
Annual Number of Trips	0.51	0.52	0.39	0.592	0.554
Annual Number of Trip Nights	0.45	0.24	0.15	5.350	**0.005*****
Annual Number of Tourism Participation Days	0.96	0.76	0.54	2.600	**0.075***
Industrial/Social Tourism Trips					
Annual Number of Trips	0.51	0.35	0.29	2.481	**0.085***
Annual Number of Trip Nights	0.50	0.31	0.31	1.693	0.185
Annual Number of Tourism Participation Days	1.01	0.66	0.60	2.617	**0.074***
Pleasure tourism					
Annual Number of Trips	0.77	1.05	0.81	1.602	0.203
Annual Number of Trip Nights	0.84	1.00	0.87	0.289	0.750
Annual Number of Tourism Participation Days	1.61	2.05	1.68	0.867	0.421

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

The Perceptions of Rural Resources by Three Rural Tourism Motivational Market Segments

The three market segments were compared regarding their perceptions of rural resources including: their willingness-to-pay a tax to preserve rural resources, the maximum tax they were willing to pay and the most important role of rural resources. The results of the analysis of variance test and separate chi-square tests are contained in Table 29. The results revealed no significant differences among the three segments concerning their perceptions of rural resources.

Overall, rural tourists were more likely to perceive rural resources as 'places to preserve local communities and traditional cultures' and 'places to maintain territorial integrity, including flood or landslide prevention.' However, the most important role of rural resources differed among the three segments. A quarter of *Rural-centric Tourists* (26.4%) responded that the most important role of rural resources is 'production of safe agricultural products.' One third of *Passive Rural Tourists* (33.9%) and *VFR Rural Tourists* (32.9%) rated 'a place of natural scenic beauty, green zones, or rural experience' as the most important role of rural resources.

Nearly two thirds of the rural tourists in all three segments expressed willingness to pay a tax to preserve rural resources; however, the maximum amount they were willing

to pay tax differed across the three segments. The results revealed that *Rural-centric Tourists* were more willing to pay such a tax than *Passive Rural Tourists* and *VFR Rural Tourists*. Just over 14 percent of *Rural-centric Tourists* (14.7%) and *Passive Rural Tourists* (14.6%) responded that they were willing to pay more than 60,000 won[17] to preserve rural resources, compared to 5.3 percent of *VFR Rural Tourists*. One third of *Rural-centric Tourists* (35.3%) responded that they were willing to pay a tax 10.000 won or less, compared to 42.3 percent of *Passive Rural Tourists* and 50.5 percent of *VFR Rural Tourists*.

[17] Unit = won (₩1,191.68 = US$1.00 in 2003 provided by Kiup Bank).

Table 29. Differences in Perceptions of Rural Resources by Three Rural Tourism *Motivational Market Segments*[a]

Perceptions of Rural Resources	**Rural-centric Tourist Segment** (28.9%, n=150)	**Passive Rural Tourist Segment** (39.5%, n=205)	**VFR Rural Tourist Segment** (31.6%, n=164)	F/χ^2	*p-value*
Functions of Rural Resources					
A Place of Natural Scenic Beauty, Green Zones, or Rural Experience	2.61	2.47	2.56	0.481	0.619
A Preserving Ecosystem for Animals, Plants, Birds, and Fish	2.81	2.73	2.85	0.449	0.639
To Preserve Local Communities and Traditional Cultures	3.56	3.35	3.30	1.744	0.176
To Maintain Territorial Integrity[b]	3.10	3.35	3.16	1.597	0.204
Production of Safe Agricultural Products	2.92	3.11	3.13	0.851	0.428
Willing to Pay a Tax to Preserve Rural Resources	28.1% (61.6%)	41.6% (64.9%)	30.3% (65.5%)	0.570	.752
Unwilling to Pay a Tax to Preserve Rural Resources	31.3% (38.4%)	40.2% (35.1%)	28.5% (34.5%)		
Maximum Tax They Were Willing to Pay[c]					
₩10,000 or Less	23.1% (35.3%)	41.1% (42.3%)	35.8% (50.5%)	9.504	0.302
₩20,000 - ₩30,000	30.4% (31.8%)	42.4% (30.0%)	27.2% (26.3%)		
₩40,000 - ₩50,000	32.0% (18.2%)	34.0% (13.1%)	34.0% (17.9%)		
₩60,000 - ₩100,000	36.4% (13.6%)	51.5% (13.1%)	12.1% (4.2%)		
More Than ₩100,000	25.0% (1.1%)	50.0% (1.5%)	25.0% (1.1%)		
The Most Important Role of Rural Resources					
A Place of Natural Scenic Beauty, Green Zones, or Rural Experience	23.9% (25.7%)	44.5% (33.9%)	31.6% (32.9%)	13.017	0.111
A Preserving Ecosystem for Animals, Plants, Birds, and Fish	33.3% (22.2%)	44.8% (21.1%)	21.9% (14.0%)		
To Preserve Local Communities and Traditional Cultures	18.2% (5.6%)	38.6% (8.3%)	43.2% (12.8%)		
To Maintain Territorial Integrity[b]	34.5% (20.1%)	32.1% (13.2%)	33.3% (18.8%)		
Production of Safe Agricultural Products	32.2% (26.4%)	40.7% (23.5%)	27.1% (21.5%)		

Note: Segment (column) percentages are shown in parentheses, for example, 61.6 percent of *Intrinsic Rural Tourists* are willing to pay a tax to preserve rural resources.

[a] Respondents' perceptions of rural resources were measured using a five-point Likert scale (1=Not Important, 5=Very Important).

[b] Including flood or landslide prevention or as a natural bank.

[c] Unit = won (₩1,191.68 = US$1.00 in 2003 provided by Kiup Bank).

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

The Results of the Testing of Hypothesis Two

Statistical comparisons of the three rural tourism market segments were conducted on their socioeconomic characteristics, rural tourism trip characteristics, importance of factors in determining rural tourism destinations and satisfaction with those factors, participation in different types of tourism, and perception of rural resources.

The results revealed significant differences (at a significance level of 0.1) across the segments on: (1) four socioeconomic variables, including: age, marital status, education level, and childhood residence; (2) eight rural tourism trip characteristics, including: length of trip, travel party composition, size of travel party, age makeup of travel party, type of transportation, type of lodging, information source, and trip spending; (3) the importance of five factors in determining rural tourism destination, including: accessibility/transportation, lodging facilities, natural environment, toilet/parking facilities, and quality/types of agricultural products; (4) satisfaction with four factors considered in determining rural tourism destinations, including: lodging facilities, residents' kindness, quality/types of agricultural products, and types of activities available; and (5) participation in four different types of tourism, including: international tourism, nature/ecotourism, cultural/heritage tourism, and industrial/social tourism.

The three rural tourism motivational market segments were compared regarding their perceptions of rural resources, and the results revealed no significant differences among the three segments at a significance level of 0.1. Table 30 presents the results of the testing of hypothesis two.

Table 30. Results of the Testing of Hypothesis Two

Hypothesis Two: *Rural tourism motivational market segments differ in terms of:*		
Socioeconomic Characteristics		
Location of Residence	Rejected	
Gender	Rejected	
Age	Accepted	$p<0.01$
Marital Status	Accepted	$p<0.01$
Monthly Household Income	Rejected	
Education	Accepted	$p<0.1$
Occupation	Rejected	
Length of Work Week	Rejected	
Childhood Residence	Accepted	$p<0.01$
Relationship to Agriculture	Rejected	
Rural Tourism Trip Characteristics		
Length of Trip	Accepted	$p<0.1$
Travel Party Composition	Accepted	$p<0.01$
Size of Travel Party	Accepted	$p<0.01$
Age Makeup of Travel Parties	Accepted	$p<0.1$
Type of Transportation	Accepted	$p<0.05$
Type of Lodging	Accepted	$p<0.01$
Information Source	Accepted	$p<0.01$
Trip Spending	Accepted	$p<0.05$
Trip Satisfaction	Rejected	
Importance of Factors in Determining Rural Tourism Destinations		
Travel Information About a Rural Area	Rejected	
Accessibility/Transportation	Accepted	$p<0.05$
Lodging Facilities	Accepted	$p<0.01$
Food	Rejected	
Natural Environment	Accepted	$p<0.1$
Residents' Kindness	Rejected	
Other Facilities (Toilet/Parking)	Accepted	$p<0.05$
Quality and Types of Agricultural Products	Accepted	$p<0.01$
Types of Activities Available	Rejected	

Table 30. Results of the Testing of Hypothesis Two (cont'd)

Hypothesis Two: *Rural tourism motivational market segments differ in terms of:*		
Satisfaction with Factors Considered in Determining Rural Tourism Destination		
Travel Information About a Rural Area	Rejected	
Accessibility/Transportation	Rejected	
Lodging Facilities	Accepted	$p<0.1$
Food	Rejected	
Natural Environment	Rejected	
Residents' Kindness	Accepted	$p<0.05$
Other Facilities (Toilet/Parking)	Rejected	
Quality and Types of Agricultural Products	Accepted	$p<0.01$
Types of Activities Available	Accepted	$p<0.01$
Participation in Different Types of Tourism		
Tourism Propensity	Rejected	
Number of Domestic Tourism Trips	Rejected	
Number of International Tourism Trips	Accepted	$p<0.05$
Number of Nature/Ecotourism Participation Days	Accepted	$p<0.01$
Number of Cultural/Heritage Tourism Participation Days	Accepted	$p<0.1$
Number of Industrial/Social Tourism Participation Days	Accepted	$p<0.1$
Number of Pleasure Tourism Participation Days	Rejected	
Perception of Rural Resources		
Functions of Rural Resources:		
A Place of Natural Scenic Beauty, Green Zones, or Rural Experience	Rejected	
A Preserving Ecosystem for Animals, Plants, Birds, and Fish	Rejected	
To Preserve Local Communities and Traditional Cultures	Rejected	
To Maintain Territorial Integrity	Rejected	
Production of Safe Agricultural Products	Rejected	
Willing to Pay a Tax to Preserve Rural Resources	Rejected	
Maximum Tax They Were Willing to Pay	Rejected	
The Most Important Function of Rural Resources	Rejected	

Determinants of Rural Tourism Demand in Korea

The third objective of this study presented in Chapter 1 was to investigate factors that affect tourists' decisions about participation and frequency of participation in rural tourism in Korea. Two hypotheses were tested:

Hypothesis 3: Tourists' characteristics, including (a) socioeconomic characteristics, (b) participation in non-rural tourism, and (c) perceptions of rural resources will influence their participation decisions regarding rural tourism.

Hypothesis 4: Tourists' characteristics, including (a) socioeconomic characteristics, (b) participation in non-rural tourism, (c) perceptions of rural resources, and (d) motivation for participation will influence their decisions about how frequently to participate in rural tourism.

To investigate the factors that affect tourists' decisions concerning rural tourism, the Poisson-hurdle Model is employed. The next three sections provide: (1) formation and description of variables used in the model, (2) the determinants decisions whether or not to participate in rural tourism, and (3) the determinants of decisions concerning participation frequency. Determinants were also examined for the three market segments described above.

Formation and Description of Variables Used in the Model

Two dependent variables were used to test the hypotheses: (1) whether or not to participate in rural tourism during the past year (Hypothesis #3), and (2) if a respondent participated, how many times did they participate during the year (Hypothesis #4).

Several different independent variables were considered in the formation model. According to previous tourism demand studies, the major determinants of tourism demand are the prices of tourist goods and services, the prices of related goods and services (substitutes and complements), the income of tourists, and the factors related to tourist tastes (Durden & Silberman, 1975; Gonzalez & Moral, 1995; Jorgensen & Solvoll, 1996; Kulendran & Witt, 2003; Lim, 1999; Morley, 1991; Qiu & Zhang, 1995; Silberman, 1985; Smeral, 1988; Smeral et al., 1992; Song & Wong, 2003; Uysal & Crompton, 1985; Witt et al., 1995; Zalatan & Burdge, 1980). However, there are no specific criteria or guidelines regarding which factors are most appropriate for a particular tourism product or destination. Based on a review of twenty different empirical studies of tourism demand the following variables were considered for inclusion in the model: location of residence, socioeconomic variables (i.e. monthly household income, occupation, marital status, childhood residence, age, and education level), and trip spending. Explanatory variables used in this study include: a substitute of rural tourism variable (participation in non-rural

tourism), a tourist job-related variable (length of work week), tourism propensity, perceptions related to rural resources variables, and motivation for participating in rural tourism. Table 31 shows the variables included in modeling rural tourism demand.

Table 31. Variables in the Model of Rural Tourism Demand in Korea

Variables	Variable Name	Type of Data	Description
DEPENDENT VARIABLES			
Participation in Rural Tourism	RTRIP	Dummy	Participate in Rural Tourism=1; Do Not Participate in Rural Tourism=0
Frequency of Participation in Rural Tourism	RVISIT	Continuous	Number of Rural Tourism Trips
INDEPENDENT VARIABLES			
Socioeconomic Characteristics			
Location of Residence			
Resident in Seoul and Surrounding Area	SEOUL	Dummy	Yes=1; Other=0
Resident in Megalopolises	MEGALO	Dummy	Yes=1; Other=0
Resident in Province	PROVINCE	Dummy	Yes=1; Other=0
Length of Work Week			
Work Five Days a Week	WORK1	Dummy	Yes=1; No=0
Work Five Days Every Other Week	WORK2	Dummy	Yes=1; No=0
Work Six Days a Week	WORK3	Dummy	Yes=1; No=0
Not Related With Five-Day Work Week System	WORK4	Dummy	Yes=1; No=0
Monthly Income	INCOME	Continuous	
Occupation-White Collar Job	JOB	Dummy	White Collar=1; Other=0
Marital Status	MARRY	Dummy	Married=1; Other=0
Childhood Residence	RLIVE	Dummy	Rural Area=1; Other=0
Age	AGE	Continuous	
Education Level	EDU	Dummy	At Least a College/University Degree=1; Other=0
Tourism Propensity – Prefer to Travel for Relaxation as Well as for Experience	TEND	Dummy	Yes=1; No=0

Table 31. Variables in the Model of Rural Tourism Demand in Korea (cont'd)

Variables	Variable Name	Type of Data	Description
Participation in Non-Rural Tourism			
Participation in Nature/Ecotourism	NATRIP	Continuous	Number of Nature/Ecotourism Trips Per Year
Participation in Cultural/Heritage Tourism	CUTRIP	Continuous	Number of Cultural Tourism Trips Per Year
Participation in Industrial/Social Tourism	INTRIP	Continuous	Number of Industrial Tourism Trips Per Year
Participation in Pleasure Tourism	PLTRIP	Continuous	Number of Pleasure Tourism Trips Per Year
Number of Domestic Tourism Trips	DOMESTIC	Dummy	
Perceptions of Rural Resources			
Place of Natural Scenic Beauty, Green Zones or Rural Experience	GREEN	Dummy	The Most Important=1; Other=0
Preserving Ecosystem	ECO	Dummy	The Most Important=1; Other=0
Preserving Local Community and Traditional Cultures	LOCAL	Dummy	The Most Important=1; Other=0
Maintaining Territorial Integrity	LAND	Dummy	The Most Important=1; Other=0
Production of Safe Agricultural Products	SAFE	Dummy	The Most Important=1; Other=0
Willingness-to-pay Tax to Preserve Rural Resources	WTP	Dummy	Yes=1; No=0
Motivation of Participation in Rural Tourism			
Factor 1 (To Participate in Rural Recreation Activities)	FACTOR1	Factor Score	A Factor Score Estimated From Reasons for Participation in Rural Tourism
Factor 2 (To Enjoy Rural Setting)	FACTOR2	Factor Score	
Factor 3 (To Visit Friends or Relatives)	FACTOR3	Factor Score	
Trip Spending	SPENDING	Continuous	Trip Spending on Rural Tourism

Participation in Rural Tourism Determinants

Of the twenty-nine variables described in Table 31, twenty-two variables were actually incorporated as part of the model of participation decisions[18]. Four variables, including three participation motivations and rural tourism trip spending were excluded because they were only available for respondents who participated in rural tourism. Three others were excluded to avoid the singular matrix problem when estimating the model[19]. They were: 'location of residence as province,' 'work six days a week,' and 'perception of rural resources as a place of production of safe agricultural products.' The results of the Poisson-hurdle Model are in Table 32.

The results determined that there are four socioeconomic characteristics that are statistically significant in decision to participate in rural tourism (Hypothesis #3a). Those four variables are: location of residence as megalopolis (MEGALO), marital status (MARRY), occupation of white-collar job (JOB), and childhood residence in a rural area

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[18] Those variables include: SEOUL, MEGALO, AGE, MARRY, INCOME, EDU, JOB, WORK1, WORK2, WORK4, RLIVE, TEND, DOMESTIC, NATRIP, CUTRIP, INTRIP, PLTRIP, GREEN ECO, LOCAL, LAND, and WTP. The description of each variable is presented in Table 31.

[19] For example, to avoid the singular matrix problem when estimating the model, the variable 'work six days a week (WORK3)' was treated as a basic variable and excluded from the model. That is, the statistics of three other job related variables (WORK1, WORK2, and WORK4) can be interpreted as relative value on a basic variable (WORK3).

(RLIVE).

Residents of megalopolises and white-collar employees are less likely to participate in rural tourism ($p<0.01$ and $p<0.05$, respectively). On the other hand, respondents who are married and those who were raised in rural areas are more likely to participate in rural tourism ($p<0.05$ and $p<0.1$, respectively).

The results also indicated that participation in four (non-rural) types of tourism negatively influences whether respondents participate in rural tourism (Hypothesis #3b). Persons who participate in nature/ecotourism ($p<0.01$), in cultural/heritage tourism ($p<0.1$), in industrial/social tourism ($p<0.05$), and in pleasure tourism ($p<0.01$), are less likely to participate in rural tourism. Either these types of tourism are substitutes for rural tourism, or persons who participate in these types of tourism do not prefer or are unable to participate in rural tourism. The total number of domestic tourism trips taken positively affects rural tourism participation ($p<0.01$). The more often respondents engage in tourism the more likely they are to decide to participate in rural tourism.

Perception of rural resources as "a place of natural scenic beauty, green zones or rural experience" are statistically (significance level of 0.01) positively related to participation in rural tourism (Hypothesis #3c). However four other "perception of rural resources variables" do not significantly affect the rural tourism participation decisions.

Frequency of Participation in Rural Tourism Determinants

The Poisson-hurdle Model also identified factors that affect the decisions regarding the frequency of participation in rural tourism. Eight socioeconomic variables influence frequency of participation decisions (Hypothesis #4a); four of them have positive influence and four have a negative influence. The four variables which positively affect the frequency of participation in rural tourism are: (1) marital status (MARRY), (2) length of work week—five days a week (WORK1), (3) whether they were raised as children in a rural area (RLIVE), and (4) tourism propensity (TEND).

Respondents who are married and those who were childhood was spend in rural areas participate in rural tourism ($p<0.05$) more frequently. Frequency of rural tourism participation is also greater for people who work five days a week (instead of longer work weeks) and who prefer to travel for both relaxation and experience ($p<0.05$ and $p<0.1$, respectively).

Frequency of participation is negatively affected by (1) location of residence—Seoul and the surrounding area (SEOUL), (2) monthly household income (INCOME), (3) education level (EDU), and (4) length of work week—work five days every other week (WORK2).

Residents in Seoul and the surrounding area and the more educated—who have

college or university degrees—participated less frequently in rural tourism ($p<0.05$ and $p<0.1$, respectively). Those with higher incomes ($p<0.01$), and those who work five days every other week ($p<0.05$) participate less frequently in rural tourism.

The results indicated that if a respondent participates in nature/ecotourism they are statistically ($p<0.01$) more likely to participate more often in rural tourism than those who do not indicating the possibility of a complementary relationship (Hypothesis #4b). Conversely if someone participates in cultural tourism they participate less frequently in rural tourism ($p<0.1$). This suggests that cultural/heritage tourism may be a substitute for rural tourism. Participation in the other types of tourism examined does not statistically affect the frequency of participation in rural tourism.

The total number of domestic tourism trips taken positively influences the frequency of rural tourism participation ($p<0.01$). Persons who participate in rural tourism do so more frequently if they are active tourists.

Perceptions of rural resources are not statistically related to how frequently participate in rural tourism (Hypothesis #4c). However, it is interesting to note, but it is not clear why, that persons who perceive rural resources as ' places of natural scenic beauty, green zones or rural experience,' and 'places for preserving local community and traditional cultures' participate less frequently in rural tourism. On the other hand, people

who perceive rural resources as 'a place for preserving ecosystems' and 'a place for maintaining territorial integrity' participate more frequently in rural tourism.

Motivations for participating in rural tourism also positively affect the frequency of participation (Hypothesis #4d). Respondents who participate in rural tourism for the purpose of engaging in recreation activities, or to visit friends or relatives, participate more frequently in rural tourism ($p<0.05$ and $p<0.01$, respectively).

Trip spending per day per person negatively affects the frequency of rural tourism participation ($p<0.01$); the more people spend on a trip, the less frequently they participate in rural tourism. It is important to recognize that this may be because persons who participate less frequently may take significant but fewer trips. Remember too that the trip that they provided spending estimates for were self-selected. Less frequent rural tourism participants may have provided spending estimates for their most significant (e.g. longer, greater distances from home). There is also significant potential for recall bias when it comes to this variable.

Table 32. Estimated Results of the Poisson-Hurdle Model

Variables	Rural Tourism Participation Decision		Rural Tourism Frequency Decision	
	Coefficient	t-value	Coefficient	t-value
Socioeconomic Characteristics				
SEOUL	0.0205	0.183	-0.1661**	-2.219
MEGALO	-0.4625***	-3.704	-0.0748	-0.859
AGE	0.0047	0.653	-0.0058	-1.243
MARRY	0.2949**	2.470	0.1710**	2.042
INCOME	0.0005	1.578	-0.0009***	-3.475
EDU	-0.0612	-0.533	-0.1447*	-1.854
JOB	-0.1905**	-2.044	0.0026	0.039
WORK1	0.1210	1.042	0.1604**	2.109
WORK2	0.2029	1.539	-0.2345**	-2.224
WORK4	0.0195	0.161	0.1188	1.353
RLIVE	0.1589*	1.719	0.1323**	1.979
TEND	0.1460	1.629	0.1173*	1.838
Participation in Non-Rural Tourism				
DOMESTIC	0.2076***	9.538	0.1291***	11.080
NATRIP	-0.0898***	-4.101	0.0574***	4.974
CUTRIP	-0.0825*	-1.885	-0.0573*	-1.708
INTRIP	-0.0929**	-2.090	0.0478	1.519
PLTRIP	-0.1283***	-4.507	0.0168	0.916
Perceptions of Rural Resources				
GREEN	0.3470***	2.953	-0.1024	-1.181
ECO	0.1377	1.037	0.1219	1.402
LOCAL	-0.0799	-0.479	-0.1406	-1.100
LAND	0.0553	0.420	0.0152	0.160
WTP	0.0690	0.760	-0.0420	-0.654
Motivation of Participation in Rural Tourism				
FACTOR1			0.1196**	2.486
FACTOR2			-0.0429	-1.117
FACTOR3			0.0874***	3.348
Trip Spending				
SPENDING			-0.0065***	-4.086
CONSTANT	-0.9569***	-3.357	0.6001***	2.689
Log Likelihood Function			-1595.19	

Note: The description of each variable is presented in Table 31.

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Table 33 shows how the three market segments differ in terms of the affect of different factors on how frequently they participate in rural tourism. Only the second stage of the Poisson-hurdle Model[20] was employed to determine if there were any differences across the three segments. Determinants of frequency of participation in rural tourism vary across the three market segments. Just three factors including age (AGE), number of domestic trips taken (DOMESTIC), and perception of rural resources (LAND) are common, but the degree of influence was different.

Nine factors affect frequency of participation in rural tourism decisions by members of the *Rural-centric Tourist Segment*. Four factors positively affect the decision while five are a negative influence[21]. Those who are married and were raised as children in rural areas participate more frequently in rural tourism. The more domestic tourism trips the more frequently they participate in rural tourism. And people who perceive rural resources as 'a place for preserving local community and traditional cultures' participate

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[20] Only participants in rural tourism are included in this analysis; thus, the second stage of the Poisson-hurdle Model, truncated regression part, was only employed. And independent variables of motivation for participation in rural tourism were excluded for the analysis, because the three rural tourism segments were developed by their motivation for participation.

[21] Four factors that positively affect the frequency of participation decision are: MARRY ($p<0.01$), RLIVE ($p<0.01$), DOMESTIC ($p<0.01$), and LOCAL ($p<0.05$). Five factors that negatively affect the frequency of participation decision are: SEOUL ($p<0.01$), MEGALO ($p<0.01$), AGE ($p<0.01$), JOB ($p<0.1$), and SPENDING ($p<0.05$). The description of each variable is available in Table 31.

more frequently in rural tourism than those who do not perceive that to be so. On the other hand, members of this segment that reside in Seoul area or megalopolises participate less frequently in rural tourism, compared to segment members who live in the provinces[22]. White-collar segment members also participate less frequently in rural tourism, compared to people with other types of jobs.

Ten different factors were statistically significant determinants of the frequency of rural tourism participation for persons comprising the *Passive Rural Tourist Segment.* Five factors positively affected participation frequency and equal number had a negative influence[23]. As people's ages increase they are more likely on average to participate more frequently in rural tourism. Not surprisingly, people who work five days a week participates more frequently in rural tourism than do people who work six days a week. Again, propensity to take tourism trips also positively influences participation in rural tourism. Married members of this segment participate less frequently in rural tourism than single segment members. Interestingly, perceptions of rural resources negatively

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[22] To avoid the singular matrix problem when estimating the model, the variable 'location of resident as province (PROVINCE)' was treated as a basic variable and excluded from the model.

[23] Four factors that positively affect the frequency of participation decision are: AGE ($p<0.05$), WORK1 ($p<0.01$), WORK4 ($p<0.01$), DOMESTIC ($p<0.01$) and NATRIP ($p<0.01$). Five factors that negatively affect the frequency of participation decision are: MARRY ($p<0.01$), GREEN ($p<0.1$), LOCAL ($p<0.1$), LAND ($p<0.1$), and SPENDING ($p<0.05$). The description of each variable is available in Table 31.

affect the decision about how frequently to participate in rural tourism. Segment members who perceive rural resources as 'a place for production of safe agricultural products,' 'a place of natural scenic beauty, green zones or rural experience,' 'a place for preserving local community and traditional cultures,' and/or 'a place for maintaining territorial integrity,' participate less frequently in rural tourism.

For *VFR Rural Tourists*, eleven factors affect the decision about how frequently they participate in rural tourism; seven of the factors have a positive affect and four factors influence participation frequency negatively[24]. Older segment members those in white-collar jobs, and members who work only five days a week participate more frequently in rural tourism. Members of this segment who travel for both relaxation and experiences participate more frequently in rural tourism than do those who travel only for relaxation or only for experiences. As the number of domestic trips taken by segment members increases, the frequency of rural tourism participation increases.

It was not expected that frequency of rural tourism participation decreases among members of this segment as their incomes increase. Again the possibility is that rural

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[24] Seven factors that positively affect the frequency of the participation decision are: AGE ($p<0.01$), JOB ($p<0.05$), WORK1 ($p<0.1$), TEND ($p<0.01$), DOMESTIC ($p<0.01$), NATRIP ($p<0.01$) and INTRIP ($p<0.01$). Four factors that negatively affect the frequency of participation decision are: INCOME ($p<0.01$), CUTRIP ($p<0.05$), LOCAL ($p<0.05$), and WTP ($p<0.05$). The description of each variable is available in Table 31.

tourism might be an inferior good or that richer segment members have more substitutes including international tourism. For this segment only, the more those members participate in cultural/heritage tourism the less often they participate in rural tourism.

Table 33. Factors That Affect the Frequency of Rural Tourism Participation for Three Rural Tourism Motivational Market Segments[a]

	Rural-centric Tourist Segment (28.9%, n=150)		Passive Rural Tourist Segment (39.5%, n=205)		VFR Rural Tourist Segment (31.6%, n=164)	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Socioeconomic Characteristics						
SEOUL	-0.4442***	-3.225	0.1642	1.111	-0.3286	-1.635
MEGALO	-0.7201***	-4.514	0.2719	1.414	-0.1758	-0.803
AGE	-0.0525***	-5.767	0.0245**	2.548	0.0377***	3.371
MARRY	0.7048***	4.601	-0.5002***	-3.017	0.1694	0.863
INCOME	-0.0004	-0.747	-0.0007	-1.526	-0.0023***	-2.965
EDU	0.2090	1.434	-0.2170	-1.580	0.0454	0.174
JOB	-0.2239*	-1.914	0.1534	1.267	0.4625**	2.473
WORK1	-0.1207	-0.820	0.4856***	3.399	0.3386*	1.727
WORK2	-0.1061	-0.599	-0.3515	-1.582	0.1225	0.495
WORK4	-0.1889	-1.005	0.4249***	2.623	-0.2932	-1.071
RLIVE	0.3694***	2.832	0.1583	1.191	-0.0075	-0.042
TEND	-0.0284	-0.244	0.1441	1.208	0.7548***	4.084
Participation in Non-Rural Tourism						
DOMESTIC	0.1318***	6.709	0.1242***	5.291	0.2235***	6.236
NATRIP	0.0238	0.990	0.0896***	4.608	0.0804*	1.938
CUTRIP	0.0265	0.515	0.0194	0.292	-0.2232**	-2.369
INTRIP	-0.0211	-0.368	-0.1086	-1.207	0.2621***	3.932
PLTRIP	0.0162	0.466	0.0290	0.891	-0.0273	-0.531

Note: The description of each variable is presented in Table 31.

[a] Definition of the three rural tourism motivational market segments are described in the previous section (pages 122).

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Table 33. Factors That Affect the Frequency of Rural Tourism Participation for Three Rural Tourism Motivational Market Segments[a] (cont'd)

	Rural-centric Tourist Segment (28.9%, n=150)		Passive Rural Tourist Segment (39.5%, n=205)		VFR Rural Tourist Segment (31.6%, n=164)	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Perceptions of Rural Resources						
GREEN	-0.1287	-0.749	-0.2614*	-1.657	-0.1740	-0.805
ECO	-0.2581	-1.608	0.2093	1.373	0.0529	0.224
LOCAL	0.3998**	2.146	-0.5679*	-1.948	-0.7641**	-2.383
LAND	-0.1452	-0.798	-0.4091*	-1.865	0.1774	0.734
WTP	-0.1026	-0.812	-0.0199	-0.164	-0.4051**	-2.260
Trip Spending						
SPENDING	-0.0093**	-2.553	-0.0069**	-2.225	0.0036	0.897
CONSTANT	2.5953***	7.261	-0.3692	-0.936	-1.5573	-2.625
Log Likelihood Function	-313.50		-283.37		-201.99	

Note: The description of each variable is presented in Table 31.

[a] Definition of the three rural tourism motivational market segments are described in the previous section (pages 122).

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

The Results of the Testing of Hypothesis Three

The factors that influenced tourists' decisions of whether or not to participate in rural tourism were investigated. The findings indicated that there are four socioeconomic characteristics that are statistically significant with regards to tourists' decisions of whether or not to participate in rural tourism, including: location of residence as a megalopolis, marital status, occupation in a white-collar job, and childhood residence in a rural area.

The results also indicated that participation in four types of tourism, including: nature/ecotourism, cultural/heritage tourism, industrial/social tourism, and pleasure tourism negatively influenced tourists' rural tourism participation decisions.

Only one of the variables of tourists' perceptions of rural resources—a place of natural scenic beauty, green zones, or rural experience—was found to affect the rural tourism participation decision. Table 34 reports the results of the testing of hypothesis three.

Table 34. Results of the Testing of Hypothesis Three

Hypothesis Three: *Tourists' characteristics will influence their participation in rural tourism.*		
Socioeconomic Characteristics		
Location of Residence-Seoul	Rejected	
Location of Residence-Megalopolis	Accepted	$p<0.01$
Age	Rejected	
Marital Status	Accepted	$p<0.05$
Monthly Household Income	Rejected	
Education	Rejected	
Occupation-White Collar Job	Accepted	$p<0.05$
Work Five Days a Week	Rejected	
Work Five Days Every Other Week	Rejected	
Not Related With Five-Day Work Week System	Rejected	
Childhood Residence-Rural Area	Accepted	$p<0.1$
Tourism Propensity	Rejected	
Participation in Different Types of Tourism		
Number of Domestic Tourism Trips	Accepted	$p<0.01$
Number of Nature/Ecotourism Participation Days	Accepted	$p<0.01$
Number of Cultural/Heritage Tourism Participation Days	Accepted	$p<0.1$
Number of Industrial/Social Tourism Participation Days	Accepted	$p<0.05$
Number of Pleasure Tourism Participation Days	Accepted	$p<0.01$
Perception of Rural Resources		
Functions of Rural Resources:		
A Place of Natural Scenic Beauty, Green Zones, or Rural Experience	Accepted	$p<0.01$
A Preserving Ecosystem for Animals, Plants, Birds, and Fish	Rejected	
To Preserve Local Communities and Traditional Cultures	Rejected	
To Maintain Territorial Integrity	Rejected	

The Results of the Testing of Hypothesis Four

The factors that affect tourists' decisions of how often to participate in rural tourism were identified. The findings indicated that there were eight socioeconomic characteristics that influenced tourists' decisions of how often to participate in rural tourism at a significance level of 0.1, including: the location of residence as Seoul and the surrounding areas, marital status, monthly household income, education level, work five days a week or every other week, childhood residence in a rural area, and tourism propensity.

The results also indicated that participation in two different types of tourism—nature/ecotourism and cultural/heritage tourism, and two of the motivations for participating in rural tourism—participating in rural recreation activities and visiting friends or relatives influenced tourists' decisions of how often to participate in rural tourism. Trip spending was also found to affect tourists' frequency of participation decisions in rural tourism at a significance level of 0.1.

On the other hand, tourists' perceptions of rural resources were not found to be statistically related to how frequently they participated in rural tourism. Table 35 reports the results of the testing of hypothesis four.

Table 35. Results of the Testing of Hypothesis Four

Hypothesis Four: *Tourists' characteristics will influence the frequency of their participation in rural tourism.*		
Socioeconomic Characteristics		
Location of Residence-Seoul	Accepted	$p<0.05$
Location of Residence-Megalopolis	Rejected	
Age	Rejected	
Marital Status	Accepted	$p<0.05$
Monthly Household Income	Accepted	$p<0.01$
Education	Accepted	$p<0.1$
Occupation-White Collar Job	Rejected	
Work Five Days a Week	Accepted	$p<0.05$
Work Five Days Every Other Week	Accepted	$p<0.05$
Not Related With Five-Day Work Week System	Rejected	
Childhood Residence-Rural Area	Accepted	$p<0.05$
Tourism Propensity	Accepted	$p<0.1$
Participation in Different Types of Tourism		
Number of Domestic Tourism Trips	Accepted	$p<0.01$
Number of Nature/Ecotourism Trips	Accepted	$p<0.01$
Number of Cultural/Heritage Tourism Trips	Accepted	$p<0.1$
Number of Industrial/Social Tourism Trips	Rejected	
Number of Pleasure Tourism Trips	Rejected	
Perception of Rural Resources		
Functions of Rural Resources:		
A Place of Natural Scenic Beauty, Green Zones, or Rural Experience	Rejected	
A Preserving Ecosystem for Animals, Plants, Birds, and Fish	Rejected	
To Preserve Local Communities and Traditional Cultures	Rejected	
To Maintain Territorial Integrity	Rejected	
Motivation of Participation in Rural Tourism		
To Participate in Rural Recreation Activities	Accepted	$p<0.05$
To Enjoy Rural Setting	Rejected	
To Visit Friends or Relatives	Accepted	$p<0.01$
Trip Spending	Accepted	$p<0.01$

Modeling Rural Tourism Demand in Korea

The fourth objective of this study is to develop a two stage rural tourism demand model. Stage one involves the decision to participate and stage two how often/much to participate. Two hypotheses are tested in this section, to achieve that objective.

Hypothesis 5: The factors which affect tourists' participation and consumption decisions will be different in Korean rural tourism.

Hypothesis 6: The Poisson-hurdle Model and the Tobit Model have the different outcomes when it comes to the factors that affect the decisions of rural tourists.

The Poisson-hurdle Model was used to test Hypothesis #5. Since the factors affecting decisions whether or not to participate and how often to participate in rural tourism were covered in the previous section, this section focuses on examining whether or not there is benefit/gain to modeling them as separate decisions. First, determinants of the participation decision and the frequency of participation decision are compared using the results of the Poisson-hurdle Model.

The Poisson-hurdle Model results show that five common factors that affect both participation and frequency of participation out of the twenty-two variables included in both analyses. These are the five common factors: marital status (MARRY), childhood

residence (RLIVE), number of domestic trips taken during the year (DOMESTIC), participation in nature/ecotourism (NATRIP), and participation in cultural/heritage tourism (CUTRIP).

However, the degree to which those variables affect whether respondents participate and the frequency at which they participate differs. Particularly, participation in nature/ecotourism positively affects whether respondents participate in rural tourism, but negatively affects frequency of participation decision. This finding indicates a degree of complementarities between nature/ecotourism and rural tourism which makes sense. However, it also implies that they are substitutes.

There are statistically (significant at 0.1) different coefficients for eleven variables; five impact only upon participation and six upon frequency of participation in rural tourism[25]. These results imply that tourists' participation and frequency of participation decisions do not occur concurrently and this in turn suggest there is reason to view, and treat them as separate decision processes when examining and estimating

[25] Five variables influence whether respondents participate in rural tourism [location of residence—megalopolis (MEGALO), white-collar job (JOB), participation in industrial/social tourism (INTRIP), participation in pleasure tourism (PLTRIP), and perception of rural tourism (GREEN)], on the other hand, six variables influence only participation frequency [location of residence—Seoul and the surrounding areas (SEOUL); monthly household income (INCOME); education level (EDU); length of work week—work five days a week (WORK1) and work five days every other week (WORK2); and tourism propensity (TEND)]. The description of each variable is available in Table 31.

rural tourism demand. This assessment is further confirmed by comparing the results of the Poisson-hurdle Model and the Tobit Model. In the Tobit Model, the participation and the frequency of participation decision are not distinct processes. Table 36 compares the results of the Poisson-hurdle Model and Tobit Model.

The Tobit Model identified ten factors[26] which affect rural tourism decisions. Factors that are significant in the Tobit Model affect either the decision to participate or the decision concerning frequency of participation in the Poisson-hurdle Model. This is because the Tobit Model considers the participation decision and frequency of participation decision are linked/related.

The need to separate tourists' decision processes can be verified by testing the hypothesis #6 that 'the Poisson-hurdle Model and the Tobit Model have the same outcomes when it comes to the factors that affect the decisions of rural tourists (H_0).' This was tested by applying likelihood ratio statistics (LR) based on the difference in the log-

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[26] Those include five factors which have positive influence—MARRY, WORK1, RLIVE, DOMESTIC, and GREEN, and five factors of negative influence including MEGALO, JOB, NATRIP, CUTRIP, and PLTRIP. The description of each variable is presented in Table 31, and their coefficients from the Tobit Model are presented in Table 36.

likelihood functions (LLF)[27] for the unrestricted and restricted models (Wooldridge 2003). The likelihood ratio statistic is twice the difference in the log-likelihoods:

$$LR = 2(LLF_{\lambda 1} + LLF_{\lambda 2} - LLF_{tobit})$$

where $LLF_{\lambda 1}$ and $LLF_{\lambda 2}$ are the log-likelihood values for the decision whether or not to participate and how often to participate in the Poisson-hurdle Model, and LLF_{tobit} is the log-likelihood value for the Tobit Model. A multiplication factor of 2 is necessary in the formula in order for LR to have an approximate chi-square distribution under H_0.

$$\begin{aligned} LR &= 2 * [(-568.67) + (-1026.52) - (-1633.28)] \\ &= 2 * 38.09 \\ &= 76.02 \end{aligned}$$

The likelihood ratio (LR) statistic (χ^2) is estimated to be 76.02, which is greater than the critical value of 45.64 (with a significance level of 0.01 and a degree of freedom of 26). And therefore the null hypothesis 'the Poisson-hurdle Model and the Tobit Model have same outcomes when considering the factors that affect the decisions of rural tourists' is rejected. This further verifies that rural tourists' decisions about participation and frequency of participation do not take place simultaneously and are in fact discrete.

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[27] Log-likelihood function is 'the sum of the log likelihoods, where the log-likelihood for each observation is the log of the density of the dependent variable given the explanatory variables; the log-likelihood function is viewed as a function of the parameters to be estimated' (Wooldridge, 2003).

Table 36. Comparisons Between the Estimated Results of the Poisson-hurdle Model and the Tobit Model

	Poisson-hurdle Model				Tobit Model	
	Rural Tourism Participation Decision		Rural Tourism Frequency Decision		Rural Tourism Frequency Decision	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Socioeconomic Characteristics						
SEOUL	0.0205	0.183	-0.1661**	-2.219	-0.1209	-0.299
MEGALO	-0.4625***	-3.704	-0.0748	-0.859	-1.5045***	-3.273
AGE	0.0047	0.653	-0.0058	-1.243	-0.0082	-0.321
MARRY	0.2949**	2.470	0.1710**	2.042	1.2970***	2.929
INCOME	0.0005	1.578	-0.0009***	-3.475	0.0001	0.082
EDU	-0.0612	-0.533	-0.1447*	-1.854	-0.4238	-1.013
JOB	-0.1905**	-2.044	0.0026	0.039	-0.6314*	-1.850
WORK1	0.1210	1.042	0.1604**	2.109	0.6996*	1.663
WORK2	0.2029	1.539	-0.2345**	-2.224	0.2236	0.462
WORK4	0.0195	0.161	0.1188	1.353	0.2754	0.615
RLIVE	0.1589*	1.719	0.1323**	1.979	0.8615**	2.553
TEND	0.1460	1.629	0.1173*	1.838	0.5231	1.592
Participation in Non-Rural Tourism						
DOMESTIC	0.2076***	9.538	0.1291***	11.080	0.8206***	11.483
NATRIP	-0.0898***	-4.101	0.0574***	4.974	-0.1816**	-2.502
CUTRIP	-0.0825*	-1.885	-0.0573*	-1.708	-0.3968**	-2.447
INTRIP	-0.0929**	-2.090	0.0478	1.519	-0.2462	-1.497
PLTRIP	-0.1283***	-4.507	0.0168	0.916	-0.3901***	-3.888

Note: The description of each variable is presented in Table 31.

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

Table 36. Comparisons Between the Estimated Results of the Poisson-hurdle Model and the Tobit Model (cont'd)

	Poisson-hurdle Model				Tobit Model	
	Rural Tourism Participation Decision		Rural Tourism Frequency Decision		Rural Tourism Frequency Decision	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Perceptions of Rural Resources						
GREEN	0.3470***	2.953	-0.1024	-1.181	0.7850*	1.814
ECO	0.1377	1.037	0.1219	1.402	0.6118	1.257
LOCAL	-0.0799	-0.479	-0.1406	-1.100	-0.5871	-0.944
LAND	0.0553	0.420	0.0152	0.160	0.2965	0.602
WTP	0.0690	0.760	-0.0420	-0.654	0.1002	0.299
Motivations for Participation in Rural Tourism						
FACTOR1			0.1196**	2.486		
FACTOR2			-0.0429	-1.117		
FACTOR3			0.0874***	3.348		
Trip Spending						
SPENDING			-0.0065***	-4.086		
CONSTANT	-0.9569***	-3.357	0.6001***	2.689	-2.9711***	-2.812
Sigma					4.3028***	28.782
Log Likelihood Function	-568.67		-1026.52		-1633.28	
Likelihood Ratio Test	76.02***					

Note: The description of each variable is presented in Table 31.

*, **, *** indicates significance levels at .1, .05, and .01, respectively.

The Results of the Testing of Hypotheses Five and Six

To develop a two stage rural tourism demand model, two hypotheses were tested and both were accepted as being significant. The results of the Poisson-hurdle Model revealed that the factors affecting tourists' decisions about participation in rural tourism were different than the factors affecting tourists' decisions about how frequently to participate in rural tourism.

The likelihood ratio test, using the difference in the log-likelihood functions, revealed that the Poisson-hurdle Model and the Tobit Model had different outcomes when it comes to the factors that affect the decisions of rural tourists. The former separated tourists' participation and frequency decisions, while the latter did not.

Table 37. Results of the Testing of Hypotheses Five and Six

Hypothesis		p-value
Hypothesis Five: *The factors which affect tourists' participation and the factors which affect tourists' frequency decision will be different.*	Accepted	$p<0.1$
Hypothesis Six: *The Poisson-hurdle Model and the Tobit Model have the different outcomes when it comes to the factors that affect the decisions of rural tourists.*	Accepted	$p<0.01$ (df=26)

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

This study was designed to accomplish four objectives: first, to identify and profile the rural tourism market in Korea; second, to segment the rural tourism market and profile different rural tourism market segments in Korea; third, to better understand the factors affecting decisions whether or not to participate in rural tourism and also how frequently to participate; and lastly, to develop a demand model for Korean rural tourism based both decisions of whether or not to participate and how frequently to participate.

Chapter one provides reasons for the emphasis and growth in rural tourism in Korea including changes in rural economies that are requiring different forms of economic development. The Chapter also provides a broad overview of rural tourism policy and development strategies. Also presented is a description of the research problem, study objectives, research questions, and hypotheses. Chapter two reviews literature on the subject of rural tourism and tourism demand studies and methods. Chapter three describes and discusses the methods used to collect the data that was needed including the development of the survey instrument, the study population, sampling, survey administration, and preparation of the data for analysis.

Chapter four presents survey results that describe rural tourism participants and their participation characteristics and behaviors. Chapter five reports the findings of modeling rural tourism demand in Korea. The findings in this chapter are focused on motivational segmentation of the rural tourism market, identifying the determinants of rural tourism demand, and developing a demand model for Korean rural tourism.

The sixth and last chapter summarized findings related to the study objectives and presents different implications of the study. Limitations inherent in the study methods including data collection and survey design are discussed along with recommendations for future research.

Summary of the Findings

This summary focuses primarily on the extent to which research results and findings achieve the objectives established for the study. The summary provides: a profile of the rural tourism market in Korea, a description of rural tourism motivational market segments, identification of the determinants of rural tourism demand, and a model of rural tourism demand in Korea.

A Profile of the Rural Tourism Market in Korea (Objective 1)

In 2003, more than 50 percent of the survey respondents participated in various forms of rural tourism. Significant differences exist between the characteristics of persons who participate and do not participate in rural tourism. They were compared in terms of their socioeconomic characteristics, their participation in non-rural tourism activities, and the importance they assign different roles/functions of rural resources. Persons who engage in rural tourism are generally older and have higher average incomes than those who do not engage in rural tourism. They are also more likely to be married and work less days (i.e. five compared to six days) a week. As anticipated, rural tourists are also more prone to have different links and relationships with rural areas such as spending their childhoods in rural areas or still having families or relatives engaged in agriculture. These connections are important in identifying and marketing (e.g. product-line, marketing communications) to potential rural tourists.

Interestingly persons who do not engage in any forms of rural tourism are more active (e.g. average number of trips, trip nights, and participation days in non-rural tourism, including nature/ecotourism, industrial/social tourism, and pleasure tourism) in other types of tourism. This implies either that rural tourism substitutes other types of tourism, or that rural and non-rural tourists have different preferences regarding

recreation and travel. This is an important question that should be examined in future research.

Rural tourists place more importance on rural resources 'a places of natural scenic beauty, green zones, and setting for rural experiences' compared to *Non-rural Tourists* who assign more importance on rural resources for production of agricultural products. *Rural tourists* are also statistically more likely to be willing to pay taxes to preserve rural resources.

Three Rural Tourism Motivational Market Segments (Objective 2)

Three different motivational market segments were identified: *Rural-centric Tourists*, *Passive Rural Tourists*, and *VFR Rural Tourists*. A primary (rural tourism) trip purpose of *Rural-centric Tourists* is to participate in rural centric activities, such as an eco-experience, nature experiences, or farm stays. This segment comprises 28.9 percent of all rural tourists. *Passive Rural Tourists*, the largest segment (39.5%), consists of persons whose primary purpose for visiting rural areas is to participate in more classic tourism activities, such as relaxing in nature and visiting recreational forests or historic sites. *VFR Rural Tourists* take trips to rural areas for the purpose of visiting friends or family members and/or to attend a special event such as wedding or family reunions. This

segment makes up 31.6 percent of rural tourists. However, as the population of rural areas declines, and fewer persons reside in and are raised in rural areas, this segment is likely to decline unless roots and linkages to rural areas and heritage are preserved. Roots and connections to rural areas are important in determining rural tourism participation these connections may weaken if rural areas continue to decline. Hence there is a symbiotic relationship between the health of rural areas and rural tourism that need to be recognized and studied in more depth.

Profiles of each of these segments including their socioeconomic characteristics, rural tourism trip characteristics, participation in different types of tourism, and perception of rural resources were developed (see Appendix B). They were also compared statistically on different profiling characteristics revealing significant differences in their socioeconomic characteristics (i.e. age, marital status, education level, and childhood residence), rural tourism trip characteristics (i.e. length of trip, travel party composition, size of travel party, age makeup of travel party, type of transportation, type of lodging, and information source), rural tourism trip spending, perception of factors in determining rural tourism trip destinations, and participation in different types of tourism (i.e. rural tourism, nature/ecotourism, cultural/heritage tourism, and industrial/social tourism).

Determinants of Rural Tourism Demand in Korea (Objective 3)

Factors affecting whether persons participate or not in rural tourism, and how often to participate, were investigated by applying the Poisson-hurdle Model. Of twenty-two variables included in the model of rural tourism participation the following nine were determined to positively and negatively significant in determining participation[28]: location of residence (e.g. in a megalopolis) (−)[29], marital status (+), employment in a white-collar job(−); frequency of participation in nature/ecotourism (−), cultural/heritage tourism (−), industrial/social tourism (−), and pleasure tourism (−); number of domestic tourism trips taken (+); and perceptions of rural resources as 'place of natural scenic beauty, green zones or rural experience' (+).

Of twenty-six variables included in the model of the frequency of rural tourism participation fourteen were found to be statistically significant: location of residence in Seoul and the surrounding area (−); marital status (+); monthly household income (−); education beyond a college or university degree (−); five day work week (+) or work five days every other week (−); raised as a child in a rural area (+); participation in non-rural

[28] The significance level of 0.1 was applied.

[29] The sign in parenthesis indicates a direction of impact on the rural tourism participation decision ("+" = positive, "−"= negative impact).

tourism variables including number of nature/ecotourism trips taken (+), number of cultural/heritage tourism trips taken (−) and number of domestic tourism trips taken (+); and reasons for participating in rural tourism including rural recreation activities' (+) and 'to visit families or friends' (+); and trip spending (−).

Factors affecting the rural tourism frequency decision were compared and contrasted for each of the three rural tourism motivational market segments. There are significant differences in the factors that influence frequency of participation across the three segments. Three factors were common determinants of participation frequency including: age, number of domestic trips taken during the past year, and perception of rural resources as 'preserving local community and traditional cultures.'

Modeling Rural Tourism Demand in Korea (Objective 4)

A two stage demand model for Korean rural tourism was developed based upon the decisions of whether or not to participate in rural tourism and then the frequency of participation. Results of the Poisson-hurdle Model reveal that the factors that influence the decision to participate are significantly different from those that influence the amount of participation indicating that the two decisions processes are sufficiently distinct. This conclusion was verified by comparing the results of two different models, the Tobit and

Poisson-hurdle Models; the Poisson-hurdle Model separates the two tourist decision processes, but the Tobit Model does not. Further the likelihood ratio test shows that rural tourists' decisions about participation and frequency of participation did not occur simultaneously. Therefore, it is desirable to separate the decision processes of rural tourists when studying rural tourism demand.

Implications of the Study

Rural communities and the Korean government recognize the need to revitalize rural communities/economies and tourism development is one strategy they are pursuing. On the demand side, people in Korea will have more leisure time due to the introduction of a five-day work week system and this will affect leisure and tourism behaviors. Many people are interested in trying new tourism alternatives and rural tourism is the most promising alternative tourism in Korea.

The likelihood of increasing demand for rural tourism means that it will be more important to learn more about rural tourism demand, preferences and behaviors. Understanding this demand is critical for developing policy, and guiding public and private investment decisions and marketing. This study provides profiles rural tourism markets and verifies the benefits of segmenting rural tourism markets in Korea. This

study identified the determinants of rural tourism demand and also verified the need to separate rural tourists' decisions about participation and frequency of participation.

When developing marketing plans and establishing policy for rural tourism development the issue of sustainability also needs to be considered. Basically, 'rurality' is a unique selling point of rural tourism, and increasing the numbers of visitors to rural regions and there are limits to the scale and types of rural tourism development without negatively impacting rurality. So, while rural areas are in need of economic development, it is important to recognize the potential negative implications of various types of rural tourism and non-tourism development.

Before a local community or government embarks on a strategies (e.g. marketing, investment) to enhance rural tourism, they must consider whether or not tourism development the best form of economic revitalization for the area and if so, how can the community/government maximize the benefits (economic earnings) while preserving rural environments?

There are other implications of this study important for both government and the private agencies engaged of rural tourism marketing and development. There are also implications for future research on rural tourism in Korea.

The profiles of rural tourists provide information about potential rural tourists

which can be used to develop marketing strategies for rural tourism. In particular, profiles of different rural tourism motivational market segments provide detailed information of the niche markets of rural tourism. Targeting niche markets is an effective strategy for local governments to develop small scale and community appropriate rural tourism without large-scale investments that can dramatically change the character of their areas. For example, if the local government plans to develop rural tourism using rural resources, such as outstanding and distinctive natural environments, without large investment, they can target *Passive Rural Tourists*, who primarily visit rural areas to enjoy rural settings. On the other hand, in regions where natural resources are insufficient to attract tourists, rural tourism which focuses on rural activities differentiated from those offered in other areas, can be developed. Promoters of those regions can target *Rural-centric Tourists*, whose primary purpose for visiting rural areas is to participate in rural recreation activities.

Motivational market segmentation can help in understanding why different persons participate in rural tourism, and it provides information (e.g. demographic profile, trip behaviors) to develop and target niche marketing strategies. Communities which understand tourists' motivations for participating in rural tourism can ultimately can more effectively design and market their product/experience-lines.

By verifying that the rural tourism participation decision and the frequency decision do not occur simultaneously, this study suggests that rural tourism planners develop two different marketing strategies: one for creating new demand for rural tourism and one for increasing the existing rural tourism demand. Identifying the determinants of rural tourists' participation decisions helps to shape strategy for creating new demand for rural tourism. The determinants of the rural tourism frequency decision are useful when developing strategies for increasing rural tourism demand. The partial effects of the factors revealed the degree of impact on rural tourism demand, thereby, providing some ideas to government agencies, concerning how the factors show be prioritized when developing strategy for rural tourism.

This study has also implications for researchers; it has verified the need to separate the rural tourism participation decision and the frequency decision when modeling rural tourism demand. Researchers can apply this modeling technique to other types of tourism and can investigate the determinants of participation and the frequency of participation in other types of tourism. Also this two-stage model for tourism demand can be applied when estimating tourists' spending while on a trip.

Study Limitations

Several limitations were identified in the methods employed for the study. First, sampling bias was assessed in this study. The study population comprised Korean adults, and a proportionate sampling method was employed to allocate the number of samples across the country. However, those samples were not randomly selected in each region. Surveys were conducted onsite by survey facilitators, and those survey locations may also have introduced bias. Despite researcher efforts to select respondents at the locations absent bias and while employing systematic sampling techniques, some sampling biases may have been induced by the use of non random sampling methods.

Second, although a number of surveys based in proportion to the population of the area were completed in each region, respondents whose permanent residences were different from the area in which they participated in the survey were included in the findings, leading to discrepancy between the sample sizes and the actual number of surveys completed in each region.

Third, non-respondent bias and refusal bias occurred in this study. No further tests for non-respondents, including people who refused to participate in the survey were taken for this study.

Fourth, respondents were asked to tell about their rural tourism trips taken during

the past year (2003). Their responses may contain recall biases, because it is hard for most respondents to recall the exact number of trips, trip days, etc. so long after they occurred. Respondents were also asked a series of in-depth questions about a specific rural tourism trip and they might not have been able to recall all the details about that specific rural tourism trip and, hence may have provided approximations instead of specifics. Recall bias is of most concern when conducting a year end survey.

Fifth, a total of 1,032 complete surveys were collected for this study. Regarding the total population of Korean adults, this sample size is not large enough to generalize the results of the study. A small sample size causes higher sampling error, and it is a major factor that determines the quality and accuracy of survey data.

Lastly, a limitation was found in the survey instrument employed for the study. Rural tourism is at an introductory stage in Korea, and few studies have been conducted in this field. In addition to the variables for modeling demand from the literature, exploratory variables were included in the questionnaire, including respondents' reasons for participating in rural tourism and their perceptions of rural resources. All of those variables measuring respondents' motivations for rural tourism participation and their perceptions of rural resources were not tested and verified.

Recommendations for Future Research

The recommendations for future research are based in part on the limitations of this study that were previously discussed. First, it is recommended that future surveys be conducted using larger samples and random sampling methods. Also, non-response bias should be checked in future surveys. To minimize recall bias, a wave survey method is recommended consisting of a surveys being conducted the first week of each month over the course of a year. The surveys collect information about rural trips during the prior month. A wave survey method is appropriate when studying a variation of tourism demand by season and the potential impacts of factor such as new marketing campaigns, price changes and special promotions.

Rural tourism in Korea is still at an introductory stage, and there is no established definition of rural tourism. Discrepancies in definitions may be one reason why the results vary considerably across studies. A common definition is needed that can be applied across studies. Also, rural tourism is one of the emerging tourism alternatives in Korea and "demand" and participation can be impacted by changes in government policies. So, continuous research on rural tourism is needed to monitor the changing demand and preferences of tourists and to assess the impacts of supply and marketing. To investigate the cohort difference, a replicate study after a certain numbers of years (e.g.

three or five years after conducting this study) is recommended.

When studying a rural tourism market, it is recommended to segment that market based upon different aspects other than motivation for participation; for example, segmentation by the frequency of participation in rural tourism can give information about the heavy and light participants in rural tourism. Regarding the fact that local governments are eager to develop rural tourism as a means of generating revenues, since the introduction of the local autonomy system in Korea, a niche marketing strategy would likely be the most effective for local governments. Thus, segmenting the rural tourism market in Korea is recommended.

Future studies should also focus on rural tourism "brand" (e.g. destinations, attractions) decisions. After deciding to participate in rural tourism, tourists' next decisions are likely to be deciding the types of activities they will participate in and destination for their trips. Understanding this decision processes provides valuable information to tourism planners and local communities wishing to develop rural tourism.

Finally, more research should be focused on the impacts of rural tourism development and ways to insure sustainability of rural character while at the same time providing economic opportunities. Powerful tensions exist between the forces for rural economic development the forces for conservation of rural resources and rurality. Pro-

active strategies are needed that incorporate ways to develop rural tourism while maintaining the characteristics and culture of rural areas.

APPENDICES

APPENDIX A

Survey Questionnaire

Rural Tourism Survey

Leisure and tourism demand in Korea is growing rapidly. The expected introduction of pubic welfare, including the five-day workweek, dispersion of vacations, and old-age pension system will accelerate the trend.

Improvement in quality of life and in working efficiency through increasing the opportunity of leisure and tourism is a matter of national concern as well as of individual interest.

This survey's objective is to collect information providing better understanding of the actual conditions and demands of tourism - especially rural tourism - in Korea and to consider alternative tourism. The information collected will help to establish a national tourism policy.

The Ministry of Agriculture and Fisheries sponsored the project and Sejong University is conducting this study. There are no right or wrong answers. All the information you provide will remain confidential and only aggregate data will be reported.

We will be most grateful if you please take ten minutes to answer this questionnaire carefully.

Thank you, sincerely, for assisting us with this important matter.

Dr. Lee, Hee-Chan & Mi-Kyung Kim
Dept. of Hospitality and Tourism Management
Sejong University
Tel: 02-3408-3183 / FAX: 02-3408-3312

Date of survey: _____

Survey Region: _____

Surveyor Name: _____

Tourism Behavior Section

Example of Rural Tourism:

① **Participating in agricultural tourism**: farm stay, farm experience, weekend visit to a farm, agriculture/food festival, traditional cultural experience, collecting fishery products

② **Visiting rural areas for the purpose of tourism**: bed & breakfast (B&B), recreational forest, mountain climbing, camping, tracking, hiking, fishing, nature study, estuary exploration, historic sites, pension*

③ **Visiting family or friends living in rural area**

*Pension is a type of lodging in Korea which is similar with B&B.

1. Did you participate in rural tourism trips during the last year (From Jan 1 – Dec 31, 2003)?

❑ Yes ❑ No (☞ skip to **"Question 15"**)

2. Please record the number of trips to rural areas for the purpose of tourism and the number of nights you stayed at a rural tourism destination during the last year.

	Spring (March, April, May)	Summer (June, July, August)	Fall (Sep., Oct., Nov.)	Winter (Dec., Jan., Feb.)
Number of trips				
Number of nights				

Please select one rural tourism trip that you took last year and answer Questions 3 to 14 based on your actions during that specific trip.

3. Keeping that specific rural tourism trip in mind, when and where did it take place?
(*If you visited more than two places during your trip, please indicate every place you traveled.*)

When did you travel?	Travel Place	Number of nights
Month:	Primary rural tourism destination:	
	Another place visited on that trip:	
	Another place visited on that trip:	
		Total number of nights: ____

4. Select the category that best describes the party accompanying you on that rural tourism trip.
(*Check one*)

❑Alone ❑Family ❑Friends/relatives ❑Colleagues ❑Association members ❑Other( )

5. In which types of vehicle did you travel during that rural tourism trip?

❑Car ❑Train ❑Bus ❑Plane ❑Other ( )

6. Where did you get information about rural tourism prior to that specific trip?

❑TV ❑Newspaper/magazine ❑Internet ❑Travel Agent ❑Family/friends ❑Other( )

7. If you stayed overnight during that rural tourism trip, please indicate the type of lodging you used.

❑Farm stay ❑B&B ❑Tourist farm ❑Motel/hotel ❑Pension ❑Friends/relatives
❑Campground ❑Recreation forest ❑Second home ❑Other ( )

8. How many persons, including yourself, accompanied you on this trip?

Number of people:_____

9. Including yourself, please record the number of people of each group in your party on this trip.

Number of female adults (age 20 or older): ____	Number of male adults (age 20 or older): ____
Number of preteens age 13 or younger): ____	Number of teenagers (age 14-19): ____

10. Please rate your overall level of satisfaction with this rural tourism trip.

❑Very dissatisfied ❑Dissatisfied ❑Neutral ❑Satisfied ❑Very satisfied

11. Still thinking about the trip you selected in Question 3, please rate the reasons why you chose to participate in rural tourism during that trip.

Reason for participation in rural tourism	Not Important 1	2	3	4	Very Important 5
1. To experience a farm stay	①	②	③	④	⑤
2. To visit a travel farm	①	②	③	④	⑤
3. For nature study (*field study, visit a nature study facility*)	①	②	③	④	⑤
4. For nature-based recreation (*trekking, hiking, camping, rafting*)	①	②	③	④	⑤
5. To experience nature (*picking mushrooms, wild greens, or Chestnuts, etc.*)	①	②	③	④	⑤
6. For an eco-experience (*observing birds or plants, etc.*)	①	②	③	④	⑤
7. For an "agricultural experience" (*rice-planting, treading barley plants, digging potatoes, etc.*)	①	②	③	④	⑤
8. To experience farm life (*baking & eating potatoes/sweet potatoes/corns*)	①	②	③	④	⑤
9. To experience a folk play (*flying a kite, sledding, etc.*)	①	②	③	④	⑤
10. For a health experience (*mud-walled hut, room with under-floor heating system, etc.*)	①	②	③	④	⑤
11. To visit a weekend farm	①	②	③	④	⑤
12. To visit a recreational forest	①	②	③	④	⑤
13. To participate in a local agriculture/food festival (*strawberry festival, ginseng festival*)	①	②	③	④	⑤
14. To buy agricultural produce	①	②	③	④	⑤
15. To make or eat local foods	①	②	③	④	⑤
16. To visit a temple or historic site in a rural area	①	②	③	④	⑤
17. To visit family or friends living in a rural area	①	②	③	④	⑤
18. To attend local community events in a rural area	①	②	③	④	⑤
19. To attend an alumni association, gathering a holiday, or a ceremonial occasion	①	②	③	④	⑤
20. To enjoy relaxation or to spend leisure time	①	②	③	④	⑤
21. To enjoy natural scenic beauty in a rural area	①	②	③	④	⑤
22. To experience sea village life (*estuary exploration, sea village stay, gathering marine products*)	①	②	③	④	⑤
23. To go fishing	①	②	③	④	⑤
24. To attend a winter festival (*snow festival, smelt festival*)	①	②	③	④	⑤
25. To join a group tour	①	②	③	④	⑤

12. Please rate how important each of the following items was to you when deciding to visit the rural tourism destination you identified in Question 3.

	How Important?					How Satisfied?				
	Not Important 1	2	3	4	Very Important 5	Very Dissatisfied 1	2	3	4	Very Satisfied 5
1. Travel Information about a rural area										
2. Accessibility/Transportation										
3. Lodging facilities										
4. Food										
5. Natural environment										
6. Residents' kindness										
7. Other facilities (toilets/parking)										
8. Quality and types of agricultural Products										
9. Types of activities available										

Trip Spending Section

13. Please report your spending during the rural tourism trip you identified in Question 3.
(*Please be sure to read the following descriptions carefully before responding.*)

☞ If family or friends accompanied you on this trip, please indicate the entire amount of money that you (and only you) spent on yourself and others.

☞ Do not include money that others in your party spent on you or themselves.

☞ Please separate the money that you spent while at your primary destination and elsewhere while on your rural tourism trip.

Food Expenses (Dining out, alcoholic beverages, groceries, drinks)	At Primary Destination	At Other Places	**Travel Expenses** (Gasoline, tolls)	At Primary Destination	At Other Places
No spending	❑	❑	No spending	❑	❑
Less than ₩ 10,000	❑	❑	Less than ₩ 4,999	❑	❑
₩ 10,000 - ₩ 19,999	❑	❑	₩ 5,000 - ₩ 9,999	❑	❑
₩ 20,000 - ₩ 29,999	❑	❑	₩ 10,000 - ₩ 19,999	❑	❑
₩ 30,000 - ₩ 49,999	❑	❑	₩ 20,000 - ₩ 29,999	❑	❑
₩ 50,000 - ₩ 69,999	❑	❑	₩ 30,000 - ₩ 39,999	❑	❑
₩ 70,000 - ₩ 99,999	❑	❑	₩ 40,000 - ₩ 49,999	❑	❑
₩ 100,000 - ₩ 149,999	❑	❑	₩ 50,000 - ₩ 69,999	❑	❑
₩ 150,000 – ₩ 199,999	❑	❑	₩ 70,000 – ₩ 99,999	❑	❑
₩ 200,000 - ₩ 299,999	❑	❑	₩ 100,000 - ₩ 199,999	❑	❑
₩ 300,000 - ₩ 499,999	❑	❑	More than ₩ 200,000	❑	❑
More than ₩500,000	❑	❑			

Entertainment Expenses (Attractions, games)	At Primary Destination	At Other Places	**Lodging Expenses** (B&B, hotel/motel, pension, condominium, campground)	At Primary Destination	At Other Places
No spending	❑	❑	No spending	❑	❑
Less than ₩ 9,999	❑	❑	Less than ₩ 29,999	❑	❑
₩ 10,000 - ₩ 19,999	❑	❑	₩ 30,000 - ₩ 49,999	❑	❑
₩ 20,000 - ₩ 39,999	❑	❑	₩ 50,000 - ₩ 79,999	❑	❑
₩ 40,000 - ₩ 59,999	❑	❑	₩ 80,000 - ₩ 119,999	❑	❑
₩ 60,000 - ₩ 99,999	❑	❑	₩ 120,000 - ₩ 149,999	❑	❑
₩ 100,000 - ₩ 199,999	❑	❑	₩ 150,000 - ₩ 199,999	❑	❑
More than ₩ 200,000	❑	❑	₩ 200,000 - ₩ 299,999	❑	❑
			More than ₩ 300,000	❑	❑

Shopping Expenses (Souvenirs, local products)	At Primary Destination	At Other Places	**Other Expenses**	At Primary Destination	At Other Places
No spending	❑	❑	No spending	❑	❑
Less than ₩ 9,999	❑	❑	Less than ₩ 9,999	❑	❑
₩ 10,000 - ₩ 19,999	❑	❑	₩ 10,000 - ₩ 29,999	❑	❑
₩ 20,000 - ₩ 39,999	❑	❑	₩ 30,000 - ₩ 49,999	❑	❑
₩ 40,000 - ₩ 59,999	❑	❑	₩ 50,000 - ₩ 99,999	❑	❑
₩ 60,000 - ₩ 99,999	❑	❑	₩ 100,000 - ₩ 199,999	❑	❑
More than ₩ 100,000	❑	❑	More than ₩ 200,000	❑	❑

14. Is the spending you indicated in Question 13 for <u>your entire group</u> or for <u>yourself only</u>?

❑ For my entire group ❑ For myself only

15. Excluding rural tourism, which of the following type(s) of tourism trips did you participate in during the last year?

(*Please check the boxes next to each of the types of tourism trips you took last year. Then record the number of trips and the number of nights each season for each trip.*)

Participation	Types of Tourism Trips	**Spring (3-5)**		**Summer (6-8)**		**Fall (9-11)**		**Winter (1-2,12)**	
		# of trips	# of nights	# of trips	# of nights	# of trips	# of nights	# of trips	# of nights
❑	**Nature/Ecotourism** (*mountain tourism, marine tourism, spa*)								
❑	**Cultural/heritage tourism** (*heritage sites such as a palace or temple, craftwork exhibition or craftwork-making experience, cultural event or festival, sports game*)								
❑	**Industrial/social tourism** (*industrial park, exposition, visit to friends/relatives living in an urban area*)								
❑	**Pleasure tourism** (*pleasure resort, amusement park, leisure town-hotel or resort, sports-golf or ski, casinos*)								
❑	**Did not participate in any type of tourism**								

Agriculture/Rural Resources Section

16. Rural resources perform many functions, including supplying us with provisions. Please indicate how you feel about each of these functions, by checking one box for each item listed below?

Functions of Rural Resources	Your Feelings				
	Strongly negative	Negative	Neutral	Positive	Strongly positive
1. A place of natural scenic beauty, green zones, or rural experience	①	②	③	④	⑤
2. A preserving ecosystem for animals, plants, birds, and fishes	①	②	③	④	⑤
3. To preserve local communities and traditional cultures	①	②	③	④	⑤
4. To maintain territorial integrity (*including flood or landslide prevention or as a natural bank*)	①	②	③	④	⑤
5. Production of safe agricultural products	①	②	③	④	⑤

17. The movement of rural populations to urban areas can make balanced development of a country more difficult, and many negative impacts can occur, including extermination of traditional cultures and preservation of beautiful scenery for people to enjoy. Are you willing to pay a tax to fund preservation of rural resources?.

❑Yes ❑No (☞ *Skip to "**Question 19**"*)

18. If you are willing to pay a tax to preserve rural resources, what is the maximum your household is willing to pay per year? (*Check one.*)

❑₩10,000	❑₩20,000	❑₩30,000	❑₩40,000	❑₩50,000	❑₩60,000	❑₩70,000
❑₩80,000	❑₩90,000	❑₩100,000	❑₩150,000	❑₩200,000	❑Other: ₩_____	

19. A fund for preserving rural resources could be allocated to protect the following multi-purposes of rural resources. Please rank order each of the following purposes from 1 to 5 based on which functions you believe are the most important. (*1=the most important, 5=the least important*)

Functions of Rural Resources	Rank
1. A place for natural scenic beauty, green zones, or rural experience	_____
2. A preserving ecosystem for animals, plants, wild birds, and fishes	_____
3. To preserve local communities and traditional cultures	_____
4. To maintain territorial integrity (*including flood or landslide prevention or as a natural bank*)	_____
5. Production of safe agricultural products	_____

Demographic Information Section

20. How likely are you to participate in rural tourism in the future?

❑Extremely likely ❑Likely ❑Neutral ❑Unlikely ❑Extremely unlikely

21. If you plan to participate in rural tourism in the future, how many times per year do you expect to do so?

# of rural tourism trips: _____

22. Does the company that employs you (or your spouse) operate on a five-day workweek?
❑Yes, every week ❑Yes, every other week
❑No (*Skip to "Question 24"*) ❑Not applicable (*Skip to "Question 24"*)

23. Do you travel more than before, as a result of that company operating a five-day workweek?
❑Yes ❑No

24. Do you think that people may travel more often if five-day workweek is operated?
❑Yes ❑No ❑Do not know

25. In 2003, how often did you participate in domestic tourism (within South Korea)?
❑None ❑Once ❑Twice ❑Thrice ❑Four times ❑Five times ❑Six times
❑Seven times ❑Eight times ❑Nine times ❑Ten times or more (specify :_____)

26. In 2003, how often did you participate in international tourism (outside of South Korea)?
❑None ❑Once ❑Twice ❑Three times
❑Four times ❑Five times ❑Six times or more

27. Where did you grow up until you graduated elementary school?
❑Urban area ❑Rural area

28. Do you have any families or relatives who engage in agriculture?
❑Yes ❑No ❑Do not know

29. How is your propensity to travel?
❑Prefer to travel for relaxation ❑Prefer active and experiential tour
❑Prefer to travel for relaxation as well as for experience
❑No preference to travel or different in each situation

30. Name of city in which you reside currently: _____

31. Your age: _____

32. Your gender: ❑Male ❑Female

33. Your marital status: ❑Married ❑Single ❑Other

34. Your education: ❑Middle school ❑High school ❑College/University ❑Graduate school

35. Your religion: ❑ None ❑ Buddhist ❑ Christian ❑ Catholic ❑ Other: _____

36. Your occupation:
❑Professional ❑Clerical ❑Producer/engineer ❑Service
❑Public servant/teacher ❑Own business ❑Student ❑Retired or No job
❑Other:_____ ❑Housewife (Husband's occupation: _____)

37. Check which range best describes your monthly gross household income.
❑Less than ₩500,000 ❑₩500,000 - ₩999,999 ❑₩1,000,000 - ₩1,499,999
❑₩1,500,000 - ₩1,999,999 ❑₩1,999,999 - ₩2,499,999 ❑₩2,500,000 - ₩2,999,999
❑₩3,000,000 - ₩3,499,999 ❑₩3,500,000 - ₩3,999,999 ❑₩4,000,000 - ₩4,999,999
❑More than ₩5,000,000

Thank you very much for your help!!

APPENDIX B

Characteristics of the Three Rural Tourism Motivational Market Segments

Appendix B. Comparisons of Three Rural Tourism Motivational Market Segments

	Intrinsic Rural Tourist Segment	Passive Rural Tourist Segment	VFR Rural Tourist Segment
Socioeconomic characteristics: Significant differences were found in age, marital status, education, and childhood residence	• 43.2% reside in Seoul or surrounding areas and 24.3 % in provinces. • 68.7% are married. • Average age of this segment is 35.7. 28.1% have monthly income over ₩4,000,000. • 69.8% have college/university or advance degree. • 53.7% work more than five days a week. • 54.7% were raised in rural area. • 72.0% have families or relatives engaged in agriculture.	• 49.3% reside in Seoul or surrounding areas, and 25.8% in provinces. • 47.3% are married. • Average age of this segment is 33.3. 38.1% have monthly income over ₩4,000,000. • 80.0% have college/university or advance degree. • 41.9% work more than five days a week. • 35.1% were raised in rural area. 63.2% have families or relatives engaged in agriculture.	• 42.1% reside in Seoul or surrounding areas and 26.8 % in provinces. • 62.9% are married. • Average age of this segment is 37.1. 30.3% have monthly income over ₩4,000,000. • 78.9% have college/university or advance degree. • 47.7% work more than five days a week. • 45.4% were raised in rural area. 64.7% have families or relatives engaged in agriculture.
Rural Tourism Trip Characteristics: Significant differences were found in length of trip, travel party composition, size of travel party, age makeup of travel party, type of transportation, type of lodging, information source.	• 87.3% are overnight trip. • 64.9% traveled with families. • 47.3% are travel party size of between 3 and 4. • 45.9% of travel party was made up with adults and children. • 73.2% traveled by car. • The most frequently used type of lodging is friends' or relatives' places (40.0%). • The most frequently used source of information about rural tourism trips is recommendation of friends/relatives (55.1%). • 64.0% either satisfied or very satisfied with their rural tourism trips.	• 88.8% are overnight trip. • 43.2% traveled with families. • 34.0% are travel party size of between 3 and 4. • 32.8% of travel party was made up with adults and children. • 78.9% traveled by car. • The most frequently used type of lodging is B&Bs (27.4%) and pension (22.4%). • The most frequently used source of information about rural tourism trips is Internet (58.61%). • 75.5% either satisfied or very satisfied with their rural tourism trips.	• 81.1% are overnight trip. • 63.9% traveled with families. • 42.1% are travel party size of between 3 and 4. • 47.0% of travel party was made up with adults and children. • 82.4% traveled by car. • The most frequently used type of lodging is friends' or relatives' places (35.3%). • The most frequently used source of information about rural tourism trips is recommendation of friends/relatives (49.2%). • 65.4% either satisfied or very satisfied with their rural tourism trips.

Appendix B. Comparisons of Profiles of Three Rural Tourism Motivational Market Segments (cont'd)

	Intrinsic Rural Tourist Segment	Passive Rural Tourist Segment	VFR Rural Tourist Segment
Rural Tourism Trip Spending: Significant differences were found in different spending categories[a] and in spending at the primary destination and at other places.	• Total spending is ₩50,442; 66.3% occurred at the primary destination and 33.7% at other places. • The biggest spending category is food expenses (36.7%), followed by lodging expenses (16.7%) and travel expenses (16.5%).	• Total spending is ₩50,863; 73.7% occurred at the primary destination and 26.3% at other places. • The biggest spending category is food expenses (36.0%), followed by travel expenses (20.4%) and lodging expenses (19.9%).	• Total spending is ₩35,033; 73.1% occurred at the primary destination and 26.9% at other places. • The biggest spending category is food expenses (37.7%), followed by travel expenses (20.0%) and lodging expenses (18.7%).
Importance of Factors[b] in Determining Rural Tourism Destination, and Satisfaction with Those Factors[c]: Significant differences were found in importance rating of five factors[d] and satisfaction rating with four factors[e]	• Three most important factors are: Natural Environment (4.26), Accessibility/Transportation (4.13), and Lodging Facilities (4.05). The least important factor is Types of Activities Available (3.74). • Three most satisfied factors are: Natural Environment (3.76), Food (3.54), and Quality and Types of Agricultural Products (3.52). The least satisfied factor is Other Facilities such as Toilet or Parking (3.07).	• Three most important factors are: Natural Environment (4.40), Accessibility/Transportation (4.33), and Lodging Facilities (4.30). The least important factor is Quality and Types of Agricultural Products (3.52). • Three most satisfied factors are: Natural Environment (3.88), Food (3.39), and Travel Information about a Rural Area (3.31). The least satisfied factor is Types of Activities Available (2.95).	• Three most important factors are: Accessibility/Transportation (4.28), Lodging Facilities (4.25), and Natural Environment (4.24). The least important factor is Quality and Types of Agricultural Products (3.48). • Three most satisfied factors are: Natural Environment (3.74), Lodging Facilities (3.46), and Accessibility/Transportation (3.42). The least satisfied factor is Types of Activities Available (3.01).

[a] Those spending categories include "Food Expenses," "Lodging Expenses," "Travel Expenses," "Other Expenses," and "Shopping Expenses."

[b] Importance for each factor was measure using a five-point Like scale (1=Not Important, 5=Very Important).

[c] Satisfaction with each factor was measure using a five-point Like scale (1=Very Dissatisfied, 5=Very Satisfied).

[d] Those factors include "Natural Environment," "Accessibility/Transportation," "Lodging Facilities," "Other Facilities such as Toilet and Parking," and "Quality and Types of Activities Available"

[e] Those factors include "Quality and Types of Agricultural Products," "Residents' Kindness," "Lodging Facilities," and "Types of Activities Available."

Appendix B. Comparisons of Profiles of Three Rural Tourism Motivational Market Segments (cont'd)

	Intrinsic Rural Tourist Segment	Passive Rural Tourist Segment	VFR Rural Tourist Segment
Participation in Different Types of Tourism: Significant differences were found in rural tourism, nature/ecotourism, cultural/heritage tourism, and industrial/social tourism.	• Average number of participation day in: Rural tourism (8.40), Nature/ecotourism (2.66) Cultural/heritage tourism (0.96) Industrial/social tourism (1.01) Pleasure tourism (1.61)	• Average number of participation day in: Rural tourism (6.73), Nature/ecotourism (2.71) Cultural/heritage tourism (0.76) Industrial/social tourism (0.66) Pleasure tourism (2.05)	• Average number of participation day in: Rural tourism (5.93), Nature/ecotourism (1.55) Cultural/heritage tourism (0.54) Industrial/social tourism (0.60) Pleasure tourism (1.68)
Perceptions of Rural Resource: No significant differences were found.	• 61.6% have willing to pay taxes to preserve rural resources.. • 26.4% rated 'production of safe agricultural produce' as the most important function of rural resources.	• 64.9% have willing to pay taxes to preserve rural resources. • 33.9% rated 'a place of natural scenic beauty, green zones, or rural experience' as the most important function of rural resources	• 65.5% have willing to pay taxes to preserve rural resources. • 32.9% rated 'a place of natural scenic beauty, green zones, or rural experience' as the most important function of rural resources

BIBLIOGRAPHY

Aaker, D. A., Kumar, V., & Day, G. S. (1998). *Marketing Research* (6th ed.). New York; John Wiley & Sons.

Aczel, A. D. (2002). *Completed Business Statistics* (5th ed.). Homewood: Irwin.

Alexander, N., & McKenna, A. (1998). Rural tourism in the heart of England. *International Journal of Contemporary Hospitality Management*, 10, 203-210.

Arahi, Y. (1998). Rural tourism in Japan: The regeneration of rural communities. (Food & Fertilizer Technology Center Report). Retrieved January 5, 2005, from http://www.fftc.agnet.org/library/abstract/eb457.html

Bae, S.-E., & Kim, J.-T. (2003). A study on rural tourism for sustainable rural development: The Mundangri case. *Koran Journal of Agriculture Extension*, 10, 77-85.

Bakkal, I. (1991). Characteristics of West German demand for international tourism in the northern Mediterranean region. *Applied Economics*, 23, 295-304.

Blaylock, J. R., & Blisard, W. N. (1993). Women and the demand for alcohol: Estimating participation and consumption. *The Journal of Consumer Affairs*, 27, 319-334.

Blaine, T. W., Mohammad, G., & Var, T. (1993). Demand for rural tourism: An exploratory study. *Annals of Tourism Research*, 20, 770-773.

Blundel, R. W., & Meghir, C. (1987). Bivariate alternative to the univariate Tobit model. *Journal of Econometrics*, 33, 59-80.

Bockstael, N. E., Strand, I. E., McConnell, K. E. & Arsanjani, F. (1990). Sample selection bias in the estimation of recreation demand functions: An application to sportfishing. *Land Economics*, 66, 40-49.

Borich, T. O., & Fleming, C. (1993). Making more of less: Promoting tourism in the rural areas of Western Iowa. *Small Town*, 24, 20-21.

Bowling, M. (1992). Illinois rural tourism: Do rural areas benefit from increases in travel expenditures? *Small Town*, 22, 19-26.

Buck, R. (2004). *Agri-tourism vs. rural tourism – "Do you know the difference?"* Retrieved February 20, 2005, from http://www.agritourscanada.com

Cai, L. A., Hu, B. & Feng, R. (2001). Domestic tourism demand in China's urban centres: Empirical analyses and marketing implications. *Journal of Vacation Marketing*, 8, 64-74.

Cameron, A. C., & Trivedi, P. K. (1986). Econometric models based on count data: Comparisons and applications of some estimators and test. *Journal of Applied Econometrics*, 1, 29-53.

Cameron, A. C., Trivedi, P. K., Milne, F., & Piggott, J. (1988). A microeconometric model of the demand for health care and health insurance in Australia. *Review of Economic Studies*, 55, 85-106.

Carvalho, M. C. M. de, Dougherty, M. S., Fowkes, A. S., & Wardman, M. R. (1998). Forecasting travel demand: A comparison of logit and artificial neural network methods. *The Journal of the Operational Research Society*, 49, 717-722.

Cha, D.-U. (2002). A study on developing rural communities through the marketing strategies: The link between tourist farms and their neighboring villages. *Korean Journal of Forestry and Recreation*, 4, 39-48.

Chase, L. D., Lee, D. R., Schulze, W. D. & Anderson, D. J. (1998). Ecotourism demand and differential pricing of national park assess in Costa Rica. *Land Economics*, 74, 466-482.

Chen, J. C. (2000). *Forecasting Method Applications to Recreation and Tourism Demand.* Unpublished Ph.D. dissertation, North Carolina State University, Raleigh, NC.

Cho, J.-H., Kim, T.-K., Park, S.-H. & Park, J.-H. (2003) An analysis of urban residents' preference on rural tourism. *Korean Journal of Agricultural Management and Policy*, 30, 387-401.

Choi, K.-S. (1998). Rural tourism in Korea. (Food & Fertilizer Technology Center Report). Retrieved January 5, 2005, from http://www.fftc.agnet.org/library/abstract/eb455a.html

Churchill, G. A. (1999). *Marketing Research: Methodological Foundations* (7th ed.). Chicago: Dryden Press.

Colin, M., & Baum, T. (1995). *Island Tourism: Management Principles and Practice*, New York: John Wiley & Sons.

Cooper, C. P., Fletcher, J., Gilbert, D., Wanhill, S. & Shepherd, R. (Eds.). (1998). *Tourism: Principles and Practice* (2nd ed.). Essex: Addison-Wesley Longman, Limited.

Cragg, J. G. (1971). Some statistical models for limited dependent variables with application to the demand for durable goods. *Econometrica*, 39, 829-844.

Creel, M., & Loomis, J., (1990). Theoretical and empirical advantages of truncated count data estimators for analysis of deer hunting in California. *American Journal of Agricultural Economics*, 72, 434-441.

Crouch, G. I., & Shaw, R. N. (1990, June), Determinants of international tourist flows: Findings from 30 years of empirical research. *Proceedings of 21st Annual Conference of the Travel and Tourism Research Association*, New Orleans, USA.

Daniel, A. C. M., & Ramos, F. F. R. (2002). Modeling inbound international tourism demand to Portugal. *International Journal of Tourism Research*, 4, 193-209.

Dardis, R. D., Horacio, G. S. & Patro, D. (1994). Analysis of leisure expenditures in the United States. *Journal of Leisure Research*, 26, 209-321.

Dernoi, L. A. (1991). About rural and farm tourism. *Tourism Recreation Research*, 16, 3-6.

Durden, G. D., & Silberman, J. (1975) The determinants of Florida tourism flows: A gravity model approach. *Review of Regional Studies*, 5, 31-41.

Edgell, D. L., & Cartwright, M. L. (1990). How one Kansas town used tourism to revitalize its economic base. *Business America*, 111, 14-17.

Englin, J. & Shonkwiler, J. S. (1995). Estimating social welfare using count data models: An application to long-run recreation demand under conditions of endogenous stratification and truncation. *The Review of Economics and Statistics*, 77, 104-112.

Eugenio-Martin, J. L. (2003). Modeling determinants of tourism demand as a five-stage process: A discrete choice methodological approach. *Tourism and Hospitality Research*, 4, 241-354.

Fix, P., Loomis, J., & Eichhorn, R., (2000). Endogenously chosen travel costs and the travel cost model: An application to mountain biking at Moab, Utah. *Applied Economics*, 32, 1227-1238.

Fleischer, A., & Pizam, A. (1997). Rural tourism in Israel. *Tourism Management*, 18, 267-372.

Frederick, M. (1992). *Tourism as a Rural Economic Development Tool: An Exploration of the Literature*. (Report No. 122). Washington D.C.: U.S. Department of Agriculture, Economic Research Service.

Frechtling, D. C. (1996). *Practical Tourism Forecasting*. Oxford: Butterworth-Heinemann.

Gartner, W. C. (2004). Rural tourism development in the USA. *International Journal of Tourism Research*, 6, 151-164.

Gartner, W., & Lime, D. (Eds). (2000). *Trends in Recreation, Leisure, and Tourism.* Walingford: C.A.B. International

Gets, D. & Carlsen, J. (2000). Characteristics and goals of family and owner-operated businesses in the rural tourism and hospitality sectors. *Tourism Management*, 21, 547-560.

Goeldner, D. R., Ritchie, B. J. R. & McIntosh, R. W. (1999*). Tourism: Principles, Practices, Philosophies* (8th ed.). New York: John Wiley & Sons.

Gonzalez, P., & Moral, P. (1996) Analysis of tourism trends in Spain. *Annals of Tourism Research*, 23, 739-754.

Gonzalez, P., & Moral, P. (1995). An analysis of the international tourism demand in Spain. *International Journal of Forecasting*, 11, 233-251.

Greffe, X. (1994). Is rural tourism a lever for economic and social development? *Journal of Sustainable Tourism*, 2, 22-40.

Grogger, J. (1990). The deterrent effect of capital punishment: An analysis of daily homicide counts. *Journal of the American Statistical Association*, 85, 295-303.

Gunn, C. (1988). *Tourism Planning* (2nd ed.). New York: Taylor & Francis.

Gurmu, S., & Trvedi, P. (1996). Excess zeros in count models for recreational trips. *Journal of Business and Economic Statistics*, 14, 469-477.

Hair, J. R., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis* (5th ed.). New Jersey: Prentice Hall.

Hall, D. (2004). Rural tourism development in Southeastern Europe: Transition and the search for sustainability. *International Journal of Tourism Research*, 6, 165-176.

Hall, D. (2000). Rural tourism management: Sustainable options conference. *International Journal of Tourism Research*, 2, 295-299.

Hangin, Q. & Junsen, Z. (1995). Determinants of Tourist Arrivals and Expenditures in Canada. *Journal of Travel Research*, 34(2), 43-49.

Hawkins, D. E., & Ritchie, B. J. R. (Eds.). (1992). *World Travel and Tourism Review: Indicators, Trends, and Forecasts*. Walingford: C.A.B. International.

Hellerstein, D. (1992). Estimating consumer surplus in the censored linear model. *Land Economics*, 69, 83-92.

Hellerstein, D. (1991). Using count data models in travel cost analysis with aggregate data. *America Journal of Agricultural Economics*, 73, 860-866.

Hellerstein, D. (1989). *The Use of Count Data Models in Travel Cost Analysis: An Application to the Boundary Waters Canoe Area*, Ph.D dissertation, Yale University, New Haven, CT.

Hellerstein, D., & Mendelsohn, R. (1993). A theoretical foundation for count data model. *American Journal of Agricultural Economics*, 75, 604-611.

Herriges, J. A., & Phaneuf, D. J. (2002). Inducing patterns of correlation and substitution in repeated logit models of recreation demand. *American Journal of Agricultural Economics*, 84, 1076-1090.

Hill, B.J. (1993, September). The future of rural tourism. *Park and Recreation*, 28, 98-123.

Hjalager, A. (1996). Diversification in agricultural tourism: Evidence from a European community programme. *Tourism Management*, 15, 103-111.

Hong, W.-C. (1998). Rural tourism: A case study of regional planning in Taiwan. (Food & Fertilizer Technology Center Report). Retrieved January 5, 2005, from http://www.fftc.agnet.org/library/abstract/eb456.html

Hu, C. (2002). *Advanced Tourism Demand Forecasting: Artificial Neural Network and Box-Jenkins Modeling*. Unpublished Ph.D dissertation, Purdue University, West Lafayette, IN.

Hunt, J. D. (1992). Rural tourism: New focus on a traditional industry. *Western Wildlands,* 18, 2-3.

Hwang, D.-Y,, Cho, Y.-S., & Kang, K.-H. (2003). Survey on the urban residents' Internet-site use of rural tourism. *Journal of Tourism and Culture*, 5, 329-344.

Iwantoro, S. (1998). Rural Tourism – The impact on rural communities, I. Indonesia (Food & Fertilizer Technology Center Report). Retrieved January 5, 2005, from http://www.fftc.agnet.org/library/article/eb458a.html

Jang. K.-J. (2004). A study on alternatives to promoting green rural tourism in the Jeonbuk province. *Journal of Tourism Policy*, 16, 193-226.

Jung, K. (2001). Policy of green tourism development for rural revitalization. *Rural Economy*, 24, 139-162.

Jorgensen, F., & Solvall, G. (1996). Demand models for inclusive tour charter: The Norwegian case. *Tourism Management*, 17, 17-24.

Jung, K.-H. (2001). Policy orientation for green tourism to regenerate rural areas, *Rural Economy*, 24, 139-162.

Jung, K.-H., Byun, H.-K., & Kim, K.-H. (2004). A study on the sustainability of agri-tourism in Korea. *Journal of Tourism and Leisure*, 16, 85-104.

Kang, S. (2004) Rural tourism: Its diversity and distinctiveness. Report by Samsung Economic Research Institute. Seoul: Korea.

Kieselbach, S. R., & Long, P. T. (1990, March). Tourism and the rural revitalization movement. *Parks and Recreation*, 25, 62-67.

Kim, N.-J. (2004) Policy orientations for rural tourism: A consideration of the rural amenity concept and components of tourism phenomenon. *Journal of Tourism Sciences*, 28, 263-281.

Kim, K.-H., & Seo, S.-H. (2002). *Urban Economy* (2nd ed.). Seoul: Hongmunsa.

Korea National Statistical Office. (2005). *Trend of employment in Korea*. Retrieved January 18, 2005. from http://kosis.nso.go.kr/cgi-bin/sws_777pop.cgi?A_REPORT_ID=MA&A_CONTENTS=0501&A_LANG=1

Korea National Statistical Office. (2001). *Farm Household Economy Survey Report 2000*. Seoul, Korea: Author.

Korea National Tourism Organization. (2005). *2004 Annual Survey of General Household on Travel Behaviors* (Project Report). Seoul, Korea: Author.

Korea Rural Economic Institute. (2002). *A Development Model of Green Tourism for Rural Revitalization and Its Practical Application* (Project Report). Seoul, Korea: Author.

Kulendran, N., & Witt, S. F. (2003). Forecasting the demand for international business tourism. *Journal of Travel Research*, 41, 265-271.

Landscape Access Recreation. (2004). *What is rural?* Retrieved November 11, 2004, from http://www.countryside.gov.uk/LAR/Landscape/RandE/dataHub/useful_information/URBANSETTdefn.asp

Lane, B. (1994). What is rural tourism? *Journal of Sustainable Tourism*, 2, 7-21.

Latham, J. (1998). Patterns of international tourism. *Progress in Tourism and Hospitality Research*, 4, 45-52.

Leem L., & Maddala, G. (1985). The common structure of tests for selectivity bias, serial correlation, heteroscedasticity and non-normality in the Tobit model. *International Economic Review*, 26, 1-19.

Lee, K.-J. (1996). A study on the introduction of green tourism in rural tourism planning in Korea. *Journal of Tourism Policy*, 2, 231-244.

Lewis, J. B. (1998, September). The development of rural tourism. *Parks and Recreation,* 33, 99-107.

Li, G., Song, H., & Witt, S. F. (2004). Modeling tourism demand: A dynamic linear AIDS approach. *Journal of Travel Research*, 43, 141-150.

Lim, C. (1999). A meta-analytic review of international tourism demand. *Journal of Travel Research*, 37, 273-284.

Lim, C. (1997). Review of international tourism demand models. *Annals of Tourism Research*, 24, 835-849.

Lobo, R. (2001). Helpful *agricultural Tourism (Agri-tourism) Definitions*. Retrieved October 28, 2004, from http://www.sfc.ucdavis.edu/agitourism/definition.html.

Lohr, S. L. (1999). *Sampling: Design and Analysis*. Pacific Grove: Duxbury Press.

Long, P. (1998). *Rural Tourism Foundation Information Piece*. Boulder: University of Colorado.

Long. P., & Nuckolls, J. (1992). Rural tourism development: Balancing benefits and costs. *Western Wildlands*, 18, 9-13.

Lutz, J., Englin, J., & Shonkwiler, J. (2000). On the aggregate value of recreational activities: A nested price index approach using Poisson demand systems. *Environmental and Resource Economics*, 15, 217-226.

Maddala, G. S. (1986). *Limited-Dependent and Qualitative Variables in Econometrics*. Cambridge: Cambridge University Press.

McCracken, V. A., & Brandt, J. (1987). Household consumption of food-away-from-home: Total expenditure and by type of food facility. *American Journal of Agricultural Economics*, 69, 274-284.

McDonald, J. F., & Moffitt, R. A. (1980). The uses of Tobit analysis. *The Review of Economics and Statistics*, 62, 318-321.

Ministry of Agriculture and Forestry. (2004). *Agricultural Census*. Retrieved October 5, 2004. from http://kosis.nso.go.kr/cgi-bin/SWS_1020.cgi?KorEng=1&A_UNFOLD=1&TableID=MT_ATITLE&TitleID=IA&FPub=3&UserID=

Morlay, C. (1997). An evaluation of the use of ordinary least squares for estimating tourism demand models. *Journal of Travel Research*, 35, 69-73.

Morley, C. (1991). Modeling international tourism demand: Model specification and structure. *Journal of Travel Research*, 30, 40-44.

Mullahy, J. (1986). Specification and testing of some modified count data models. *Journal of Econometrics*, 33, 341-365.

Nilsson, P. (2002). Staying on farms: An ideological background. *Annals of Tourism Research*, 29, 7-24.

Oppermann, M. (1996). Rural tourism in southern Germany. *Annals of Tourism Research*, 23, 86-102.

Park, E.-S. (2001). *A Study of Value Improvement in Rural Area*. Project Report by Korea Rural Economic Institute. Seoul: Korea.

Park, H.-K. (2002). Rural tourism and extension service system: The Israeli case. *Koran Journal of Agriculture Extension*, 9, 161-171.

Park, H.-K., Lee, S.-W., & Park, J.-Y. (2002). The evaluation of indicators for rural tourist farm with path analysis. *Rural Society*, 12, 75-102.

Park, H.-K., Ryu, S.-H., & Lee, S.-W. (2001). A study on tourist farms and rural tourism development strategies in Korea. *The Journal of Community Development*, 26, 45-73.

Park, S.-H. (2004). Revitalization of local economy by rural tourism. Research Report by Korea Research Institute of Human Settlements. Seoul, Korea.

Park, S., Song, M., Sung, J., Park, J. & Jang, M. (2003). Policies of rural tourism: In the case of United Kingdom, France, Germany, and Taiwan. Retrieved January 18, 2005, from http://www.krei.re.kr/issue/index.php?vDown=read&vTop=1&vKey=D172&vBid=d

Portney, P. R., & Mullahy, J. (1986). Urban air quality and acute respiratory illness. *Journal of Urban Economics*, 20, 21-38.

Qiu, H., & Zhang, J. (1995). Determinants of tourist arrivals and expenditures in Canada. *Journal of Travel Research*, 34, 43-49.

Rattanasuwongchai, N. (1998). Rural tourism—The impact on rural communities: II. Thailand. Seminar Report by Food & Fertilizer Technology Center. Taipei: Taiwan.

Ribeiro, M., & Marques, C. (2002). Rural tourism and the development of less favored areas – between rhetoric and practice. *International Journal of Tourism Research*, 4, 211-220.

Sharpley, R., & Roberts, L. (2004). Rural tourism – 10 years on. *International Journal of Tourism Research*, 6, 119-124.

Shaw, D. G. (1988). On-site samples' regression: Problems of non-negative integers, truncation, and endogenous stratification. *Journal of Econometrics,* 37, 211-223.

Shaw, G., & Williams, A. M. (2002). *Critical Issues in Tourism* (2nd ed.). Oxford: Blackwell Publishers.

Sheldon, P., & Var, T. (1985). Tourism forecasting: A review of empirical research. *Journal of Forecasting*. 4, 183-195.

Silberman, J. (1985). A demand function for length of stay: The evidence from Virginia beach. *Journal of Travel Research*, 23, 16-23.

Smeral, E. (1988). Tourism demand, economic theory and econometrics: An integrated approach. *Journal of Travel Research*, 26, 38-42.

Smeral, E., & Witt, S. F. (1996). Econometric forecast: Tourism demand to 2005. *Annals of Tourism Research*, 23, 891-907.

Smeral E., Witt, S. F., & Witt, C. A. (1992). Econometric forecasts: Tourism trends to 2000. *Annals of Tourism Research,* 19, 450-466.

Song, H., & Witt, S. F. (2003). Tourism forecasting: The general-to-specific approach. *Journal of Travel Research*, 42, 65-74.

Song, H., & Wong, K. K. F. (2003). Tourism demand modeling: A time-varying parameter approach. *Journal of Travel Research*, 42, 57-64.

Stancliffe, A. (1992, August). Whose Green Tourism? *World Magazine,* 63, 82.

Sumathi, N. R. (1990). *An Analysis of the Influence of Advertising on Demand for Outdoor Recreation.* Unpublished Ph.D dissertation, Oklahoma State University, Stillwater, OK.

Syriopoulos, T. (1995). A dynamic model of demand for Mediterranean tourism. *International Review of Applied Economics*, 9, 318-336.

Tabachnick, B. G., & Fidel, F. S. (1989). *Using Multivariate Statistics* (2nd ed.). New York: Harper Collins Publishers.

Thomas, R., & Long, J. (2001). Tourism and economic regeneration: The role of skills development. *International Journal of Tourism Research*, 3, 229-240.

Train, K. E. (1998). Recreation demand models with taste differences over people. *Land Economics*, 74, 230-239.

Turner, L., Kulendram, N., & Pergat, V. (1995). Forecasting New Zealand tourism demand with disaggregated data. *Tourism Economics*, 1, 51-69.

United States General Accounting Office. (1993). Rural development: Profile of rural areas. Retrieved November 11, 2004, from http://archive.gao.gov/t2pbat6/149199.pdf - 2240.3KB

Uysal, M., & Crompton, J. L. (1985). An overview of approaches used to forecast tourism demand. *Journal of Travel Research*, 23, 7-17.

Uysal, M., & Roubi, S. M. (1999). Artificial neural networks versus multiple regression in tourism demand analysis. *Journal of Travel Research*, 38, 111-118.

Webster's Revised Unabridged Dictionary. (1998). *ARTFL Project: 1913 Webster's Revised Unabridged Dictionary*. Retrieved November 11, 2005, from http://humanities.uchicago.edu/orgs/ARTFL/forms_unrest/webster.form.html

Wilkerson, M. L. (1996). "Information for developers" Developing a rural tourism plan: The major publications. *Economic Development Review*, 14, 79.

Willits, F. K., Bealer, R. C. & Timbers, V. L. (1990). Popular images of 'Rurality': Data from a Pennsylvania survey. *Rural Sociology*, 55, 559-578.

Wilson, S., Fesenmaier, D. R., Fesenmaier, J., & Van Es, J. C. (2001). Factors for success in rural tourism development. *Journal of Travel research*, 40, 132-138.

Witt, S. F., Newbould, G. D. & Watkins, A. J. (1992). Forecasting domestic tourism demand: Application to Las Vegas arrivals data. *Journal of Travel Research*, 31, 36-41.

Witt, S. F., Song, H., & Louvieris, P. (2003). Statistical testing in forecasting model selection. *Journal of Travel Research*, 42, 151-158.

Witt, S. F., Sykes, A. M., & Dartus, M. (1995). Forecasting international conference attendance. *Tourism Management*, 16, 559-570.

Witt, S. F. & Witt, C. (1992). *Modeling and Forecasting Demand in Tourism*. London: Academic Press.

Wooldridge, J. M. (2003). *Introductory Econometrics: A Modern Approach* (2nd ed.). Cincinnati: South-Western College Publish.

Yahoo Korea Dictionary. (2004). *Yahoo Korea Dictionary*. Retrieved November 11, 2004, from http://kr.dic.yahoo.com/search/eng/search.html?p=rural+&condition%5B%5D=1&condition%5B%5D=2&condition%5B%5D=3&condition%5B%5D=4&x=24&y=4

Yoo, S., & Choi. D. (2001). Characteristics of policy for green tourism in Japan. *Rural Economy*, 24, 47-62.

Zalatan, A., & Burge, R. (1980). The future of U.S. international tourism: Some neglected factors. *Journal of Travel Research*, 16, 15-19.