Evaluating Household Leisure Behaviour of Rural Tourism in Japan

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Abstract
Understanding the demand profile of rural tourism is a necessary condition for the successful diversification of any rural economy. Although descriptive analyses have been conducted on this issue, a more generalised framework is required that allows us to explore economic analyses. This paper evaluates the leisure behaviour of households that have a preference for rural tourism in Japan. First, we give conceptual consideration to the notion that leisure behaviour should be regarded as a form of a home production and explain that households that undertake rural tourism have undergone an upward shift in the home production function to realise a higher utility level. We propose that a preference for rural recreation causes this shift by improving the efficiency of the home production of leisure. Second, as an actual behaviour of rural tourism, the characteristics of visitors to pick-your-own farms were statistically tested using data from a nation-wide survey on tourism. Finally, the rural preference function was estimated. The results revealed that the profile of households showing a preference for rural tourism demonstrated both up-market and niche market characteristics, which mirrored findings in European countries emphasizing the importance of a higher academic background, stronger orientation towards outdoor recreation, and greater discrimination with respect to the quality of services and goods received. Preference for rural recreation can be enhanced through the provision of authentic, high quality service and goods and the preservation of the rural environment. Therefore, there will be an increased demand for a farm policy that integrates both agricultural and rural measures.
Keywords: rural tourism, home production, service goods, rural infrastructure, leisure behaviour

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1. Introduction

Rural tourism has attracted growing concern from in relation to multiple aspects**,** such as sustainable rural development and diversification of the rural economy. To address these concerns, it is necessary to determine the profile of visitors. This is also true of tourism in general and consequently there are several established approaches: for an example of a marketing approach see Swarbrooke and Horner (1999) and for a psychological approach see Ryan (1995). However, economic approaches to these issues have not been fully explored. Here, we attempt to shed some light on the economic behaviour of rural tourists (for a discussion of rural tourism in general, see Butler and Jenkins, 1998).

Rural tourism is clearly an up-market pursuit (Haines and Davies; 1987, Blunden and Curry, 1988; Sharpley, 1996; Sharpley and Sharpley, 1997; Ueno, 1974). Although people with a high educational background and high income usually command correspondingly high opportunity costs of time, there has previously been no economic explanation for seeking such time-using recreational activities. Labour economics explain that the rising demand for leisure is the outcome of a backward-bending labour supply curve, which has been described as the income effect.

The second apparent feature of rural tourism is the niche market (OECD, 1995a, b). Because not all high-income inidividuals prefer rural tourism, the demand for it cannot be completely explained by the income effect, so we need to take into account additional factors. For this purpose, we should first consider rural tourism within the more general framework of leisure behaviour. Economists have usually examined leisure behaviour in connection with labour**:** for one of the pioneering works from this stance, see Owen (1970). From this perspective, the present paper treats rural tourism as one of the set of leisure behaviours that can also be included in the category of home production. Leisure behaviour has not been included in the category of home production even in tourism economics (see Sinclair and Stabler (1997) for an example of tourism economics). However, there are no substantial differences between leisure behaviour and home production (Kooreman and Wunderink (1997) give a comprehensive review of household models). Viewing leisure behaviour as a service goods, it has simultaneity of production and consumption, meaning that consumers have to be physically present where the production takes place. This means that home production is not necessarily based solely at home, although since Becker's pioneering work (Becker, 1976) studies have tended to be focused on production at home. Because household members work for their family, home production can actually take place anywhere. Another focal point is that leisure activity has been playing an increasingly important role in easing the stressful life frequently experienced by urban households. Thus, the concept of home production should be extended to include leisure activity in

the household. Opperman (1997) points out that the definition of rural tourism included the family market, an appropriate characterisation that supports our stance. We consider leisure behaviour conducted by the household unit to be a form of home production that enhances its utility level.

By incorporating the home production framework, we give conceptual consideration to the question of why high-income people prefer this time-using type of leisure behaviour. We evaluate leisure behaviour from the perspective of home production by considering that the intensity of rural preference among this group of people is connected with the level of home production. Then, within the conceptual framework, we clarify the demand characteristics of rural tourism focusing on visits to "pick–your-own" farms, estimating the rural preference function to determine the actual factors forming a rural preference. Finally, implications for the future development of rural tourism are discussed.

2. Background to the analysis

2.1. Policy background in Japan

In this section we give a brief overview of rural tourism in Japan in the context of the following analyses. Green tourism, Japanese rural and farm tourism**,** including agriculture, forestry and fisheries, has been promoted by the Japanese government since 1992 to counter the depopulation of the rural community and loss of agricultural competitiveness that has arisen following the liberalization of global trade. Green tourism was given a legal framework in 1994 (Yamazaki *et al*., 1993). By March 2000, a total of 752 farms were registered: for an assessment of the connection between farm-based accommodation in Japan and multifunctionality, see Ohe (2001); for a comparative analysis of Japanese farm based accommodation and Italian agritourism, see Ohe and Ciani (1999).

Under the administration of the Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF), a new policy framework for food, agriculture and rural areas was enacted in 1999, entitled *The basic law for food, agriculture and rural areas*. Within this law, rural policy measures promoting green tourism are clearly stipulated.

2.2. Evolution of leisure behaviour in Japan

Many studies conducted in Western Europe have pointed out that the demand characteristics of rural tourism and farm tourism have up-market features, such as higher educational background and social status, and consequently it is understood to be a niche market.

During the period of high economic growth, Japanese leisure behaviour in general was characterised as mainly urban oriented**,** less time consuming and concentrated during weekdays rather than at weekends (Ueno, 1974). However, the results of a questionnaire conducted by the Leisure Development Center indicates that in recent

years individuals spending time in the natural environment, such as forest, waterfront, and rural areas**,** possess one or more of the following characters (Watanabe, 1998): 1) they are professionals, students or business managers, 2) they have a high academic background, 3) they live in large cities. Watanabe (1998) also highlights the relationship between perceived stress and the express desire to visit places of natural beauty. These demand features are consistent with the up-market characteristics prevalent in studies of European countries.

A major question to be resolved is why people of higher socio-economic status, who have the ability to demand high opportunity costs of time, prefer to engage in time-consuming rural excursions. We explore this point next from both conceptual and empirical stances.

3. Conceptual model of leisure behaviour

3.1. Evolution of leisure behaviour and rural tourism

We characterise rural tourism as part of the leisure behaviour of a household. Leisure goods are service goods that have spatial and temporal simultaneity: to consume leisure goods it is necessary to visit the place of production. Figure 1 illustrates the evolution of leisure behaviour including overnight and day trips. A household's leisure utility function**,** U_1**,** is determined by the amount of time available for leisure and consumption of market goods. Time for leisure is measured on the horizontal axis and market goods on the vertical axis. W_1 denotes a low wage level and is tangent to the line U_1 at point A. At this point, a time-using leisure type such as TV viewing is undertaken, in which the consumption of market goods is low: the opportunity cost of time is low. The line H_1 depicts the ratio of the combination of time and market goods for this type of leisure.

Following an increase in wage rate as a result of economic development, the wage line W_2 is tangent to U_1 at point B. This rising wage rate means that the opportunity cost of time also increases, which results in time saving and market goods using types of leisure activities, such as short duration overseas package trips, being undertaken, as depicted by line H_2. At this stage, the demand for rural tourism is still not apparent.

Rural tourism leisure is depicted by the line H_3, and is more time-using but with a lower consumption of market goods. The slope of H_3 is therefore steeper than that of H_2. Equilibrium for the new utility function U_2 is attained at point C. Here, the evolution from point A to point C can be decomposed into two effects**:** the effect of evolving from points A to B, and the effect of evolving from points B to C. The first effect is the substitution effect due to the rising opportunity cost of labour caused by the rising wage rate, which leads to an increased preference for work. The second effect is explained partly by the income effect, which results in an increased preference for leisure time. However, the income effect does not entirely explain the shift from B to C. This is because rural tourism is a niche market, which means that not all those enjoying higher income choose to partake in rural tourism: only people having a pre-existing

preference for rural life and the environment do so. To understand this shift fully, we must therefore in addition to the income effect consider a second cause, which we term the rural preference effect. Thus the shift from *B* to *C* is explained by the interaction between the income effect and the rural preference effect. Rural tourism takes place when this mixed effect of income and rural preference is greater than the substitution effect.

We can summarise this relationship as follows:

Income effect + rural preference effect > substitution effect

$$B \rightarrow C \text{ shift} > A \rightarrow B \text{ shift}$$

Time-using effect > time-saving effect

Rural tourism can therefore be expected when the income effect plus rural preference effect ($B \rightarrow C$ shift) is greater than the substitution effect ($A \rightarrow B$ shift). In other words, the dominance of the time-using effect over the timesaving effect is a feature of rural tourism as leisure behaviour, resulting from a rural preference among participants.

This effect can be observed not only in the light of time-series but also in cross sectional population analyses. However, the above model does not explain how this rural preference is formed in the household, and in the following section we consider ways in which this might be achieved.

3.2. Home production and rural preference

Based on the considerations outlined above, the purpose of this section is to give further conceptual consideration to the question of why households possessing a rural preference actually undertake rural tourism. To this end, wage rate is assumed as given to focus upon the rural preference effect. We make the following assumptions, which have previously been neglected.

First, it becomes increasingly necessary for urban habitants find ways in which to ease stress. In this era of joint participation by both sexes, home production is not limited to traditional household jobs such as cooking, cleaning, washing and childcare, but also now extends to leisure behaviour conducted by the family unit as a whole, which should thus also be included in the definition. On the one hand, it is nowadays common in urban areas to buy leisure service goods from markets. On the other hand, rural tourism can be regarded as a form of leisure goods**,** using both time and the rural environment to experience farming and rural life. It is therefore possible for visitors to positively combine their time and the rural resources to create a diverse composition of recreational forms**,** unlike market produced leisure goods. This flexibility is major difference from the urban amusement parks, in which visitors can only choose from a limited range of activities. In this sense, rural tourism depends on home production much more than other urban leisure behaviours. Home produced leisure goods are made by combining leisure time and other market goods. Home produced leisure goods

Concerning complaints, three variables are used, one of which is used for each estimation: these centre on restaurants, level and condition of facilities, and souvenirs. Individuals filing complaints score unity, those who did not score zero.

The expected signs of all these variables are positive.

6. Results

Estimates were determined using the maximum likelihood method. Table 1 gives three estimation results that each used a different type of complaint variables. The expected sign conditions were all satisfied and the results of likelihood ratio test on the model significance registered at the level of 1% significance. The parameter estimates listed were standardized to allow easier comparison between estimates. Although due to the small sample size we should be very cautious when interpreting these results, we cannot ignore the many commonalities in the demand characteristics of rural tourism found here that were similar to those found in previous studies in terms of the characteristics of up-market and niche market.

Academic background was positively associated with the number of farm visits. However, it was not sufficiently statistically significant (10%, 20%). This suggests that the income effect is not much larger than the substitution effect.

The housing parameter, i.e. own house with garden with no outstanding mortgage, was positive, but not highly significant (10%). This suggests that the income effect is not particularly influential on the number of visits.

With respect to parameters relating to the rural preference effect, the variable concerning living in metropolitan areas was positive, but not significantly so (10% or 20%).

Conversely, ‘being fond of making trips’ was the largest among the parameters positively connected with the PYO farm visits (5% significance). This means that people oriented towards outdoor activities tend to prefer visiting PYO farms.

Similarly, the parameter for the variable describing the collection of travel information was positive (5% significance), indicating that visitors collect information in a positive manner.

All three estimates about complaints also showed highly positive significance (1% or 5%).

These results suggest that a rural preference is more influential on farm visits than either the income or substitution effects, suggesting that a rural preference is an important part of the lifestyle of visitors. On the other hand, this group of people is more demanding in terms of the quality of services they receive when travelling. We suggest that this is because this group experiences higher levels of mental stress during their urban activities, and consequently perceive a greater need to relax in the rural open spaces. These factors are reflected in the rural preference expressed by the visitor group.

Consequently, the active provision of information in relevant magazines**,** quality control of services provided and authentic local products are crucial for rural tourism operators if they are to attract greater numbers of potential visitors. This is because these factors are considered to be essential for the upward shift in the home production function, and thus are effective measures to enhance rural preferences among urban people. In this sense, the question of how to harmonize the development of authentic rural tourism while preserving the rural environment must be considered. This highlights the importance of more coherent integration between farming policy and rural policy.

7. Summary and Conclusions

We have evaluated the rural tourism behaviour of households by focusing on PYO farms in Japan**,** from the perspective that leisure behaviour should be included in home production. The main points discussed in this paper are as follows**:**

1) Demand for rural tourism by urban habitants is characterised by the income effect and the rural preference effect (i.e. desire for experience of rural life and the rural heritage). We suggest that rural tourism is an integral part of home production and that individuals expressing a strong rural preference undertake rural tourism as a leisure activity that increases their utility level. This is because a rural preference causes an upward shift in the home production function to make home produced leisure (i.e. rural tourism) more efficient**,** resulting in a higher household utility level.

2) The results of the logit model suggest that visitor's rural preference plays an important role in determining the demand for rural tourism and also that it is already an integral part of their lifestyle. Among the factors determining visitor's rural preference, an appreciation for the high quality of goods is observed, indicating that this group is demanding with respect to the quality of services received. Although it is too early to generalise the profile of rural tourists due to the severe data availability, it cannot be denied that these are the characteristics of an up-market and niche market, which is roughly similar to early findings in Western Europe and Japan concerning rural tourists.

3) There are several policy implications. It is important to enhance rural preference by providing authentic local products, service and information and preserving the rural environment. These are effective measures to increase the magnitude of the shift in the home production function, which will attract potential visitors who have an existing rural preference. In this respect, the need for integration between farming policy and rural policy will increase in the future. Finally, considering rural tourism as a form of home production suggests that the educational effects of rural tourism should be quantified: this is another topic that merits further investigation.

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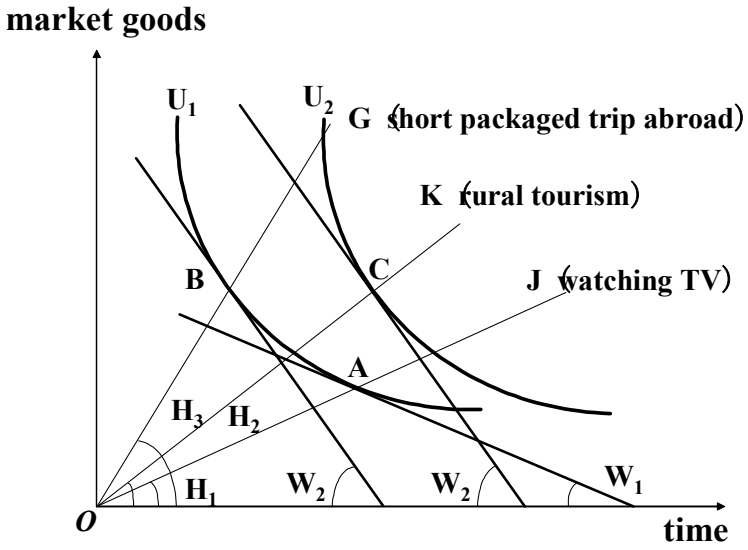

Figure 1 Evolution of household leisure behaviour

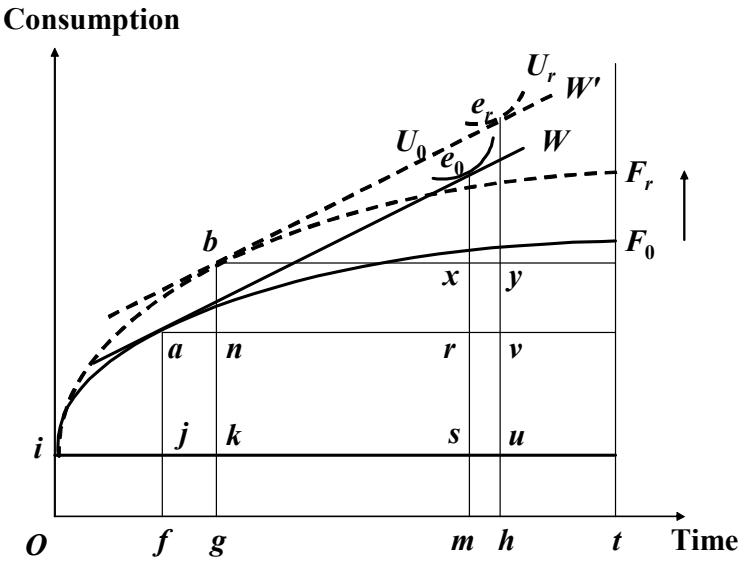

Figure 2 The effect of an upward shift on the relationship between home production and rural preference

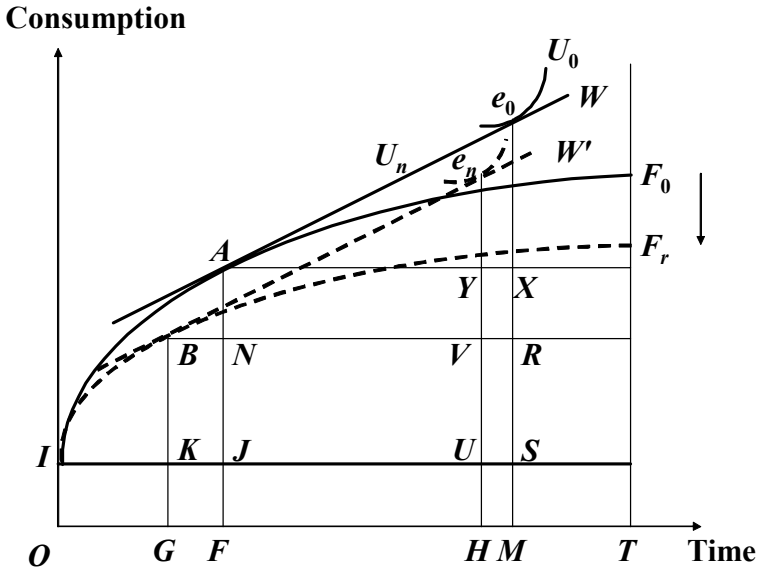

Figure 3 The effect of a downward shift on the relationship between home production and rural preference

Table 1 Logit model likelihood estimates

Note: Figures in parentheses are Wald Chi-square values.

Variables	Standardized Estimate		
	1	2	3
College graduates	0.1210*	0.1149+	0.1167+
	(2.8679)	(2.5944)	(2.6761)
Own house with garden	0.1780*	0.1630*	0.1598*
	(3.3899)	(3.0849)	(2.9978)
Living in metropolitan areas	0.1370*	0.1294*	0.1252+
	(3.1225)	(2.7622)	(2.6050)
Being fond of making trips	0.2986**	0.3025**	0.3041**
	(5.0873)	(5.2370)	(5.2869)
Information gathering by travel related magazines	0.1454**	0.1587**	0.1562**
	(3.9084)	(4.7475)	(4.5722)
Complaint: quality of service of restaurants	0.1403***	-	-
	(7.9353)	-	-
Complaint: quality of souvenirs	-	0.1139**	-
	-	(4.1462)	-
Complaint: facilities are not neat	-	-	0.0967**
	-	-	(4.0546)
Sample size	2387	2387	2387
-2log(LR)	34.232***	27.735***	27.434***