

Residents' Intentions and Willingness to Cooperate toward Starting Farm-Stay Businesses in Response to Inbound Tourism: A Case Study in Tambasayama City, Hyogo Prefecture

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This study aims to investigate residents' intentions and willingness to cooperate toward starting farm-stay businesses and inbound tourism among those who have not yet engaged in a business. Through a questionnaire survey in Murakumo area, Tambasayama city, we found that first, 15.2% and 18.3% of the respondents have high intentions to start farm-stay businesses and accepting foreign visitors respectively. Second, based on chi-square test, demographic attributes of gender, farming frequency, free time, and experience of communication with foreigners are significantly different in the high and low intentions. Third, the respondents with low intentions of starting businesses also have willingness to cooperate.

Key words: residents' intentions, farm-stay business, inbound tourism

1. Introduction

In the rural areas of Japan, the problems of depopulation and aging have a great impact on the functionality and resource maintenance of rural communities. Faced with these problems, communities in the rural areas are focusing on the rural revitalization businesses, including making regional resource utilization, and attracting inbound tourism. In 2016, the Agriculture, Forestry and Aquaculture, Regional Vitality Creation Plan pointed out that rural areas should focus on the inbound tourism demand, and consider developing farm-stay businesses. In 2017, the Tourism Nation Promotion Basic Plan pointed out that the implementation of the countryside stay business in 500 regions would be realized by 2020, thereby increasing rural income.

In the face of the same target market, farm-stay businesses face excess competition (Tsutsui and Sawabata, 2010: pp.36). Besides, farm-stay businesses that mainly target educational trips cannot secure the source of customers owing to the seasonal nature of educational trips and the decrease in the number of students (Takeuchi, 2017: pp.12-13). Hence, the possibilities and issues targeting foreign tourists have begun to be discussed in recent years.

From the profile of the business providers, among the previous research on the awareness of local residents on

farm-stay businesses and accepting foreign tourists, Saruishi and Fujisaki (2000: pp.287-288) compared the intentions toward farm-stay businesses between the two areas. Additionally, it has been pointed out that those who have the intention and those who have no intention perceive the difficulties on starting farm-stay businesses differently. Iwasaki *et al.* (2017: pp.238-239) surveyed the current situation of inbound tourism in Kyoto Prefecture and identified the perceptions of anxieties to foreigners vary in different intentions to accept foreigners. Ohe (2018: pp.30) pointed out that women in rural areas have a stronger desire to engage in farm-stay businesses to secure their own fields and achieve self-fulfillment as they regard the farm-stay businesses as their field. Regarding the cooperation issues in farm-stay businesses, Park and Takahashi (2009: pp.326), Kawamura *et al.* (2017: pp.233) pointed out the operators require local residents to offer advices on food, agricultural experiences and accommodation in peak season or in emergency. Yamada (2001: pp.114) pointed out farmers who have the cooperation experiences of agricultural experience activities show the higher cooperation willingness.

Findings from the previous research and issues remaining are, (1) The intention to start farm-stay businesses vary depending on the location and gender.

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Women's intention is higher. However, there is a lack of accurate analysis of difference of intention proportions in demographic characteristics. (2) The perceptions of difficulties on starting businesses vary in different intentions. (3) There is still a lack of cooperation attitude from the perspective of providers. Meanwhile, there is a lack of study on the awareness among residents in rural areas where businesses have not yet been started.

In summary, the main subjects of this study are as follows. Firstly, to determine the intentions of local residents on starting farm-stay businesses and inbound tourism, and whether there is any difference in intention proportions among demographic characteristics. Secondly, to clarify the concerns toward starting the businesses. Thirdly, to master local residents' attitude toward the businesses by others in the communities and the available cooperation forms. Through the analysis, the study will discuss the possibility of starting farm-stay and inbound tourism businesses.

According to the previous research, the following hypotheses are established: (1) Local residents in areas where farm-stay businesses have not been started yet have low intentions to start businesses, especially on accepting foreigners. Women enjoy a higher intention than men. (2) Concerns about businesses vary in different intentions. (3) For areas with no experience in farm-stay cooperation, willingness of cooperation tends to be low.

2. Methods and Data

1) Survey method

This study selected Murakumo area in Tambasayama city as the survey area. Though Tambasayama city is popular and distinctive in tourism, Murakumo area located in the edge of the city have no farm-stay businesses. It is not an advanced or particular area for tourism exchange activities. Therefore, from the perspective of tourism exchange activities, we consider Murakumo area as an ordinary rural area. A total of 272 questionnaires were distributed among all the households across three communities: Kusanokami (38 households), Mukai (48 households), and Saikusho (50 households) in 2018. The envelopes were handed over to each household by the presidents of the community associations. The household along with another family member above the age of 18 were asked to fill in the questionnaires. A total of 186 questionnaires were collected among which 164 were valid

(eliminating the questionnaires which miss important information, with inconsistent and same options).

The main survey items contain three aspects: demographic characteristics, intentions and concerns toward starting businesses by themselves, and attitudes and cooperation forms toward businesses by others in the communities.

Table 1. Demographic characteristics of the respondents

		No. of respondents	%
Gender	Male	84	51.2
	Female	80	48.8
Age	20s-50s	64	39.0
	60s-70s or above	100	61.0
Living condition	Living alone	9	5.5
	Couple	61	37.2
	Two generations	66	40.2
	Three generations	28	17.1
Farming frequency	Almost every day	30	18.3
	Several days a week	52	31.7
	Almost no	82	50.0
Working condition (primary source of income)	Full-time employment	47	28.7
	Part-time employment	16	9.8
	Housework	21	12.8
	Pension	30	18.3
	Agriculture	28	17.1
	Self-employment	10	6.1
	Student	1	0.6
Others	11	6.7	
Free time	Almost no	42	25.6
	1 day a week	48	29.3
	2-3 days a week	54	32.9
	4-5 days a week	8	4.9
	Almost every day	12	7.3
Experience of communication with foreigners	Not at all	125	76.2
	Several times	36	22.0
	Frequently	3	1.8
Community	Kusanokami	46	28.0
	Mukai	55	33.5
	Saikusho	63	38.4

Source: Authors' survey, 2018.

Note: No. of respondents at the age of 18 and 19 is 0.

Table 2. Degree of interest in starting farm-stay businesses and accepting foreign visitors (N=164)

Interest degree	Farm-stay business			Accepting foreign tourists		
	No.	%	Intention Group	No.	%	Intention Group
5	8	4.8	High 25	7	4.3	High 30
4	17	10.4	(15.2)	23	14.0	(18.3)
3	48	29.3	Low 139 (84.8)	43	26.2	Low 134 (81.7)
2	66	40.2		63	38.4	
1	25	15.2		28	17.1	

Note: Interest degree : 5-have great interest, 4-have interest, 3-neither, 2-have no interest, 1-have no interest at all.

Table 3. Chi-square test on the intentions of starting the farm-stay business and demographic characteristics (N=164)

		Total	%	High intention		Low intention		X ²	P
				No.	%	No.	%		
Gender	Male	84	100.0	19	22.6	65	77.4	7.249	0.007**
	Female	80	100.0	6	7.5	74	92.5		
Age	20s-50s	64	100.0	8	12.5	56	87.5	0.612	0.434
	60s-70s or above	100	100.0	17	17.0	83	83.0		
Living condition	Living alone	9	100.0	1	11.1	8	88.9	1.621	0.655
	Couple	61	100.0	12	19.7	49	80.3		
	Two generations	66	100.0	9	13.6	57	86.4		
	Three generations	28	100.0	3	10.7	25	89.3		
Farming frequency	Almost every day	30	100.0	6	20.0	24	80.0	8.344	0.015*
	Several days a week	52	100.0	13	25.0	39	75.0		
	Almost no	82	100.0	6	7.3	76	92.7		
Working condition (primary source of income)	Full-time employment	47	100.0	6	12.8	41	87.2	5.612	0.586
	Part-time employment	16	100.0	1	6.3	15	93.8		
	Housework	21	100.0	2	9.5	19	90.5		
	Pension	30	100.0	8	26.7	22	73.3		
	Agriculture	28	100.0	5	17.9	23	82.1		
	Self-employment	10	100.0	2	20.0	8	80.0		
	Student	1	100.0	0	0.0	1	100.0		
Others	11	100.0	1	9.1	10	90.0			
Free time	Almost no	42	100.0	2	4.8	40	95.2	10.943	0.027*
	1 day a week	38	100.0	6	12.5	42	87.5		
	2-3 days a week	54	100.0	14	25.9	40	74.1		
	4-5 days a week	8	100.0	0	0.0	8	100.0		
	Almost every day	12	100.0	3	25.0	9	75.0		
Experience of communication with foreigners	Not at all	125	100.0	15	12.0	110	88.0	4.430	0.109
	Several times	36	100.0	9	25.0	27	75.0		
	Frequently	3	100.0	1	33.3	2	66.7		
Community	Kusanokami	46	100.0	6	13.0	40	87.0	4.766	0.092
	Mukai	55	100.0	13	23.6	42	76.4		
	Saikusho	63	100.0	6	9.5	57	90.5		

Notes: 1) *p<0.05, **p<0.01.

2) No. of respondents at the age of 18 and 19 is 0.

2) Analytical method

The Chi-square test was used to more accurately grasp the difference of intention proportions in demographic characteristics. As the demographic characteristic indicators are categorical variables. The Chi-square test specially applies to testing the proportion differences of categorical variables.

3) Demographic characteristics of respondents

As shown in Table 1, the number of male and female respondents are almost equal (51.2% males and 48.8% females). Of the total respondents, 61% are above 60s. Most of the respondents are elderly. Moreover, households consist of couples and two generations constituting the largest percentage. A total of 23.8% are experienced in communicating with foreigners.

3. Results

1) Intentions of starting farm-stay businesses and accepting foreign tourists

Table 2 shows that 15.2% of respondents have high intentions of starting farm-stay, while 18.3% respondents highly intend to accept foreign tourists. In the ordinary rural areas with no experiences on farm-stay businesses, this percentage is relatively high particularly in accepting foreign tourists.

2) Demographic characteristics of the intention groups

To examine the difference in the intentions to start a farm-stay business and accepting foreign tourists on demographic characteristics, a Chi-square test is conducted by SPSS22.0. The results in Table 3 show that there is a significant difference between the males and the females regarding the intentions at a significance level of 1%, the

Table 4. Chi-square test on the intentions of accepting foreign visitors and demographic characteristics (N=164)

		Total	%	High intention		Low intention		X ²	P
				No.	%	No.	%		
Gender	Male	84	100.0	19	22.6	65	77.4	2.156	0.142
	Female	80	100.0	11	13.8	69	86.3		
Age	20s-50s	64	100.0	13	20.3	51	79.7	0.286	0.592
	60s-70s or above	100	100.0	17	17.0	83	83.0		
Living condition	Living alone	9	100.0	1	11.1	8	88.9	3.612	0.307
	Couple	61	100.0	14	23.0	47	77.0		
	Two generations	66	100.0	13	19.7	53	80.3		
	Three generations	28	100.0	2	7.1	26	92.9		
Farming frequency	Almost every day	30	100.0	5	16.7	25	83.3	11.265	0.004**
	Several days a week	52	100.0	17	32.7	35	67.3		
	Almost no	82	100.0	8	9.8	74	90.2		
Working condition (primary source of income)	Full-time employment	47	100.0	11	23.4	36	76.6	4.422	0.730
	Part-time employment	16	100.0	2	12.5	14	87.5		
	Housework	21	100.0	3	14.3	18	85.7		
	Pension	30	100.0	8	26.7	22	73.3		
	Agriculture	28	100.0	4	14.3	24	85.7		
	Self-employment	10	100.0	1	10.0	9	90.0		
	Student	1	100.0	0	0.0	1	100.0		
Others	11	100.0	1	9.1	10	90.9			
Free time	Almost no	42	100.0	5	11.9	37	88.1	8.462	0.076
	1 day a week	38	100.0	8	16.7	40	83.3		
	2-3 days a week	54	100.0	16	29.6	38	70.4		
	4-5 days a week	8	100.0	0	0.0	8	100.0		
	Almost every day	12	100.0	1	8.3	11	91.7		
Experience of communication with foreigners	Not at all	125	100.0	16	12.8	109	87.2	10.624	0.005**
	Several times	36	100.0	13	36.1	23	63.9		
	Frequently	3	100.0	1	33.3	2	66.7		
Community	Kusanokami	46	100.0	8	17.4	38	82.6	1.753	0.416
	Mukai	55	100.0	13	23.6	42	76.4		
	Saikusho	63	100.0	9	14.3	54	85.7		

Notes: 1) *p<0.05, **p<0.01.

2) No. of respondents at the age of 18 and 19 is 0.

males having higher intentions than the females. Farming frequency and free time also differ significantly in the high and low intentions at a significance level of 5%. Table 4 shows the farming frequency and experience of communication with foreigners have significant differences in the two intention groups at a significant level of 1%.

3) Concerns based on different intentions

Table 5 shows that there is a difference between the high and low intention groups on the concern when starting a farm-stay business. For high intention group, workforce (52.4%), business knowledge (47.6%) and business funds (33.3%) account for high percentages. However, for low intention, the rooms and facilities (18.7%), diseases and safety (15.1%), and workforce (14.4%) have relatively high percentages.

In Table 6, as for the intention of accepting foreign visitors, concerns on language, and dietary and living

habits account for high percentage on both high and low intention groups. It also shows that the respondents (12.7%) with low intentions concern the neighbor understanding a lot.

4) Cooperation ability of farm-stay businesses in the communities

(1) Attitude toward farm-stay businesses in the communities

Table 7 shows that when others in communities start farm-stay businesses, most respondents, including those in the low intention group, have a positive attitude toward it. This implies the possibility of the existence of a relatively harmonious environment among the residents.

(2) Cooperation forms

Table 8 shows the activities that the respondents in the two intention groups are willing to support if someone starting farm-stay businesses. It shows that almost half of

Table 5. Concerns to starting farm-stay businesses

Items	High intention (N=21)		Low intention (N=139)	
	No.	%	No.	%
Workforce	11	52.4	20	14.4
Business knowledge	10	47.6	17	12.2
Business capitals	7	33.3	16	11.5
Rooms and facilities	6	28.6	26	18.7
Diseases and safety management	6	28.6	21	15.1
Food supply	4	19.1	19	13.7
Neighbour understand	4	19.1	16	11.5
Visitors	3	14.3	6	4.3
Cooperation system	2	9.5	6	4.3
Administrative support	2	9.5	5	3.6
Cleaning work	1	4.8	3	2.2
Nothing	1	4.8	0	0.0
Can't imagine starting	0	0.0	100	71.9

Notes: 1) The No. of respondents in high intention group here is 21, getting rid of the respondents who choose "Can't imagine starting".
 2) This is a multiple choice question, which can choose maximum 3 items.

Table 6. Concerns to accepting foreign tourists

Items	High intention (N=22)		Low intention (N=134)	
	No.	%	No.	%
Language	17	77.3	40	29.9
Dietary and living habits	9	40.9	31	23.1
Diseases and safety management	9	40.9	12	9.0
Country and experience	7	31.8	9	6.7
Administrative support	4	18.2	6	4.5
Activity supply	3	13.6	3	2.2
PR	3	13.6	3	2.2
Reservation and accepting way	2	9.1	2	1.5
Payment	2	9.1	2	1.5
Cooperation system	2	9.1	3	2.2
Neighbour understand	1	4.6	17	12.7
Nothing	0	0.0	1	0.7
Can't imagine accepting	0	0.0	103	76.9

Notes: 1) The No. of respondents in high intention group here is 22, getting rid of the respondents who choose "Can't imagine accepting".
 2) This is a multiple choice question, which can choose maximum 3 items.

the respondents including those in the low intention group have willingness to cooperate. Most respondents can support the farm work experiences activities.

4. Conclusions

1) Residents' intentions and demographic characteristics

There is still a certain percentage of people who have high intentions especially in accepting foreigners, which is relatively high for an ordinary rural area with no experiences on farm-stay businesses.

It is confirmed that the demographic characteristics of gender, farming frequency, and free time have significant differences in the high and low intention groups regarding starting a farm-stay business. The males have higher intentions than the females. This is inconsistent with the hypotheses built up. Women face hardships while balancing the business operations with the burden in life such as housework and childcare (Ohe, 2018: pp.32). Meanwhile, women are primarily responsible for food

Table 7. Residents' attitudes when others starting the farm-stay businesses in the community

Attitude	All respondents (N=164)		Respondents of Low Intention (N=139)	
	No.	%	No.	%
5	16	9.8	8	5.7
4	68	41.5	54	38.8
3	68	41.5	65	46.8
2	8	4.9	8	5.7
1	4	2.4	4	2.9

Note: Attitude degree: 5-extremely good, 4- good, 3-neither, 2- not desirable, 1- not desirable at all.

Table 8. Cooperation forms (N=164)

Items	High intention (N=25)		Low intention (N=139)	
	No.	%	No.	%
Total No. of respondents who have willingness to cooperate	21	84.0	58	41.7
Farm work experience	15	60.0	33	23.7
Food processing experience	5	20.0	8	5.8
Tradition and culture	4	16.0	14	10.1
Food supply	6	24.0	16	11.5
Accommodation supply	9	36.0	4	2.9
Nature scene guidance	7	28.0	11	7.9
Others (agriculture machinery, labor)	1	4.0	1	0.7
Nothing	4	16.0	8	58.3

Notes: 1) The intention here refers to starting the farm-stay business.
 2) This is a multiple choice question, which can choose all the items you can supply.

preparation and tidying up as men are not involved in such tasks (Park and Takahashi, 2009: pp.325). Thus, we consider the possibility that the increased burden and overwork in farm-stay businesses may affect their intentions. About the farming frequency and free time, it can be seen that respondents who have a certain amount of contact with agriculture and some leisure time are more likely to be interested in starting farm-stay businesses. The experience of communication with foreigners have significant difference in the high and low intention groups regarding accepting foreign tourists. The operators can ease their anxieties by accepting foreigners one time (Iwasaki et al., 2017: pp.240). Thus, respondents who have the experience of interacting with foreigners are more likely to accept foreigners.

It is inferred that there is a possibility of starting farm-stay businesses and inbound tourism in this area.

2) Concerns toward starting a business

The concerns when starting farm-stay businesses differ in both the high and low intention groups. Both high and low-intention respondents are more concerned about workforce issue. Meanwhile, respondents with high intentions are more concerned about business knowledge and capitals. But respondents with low intentions care more about hardware issue, rooms and facilities. Additionally, respondents with low intentions pay more attention to safety issue.

Regarding accepting foreign visitors, language is the

most practical challenge, living habits and safety management are also among their concerns. However, there is a significant difference in whether they care about neighbor understanding. Respondents with low intentions are more concerned about neighbor understanding.

3) Cooperation environment

Although a few people show interest in starting farm-stay businesses and accepting foreign tourists, they hold positive attitudes toward someone else starting businesses in the communities. Moreover, inconsistent with the hypothesis, most respondents can take part in various activities to support the businesses. In terms of the available cooperation forms, the largest number of people can offer agricultural experience activities, while in terms of the accommodation supply, those with low intentions offer little cooperation in accommodation because they are more concerned about rooms and facilities in starting businesses. The study confirms the existence of a conducive environment to start up a farm-stay business, and cooperative residents in the area. We suggest that the relevant organizations complete the cooperation information collection, contribute to solving the workforce shortage problem while people who are willing to cooperate have the opportunities to participate in the businesses.

The study arrives at unanticipated findings that there exist some local residents who are interested in starting farm-stay businesses and particularly in accepting foreign tourists in areas with no experiences of farm-stay businesses. It analyzes the differences in the intention proportions among demographic characteristics, discovering that women have lower intentions than men. Moreover, the majority of people are willing to cooperate and provide supports in the businesses even though they have no cooperation experience in farm-stay business. From the results, it is difficult to say whether the results are unique to only this area. In the investigation, however, we selected an ordinary area in Sasayama city for the research. Therefore, if it is positioned as an ordinary rural area, we confirmed that some people are interested in starting farm-stay businesses and inbound tourism. Hence, for those interested in starting farm-stay businesses, it is important to create a conducive environment in which you can try to start businesses.

It should be noted, however, that this research investigates the intentions of local residents and their concern about starting a business. Whether they prepare to start a business is still not known: there may be fewer people who truly prepare to start a business. This investigation was conducted before the coronavirus disease 2019 (COVID-19) outbreak. After the outbreak, some changes may have occurred to the residents' consciousness and operation issues.

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