Chukyo University Institute of Economics

Discussion Paper Series

March 2025

No. 2410

Recommendations for Policy on Measures against Overtourism in Japan

Sachiyo Asahi **Eri Habu**

Recommendations for Policy on Measures against Overtourism in Japan*

Sachiyo Asahi † Eri Habu ‡

Abstract

This study examines the impact on tourist areas affected by overtourism, and possible ways to mitigate its effects. The concentration of tourists in certain areas of many countries has a negative impact on regional residents and the local environment. The same is true of well-known tourist destinations in Japan. Therefore, methods for controlling the number of tourists, such as the institution of tourism taxes are examined here. We present estimates of the tourism demand function, and over tourism-related price variables in Kyoto City. Furthermore, the economic spillover effects of day-trippers, domestic overnight guests and international overnight guests in Kyoto were analysed. Based on the results, recommendations for Kyoto's tourism policy were summarised.

Keywords: Overtourism, Impacts of Tourism, Carrying Capacity, Destination Management, Dynamic panel data model.

* This work is supported by the Japan Society for the Promotion of Science (Grant-in-Aid for Scientific Research (B), 19H04380). The usual disclaimers apply.

†Faculty of Humanities, Law and Economics Mie University,1577 Kurimamachiya-cho Tsu city, Mie 514-8507, Japan. asahi@human.mie-u.ac.jp

‡ Division of Legal Advice and Support Services College of Global-Interdisciplinary Studies Shizuoka University, 836 Ohya, Suruga-ku, Shizuoka-Shi, 422-8529, Japan. habu.eri@shizuoka.ac.jp

1 Introduction

‘Overtourism’ is here defined as congestion of tourist destinations from an overabundance of transient visitors that causes conflict between local residents and tourists. The negative effects of overtourism have economic consequences, as these visitors do not proportionally augment the tax base to regional governments. They overburden local infrastructure, goods, and services, without direct and proportional compensation for their use, creating regional diseconomies. The large number of tourists also stresses the resilience of local ecosystems, often causing severe environmental problems. In 2018, the United Nations World Tourism Organization, known as UNWTO (2018), recommended measures to manage the influx of tourists and their impact on the communities of tourist destinations. Accordingly, there has been a push to limit the number of accommodation facilities in order to reduce the numbers of tourists, and to institute tourism taxes and fees to cover the costs of visitors using public services and infrastructure. Such early efforts would benefit from impact analysis.

In recent years, the number of international travelers visiting Japan has increased sharply. Cities such as Kyoto [1] and Kamakura [2] have encountered overtourism problems already, and both cities are taking measures.

This paper will begin by summarizing the current state of tourism in Japan, including the number of international visitors to Japan in recent years. This will be followed by an overview of the research on congestion phenomena and demand models related to tourism. Next, the estimates from this study are presented to illustrate how changes in relative prices affect the numbers of international visitors. The purpose of the model is to estimate the demand function of international visitors to Japan, taking into account variables that affect congestion phenomena. As Kyoto is the most famous tourist city in Japan, the following analysis was then conducted. Section 4 describes the results of the economic effect ‘of each kind of visitor, and the estimation of the demand function for international visitors in Kyoto City. Finally, we summarized recommendations for tourism policy based on our findings.

---

[1] See https://www.city.kyoto.lg.jp/sankan/page/0000186495.html (19, February, 2022),

[2] Kamakura City is considering the introduction of "road pricing," i.e., charges on vehicles using particular stretches of road.

2 Trends in Japanese tourism, including international visitors to Japan

2.1. International visitors in the world and Japan

The number of international visitors to Japan in recent years has increased significantly compared to rates of increase of international tourism around the world. This increase was transiently interrupted between 2020-2022, due to the coronavirus pandemic. The average growth rate in the numbers of international visitors for countries around the world from 2010 to 2019 was 5.1%[3] while the average rate in Japan was 19% for that same period.

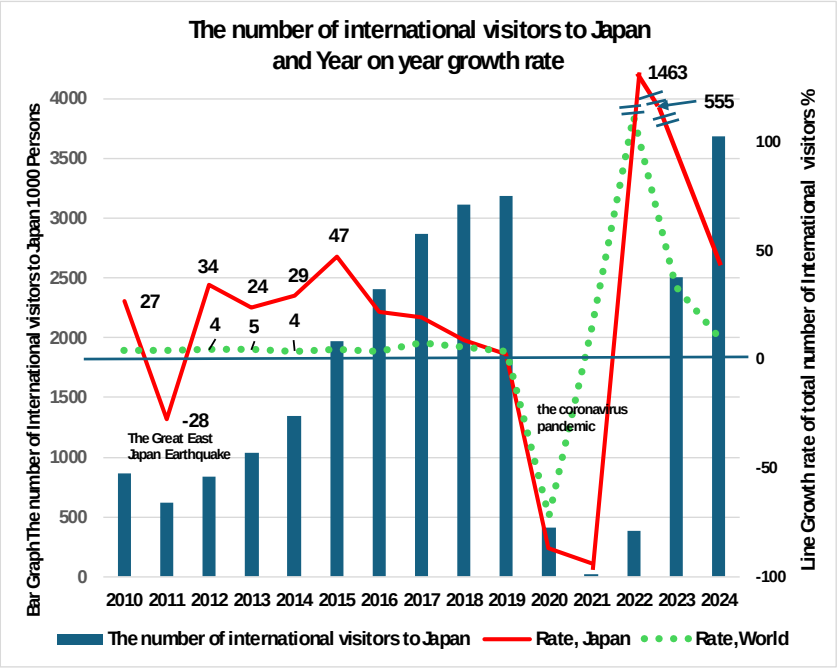

Fig.1 The number of international visitors to Japan and Year on year growth rate of World and Japan.

Note. The Bar graph shows numbers of visitors to Japan from 2010 - 2024. The green dotted line and red solid line show the growth rates of international visitors for the World, and Japan, respectively. The numbers alongside the lines represent growth rate over the prior year. The hash marks on the up/down slope of the last peak of the red line represent further away from the scale on the left-hand side of the scale.

Source: Created by the author based on the Overnight Travel Statistics Survey (JTA 2009-2021) and Tourism data in UNWTO

[3] This is shown in UNWTO, World Tourism Barometer. https://www.unwto.org/un-tourism-world-tourism-barometer-data

In 2020-2022, international visitors were unable to travel to Japan during the coronavirus pandemic. The number of international visitors to Japan in 2023 gradually recovered and the number of international visitors in 2024 was above the 2019 level. International tourism in the world also recovered pre-pandemic levels in 2024. [4]

2.2. The characteristics of Tourism in Japan

Tourism in Japan has several unique characteristics. Firstly, with respect to domestic visitors, Japan has as high a proportion of international visitors as the USA, UK, China and Spain. Given the smaller surface area of Japan, the combination of domestic and international tourists distributed over this smaller area generates a much higher density of tourism compared to these other countries, and makes it more labile to overtourism. Secondly, the regional bias of international visitors to Japan is extremely high. The top 9 prefectures accounted for 79% of the total in 2019 before the Coronavirus pandemic, and the top 6 prefectures for 69%. It is clearly evident that the regional bias is concentrated in a small number of prefectures. Comparing the numbers in 2010 and 2019, the number of stays in Okinawa prefecture has increased 15-fold compared with the data for 2010. In Kyoto, the number is 7.2 times higher and in Osaka, 4.4 times. (**Fig.2**) Fourth, as tourists visit different regions depending on their tourism objectives, there are cases where the countries of origin of international visitors are extremely different.

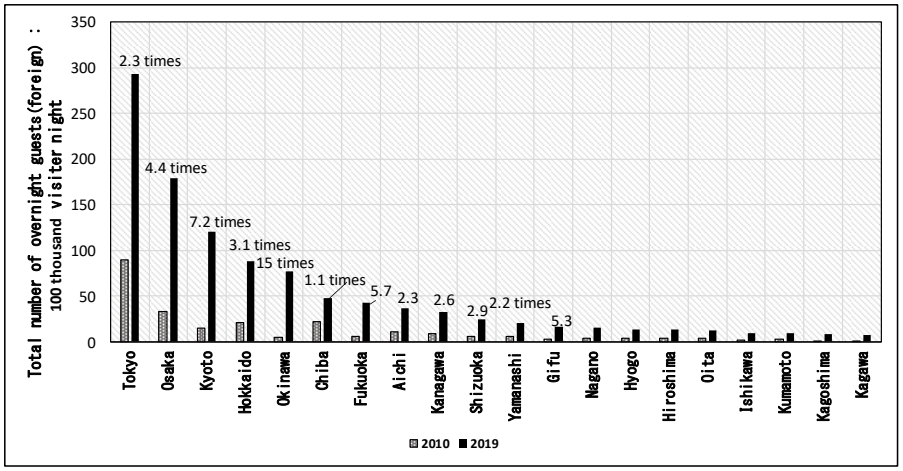

Fig.2. The change in total numbers of foreign visitors staying in Japan, between 2010 and 2019

Source: Asahi (2024) P112, Fig.3.4

[4] This data is showed in UNWTO, Yearbook of Tourism Statistics, Compendium of Tourism Statistics and data files.

Fig.3 shows the number of international guest nights spent in accommodation in Japan and Kyoto City by country of origin. It is likely that the countries of origin of foreign visitors to Japan differ from those visiting Kyoto City due to the tourism characteristics of the region.

2.3. The state of overtourism in Japan

Although the term overtourism is already recognized by many people, it is actually formally defined by several organizations. Universities cooperating in the UNWTO (2018) project defined overtourism as "the impact of tourism on a destination, or parts thereof, that has an excessive negative influence on the perceived quality of life of citizens and/or the quality of visitors' experiences." [5]

The explanation given by the Japan Tourism Agency (2018) is: "In a specific tourist destination, a significant increase in the number of visitors will bring about negative impacts on the lives of citizens, the natural environment, and landscapes, and will also lead to a situation in which the satisfaction of tourists is significantly reduced1."

The number of international visitors to Japan has increased rapidly since 2010. This has led to an increase in complaints from residents in Kyoto and Kamakura, as well as in municipalities with World Heritage Sites such as Mt Fuji and Shirakawa-go, in relation to waste problems, toilets, noise, and congestion. Therefore, each region is working to educate tourists about Japanese customs and municipal rules, as well as preparing multilingual signs and pamphlets. In addition, efforts are being made to reduce congestion by dispersing tourists. For example, the city of Kyoto is working to diversify visitation by the time of year, the time of day, and the location within the city. In order to monitor congestion, efforts are also being made to relay information on sightseeing comfort levels by area, with real-time images from live cameras, and recommending alternative sightseeing spots over popular, crowded tourist spots. [6]

The goal of these interventions is to maintain the satisfaction of both tourists and residents. **Table 1** shows the results of a satisfaction survey conducted on domestic and international visitors to Kyoto (Kyoto City).

The survey asked tourists if they had any 'disappointments' during their trip. The figures for international visitors range from 10.9% to 17.9%. These figures have all remained high since 2015. The percentage of domestic visitors expressing

[5] UNWTO (2018) P4, right column, 20 lines.

[6] https://www.city.kyoto.lg.jp/sankan/page/0000315511.html

dissatisfaction ranged from 41.6% to 51.4%. Once again, this figure has been higher since 2014. Table 2 stratifies the various reasons for reported disappointment. For international visitors, ‘public transport’.

For domestic visitors, ‘congestion’ was the most frequent complaint, followed by ‘manners’ and ‘public transport such as trains and buses’.

Finally, we show the opinions of citizens of Kyoto City with respect to their views of how the city serves its citizens as well as tourists. **Fig. 4** shows the results of a citizens' survey that Kyoto City Industrial Tourism Bureau conducted on the citizens of Kyoto. Respondents were asked to rank their agreement or disagreement with two statements.

The first was ’Kyoto is a high-quality city for tourists.’ The second statement was ’Kyoto is a tourist city with high quality of life for its citizens.’ The results are given on a five-point scale, with a score of 2 for ‘very much agree’ and -2 for ‘all disagree’. **Fig.4** shows the average value of the answers by year. From 2016, the view that ‘Kyoto is a high quality city for tourists’ has declined. However, from 2015, the value for ‘Kyoto is a tourist city of easy living for its citizens’ has decreased more sharply, indicating that residents are becoming more negative, feeling like Kyoto is less easy to live in due to problems like congestion. **Fig. 2** shows a 7 fold increase in tourism over roughly the same time period, suggesting an inverse relationship between the number of tourists and the ease of living of Kyoto residents. As a result of the above, Kyoto City needs to take further action to solve the problem of overtourism.

Table 1: Percentage of visitors who have been disappointed (Unit:%)

Year	2012	2013	2014	2015	2016	2017	2018	2019
International Visitors	15.7	11.7	10.9	17.4	16.7	15.6	16.7	16.3
Domestic Visitors	42.4	41.6	51.4	47.6	43.9	46.0	46.5	44.7

Source: Created by the author based on Satisfaction survey, the 2019 Kyoto City Industrial Tourism Bureau.

Table 2: Percentage of visitors who were disappointed by reason

Visitors	International Visitors		Domestic Visitors	
Year	2018	2019	2018	2019
Overcrowded, Congestion	13.7	11.2	19.7	20.1
Manners.	—	—	13.8	11.7
Public transport such as train	15.2	16.9	9.8	10
Toilets	—	—	7.3	9.6
Rubbish	—	—	2.9	2.5

Source: Same as source in Table1.

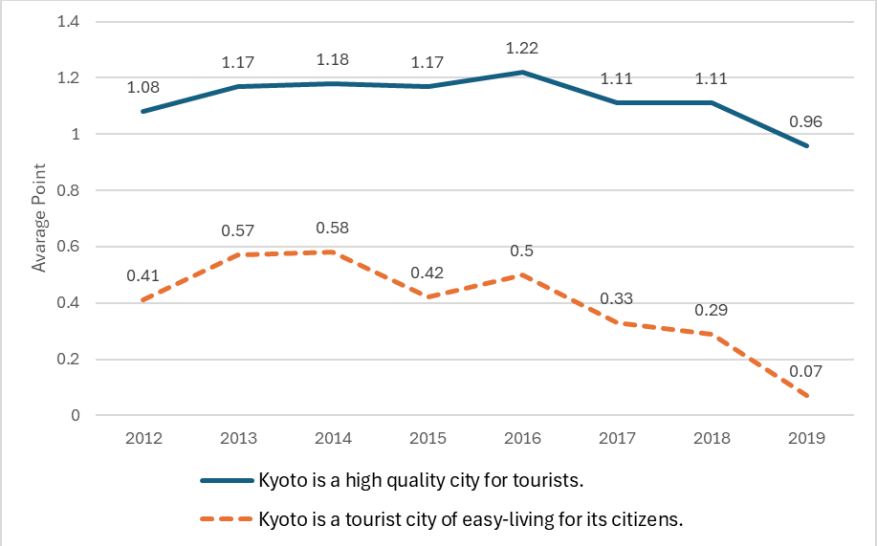

Fig. 4. Survey of citizens of Kyoto city, Japan.

Source: Created by the author based on the Survey of citizens' feeling of living in the city, Kyoto city

3 Model of congestion phenomena and demand related to tourism

3.1. Literature Review

This section reviews research on the phenomenon of congestion in tourism and tourism demand models. Many studies of tourism demand models have been carried out. Studies involving variables such as congestion include the following.

Papatheodorou (2001) analyses the effects of price, advertising, and agglomeration in the development of destinations, as well as adding facilities and attractions. In studies that make use of tourism demand theory, Li et al. (2005), and Witt and Song (2000), analyze the impact of various factors on the appeal of a destination. Albaladejo, et al. (2016) performed an analysis based on the dynamic econometric model of tourism demand in TALC (Tourism Area Life Cycle) theory, which depends on the delayed impact of reputation and congestion, and how they affect tourism demand. For other papers, see Asahi (2024).

3.2. Demand models of tourism

The equations in this paper are proposed with reference to the demand model of Albaladejo, et al. (2016,2019), which uses TALC theory, and uses as variables the number of visitors of one year ago, congestion of tourism, and other variables that affect tourism demand. This study uses that method, which leads to the following equation.

$$T_{ij,t} = \beta_0 + \beta_1 T_{ij,t-1} + \beta_2 \frac{T_{ij,t-1}^2}{CC} + \beta_3 GDP_{j,t} + \beta_4 IP_{ij,t} + \varepsilon_{ij,t} \quad (1)$$

$$T_{ij,t} = \beta_0 + \beta_1 T_{ij,t-1} + \beta_2 \frac{T_{ij,t-1}^2}{CC} + \beta_3 GDP_{j,t} + \beta_4 IP_{ij,t} + \beta_5 LANK_{ij,t} + \beta_6 D2012_t + \varepsilon_{ij,t} \quad (2)$$

The explained variable $T_{ij,t}$ indicates tourism demand, the dependent variable $T_{ij,t-1}$ represents a lag in tourism demand, $GDP_{j,t} IP_{ij,t}$ are variables related to other tourism demand, and $\varepsilon_{ij,t}$is a regression error term. $GDP_{j,t} IP_{ij,t}$ is shown as follows and represents vectors such as price or income. CC is a variable that indicates capacity. In other words, this second term shows the effect of reputation, and that the ratio of visitors to the capacity of past tourism will decrease. GDP is data showing the economic situation of each country where these international visitors live.

Therefore, this study used the GDP per capita by country as the variable indicating the economic situation of tourists from that country. We used analysed GDP expressed in US dollars and again in yen, including exchange fluctuations. Finally, GDP the best estimate of GDP in yen was used in the calculation. The basic equation used for the analysis is the equation (1) above. Equation (2) adds a dummy variable to equation (1) for 2012, which was affected by the 2011 Great East Japan Earthquake, and is used for the analysis.

This study used GMM of a dynamic panel analysis [7] on the demand for tourism by international visitors from eight countries from 2012 to 2023. The estimates cover six prefectures with high numbers of international visitors, such as Hokkaido, Chiba, Tokyo, Kyoto, Osaka and Okinawa where a lot of international visitors preferentially visit.

Unfortunately, we were unable to obtain some of the estimated results due to the effects of the Coronavirus pandemic. This means that important previous year variables and variables representing congestion phenomena cannot be estimated because the entry of foreign visitors to Japan was stopped by Japanese national policy.

Therefore, the estimates of Asahi (2024) for the period 2012-2019 are presented here. **Table 3** shows estimated results using the number of stays by visiting foreign tourists as a variable for the effects of reputation and congestion, on 6 prefectures.

The number of incoming foreign visitors to Japan is estimated with variables indicating the number of foreign visitors to Japan last year, the congestion phenomenon, GDP per capita, relative prices between Japan and the country of origin, total accommodation capacity divided by the distance between prefectures as a measure of the strength of tourism supply, and dummy variables.

[7] As shown in Kitaoka (2008) and Takahashi (2013). EViews11 was used for this estimation.

The variables that have a positive impact on the projected number of incoming foreign visitors to Japan are the number of foreign visitors to Japan from the previous year, GDP per capita, and the variable indicating the strength of supply of tourism. The coefficient of relative price was -2.125. This study estimates the impact on the number of foreign visitors coming to Japan using the coefficient of the relative price between Japan and foreign tourists as the impact of the tourism tax and other taxes being considered in Japan.

Table 3: Table 3: Estimated tourism demand in 6 prefectures (Hokkaido, Chiba, Tokyo, Kyoto, Osaka and Okinawa)

	Result of using the number of stays by visiting foreign tourists		Result of using the total number of stays by overnight tourists	
Estimation method GMM	one-step	two-step	one-step	two-step
Dependent variable	coefficient	coefficient	coefficient	coefficient
Number of foreign tourists visiting Japanese area one year ago (log)	1.041 ***	1.039 ***	0.535	0.528 ***
Squared number of foreign tourists visiting Japanese area one year ago(log)	-0.326 *	-0.325 ***	-0.268 ***	-0.280 ***
GDP per capita in the country of origin one year ago (log)	0.537 ***	0.533 ***	0.319	0.320 ***
Relative price variable between host area and country of origin (log)	-1.603 ***	-1.601 ***	-2.106 ***	-2.125 ***
Total capacity(Total tnumber of overnight guests / occupancy rate) ÷ average distance) (log)	1.048 **	1.058 ***	1.070 ***	1.058 ***
dummy variable (2012＝１. Other year ＝0)			0.356 ***	0.354 ***
Root mean squared error	0.2996	0.2995	0.265	0.264
Variance of dependent variables	0.2518	0.2518	0.252	0.252
Residual sum of squares	34.4787	34.4508	26.953	26.853
Number of instrumental variables	77	48	88	48
Mean of explained variables	0.2526	0.2526	0.253	0.253
Standard error of regression	0.3016	0.3015	0.267	0.267
J statistic	284.8593	47.7638	317.796	45.463
(J-statistic) Probability of appearance of va	0	0.2853	0	0.330
sample size	384	384	384	384
Estimated period	2012 - 2019	2012 - 2019	2012 - 2019	2012 - 2019
Number of periods	8 Years	8 Years	8 Years	8 Years
Cross section	48	48	48	48
Arellano-Bond Serial Correlation Test				
AR(1) (p value)	0.000	0.003	0.000	0.015
AR(2) (p value)	0.276	0.064	0.278	0.618

Source: See Table3.5 P132, Asahi (2024)

3.3. Changes in the number of tourists visiting Japan as affected by relative prices

The parameter of the relative price between the prices in the country of origin of these inbound tourists and the prices in the Japanese destination was -2.125. This means that when relative prices increase by 1%, the number of tourists visiting Japan

decreases by 2.125%. Fig.5. is the result of the calculation by fitting the respective data as of 2023.

With a 1% relative price increase, Tokyo is projected to have the largest decrease in number of foreign guests staying in overnight accommodation to Japan, with 416,000. Osaka was next, with 303,000. With a 1% relative price increase, the calculated decrease in number of foreign visitors to Japan by country was 498,000 for China, 206,000 for Taiwan and 181,000 for South Korea. These results suggest that one option to solve the overtourism problem is for local governments to impose accommodation taxes on tourists.

Based on the estimates in **Table 3**, it may also limit the number of accommodation facilities and their capacity, as increasing the total capacity of accommodation facilities will also increase the number of foreign guests staying in overnight accommodation to Japan.

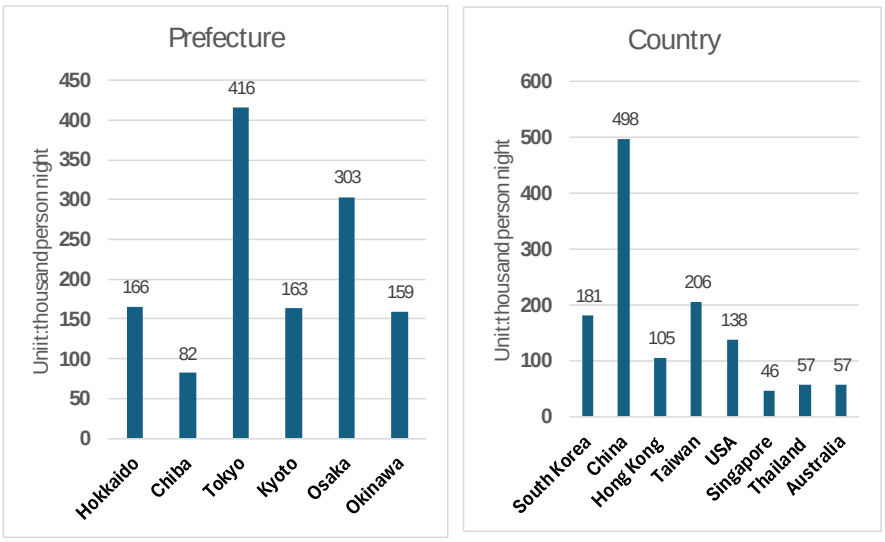

Figure 5. Number of international tourists visiting Japan when relative prices change by 1% in 6 prefectures

Source: Data as calculated by the author.

4 Tourism demand and the effect among international visitors to Kyoto city

4.1. Estimation of Demand Model of Tourism

Kyoto is a place with a long history, with many shrines and Buddhist temples. As a tourist destination, it is a very popular, world-famous destination. This section analyses Kyoto City using the tourism demand model described in Section 3. The analysis period covers 18 years, from 2002 to 2019, and includes foreign visitors from 14 countries who visited Kyoto City. These 14 countries were have long been selected known as the top-ranked countries of numbers of foreign tourists visiting Kyoto City.

The variable indicating the congestion phenomenon is the value obtained by squaring all tourists visiting Kyoto City one year ago and dividing it by the number of rooms in accommodation facilities. This number of accommodation rooms indicates capacity.

The more detailed results from columns 2 and 3 in **Table 4** are as follows. The persistence coefficient is 0.629, showing a positive effect. The effect of reputation and congestion is − 0.314. The income coefficients for the country of origin in the previous year is 0.257. From this, tourists visiting Kyoto City are likely to be wealthy visitors who are unaffected by income in their own country. Visits to Japan by foreign visitors are shown to be negatively affected by price changes. In this case, the strength of tourism supply didn't add to this estimation.

Table 4: Estimated tourism demand in Kyoto city

	Result of using the total number of international foregin by overnight tourists	
Estimation method GMM	one-step	two-step
Dependent variable	coefficient	coefficient
Number of foreign tourists visiting Japanese area one year ago (log)	0.635 ***	0.629 ***
Squared number of foreign tourists visiting Japanese area one year ago/ capacity(log)	-0.353 ***	-0.314 **
GDP per capita in the country of origin one year ago（log）	0.230	0.257
Relative price variable between host area and country of origin (log)	-1.741 ***	-1.701 ***
Mean dependent var	0.134	0.134
S.E. of regression	0.474	0.474
S.D. dependent var	0.401	0.401
Number of instrumental variables	44	14
Sum squared resid	55.8	55.889
J statistic	229.6	13.6
(J-statistic) Probability of appearance of value	0.001	0.191
sample size	252	252
Estimated period	2002 - 2019	2002 - 2019
Length of period	18 Years	18 Years
Cross section	14	14
Arellano-Bond Serial Correlation Test		
AR(1) （p value）	0.000	0.004
AR(2) （p value）	0.388	0.206

Source: Data as calculated by the author.

Note: EViews13 was used for this estimation.

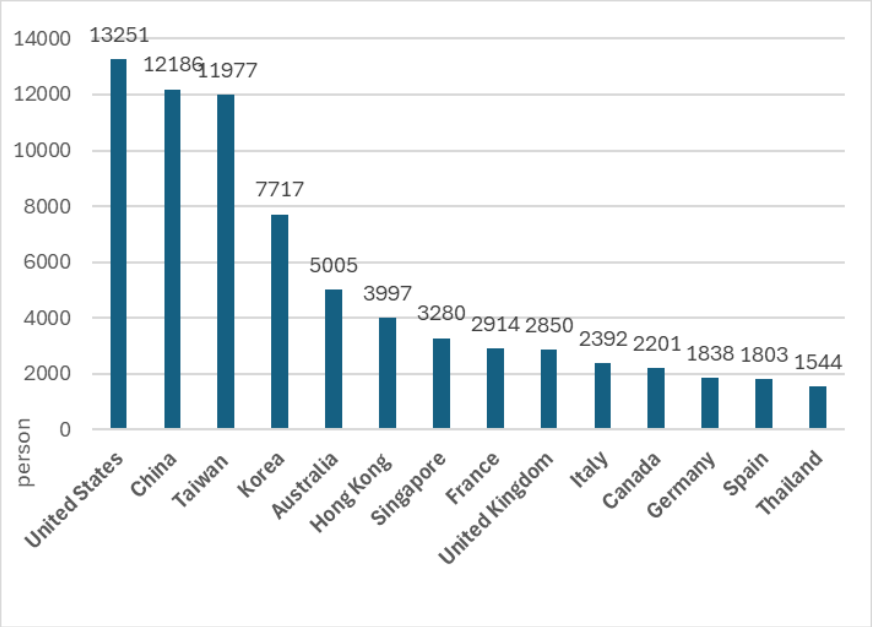

Fig.5. Number of international tourists visiting Japan when relative prices change by 1% in Kyoto city

Source: Data as calculated by the author.

The relative price parameter is then -1.70. Using this parameter, the number of foreign visitors to Kyoto city was calculated for each country when the relative price changed by 1%. The results are shown in **Fig.5**.

The number of international visitors to Kyoto city by country was 13,251 from the USA, 12,186 from China, 11,977 from Taiwan and 7,717 from South Korea. This means that a 1% increase in relative price would result in a decrease of 72955 visitors in 14 countries. This is 1.36% of the total number of international visitors to Kyoto city.

4.2. Economic ripple effects from consumption of sightseeing in Kyoto

We then analyzed the economic ripple effects of visitors to Kyoto City. Kyoto City has produced a 2015 Input-Output table with 37 sectors. We added the accommodation and food / beverage sectors to this table to produce a 39-sector table. Here, we used the data from this 39 sector table to calculate the total amount consumed per capita by multiplying the per capita consumption by the number of visitors and used this in our analysis.

Fig.6. shows the numbers of the three categories of visitors (day-trippers, domestic overnight guests and international overnight guests), and the amount consumed per person. The amount consumed per person is 12850 yen for day-trippers, 83986 yen for domestic overnight guests and 87208 yen for international overnight guests. Although the number of day-trippers is high, the amount they individually

spend in Kyoto City is relatively low.

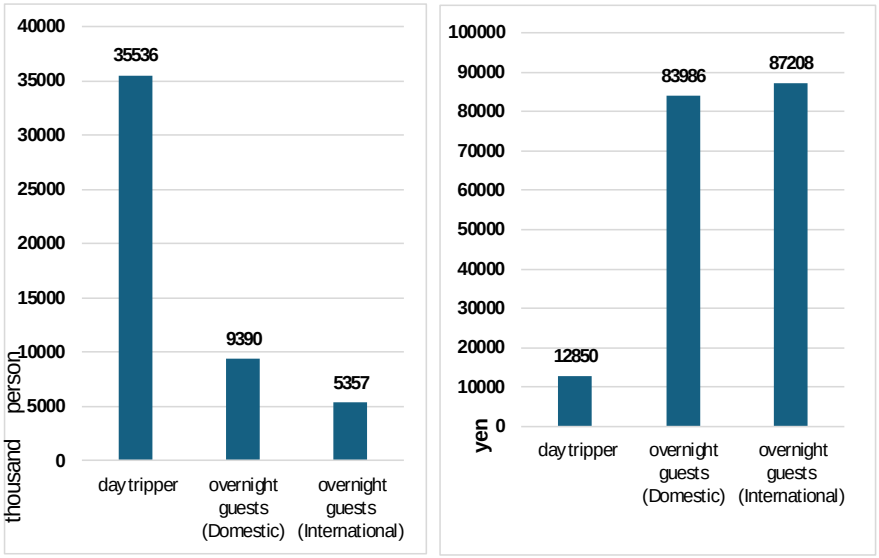

Fig.6. The number of the three types of visitors and the amount consumed per person in Kyoto city

Source: Created by the author using survey data from Kyoto City

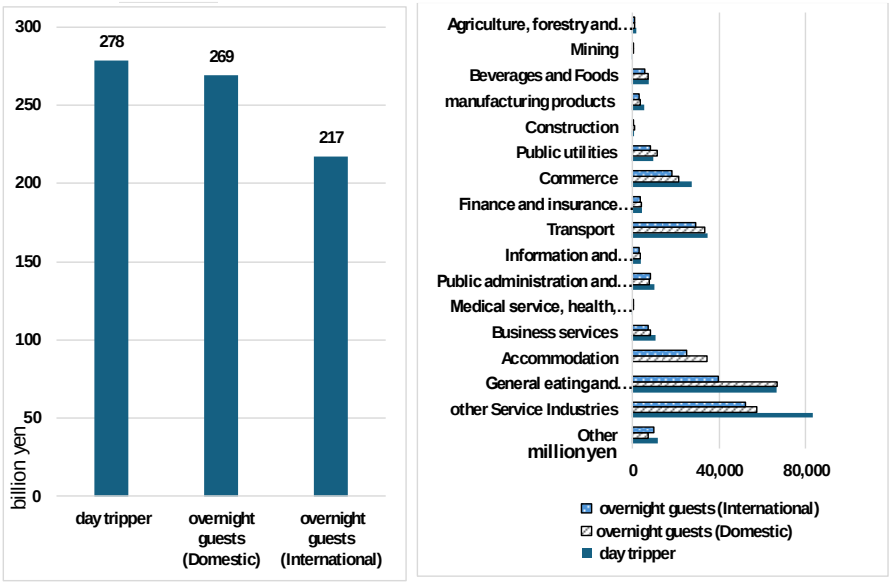

Fig.7. The numbers of the three categories of visitors and the result of spillover effects in Kyoto city

Source: Created by the author

5 Results and discussion

5.1. The measure against overtourism

Fig.7. shows the result of spillover effects. The number of day-trippers is 2.4 times

the total number of domestic and international overnight visitors. On the other hand, the value of the ripple effect on Kyoto is 0.57 times higher, indicating that day-trippers have a lower consumption effect.

In other words, as the number of domestic and international overnight guests is few but the amount of consumption is high, their total economic effect per capita is greater than that of day-trippers. Therefore, it is advisable to implement policies to control day-trippers as a measure against overtourism.

5.1. The measure against overtourism

In the results of this study, the following can be shown to address the overtourism problem.

1. the congestion phenomenon is reduced by the prior year's visitor congestion phenomenon.
2. changes in relative prices affect the number of tourists
3. the number of each type of visitor, and the effect on their relative consumption must be correctly identified and linked to policy.
4. a reduction in the capacity of accommodation facilities, such as hotels, will reduce the number of visitors.

The fourth, reducing capacity, such as the number of rooms in hotels and other accommodation facilities, means that only overnight guests are targeted. As mentioned in the previous section, overnight guests contribute more to the local economy, so capacity should be optimized to balance increased economic benefit, yet limiting congestion. Overtourism measures should preferentially focus on day-trippers.

5.2. Problems with residential accommodation used for tourists

Fig.8. shows the number of room of Hotel & Ryokan (traditional inns) and residential accommodation used for tourists from 2000 to 2024.

The number of hotels and “ryokan” and their visitors are relatively easy to quantify, since there is a mechanism for reporting data to administrative agencies. However, in case of residential accommodations, so called “minpaku”, this is not the case. According to the Kyoto Minpaku ordinance, the strictest ordinance in the country, it only regulates the business period and season of the year for accepting the tourists. There is no strict requirement to report the number of visitors to the relevant authorities, thereby, making the number of overnight guests in such accommodations opaque. For those “minpaku” properties located in exclusive residential zones, the issues are not similar to hotels and “ryokan”. The location itself is the cause of

discomfort for local residents, feeling that their safety, security and satisfaction are affected due to the presence of strangers, unaware of their customs and traditions. It often causes conflicts regarding safety, security, and satisfaction of both tourists and residents, due to issues such as ignorance of rules for the proper disposal of garbage, making noise until late at night, trespassing of private properties and other misunderstandings of local customs.

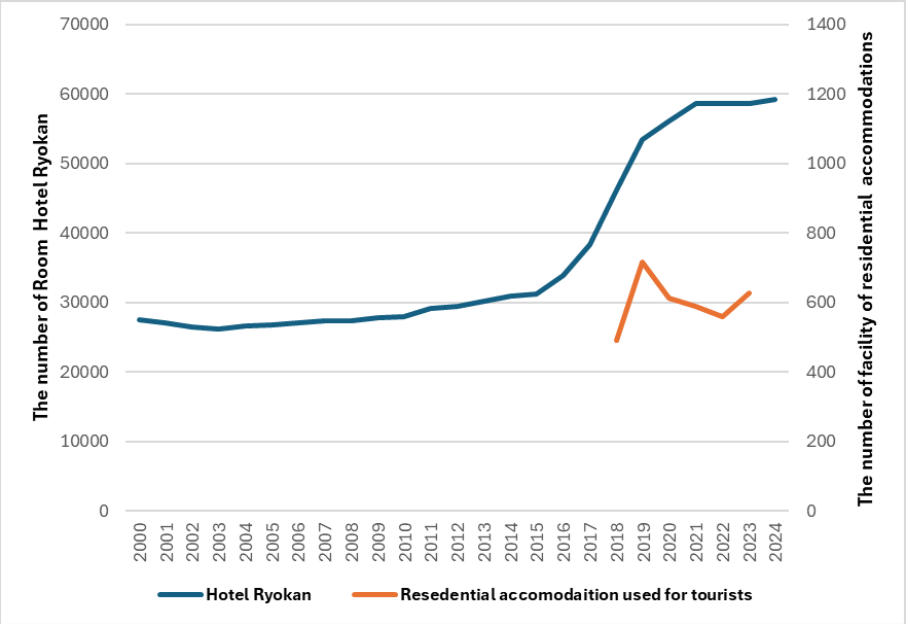

Fig.8. The number of rooms of Hotel & Ryokan, residential accommodation used for visitors in Kyoto city

Source: Author created this based on data from the travel and residential accommodation businesses on the Kyoto Citizens' Accommodation Portal Site. The figures before 2016 were estimated by the author based on examples of health administration reports from the Ministry of Health, Labor and Welfare.

6 Conclusions

In its efforts based on regional development, the Japanese Government has also started to produce and publish detailed statistical data for local governments including data on tourism. In the case of Japan, it has also been pointed out that the taxes collected, such as accommodation tax, go into the local government's general accounts, and are therefore used for purposes other than tourism, which is problematic. The problem of over tourism can be addressed by first generating detailed statistical data to inform decision makers in setting priorities. In addition, legal impact analysis should also be conducted to measure the effect of introducing legal and administrative measures by local governments.

For this study in particular, it was not always possible to obtain time-series data for Kyoto City. Trends were analysed and used with other data that were relevant. In

addition, data showing congestion by ward is also published, and the current estimates will be worked on further.

Acknowledgments

We are grateful to Dr. Greg Bramblett for helpful discussions.

References

Asahi, S (2024) Chapter 3 Analysis of the Impact of Overtourism in Japan: The Effects of Congestion Phenomena, Econometric Analysis of Regional Economy, p107-136, Springer. https://doi.org/10.1007/978-981-99-8707-8

Albaladejo, I. P. González-Martínez, M. I. & Martínez-García, M. P. (2016). "Nonconstant reputation effect in a dynamic tourism demand model for Spain" Tourism Management, 53, pp132-139.

Albaladejo, I. P. and González-Martínez, M. I. (2019) " Non-constant Reputation Effect at Spanish Mediterranean Destinations.", In Tourist Destination Management, pp. 209-225. Springer, Cham.

Habu E (2024) "A Legal Framework for Sustainable Tourism in Japan – Coping with the issue of Overtourism to Mitigate the Negative Impact on Local Communities", Paper presented at Law and Society Association 2024 International Conference in Denver, Colorado.

Japan Tourism Agency (2018) "2018 White Paper on Tourism" Ministry of Land, Infrastructure, Transport and Tourism Agency, Nikkei Printing Co., Ltd.

Kitaoka T (2008) "Chapter 2 GMM", "Introduction to Empirical Analysis Learned with EViews, Applied Edition", Kitaoka T, Takahashi H, Yano J(Ed.), pp. 65-94, Nihon Hyoronsha.

Li, Gang, Haiyan Song, and Stephen F. Witt. (2005) "Recent developments in econometric modeling and forecasting." Journal of Travel Research 44.1 (2005): pp.82-99.

Lim, C. (2007) " A Survey of Tourism Demand Modelling Practice. Issues and Implications ". In L. Drwyer & P. Forsyth (Eds.), International Handbook on the Economics of Tourism, pp.45-72. Cheltenham: Edward Elgar Publishing Limited.

Papatheodorou, A. (2001) "Why people travel to different places. " Annals of tourism research, 28(1), pp.164-179.

Papatheodorou, A. (2002) " Exploring competitiveness in Mediterranean resorts.

"Tourism Economics, 8(2), pp.133-150.

Papatheodorou, A. (2006) " TALC and the spatial implications of competition. ", The tourism area life cycle, 1, pp.67-82.

Takahashi S (2013) "Introduction to Practical Dynamic Panel Analysis Using EViews", Meiji Gakuin University Institute of Industrial Economics Annual Report. Vol. 30, pp. 1-23. Meiji Gakuin University Institute of Industrial Economics.

UNWTO (2018) “Overtourism’? Understanding and Managing Urban, Tourism Growth beyond Perceptions’ Executive Summary ", UNWTO; Centre of Expertise Leisure, Tourism & Hospitality; NHTV, pp1-10, http://www.e-unwto.org/doi/book/10.18111/9789284420070.

Witt, S. F., & Song, H. (2000) " Advances in Tourism Research: Tourism Demand Modelling and Forecasting ": Modern Econometric Approaches.